

NMR Database of Lignin and Cell Wall Model Compounds

Sally Ralph

US Forest Products Laboratory (FPL)
USDA Forest Service
One Gifford Pinchot Drive
Madison, WI 53705
email: saralph@wisc.edu
608-231-9449

John Ralph

Department of Biochemistry and the
Great Lakes Bioenergy Research Center
Wisconsin Energy Institute
University of Wisconsin, Madison
1552 University Ave
Madison, WI 53726-4084
(608) 890-2429
E-mail: jralph@wisc.edu

This database was designed to provide a coherent, single source of NMR data of lignin and other plant cell wall model compounds. The database exists in several different formats: a FileMaker Pro© database for cross-platform use, an Adobe© pdf cross-platform file for viewing and printing, and a hardcopy version derived from the FileMaker Pro database. FileMaker Pro and pdf versions are available for downloading over the internet from the Dairy Forage Research Center (DFRC) web site:

<http://www.dfrc.ars.usda.gov>
(under the Software section)

A hardcopy version is available by request from the authors at the Forest Products Laboratory, but users are encouraged to print their own version. The use of trade or firm names in this publication is for reader information and does not imply endorsement by the US Department of Agriculture of any product or service.

In general ^{13}C NMR data was collected in three common deuterated solvents (acetone, chloroform and dimethyl sulfoxide) for each compound. We used the center line of the solvent peaks as our reference, 2.04 and 29.83 ppm for acetone- d_6 , 7.24 and 77.00 for CDCl_3 and 2.49 and 39.50 ppm for $\text{DMSO-}d_6$. The ^1H NMR data early on was reported for only one solvent. A standard set of acquisition parameters was used to acquire and process the spectra to keep the data as uniform and constant as possible. The samples were run at ambient temperature, about 298° K.

Those compounds with an index number less than 1000 were run on a Bruker 250 MHz spectrometer at FPL and those compounds with an index number between 1000 and 10,000 were run at the DFRC on a Bruker 360 MHz instrument. The order of the compounds in the database reflects their arrival at the spectrometer rather than a preordained plan. The inclusion of analogous series of structures with small structural differences allows calculation of substituent effects that are invaluable for chemical shift predictions of structures not included in the database.

The chemical shift assignments for most of the compounds were made by comparison with other compounds, literature values, and in some cases using the standard set of 1D and 2D NMR experiments. Every effort was made to correctly assign the chemical shifts; however, limited time and resources precluded confirming the shifts for many of the compounds. The shifts are reported to the second decimal place only to distinguish very close shifts; comparisons between spectra are practical only within ± 0.1 ppm. The authors would greatly appreciate learning of any corrections on suspect assignments.
jralph@wisc.edu

The compounds themselves came from many sources — in-house collections, syntheses and donations from other researchers for which we are grateful. The source of the compounds is often given in the “Notes” field along with other pertinent data.

This database was originally intended as an aid for the assignment of chemical shifts for wood and plant lignin NMR spectra. The trivial names used throughout are well known to wood chemists as is the numbering system. We have attempted to include more formal chemical names for many of the compounds and these were obtained using Beilstein’s Autonom© program. The chemical names for the larger 3 and 4 ring models became so cumbersome that the authors employed an abbreviated system to identify both the moieties involved as well as the linkages between the moieties. Examples of the naming, numbering and linking conventions used are given below.

case letters and numbers to describe the type of linkage between the rings.

Table 2. Terminology of Abbreviated Structural Entities

Entity	Abbreviation
guaiacyl ring	G
syringyl ring	S
coumaryl ring	H
α -O-4 linkage	a
β -O-4 linkage	b
β -5 (phenylcoumaran)	c
β -1 linkage	b1
β - β (resinol)	r
5-5 (biphenyl)	5,5
coniferyl alcohol end unit	CA
sinapyl alcohol end unit	SA
p-coumaryl alcohol end unit	HA
ferulic acid end unit	FA
<i>erythro</i>	<i>e</i>
<i>threo</i>	<i>t</i>

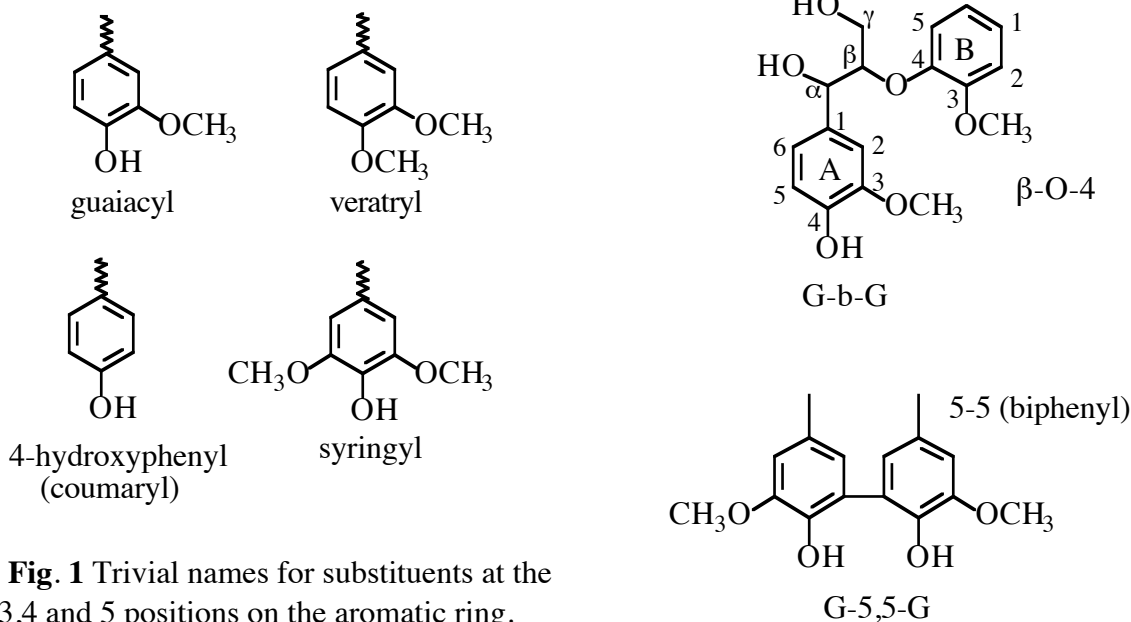


Fig. 1 Trivial names for substituents at the 3,4 and 5 positions on the aromatic ring.

The naming of the larger oligomer lignin models uses a combination of upper case letters to describe the ring structure and lower

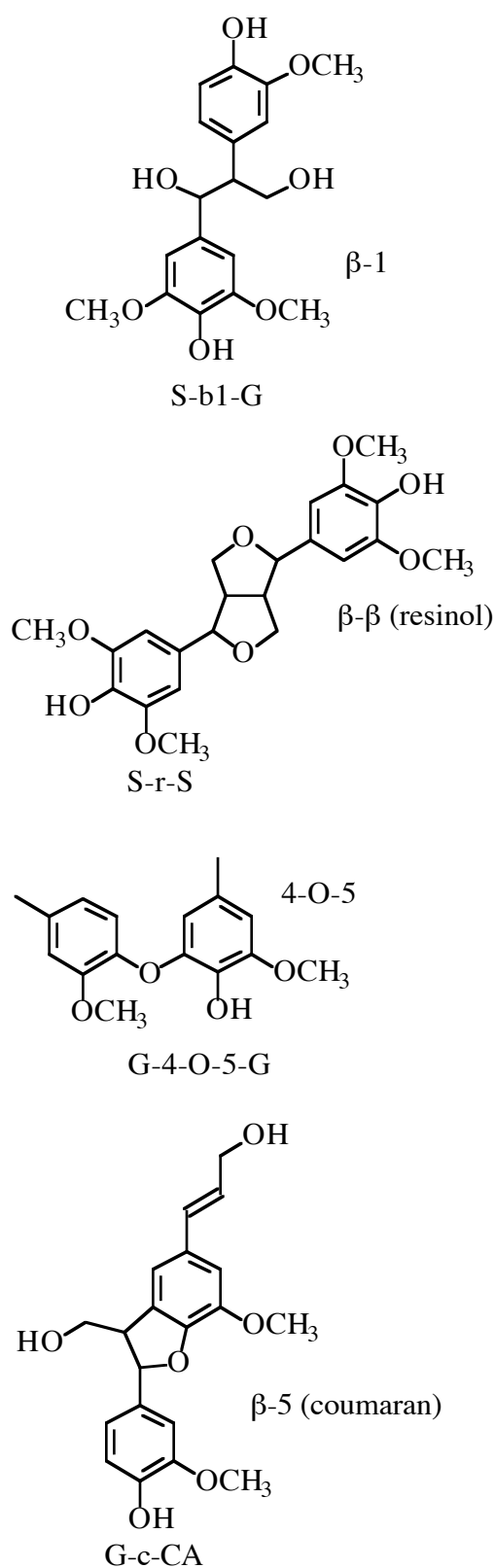


Fig. 2 Examples of linkages and abbreviated names.

With this convention the name FA-5,5-FA would represent a diferulic acid biphenyl structure. The trimer CA-a-G-b-CA would be a guaiacyl unit with two coniferyl alcohol end groups etherified at the α - and β -positions.

The structure index is arranged based upon the number of rings in the structure. Where possible the structures are also arranged by ring type such as guaiacyl, syringyl etc. The number under the structure refers to the index number at the top of the data sheet. An asterisk after a number indicates the acetylated analog of that compound. In some cases only the acetylated compound is included.

We hope to continue adding to and improving this database. Regular updates will be made to the database to keep the online sources current. This database was written and prepared for the most part by U.S. Government employees on official time, and it is therefore in the public domain and not subject to copyright. Please feel free to contact the authors with suggestions or questions.

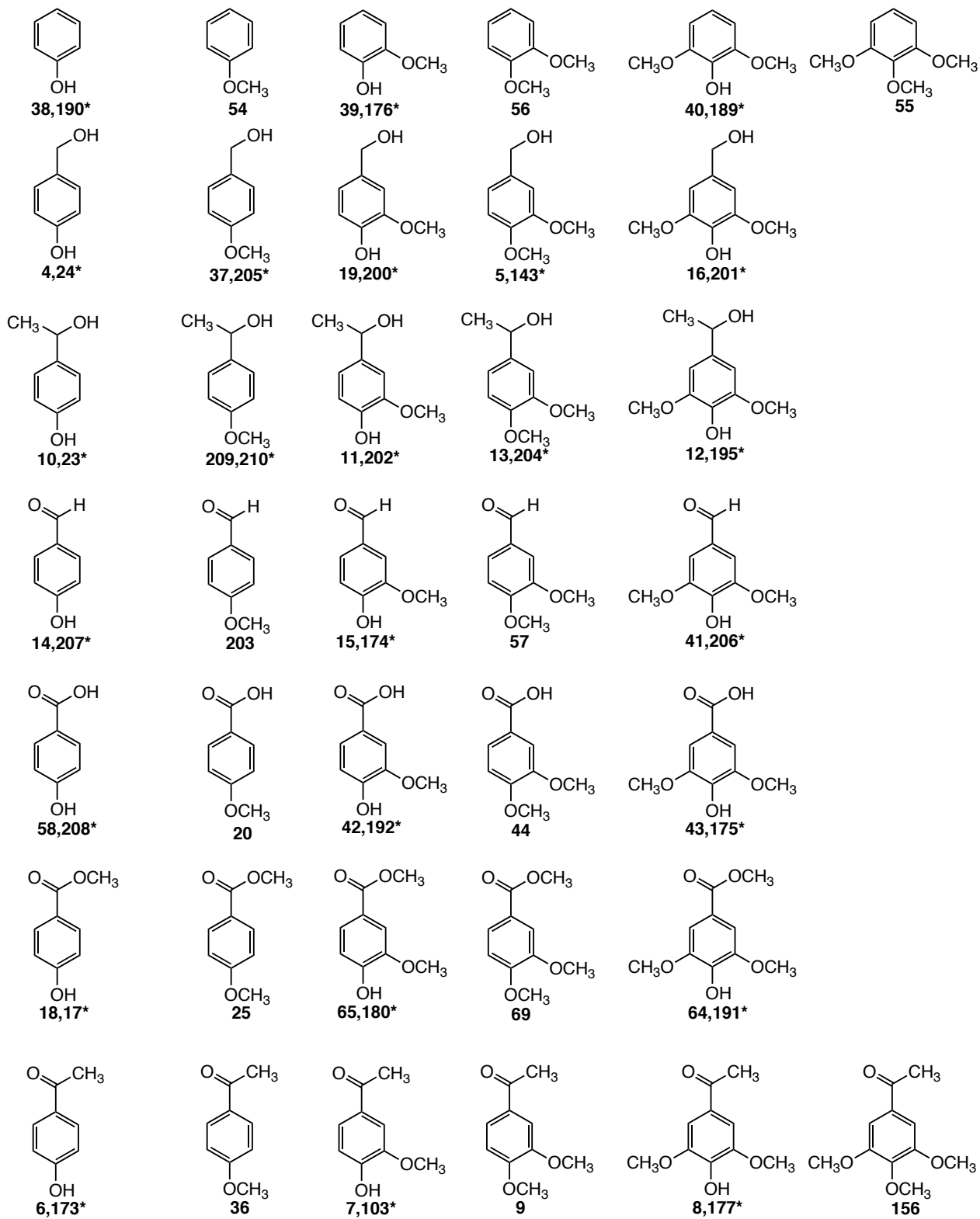
The authors gratefully acknowledge the many generous contributions made by others at both labs towards this database; Foremost Larry Landucci for compounds, patience, assignments and encouragement. William Landucci for software development, Martin Wesolowski and Kolby Hirth, NMR spectroscopists, and the frequent donation of compounds from Mike Mozuch, Noritsugu Terashima, Stéphane Quideau, Rich Helm, Fachuang Lu, Hoon Kim, Jamie Milhaupt and Susana Luque. The authors also acknowledge partial support of the National Research Initiative Competitive Grants Program/USDA (Wood Section), award #94-03465.

Structure Index

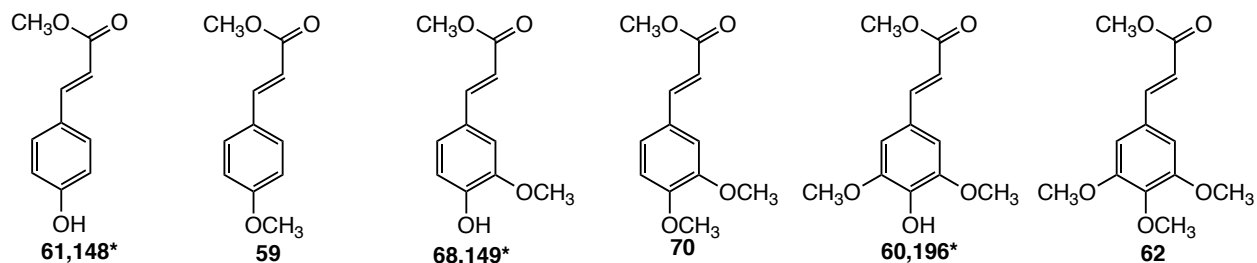
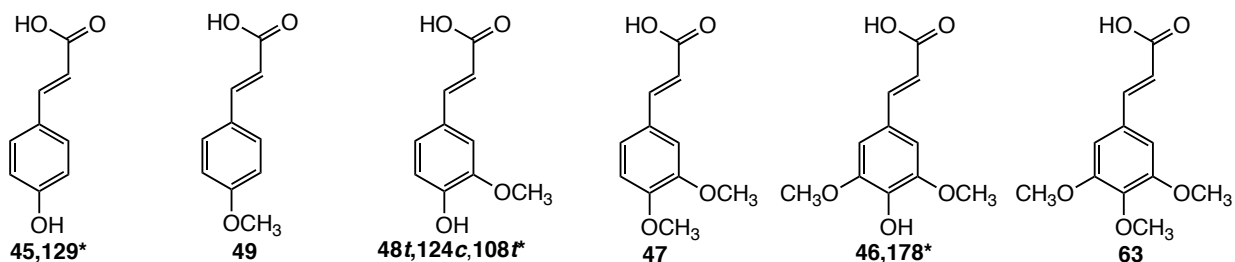
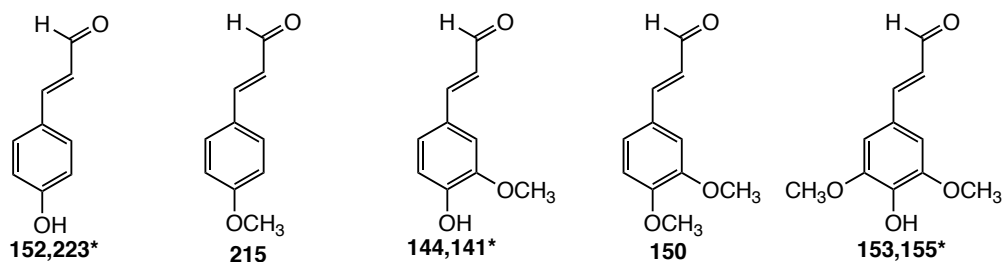
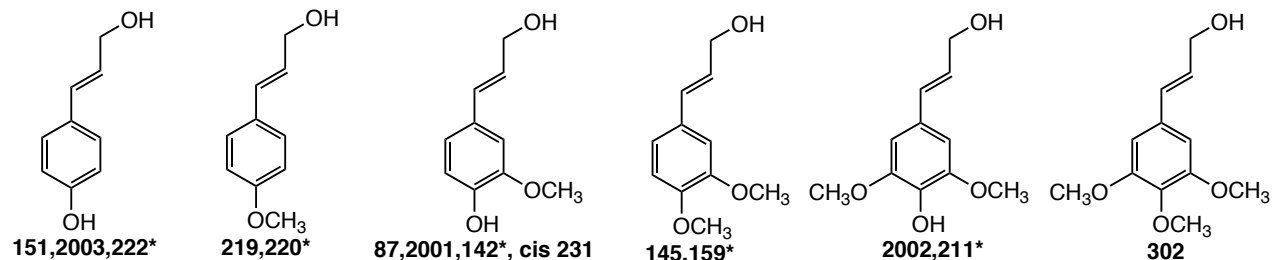
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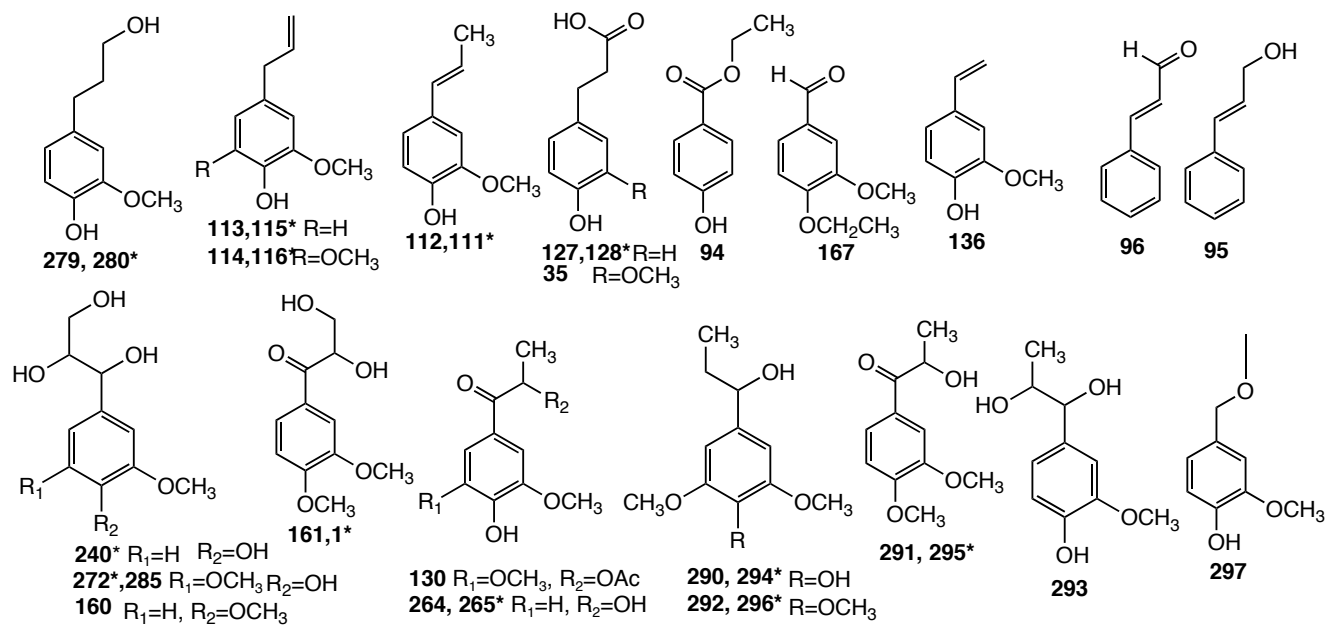
Monomers

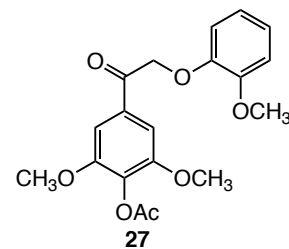
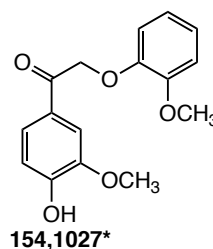
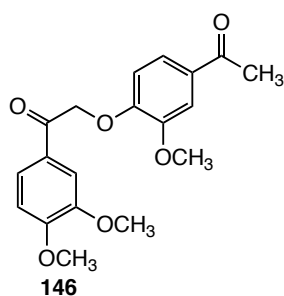
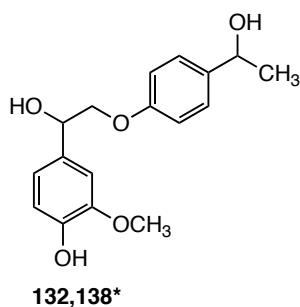
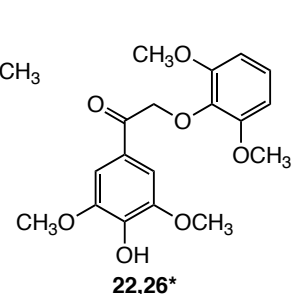
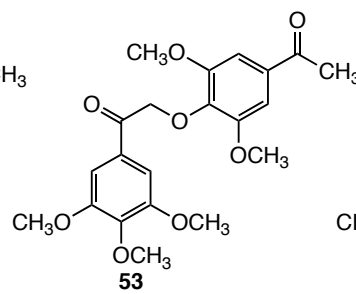
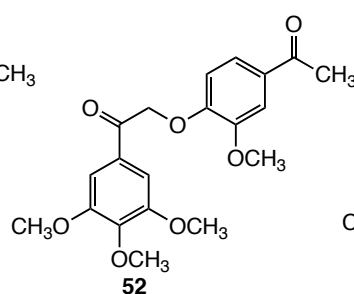
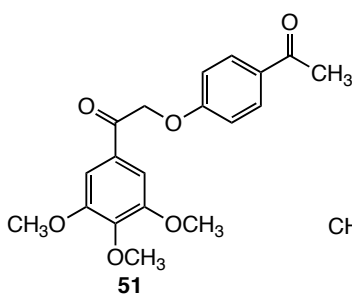
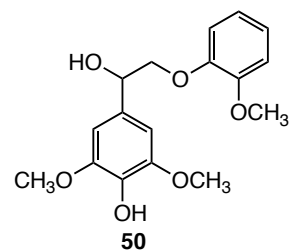
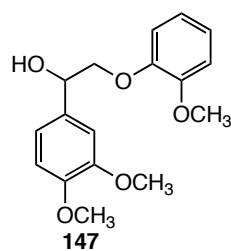
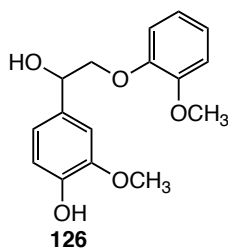
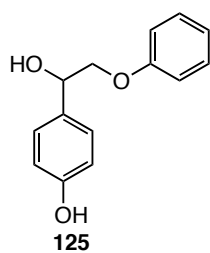
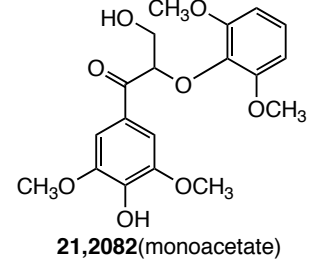
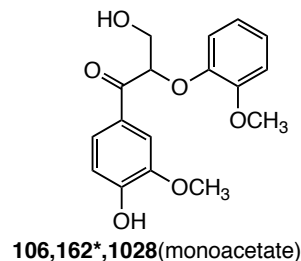
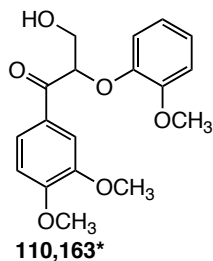
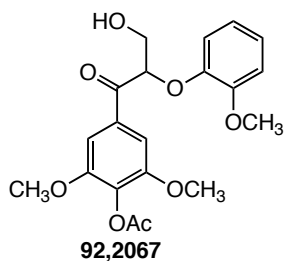
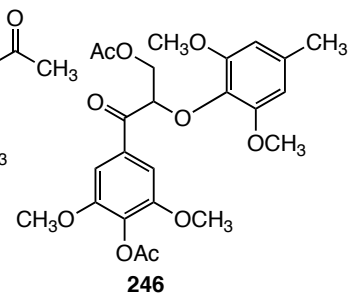
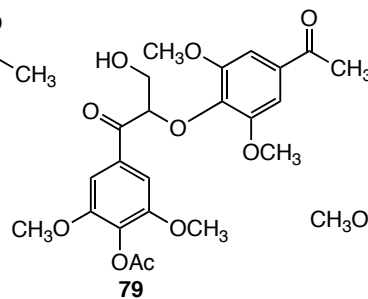
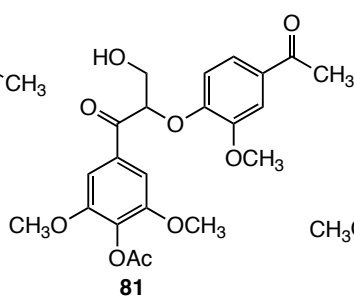
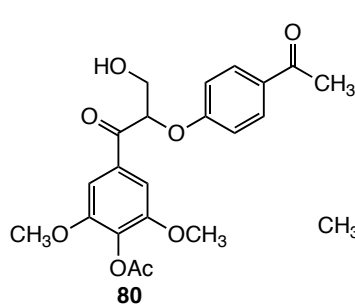


Monomers ctd

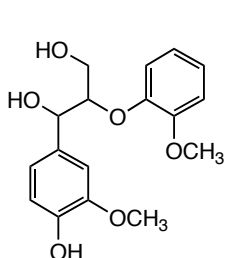


Misc. Monomers

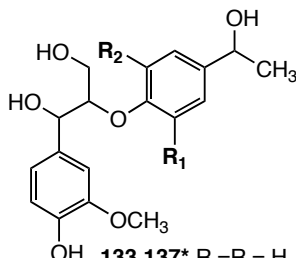


b-O-4 Dimers, 2-Carbon Sidechain**b-O-4 Dimers, 3-Carbon Sidechain, a-C=O**

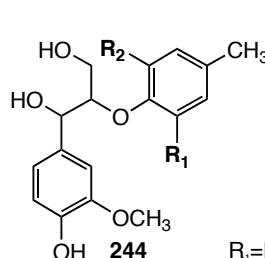
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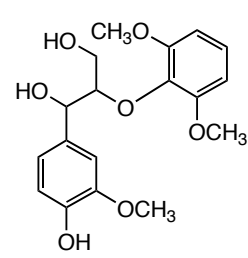
101e,102t,74f*,214e*
(1029t,1030e a,g Ac'd)



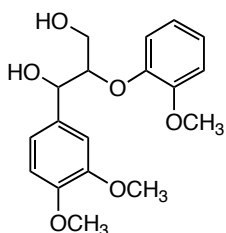
133,137* R₁=R₂=H
131,140* R₁=OCH₃, R₂=H
134,139* R₁=OCH₃, R₂=OCH₃



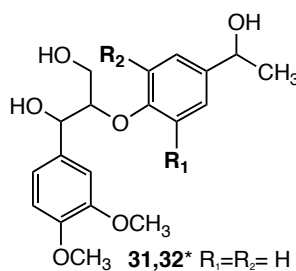
244 R₁=R₂=H
248t,227e* R₁=OCH₃, R₂=H
242,232* R₁=OCH₃, R₂=OCH₃



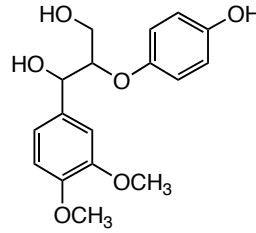
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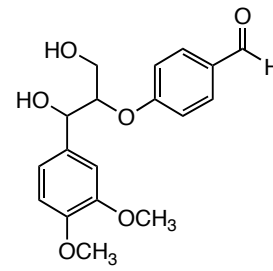
104t,105e,3e*



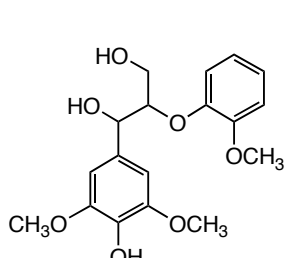
31,32* R₁=R₂=H
34,33* R₁=OCH₃, R₂=H
2,29* R₁=OCH₃, R₂=OCH₃



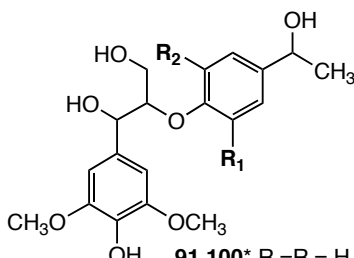
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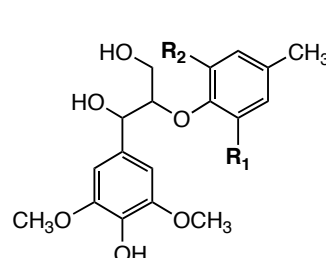
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90,99*

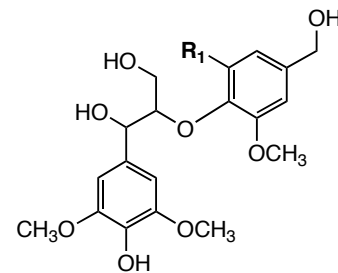


91,100* R₁=R₂=H
88,97* R₁=OCH₃, R₂=H
89,98* R₁=OCH₃, R₂=OCH₃

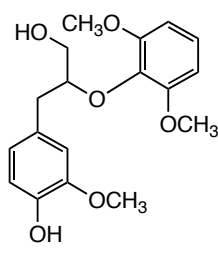


245

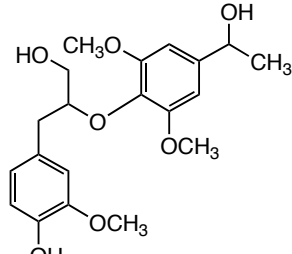
R₁=OCH₃, R₂=H
243,230* R₁=OCH₃, R₂=OCH₃



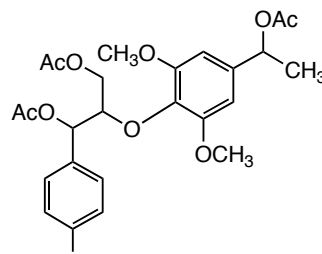
212,213* R₁=H
229* R₁=OCH₃



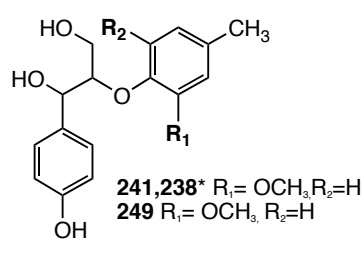
217,218*



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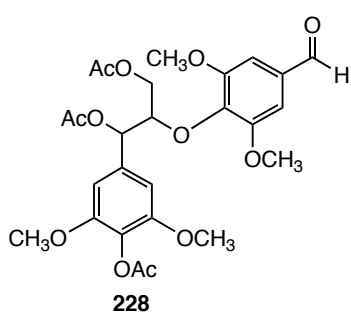


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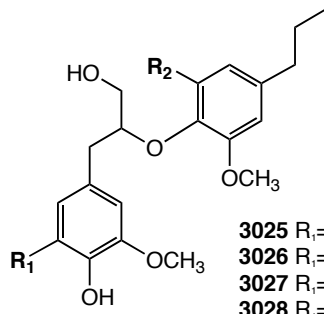


241,238* R₁=OCH₃, R₂=H
249 R₁=OCH₃, R₂=H

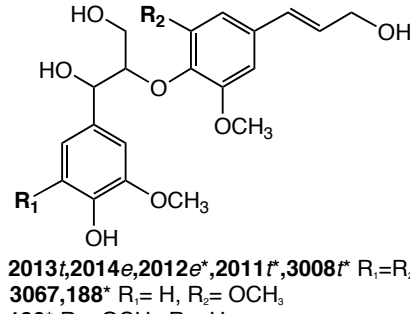
268e,269t,270e*,271f* R₁=R₂=H



228

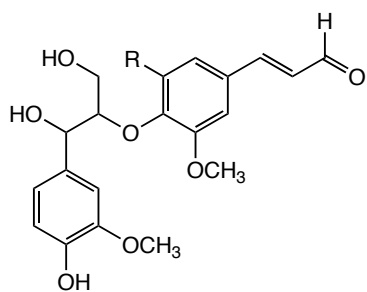


3025 R₁=R₂=H
3026 R₁=H, R₂=OCH₃
3027 R₁=OCH₃, R₂=H
3028 R₁=R₂=OCH₃

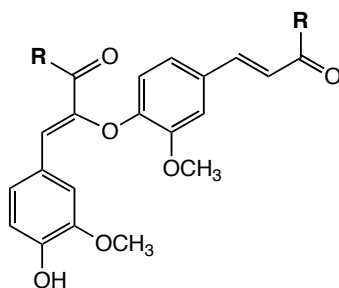


2013t,2014e,2012e*,2011f*,3008f* R₁=R₂=H
3067,188* R₁=H, R₂=OCH₃
186* R₁=OCH₃, R₂=H
185* R₁=R₂=OCH₃

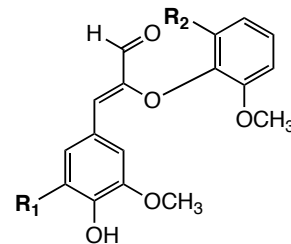
More b-O-4 Dimers, 3-Carbon Sidechain



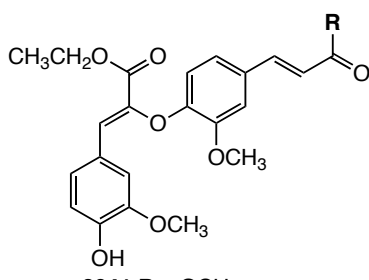
3010^f, 3011^e* R = H
3071 R = OCH₃ (with only g-Ac)



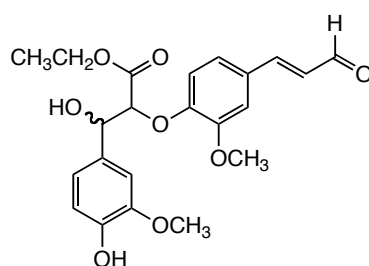
3031 R = H
2040 R = OH



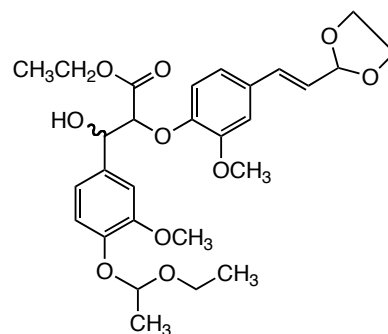
3034, 3035* R₁, R₂ = H
3036, 3037* R₁ = OCH₃, R₂ = H
3038, 3039* R₁ = H, R₂ = OCH₃
3040, 3041* R₁, R₂ = OCH₃



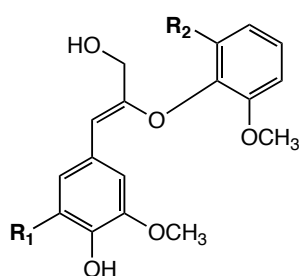
2041 R = OCH₃
2042 R = H



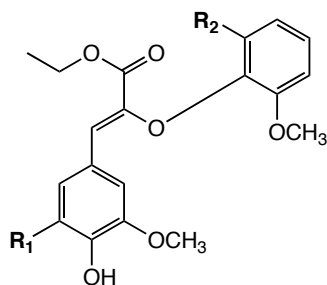
2043e, 2044f



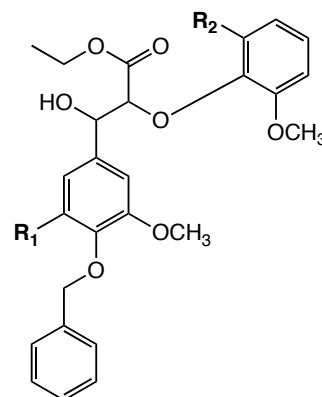
2045e, 2046f



3053, R₁ = H, R₂ = OCH₃
3057, R₁ = OCH₃, R₂ = H

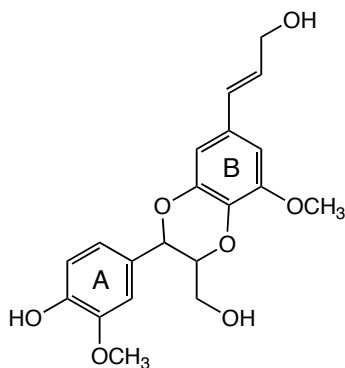


3052, R₁ = H, R₂ = OCH₃
3056, R₁ = OCH₃, R₂ = H

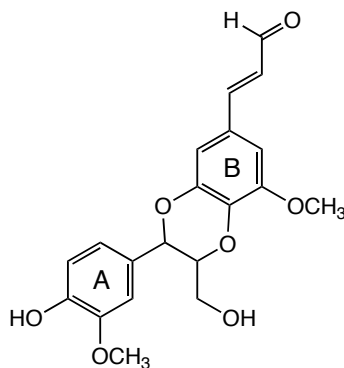


3050, 3051 isomers R₁ = H, R₂ = OCH₃
3054, 3055 isomers R₁ = OCH₃, R₂ = H

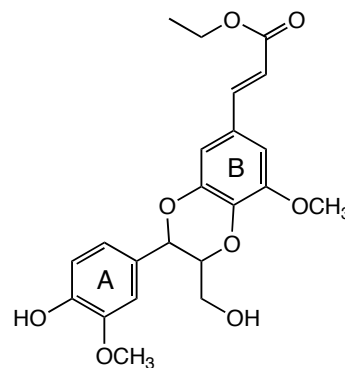
5-Hydroxyconiferyl alcohol b-O-4 Dimers, 3-Carbon Sidechain



3068

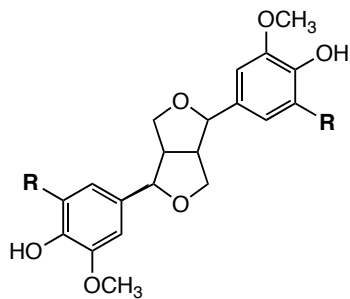


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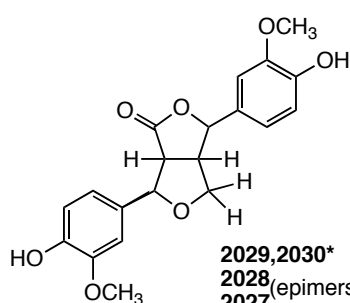


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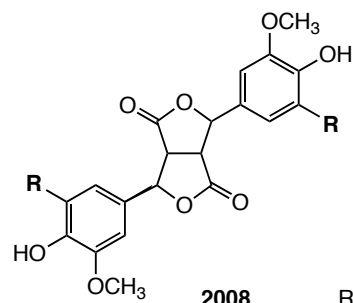
b-b Dimers



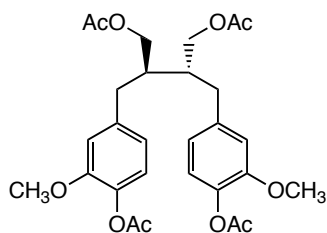
2020,109* R = H
117,123* R = OCH₃



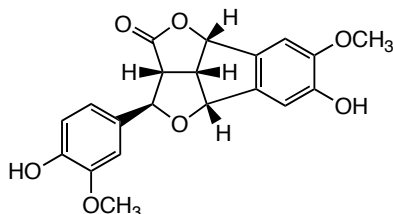
2029,2030*
2028 (epimers)
2027



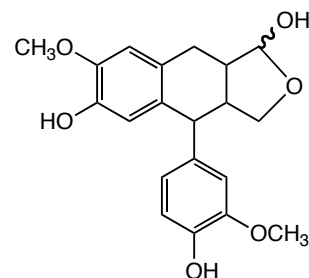
2008
3002, 3042* R = H
R = OCH₃



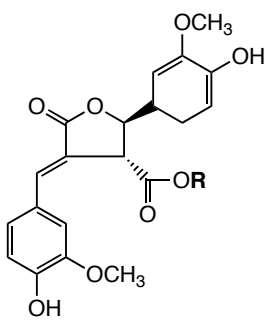
2070



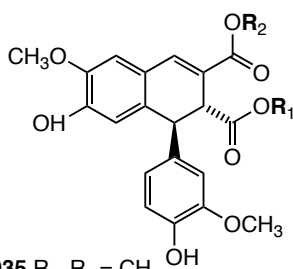
2026



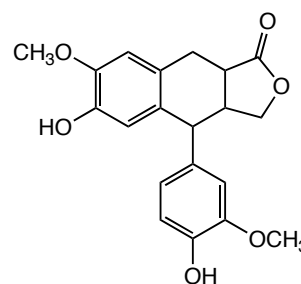
3014, 3015 isomers



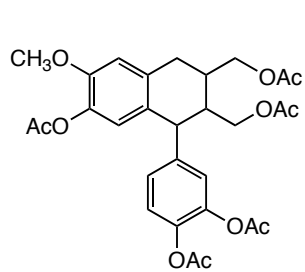
2033 R = H
2034 R = OCH₃



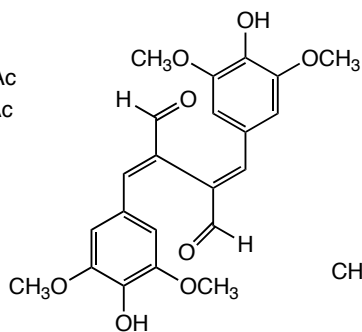
2035 R₁, R₂ = CH₃
2036 R₁, R₂ = H
2062 R₁ = CH₃, R₂ = H



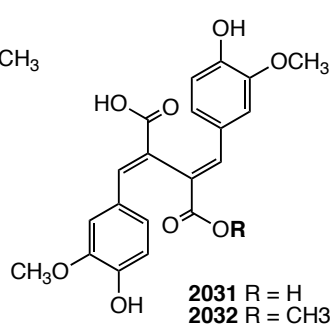
3017, 3016*



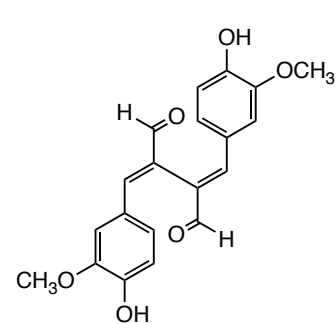
2069,3018



3060

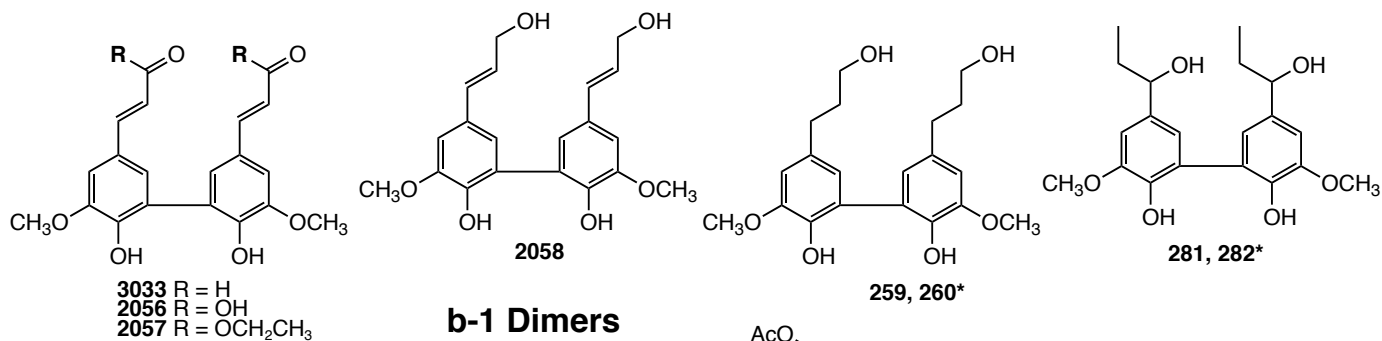
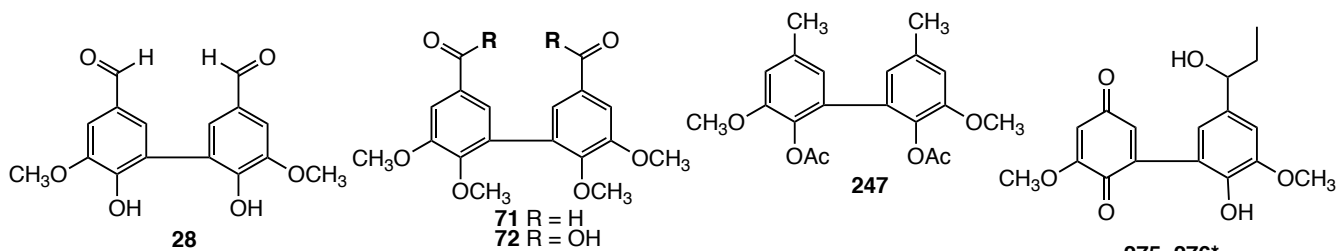


2031 R = H
2032 R = CH₃

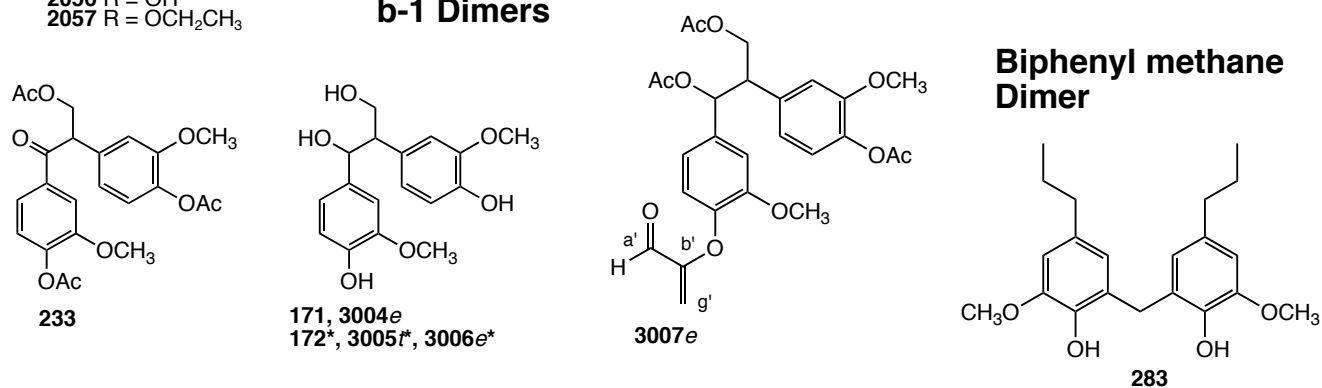


3032

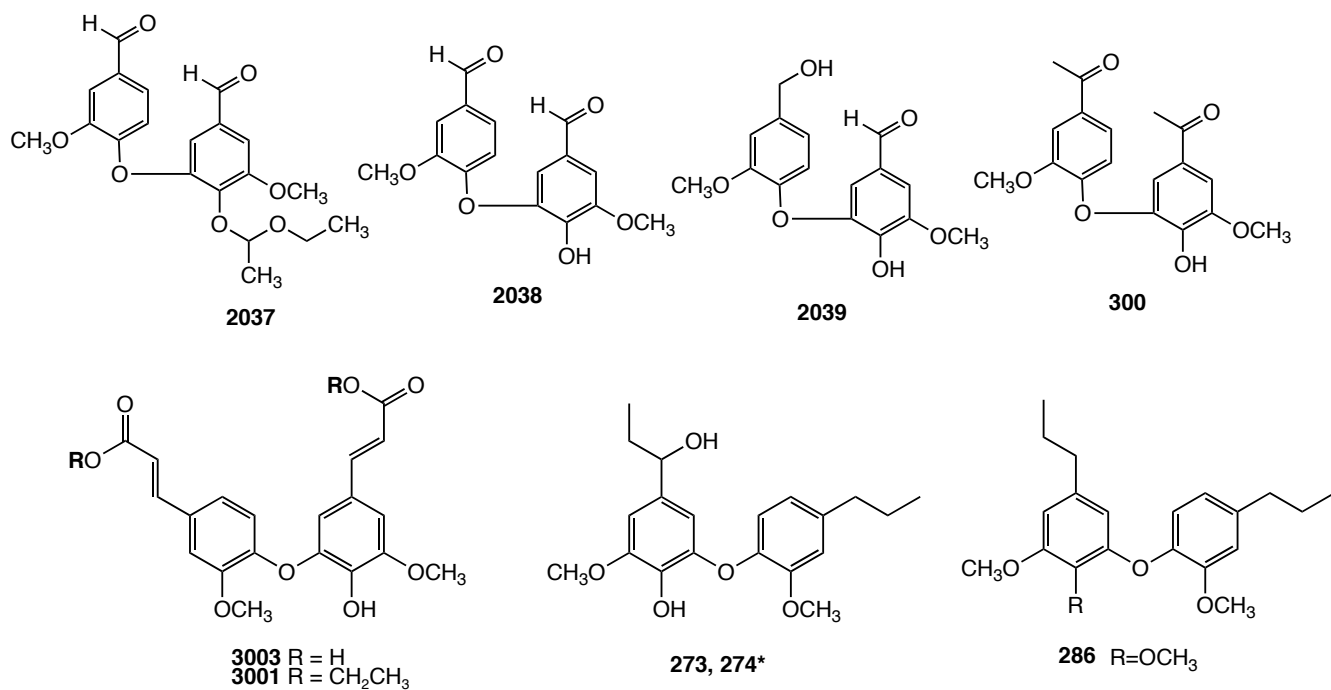
5-5 Dimers



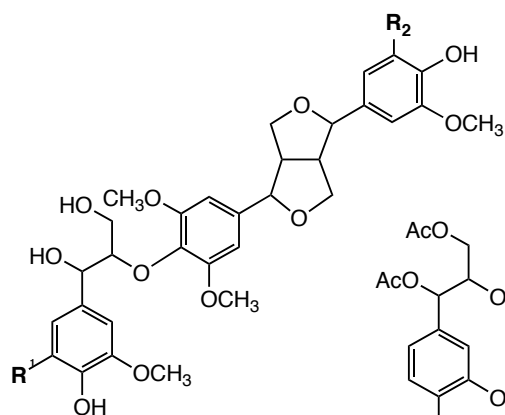
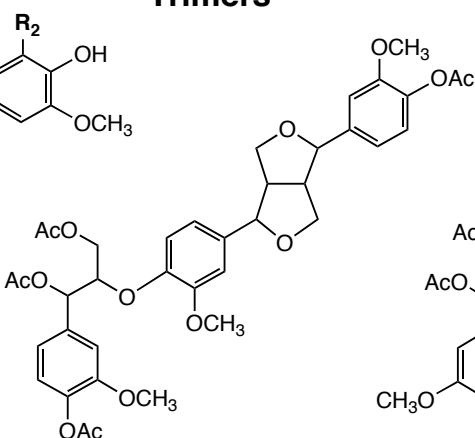
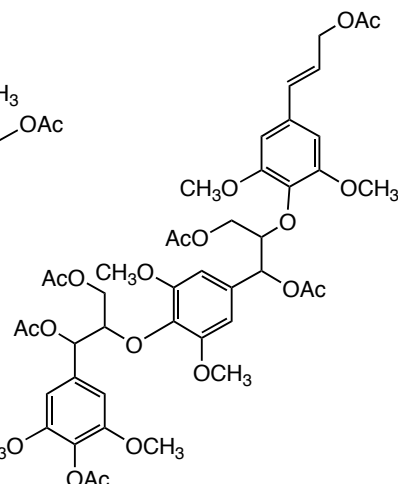
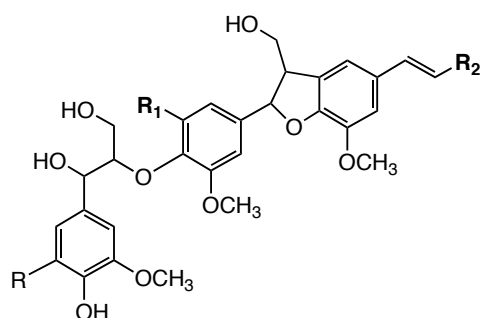
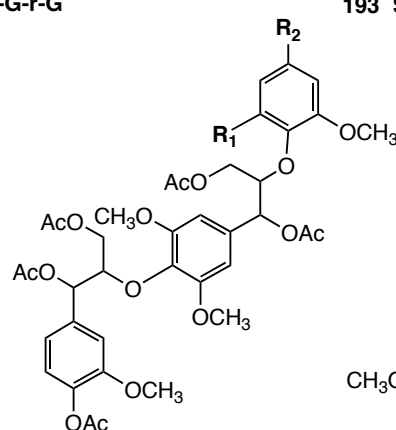
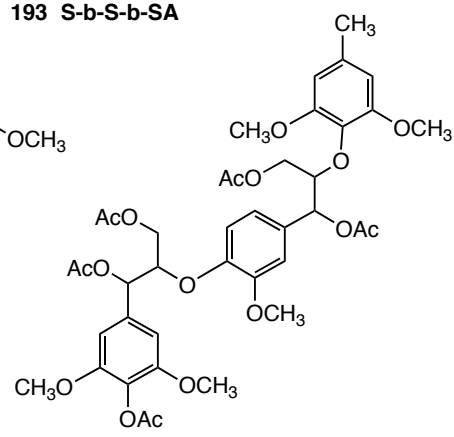
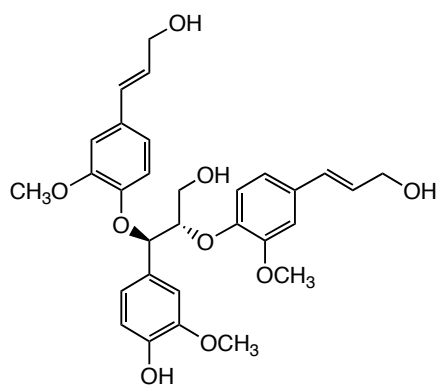
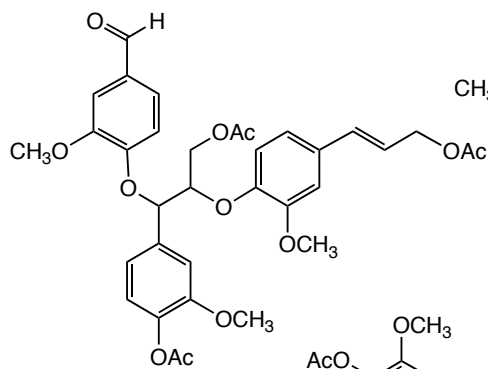
b-1 Dimers



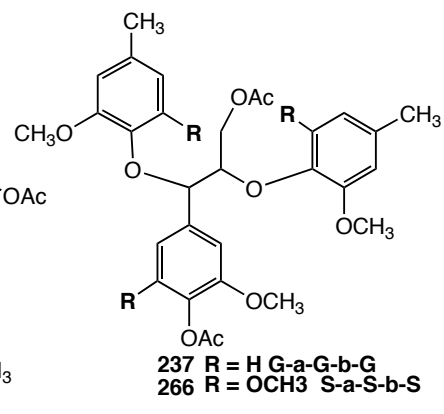
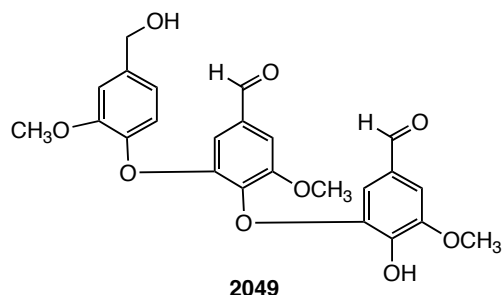
5-O-4 Dimers



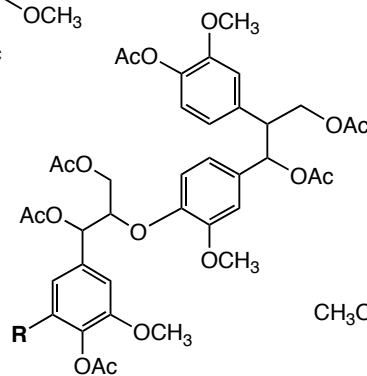
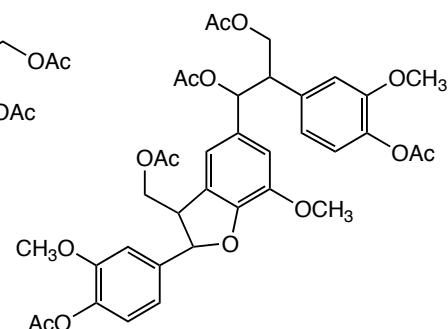
Trimers

183,184* R₁ = H, R₂ = OCH₃, **G-b-S-r-S**198,199* R₁, R₂ = OCH₃, **S-b-S-r-S**3064 R₁, R₂ = H, **G-b-S-r-G**263 **G-b-G-r-G**193 **S-b-S-b-SA**181,182* R = H, R₁ = OCH₃, R₂ = CH₂OH **G-b-S-c-CA**216* R = H, R₁ = H, R₂ = CH₂OH **G-b-G-c-CA**3065 R = H, R₁ = OCH₃, R₂ = CHO **G-b-G-c-CAld**3072 R = OCH₃, R₁ = H, R₂ = CH₂OH **S-b-G-c-CA**226 R₁ = R₂ = H **G-b-S-b-G**250 R₁ = OCH₃, R₂ = CH₃ **G-b-S-b-S**261 **S-b-G-S**2015e,2022e* **CA-a-G-b-CA**

258

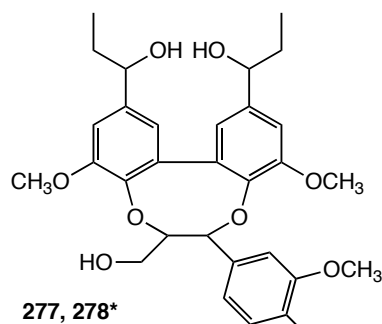
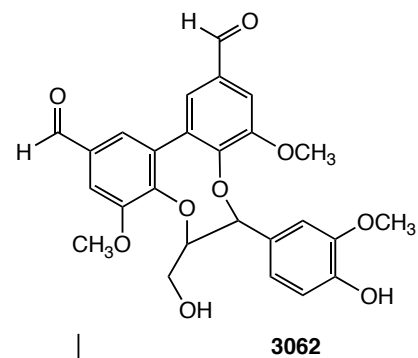
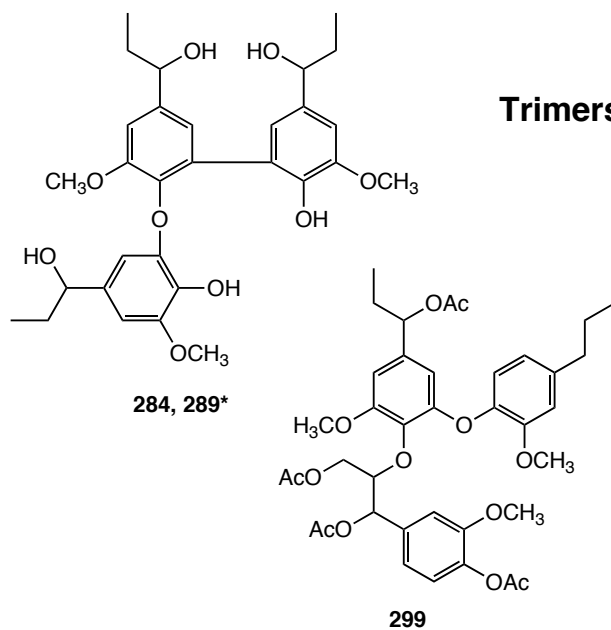
237 R = H **G-a-G-b-G**266 R = OCH₃ **S-a-S-b-S**

2049

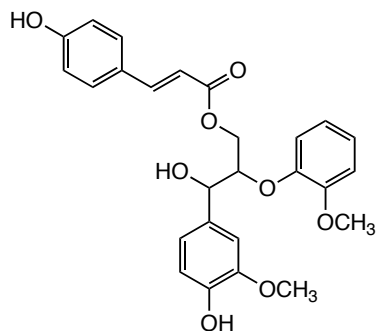
236, 3013 R = H **G-b-G-b1-G**235 R = OCH₃ **S-b-G-b1-G**

3012

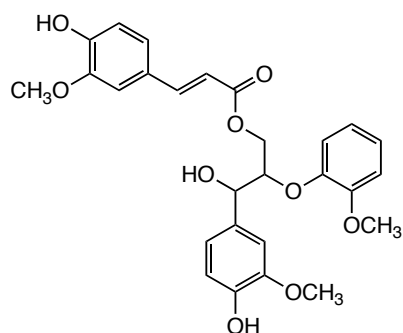
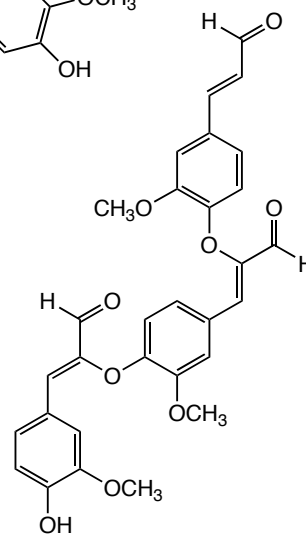
Trimers Cont'd



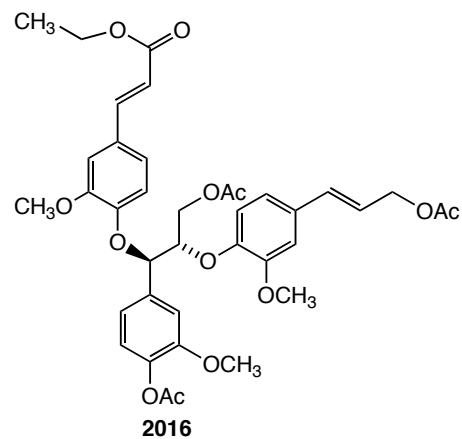
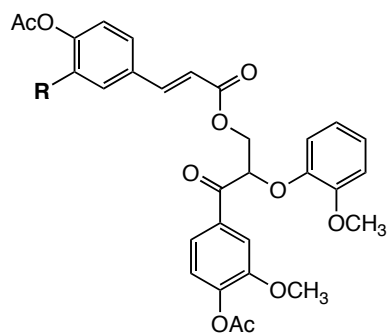
Trimers Containing Ferulic or Coumaric Acid



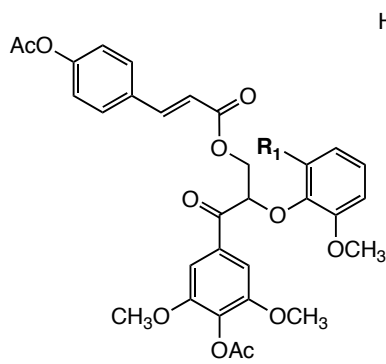
1011t, 1012e (diacetates, phenolic)



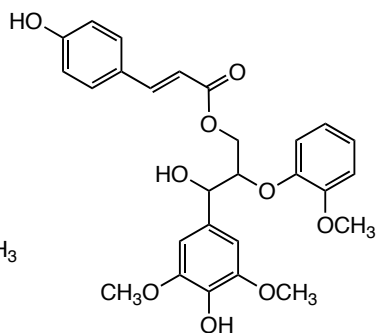
1013t, 1014e (diacetates, phenolic)



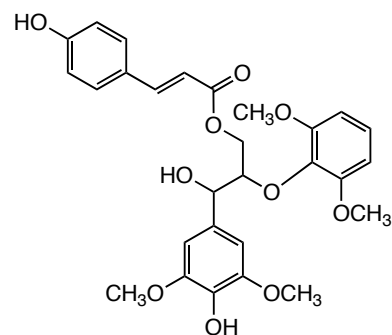
More Trimers Containing Ferulic, Coumaric or *p*-OH-Benzoic Acid



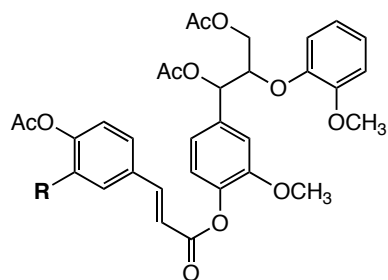
2066 R = H
2081 R = OCH₃



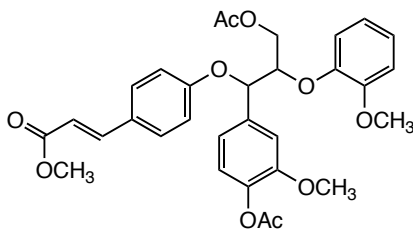
2076t, 2078e
2075t*, 2077e*
2068e, (diacetate, phenolic)



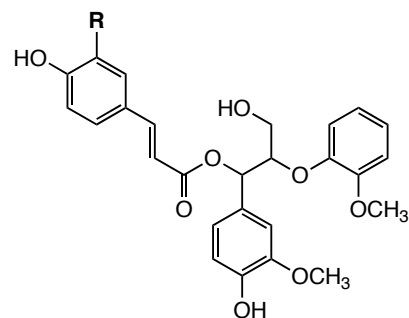
2071t, 2072e, 2073t*, 2074e*
2079t, 2080e (diacetate, phenolics)



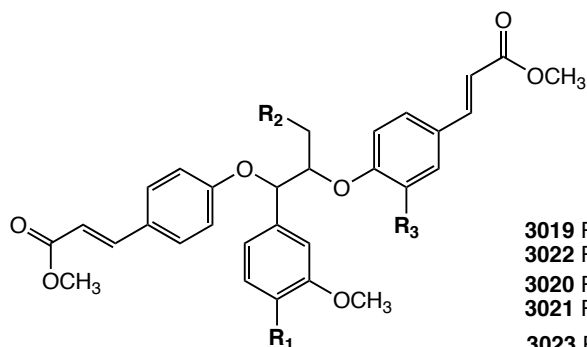
1023t, 1024e R = H
1025t, 1026e, 84e R = OCH₃



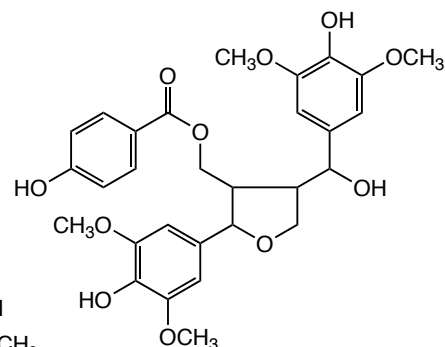
85, 86



1001t, 1002e, 1005t*, 1006e*, 78t*, 77e* R = H
1003t, 1004e, 1007t*, 1008e* R = OCH₃

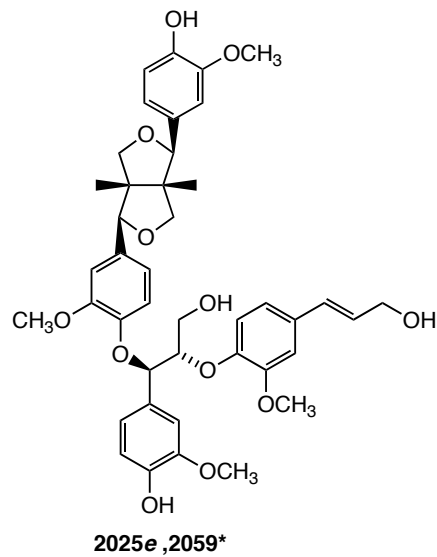
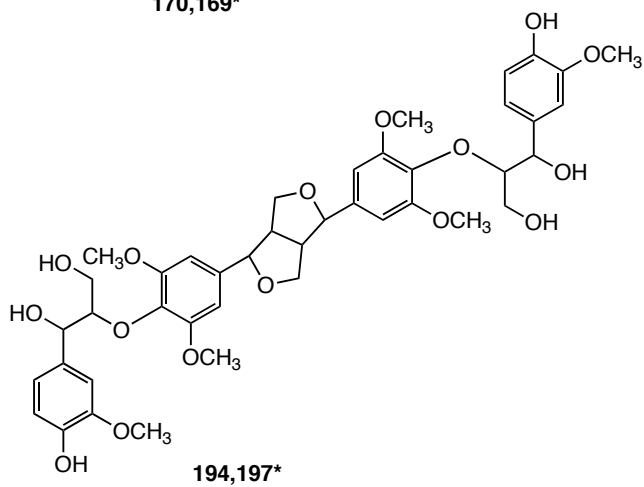
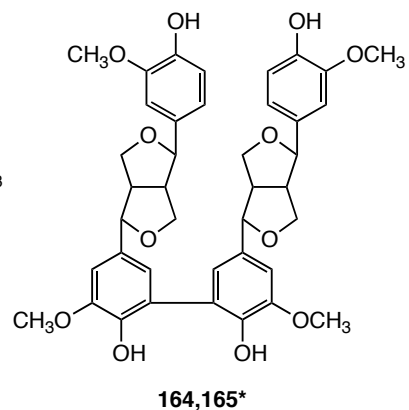
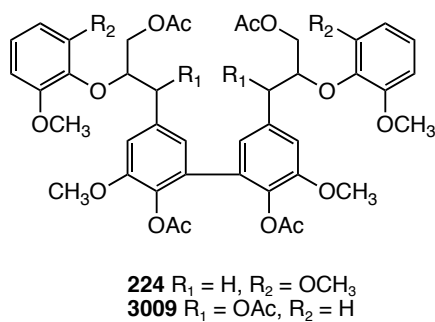
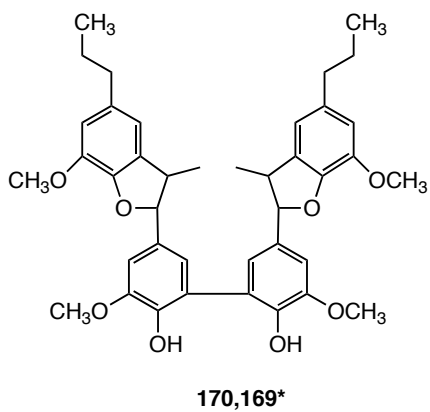
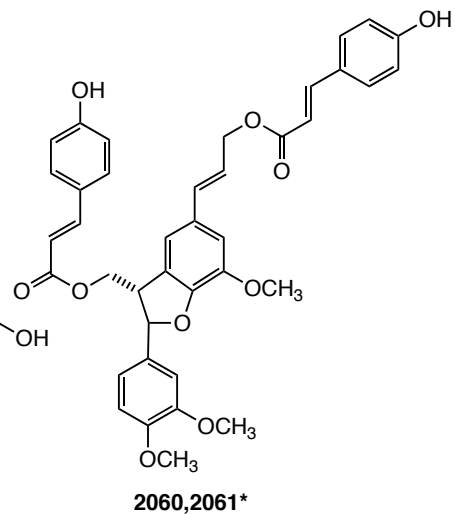
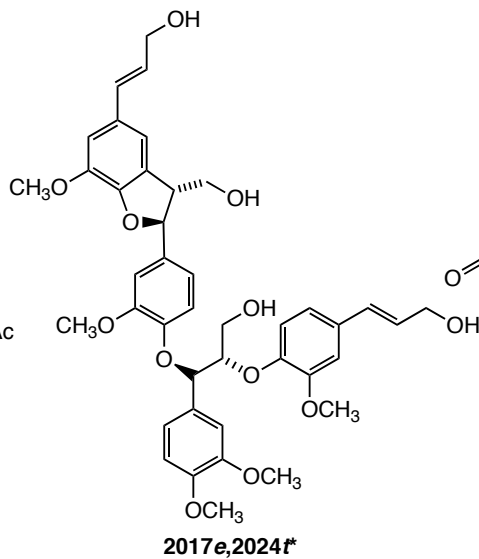
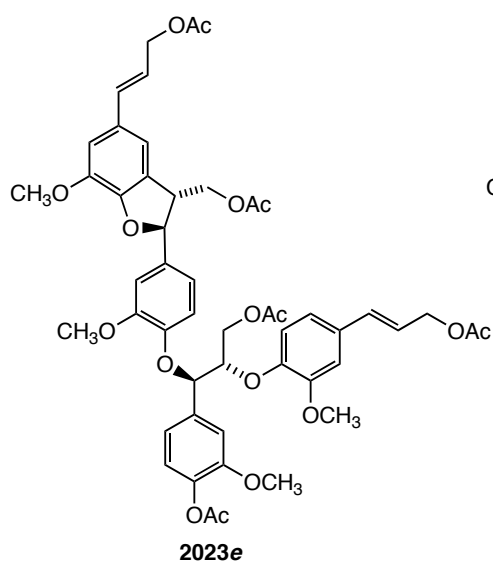


3019 R₁=R₂= OH, R₃= H
3022 R₁=R₂= OH, R₃= OCH₃
3020 R₁= OCH₃, R₂= OH, R₃= H
3021 R₁= OCH₃, R₂= OAc, R₃= H
3023 R₁= OCH₃, R₂= OH, R₃= OCH₃
3024 R₁= OCH₃, R₂= OAc, R₃= OCH₃

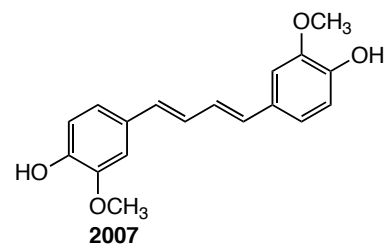
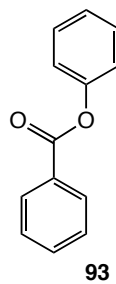
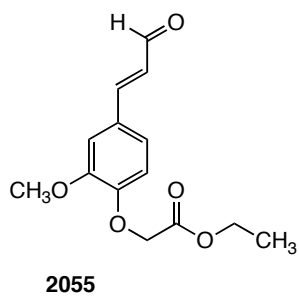
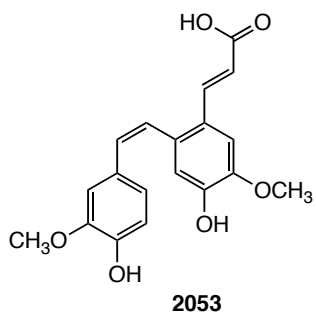
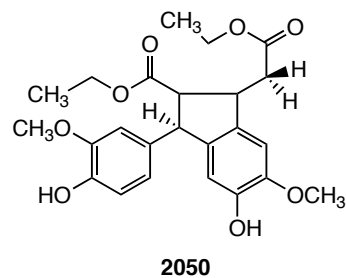
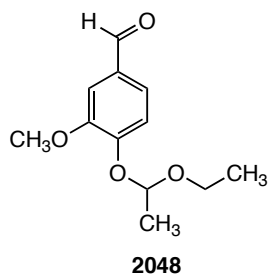
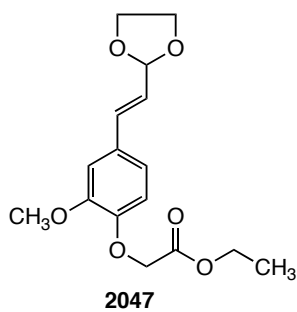
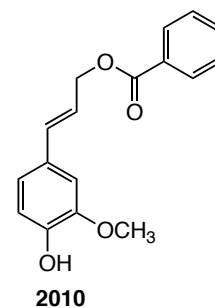
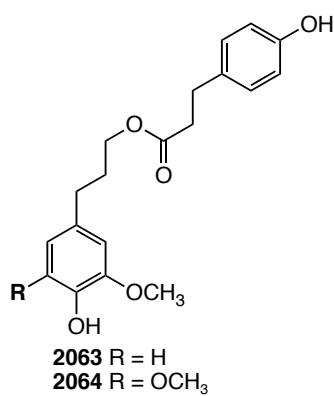
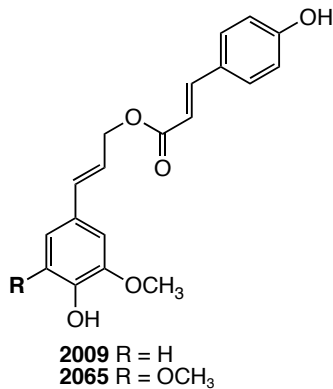
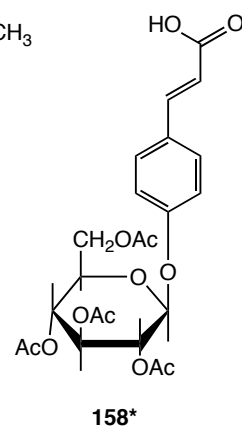
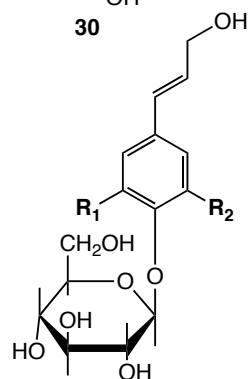
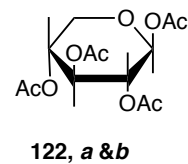
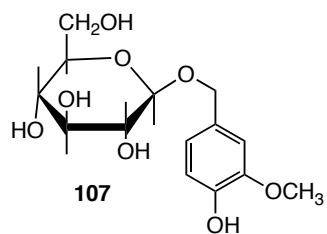
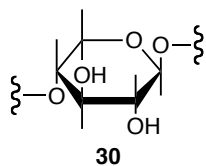


3066

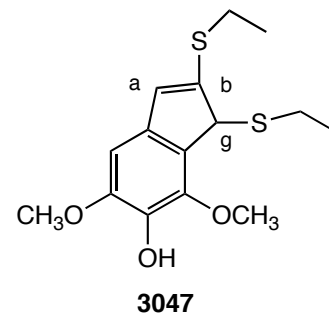
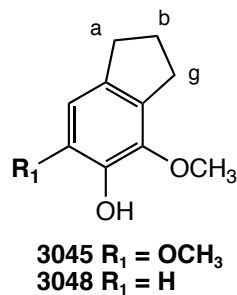
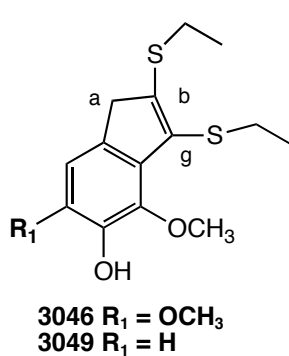
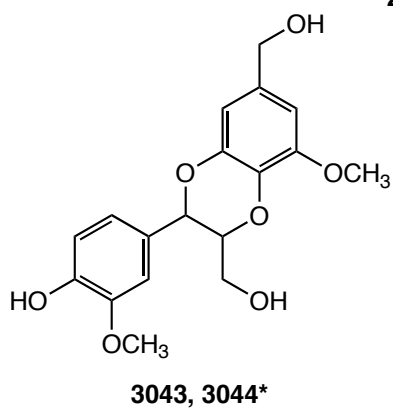
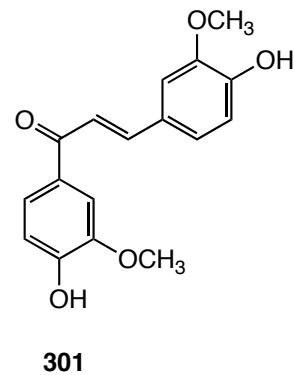
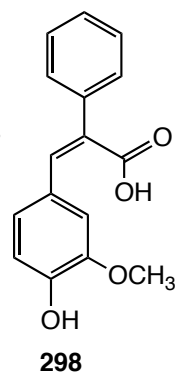
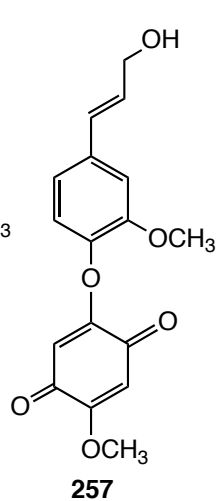
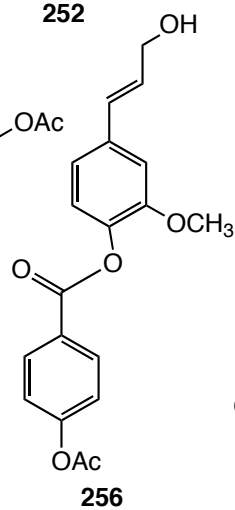
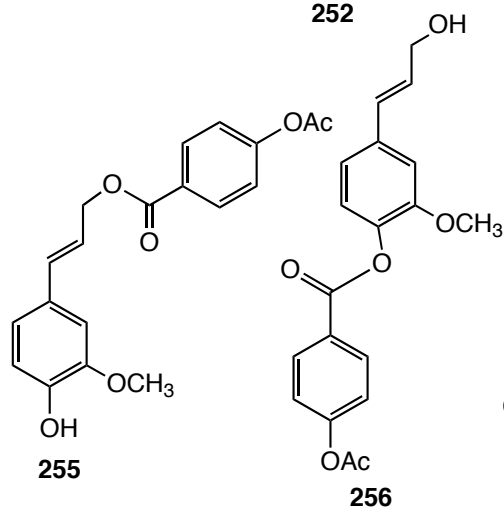
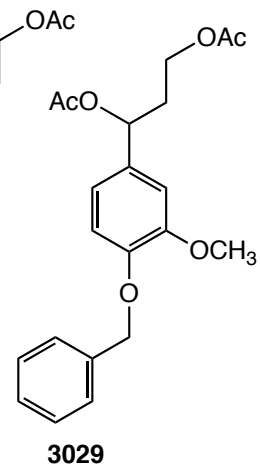
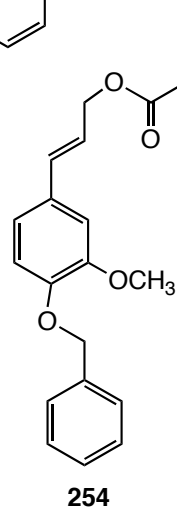
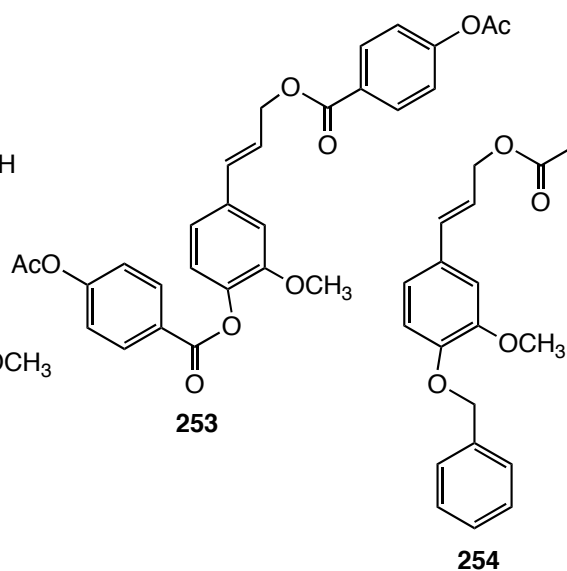
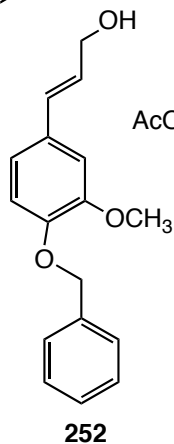
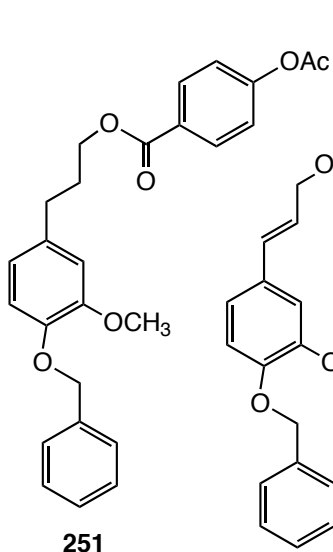
Tetramers



Misc. Compounds

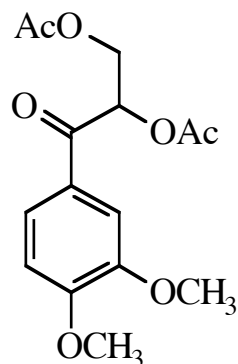


Misc. Compounds



Compound Number 1

¹³C



2,3-Diacetoxypropioveratrone
2,3-diacetoxy-3',4'-dimethoxypropiophenone

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.08		
Ac Me	2.19		
OMe	3.95		
OMe	3.95		
γ1	4.25	dd	12.1, 7.9
γ2	4.68	dd	12.1, 3.1
β	6.18	dd	7.9, 3.1
A2	7.56	d	8.4
A5	6.93	dd	2.0
A6	7.71	dd	8.4, 2.0

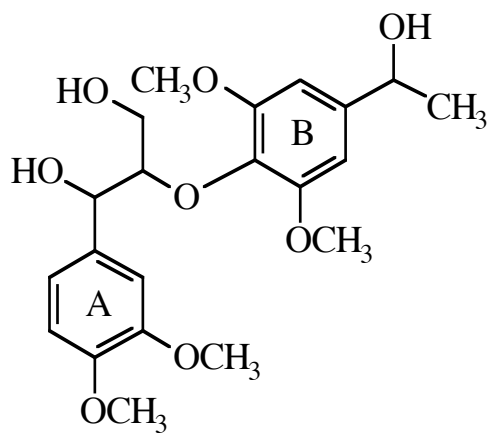
Notes:

M. Mozuch #36/46/Ac
21 mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.67	74	20.49	72	20.30	88
Ac Me	20.72	71	20.58	64	20.42	87
OMe	56.05	98	56.11	98	55.51	95
OMe	56.15	97	56.25	100	55.77	100
γ	63.22	84	63.64	96	62.60	71
β	72.99	98	74.14	96	73.28	85
2	110.32	100	111.60	91	110.35	78
5	110.64	91	111.66	92	111.03	84
6	123.33	98	123.85	98	123.02	88
1	127.41	55	128.35	38	126.67	77
3	149.31	41	150.31	30	148.72	71
4	154.16	40	155.21	30	153.72	63
Ac C=O	170.21	48	170.35	32	169.61	67
Ac C=O	170.75	36	170.88	32	170.03	56
α	191.52	48	192.03	36	191.18	66

Compound Number 2

¹³C



threo

1-(3,4-Dimethoxyphenyl)-2-[4-(1-hydroxyethyl)-2,6-dimethoxyphenoxy]propane-1,3-diol

¹H (chloroform)

Atom	H Shifts	Mult	J
B β	1.45	d	6.4
OMe	3.85	s	
OMe	3.85	s	
OMe	3.87	s	
OMe	3.89	s	
B α	4.81	q	6.4
α	5.02	d	8.7
B2,6	6.63	s	
A2	6.9	m	
A5	6.83	d	8.7
A6	6.9	m	

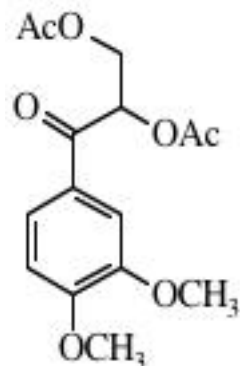
Notes:

S. Ralph III-12
60mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.45	34	26.23	49	25.86	44
OMe	55.87	100	55.97	58	55.31	52
OMe	55.87	100	56.03	51	55.43	53
B OMe	56.08	99	56.44	100	55.80	100
B OMe	56.08	99	56.44	100	55.80	100
γ	60.48	29	61.26	38	60.13	25
B α	70.11	43	69.93	51	68.17	43
α	73.98	39	73.89	45	71.36	32
β	88.94	37	89.58	47	87.10	31
B2	102.25	67	103.30	84	102.50	55
B6	102.25	67	103.30	84	102.50	55
A2	110.28	36	111.78	38	110.60	32
A5	111.02	41	112.18	47	111.08	32
A6	119.80	34	120.22	42	118.84	34
A1	132.56	38	134.74	32	134.53	63
B1	134.08	24	135.39	18	134.53	63
B4	143.04	30	144.54	29	143.01	37
A4	148.73	29	149.58	22	147.64	31
A3	148.90	29	149.86	25	148.03	34
B3	152.84	61	153.52	48	152.20	65
B5	152.84	61	153.52	48	152.20	65

Compound Number 1

¹³C



2,3-Diacetoxypropioveratrone
2,3-diacetoxy-3',4'-dimethoxypropiophenone

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.08		
Ac Me	2.19		
OMe	3.95		
OMe	3.95		
γ1	4.25	dd	12.1, 7.9
γ2	4.68	dd	12.1, 3.1
β	6.18	dd	7.9, 3.1
A2	7.56	d	8.4
A5	6.93	dd	2.0
A6	7.71	dd	8.4, 2.0

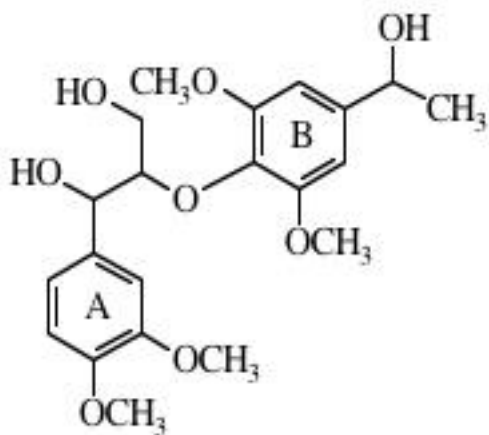
Notes:

M. Mozuch #36/46/Ac
21 mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.67	74	20.49	72	20.30	88
Ac Me	20.72	71	20.58	64	20.42	87
OMe	56.05	98	56.11	98	55.51	95
OMe	56.15	97	56.25	100	55.77	100
γ	63.22	84	63.64	96	62.60	71
β	72.99	98	74.14	96	73.28	85
2	110.32	100	111.60	91	110.35	78
5	110.64	91	111.66	92	111.03	84
6	123.33	98	123.85	98	123.02	88
1	127.41	55	128.35	38	126.67	77
3	149.31	41	150.31	30	148.72	71
4	154.16	40	155.21	30	153.72	63
Ac C=O	170.21	48	170.35	32	169.61	67
Ac C=O	170.75	36	170.88	32	170.03	56
α	191.52	48	192.03	36	191.18	66

Compound Number 2

¹³C



threo

1-(3,4-Dimethoxyphenyl)-2-[4-(1-hydroxyethyl)-2,6-dimethoxyphenoxy]propane-1,3-diol

¹H (chloroform)

Atom	H Shifts	Mult	J
B β	1.45	d	6.4
OMe	3.85	s	
OMe	3.85	s	
OMe	3.87	s	
OMe	3.89	s	
B α	4.81	q	6.4
α	5.02	d	8.7
B2,6	6.63	s	
A2	6.9	m	
A5	6.83	d	8.7
A6	6.9	m	

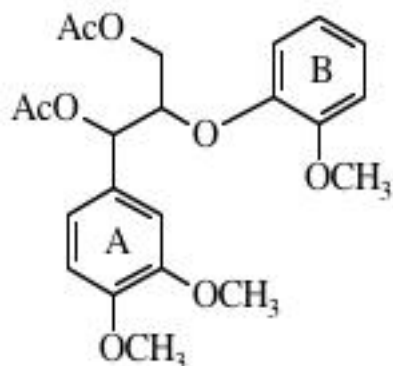
Notes:

S. Ralph III-12
60mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.45	34	26.23	49	25.86	44
OMe	55.87	100	55.97	58	55.31	52
OMe	55.87	100	56.03	51	55.43	53
B OMe	56.08	99	56.44	100	55.80	100
B OMe	56.08	99	56.44	100	55.80	100
γ	60.48	29	61.26	38	60.13	25
B α	70.11	43	69.93	51	68.17	43
α	73.98	39	73.89	45	71.36	32
β	88.94	37	89.58	47	87.10	31
B2	102.25	67	103.30	84	102.50	55
B6	102.25	67	103.30	84	102.50	55
A2	110.28	36	111.78	38	110.60	32
A5	111.02	41	112.18	47	111.08	32
A6	119.80	34	120.22	42	118.84	34
A1	132.56	38	134.74	32	134.53	63
B1	134.08	24	135.39	18	134.53	63
B4	143.04	30	144.54	29	143.01	37
A4	148.73	29	149.58	22	147.64	31
A3	148.90	29	149.86	25	148.03	34
B3	152.84	61	153.52	48	152.20	65
B5	152.84	61	153.52	48	152.20	65

Compound Number 3

¹³C



erythro

Veratrylglycerol- β -guaiacyl ether diacetate
1,3-diacetoxy-1-(3,4-dimethoxyphenyl)-2-(2-methoxyphenoxy)
propane

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.03	s	
Ac Me	2.07	s	
OMe	3.79	s	
OMe	3.83	s	
OMe	3.86	s	
γ 1	4.23	dd	11.0, 4.0
γ 2	4.43	dd	11.9, 5.9
α	6.03	d	5.3
β	4.71	m	

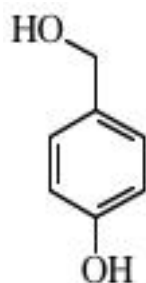
Notes:

L. Landucci
51mg
threo data in acetone
 γ 63.8 α 75.7 β 80.8

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.78	34	20.61	38	20.41	22
Ac Me	21.05	38	20.89	40	20.65	27
OMe	55.78	55	56.02	63	55.38	100
OMe	55.88	100	56.08	57	55.38	100
OMe	55.88	100	56.15	54	55.54	64
γ	62.82	38	63.23	44	62.10	33
α	74.12	42	74.77	49	73.35	17
β	80.10	45	80.28	48	78.39	41
A2	110.86	51	112.24	100	110.87	20
A5	110.89	45	112.24	100	111.27	39
B2	112.55	44	113.68	57	112.80	39
B5	119.18	46	119.51	52	117.70	36
A6	120.08	44	120.79	54	119.63	38
B6	120.93	48	121.56	57	120.62	62
B1	123.41	46	123.82	64	122.70	41
A1	128.98	30	130.15	31	128.71	58
B4	147.32	24	148.36	20	146.74	50
A4	148.84	26	150.10	23	148.43	52
A3	149.09	25	150.29	19	148.65	47
B3	151.04	22	151.93	20	150.27	56
Ac C=O	169.67	24	169.85	23	169.18	45
Ac C=O	170.75	21	170.71	20	170.00	45

Compound Number 4

¹³C



p-Hydroxybenzyl alcohol
4-hydroxybenzyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α			64.54	34	62.68	43
3			115.69	99	114.66	100
5			115.69	99	114.66	100
2			129.05	100	127.92	100
6			129.05	100	127.92	100
1			133.96	13	132.61	31
4			157.23	18	156.03	35

¹H (chloroform)

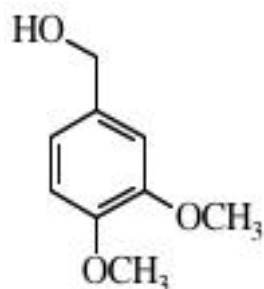
Atom	H Shifts	Mult	J
α	4.62	s	
3,5	6.82	m	
2,6	7.22	m	

Notes:

J. Ralph: JR A91.11
50mg
Not very soluble in CDCL3

Compound Number 5

¹³C



3,4-Dimethoxybenzyl alcohol
3,4-dimethoxybenzyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.78	100	55.93	100	55.27	100
OMe	55.90	84	56.11	97	55.47	94
α	65.04	79	64.58	70	62.79	88
2	110.45	86	111.69	82	110.51	74
5	111.04	96	112.54	88	111.48	73
6	119.33	95	119.62	78	118.50	81
1	133.66	38	135.95	21	135.03	58
4	148.43	25	149.32	16	147.60	36
3	149.00	27	150.19	18	148.54	41

¹H (chloroform)

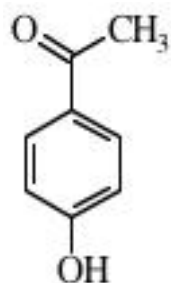
Atom	H Shifts	Mult	J
OMe	3.85	s	
OMe	3.85	s	
α	4.56	s	
2	6.82	m	
5	6.86	m	
6	6.86	m	

Notes:

J. Ralph: JR A91.14
50mg

Compound Number 6

¹³C



p-Hydroxyacetophenone
4-hydroxyacetophenone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	26.28	51	26.25	39	26.16	39
3	115.66	100	115.89	98	115.11	100
5	115.66	100	115.89	98	115.11	100
1	129.16	17	130.38	11	128.56	23
2	131.35	97	131.48	100	130.64	91
6	131.35	97	131.48	100	130.64	91
4	161.90	19	162.54	20	161.98	35
α	199.32	12	196.40	93	195.89	21

¹H (chloroform)

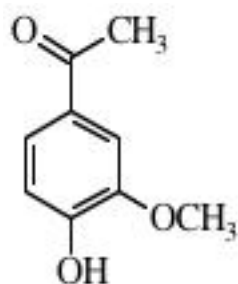
Atom	H Shifts	Mult	J
β	2.60	s	
3,5	7.92	m	8.8
2,6	7.00	m	8.8

Notes:

J.Ralph: JR A95.11
50mg

Compound Number 7

¹³C



Acetovanillone
4-hydroxy-3-methoxyacetophenone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	26.16	82	26.22	74	26.14	77
OMe	56.01	81	56.17	91	55.52	92
2	109.89	62	111.40	65	111.04	76
5	113.97	85	115.26	85	114.85	100
6	124.06	100	124.22	100	123.34	98
1	130.02	20	130.65	22	128.84	59
3	146.77	29	148.16	23	147.45	61
4	150.66	34	152.12	28	151.65	82
α	197.14	23	196.30	19	195.98	57

¹H (chloroform)

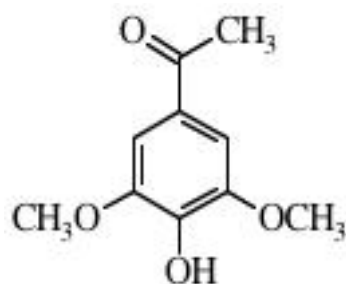
Atom	H Shifts	Mult	J
β	2.56	s	
OMe	3.91	s	
2	7.53	m	
5	6.95	d	8.7
6	7.53	m	

Notes:

J. Ralph: JR A95.12
50mg

Compound Number 8

¹³C



Acetosyringone
3,5-dimethoxy-4-hydroxyacetophenone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	26.21	44	26.30	41	26.22	45
OMe	56.45	100	56.63	100	56.02	100
OMe	56.45	100	56.63	100	56.02	100
2	105.81	90	106.97	84	106.13	84
6	105.81	90	106.97	84	106.13	84
1	128.21	22	129.13	16	127.33	29
4	139.89	21	141.75	16	140.86	29
3	146.79	41	148.29	34	147.44	65
5	146.79	41	148.29	34	147.44	65
α	196.64	16	196.31	14	196.06	30

¹H (chloroform)

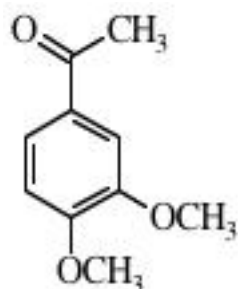
Atom	H Shifts	Mult	J
β	2.57	s	
OMe	3.94	s	
OMe	3.94	s	
2,6	7.24	s	

Notes:

J. Ralph: JR A95.13
46mg

Compound Number 9

¹³C



Acetoveratrone
3,4-dimethoxyacetophenone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	26.17	63	26.25	72	26.23	78
OMe	55.95	92	55.96	91	55.43	100
OMe	56.04	100	56.10	100	55.68	90
2	109.99	86	111.17	56	110.17	91
5	110.09	70	111.30	77	110.74	87
6	123.27	95	123.73	94	123.04	98
1	130.48	30	131.24	17	129.88	55
3	148.99	26	150.00	17	148.55	41
4	153.30	27	154.38	17	153.06	43
α	196.70	23	196.34	17	196.22	33

¹H (chloroform)

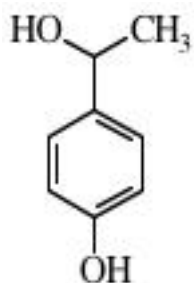
Atom	H Shifts	Mult	J
β	2.56	s	
OMe	3.93	s	
OMe	3.94	s	
2	7.52	d	2.0
5	6.90	d	8.4
6	7.57	dd	8.4, 2.0

Notes:

J. Ralph: JR A95.14
55mg

Compound Number 10

¹³C



1-(4-Hydroxyphenyl)ethanol
1-(4-hydroxyphenyl)ethanol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β			26.10	54	25.83	91
α			69.61	28	67.70	101
3	115.28	100	115.55	89	114.54	180
5	115.28	100	115.55	89	114.54	180
2	126.91	95	127.31	100	126.31	180
6	126.91	95	127.31	100	126.31	180
1			138.90	12	137.56	61
4			156.98	15	155.86	75

¹H (chloroform)

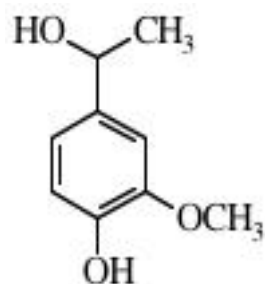
Atom	H Shifts	Mult	J
β	1.48	d	6.5
α	4.85	q	6.5
3,5	6.81	m	8.6
2,6	7.25	m	8.6

Notes:

J. Ralph: JR A97.11
34mg Almost insoluble in CDCl₃

Compound Number 11

¹³C



Apocynol

1-(4-hydroxy-3-methoxyphenyl)ethanol

¹H (chloroform)

Atom	H Shifts	Mult	J
β Me	1.46	d	
OMe	3.87	s	
α	4.81	q	6.5
5	6.81	m	
2	6.91	m	
6	6.84	m	

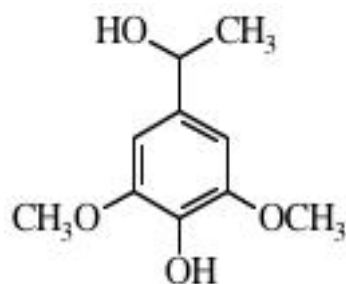
Notes:

J. Ralph: JR A97.12

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	25.07	95	26.22	87	25.88	78
OMe	55.88	99	56.09	87	55.42	98
α	70.30	89	69.81	78	67.89	100
2	108.05	80	109.76	76	109.54	71
5	114.20	94	115.21	87	114.80	82
6	118.31	100	118.65	100	117.47	77
1	137.91	40	139.67	31	138.35	64
4	144.96	32	146.13	31	144.98	69
3	146.62	33	147.97	22	147.11	52

Compound Number 12

¹³C



1-(4-Hydroxy-3,5-dimethoxyphenyl)ethanol

1-(4-hydroxy-3,5-dimethoxyphenyl)ethanol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	25.22	52	26.28	45	25.94	56
OMe	56.25	100	56.49	100	55.79	100
OMe	56.25	100	56.49	100	55.79	100
α	70.50	51	70.07	43	68.16	62
2	102.15	94	103.61	87	102.65	85
6	102.15	94	103.61	87	102.65	85
1	133.90	22	135.46	14	133.93	35
4	137.22	32	138.70	20	137.53	39
3	147.01	43	148.36	24	147.56	75
5	147.01	43	148.36	24	147.56	75

¹H (chloroform)

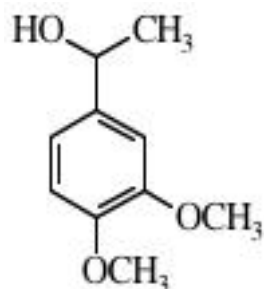
Atom	H Shifts	Mult	J
β	1.46	d	6.4
OMe	3.85	s	
OMe	3.85	s	
α	4.79	q	6.4
2,6	6.58		

Notes:

J. Ralph: JR A97.13

Compound Number 13

¹³C



1-(3,4-Dimethoxyphenyl)ethanol

1-(3,4-dimethoxyphenyl)ethanol

¹H (chloroform)

Atom	H Shifts	Mult	J
β	1.46	d	6.4
OMe	3.85	s	
OMe	3.87	s	
α	4.81	q	6.4
5	6.82		
6	6.85		
2	6.92	d	1.7

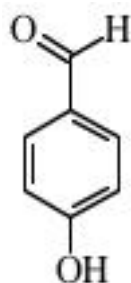
Notes:

J. Ralph: JR A97.14

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	25.12	99	26.25	92	25.92	88
OMe	55.80	94	55.99	100	55.29	99
OMe	55.91	87	56.15	89	55.48	94
α	70.08	94	69.72	86	67.82	100
2	108.68	67	110.38	59	109.24	72
5	110.98	78	112.56	62	111.43	82
6	117.50	100	118.18	95	117.10	85
1	138.65	40	140.97	19	139.99	62
4	148.26	27	149.17	14	147.40	39
3	148.99	28	150.14	11	148.43	45

Compound Number 14

¹³C



p-Hydroxybenzaldehyde
4-hydroxybenzaldehyde

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
3	116.01	100	116.62	100	115.80	100
5	116.01	100	116.62	100	115.80	100
1	129.81	14	130.34	11	128.40	25
2	132.54	97	132.77	85	132.04	83
6	132.54	97	132.77	85	132.04	83
4	161.65	19	163.80	15	163.28	31
α	191.28	39	191.02	35	190.80	42

¹H (chloroform)

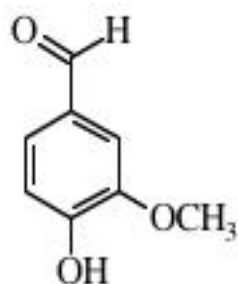
Atom	H Shifts	Mult	J
3,5	7.00	m	8.6
2,6	7.82	m	8.6
α	9.85	s	
<u>acetone</u>			
3,5	7.00		
2,6	7.79		
α	9.84		
OH	9.40		

Notes:

J. Ralph: JR A87.11
52mg

Compound Number 15

¹³C



Vanillin

4-hydroxy-3-methoxybenzaldehyde

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.07	100	56.24	100	55.52	100
2	109.02	50	110.82	72	110.63	69
5	114.59	67	115.87	97	115.36	100
6	127.57	89	126.98	83	126.04	81
1	129.70	22	130.62	29	128.70	64
3	147.34	20	148.86	23	148.12	53
4	151.99	20	153.45	32	153.00	61
α	191.16	47	191.07	85	190.89	82

¹H (chloroform)

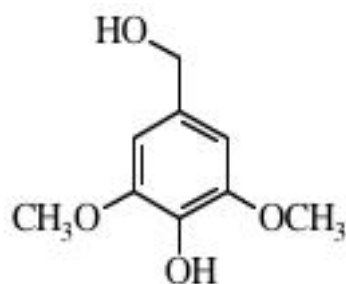
Atom	H Shifts	Mult	J
OMe	3.92	s	
2	7.41	m	8.6
5	7.04	d	
6	7.44	m	
α	9.81	s	
<u>acetone</u>			
OMe	3.91	s	
2	7.46	d	1.8 8.6
5	7.00	d	
6	7.43	m	
α	9.81	s	
OH	8.30	bs	

Notes:

J. Ralph: JR A87.12
66mg

Compound Number 16

¹³C



Syringyl alcohol
4-hydroxy-3,5-dimethoxybenzyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.29	100	56.54	100	55.77	100
OMe	56.29	100	56.54	100	55.77	100
α	65.68	39	64.98	26	63.09	40
2	103.88	82	105.08	75	103.91	72
6	103.88	82	105.08	75	103.91	72
1	132.06	21	133.80	12	132.48	26
4	134.19	15	135.75	9	134.03	26
3	147.10	35	148.54	23	147.67	52
5	147.10	35	148.54	23	147.67	52

¹H (chloroform)

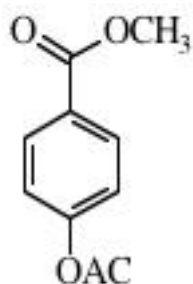
Atom	H Shifts	Mult	J
OMe	3.88		
OMe	3.88		
α	4.60	s	
2,6	6.60	s	
<u>acetone</u>			
OMe	3.79	s	
OMe	3.79	s	
OH-α	4.07	bt	
α	4.50	bd	
2,6	6.63	s	
ph-OH	7.08	bs	

Notes:

J. Ralph: JR A91.13
20mg Almost insoluble in acetone.

Compound Number 17

¹³C



Methyl 4-acetoxybenzoate
4-acetoxybenzoic acid methyl ester

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.12	29	20.97	37	20.82	50
OMe	52.16	38	52.37	44	52.13	50
3	121.60	94	122.82	100	122.21	92
5	121.60	94	122.82	100	122.21	92
1	127.70	14	128.46	13	127.08	21
2	131.14	100	131.60	100	130.70	100
6	131.14	100	131.60	100	130.70	100
4	154.30	14	155.56	14	154.20	25
α	166.25	10	166.47	11	165.49	17
Ac C=O	168.79	11	169.23	11	168.72	20

¹H (chloroform)

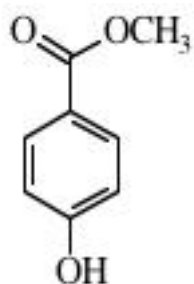
Atom	H Shifts	Mult	J
Ac Me	2.30	s	
OMe	3.90	s	
3,5	7.16	m	8.9
2,6	8.06	m	8.9

Notes:

L. Landucci
53mg

Compound Number 18

¹³C



Methyl 4-hydroxybenzoate
4-hydroxybenzoic acid methyl ester

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	52.12	43	51.86	29	51.55	32
3	115.31	97	116.00	100	115.31	100
5	115.31	97	116.00	100	115.31	100
1	122.22	15	122.33	12	120.29	15
2	131.97	100	132.37	83	131.40	100
6	131.97	100	132.37	83	131.40	100
4	160.36	23	162.58	25	161.97	24
α	167.53	10	167.07	5	166.05	14

¹H (chloroform)

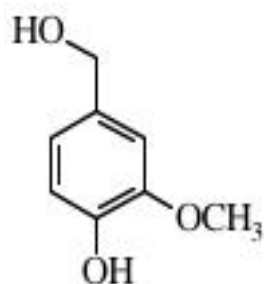
Atom	H Shifts	Mult	J
OMe	3.90	s	
3,5	6.89	m	8.9
2,6	7.95	m	8.9

Notes:

Aldrich
62mg

Compound Number 19

¹³C



4-Hydroxy-3-methoxybenzyl alcohol
4-hydroxy-3-methoxybenzyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.90	100	56.11	100	55.38	100
α	65.44	79	64.76	76	62.93	95
2	109.94	90	111.37	78	110.91	72
5	114.27	92	115.37	87	114.93	83
6	120.22	100	120.29	95	119.00	93
1	132.93	31	134.62	33	133.37	62
4	145.26	33	146.37	31	145.17	64
3	146.65	23	148.10	25	147.24	49

¹H (chloroform)

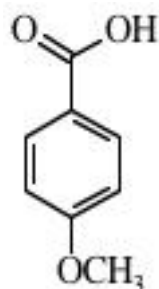
Atom	H Shifts	Mult	J
OMe	3.89	s	
α	4.60	s	

Notes:

Aldrich
54mg

Compound Number 20

¹³C



p-Anisic acid
4-methoxybenzoic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.48	45	55.86	46	55.36	51
3	113.75	97	114.50	88	113.74	99
5	113.75	97	114.50	88	113.74	99
1	121.67	11	123.67	12	122.97	22
2	132.35	100	132.48	100	131.32	100
6	132.35	100	132.48	100	131.32	100
4	164.04	18	164.39	13	162.80	26
α	171.45	16	167.54	13	167.00	29

¹H (chloroform)

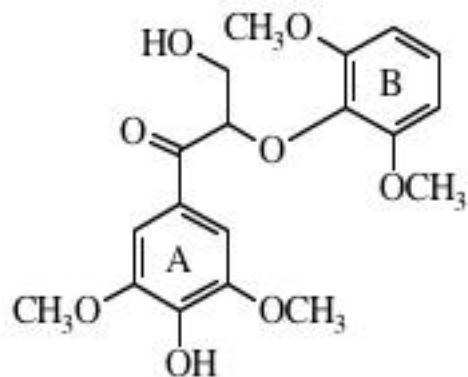
Atom	H Shifts	Mult	J
OMe	3.89	s	
3,5	6.96	m	9.0
2,6	8.07	m	9.0

Notes:

Aldrich
52mg

Compound Number 21

¹³C



□ 2-(2,6-Dimethoxyphenoxy)-3-hydroxy-1-(4-hydroxy-3,5-dimethoxyphenyl)propan-1-one

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.74	s	
OMe	3.92	s	
β	5.10	dd	6.4, 2.7
A2,6	7.42	s	
B2,6	6.59	d	8.4
B1	7.03	t	8.4

Notes:

Has acetyl piperidine in sample.

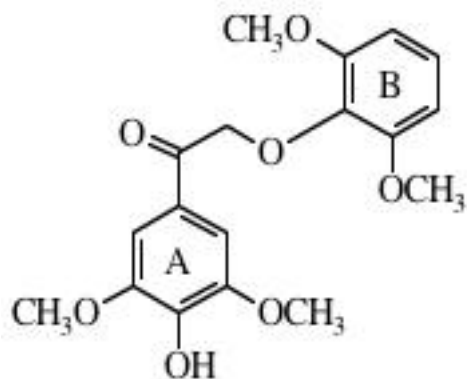
J. Ralph JRA127.P1

27mg γ - protons coupled to OH's, shifts not determined.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.97	100	56.35	92	55.73	100
OMe	55.97	100	56.35	92	55.73	100
OMe	56.49	86	56.71	100	55.97	98
OMe	56.49	86	56.71	100	55.97	98
γ	63.48	39	63.66	47	61.95	34
β	87.16	48	86.21	51	82.80	31
B2	105.27	88	106.32	91	105.46	81
B6	105.27	88	106.32	91	105.46	81
A2	106.35	82	107.69	63	106.56	63
A6	106.35	82	107.69	63	106.56	63
B1	124.34	49	124.78	46	123.51	37
A1	126.98	30	127.86	23	126.22	35
B4	136.46	18	137.37	10	135.80	27
A4	140.05	29	141.99	14	140.92	37
A3	146.79	58	148.31	37	147.30	68
A5	146.79	58	148.31	37	147.30	68
B3	152.73	49	153.86	38	152.43	73
B5	152.73	49	153.86	38	152.43	73
α	194.84	28	195.15	20	194.71	35

Compound Number 22

¹³C



□ 2-(2,6-Dimethoxyphenoxy)-1-(4-hydroxy-3,5-dimethoxyphenyl)ethanone

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.82	s	
OMe	3.94	s	
β	5.11	s	
A2,6	7.43	s	
B2,6	6.59	d	8.4
B1	7.03	t	8.4

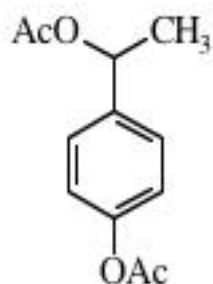
Notes:

J. Ralph JRA127.P2
23mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B OMe	56.09	100	56.42	100	55.82	100
B OMe	56.09	100	56.42	100	55.82	100
A OMe	56.48	98	56.72	94	56.03	98
A OMe	56.48	98	56.72	94	56.03	98
β	75.45	41	75.90	47	74.39	30
B2	105.33	89	106.47	98	105.52	80
B6	105.33	89	106.47	98	105.52	80
A2	106.07	84	107.45	97	105.97	63
A6	106.07	84	107.45	97	105.97	63
B1	124.20	48	124.87	53	123.84	35
A1	126.68	25	127.09	19	124.92	34
B4	136.48	11	137.55	11	135.85	21
A4	139.89	22	142.15	13	141.14	33
A3	146.74	48	148.39	27	147.50	71
A5	146.74	48	148.39	27	147.50	71
B3	153.30	42	154.43	32	152.85	61
B5	153.30	42	154.43	32	152.85	61
α	193.61	24	193.69	23	192.75	29

Compound Number 23

¹³C



Hydroxyphenylethanol diacetate
1-acetoxy-1-(4-acetoxyphenyl)ethane

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.10	33	20.91	39	20.74	45
Ac Me	21.30	28	21.08	31	20.89	40
β	22.14	41	22.48	55	21.95	46
α	71.68	42	72.03	51	71.01	53
3	121.57	100	122.53	99	121.70	100
5	121.57	100	122.53	99	121.70	100
2	127.31	100	127.84	100	126.99	96
6	127.31	100	127.84	100	126.99	96
1	139.18	18	140.39	18	139.13	31
4	150.16	15	151.29	14	149.79	25
A4 Ac C=O	169.41	14	169.58	14	169.11	16
α Ac C=O	170.21	13	170.16	11	169.54	15

¹H (acetone)

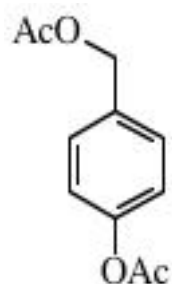
Atom	H Shifts	Mult	J
Ac Me	2.01	s	
Ac Me	2.24	s	
β	1.48	d	6.6
α	5.84	q	6.6
3,5	7.09	m	8.6
2,6	7.40	m	8.6

Notes:

J. Ralph JRA93.5
22mg

Compound Number 24

¹³C



p-Hydroxybenzyl alcohol diacetate
4-acetoxybenzyl acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.95	24	20.76	25	20.62	32
Ac Me	21.08	31	20.92	35	20.75	40
α	65.58	38	65.80	40	64.83	37
3	121.70	100	122.59	100	121.78	94
5	121.70	100	122.59	100	121.78	94
2	129.50	97	130.02	93	129.25	100
6	129.50	97	130.02	93	129.25	100
1	133.56	22	134.84	18	133.67	29
4	150.53	16	151.60	12	150.15	21
A4 Ac C=O	169.31	15	169.53	7	169.08	18
α Ac C=O	170.72	11	170.77	6	170.14	12

¹H (chloroform)

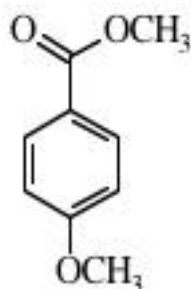
Atom	H Shifts	Mult	J
Ac Me	2.08	s	
Ac Me	2.29	s	
α	5.08	s	
3,5	7.08	m	8.6
2,6	7.37	m	

Notes:

S. Ralph SR111-20
52mg

Compound Number 25

¹³C



Methyl-p-anisate
methyl 4-methoxybenzoate

¹H (chloroform)

Atom	H Shifts	Mult	J
4 OMe	3.83	s	
α OMe	3.86	s	
3,5	6.89	m	8.8
2,6	7.99	m	8.8

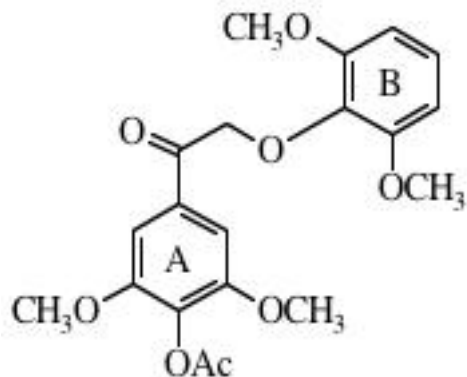
Notes:

S. Ralph SRIII-21
50mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
4 OMe	51.82	31	51.94	32	51.73	48
α OMe	55.39	41	55.83	50	55.45	44
3	113.59	100	114.51	98	113.95	100
5	113.59	100	114.51	98	113.95	100
1	122.60	10	123.36	9	121.88	16
2	131.57	81	132.12	100	131.20	93
6	131.57	81	132.12	100	131.20	93
4	163.33	13	164.35	11	163.12	18
α	166.82	8	166.84	6	165.88	14

Compound Number 26

¹³C



1-(4-acetoxy-3,5-dimethoxyphenyl)-2-(2,6-dimethoxyphenoxy)ethanone

¹H (chloroform)

Atom	H Shifts	Mult	J
A χ Me	2.34	s	
B OMe	3.80	s	
A OMe	3.87	s	
β	5.13	s	
A2,6	7.40	s	
B2,6	6.58	d	8.4
B1	7.02	t	8.4

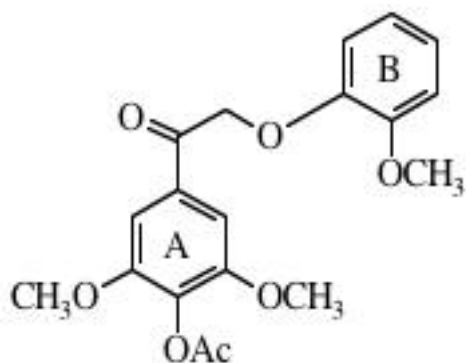
Notes:

J. Ralph GV 49.1
25mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.42	37	20.23	35	20.02	40
B OMe	56.08	93	56.44	100	55.82	100
B OMe	56.08	93	56.44	100	55.82	100
A OMe	56.37	100	56.71	98	56.18	100
A OMe	56.37	100	56.71	98	56.18	100
β	75.54	39	75.99	39	74.59	32
B2	105.35	90	106.34	94	104.87	80
B6	105.35	90	106.34	94	104.87	80
A2	105.54	90	106.50	96	105.53	94
A6	105.54	90	106.50	96	105.53	94
B1	124.26	49	124.95	50	123.88	45
A1	133.12	30	133.94	7	132.10	24
A4	133.12	30	134.21	19	132.64	38
B4	136.45	14	137.50	11	135.81	28
A3	152.26	52	153.30	33	151.80	72
A5	152.26	52	153.30	33	151.80	72
B3	153.27	43	154.36	31	152.74	69
B5	153.27	43	154.36	31	152.74	69
Ac C=O	168.11	23	168.15	16	167.60	32
α	194.03	28	194.58	24	193.75	40

Compound Number 27

¹³C



1-(4-acetoxy-3,5-dimethoxyphenyl)-2-(2-methoxyphenoxy)ethanone

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.35	s	
B OMe	3.87	s	
A OMe	3.87	s	
β	5.26	s	
A2,6	7.34	s	

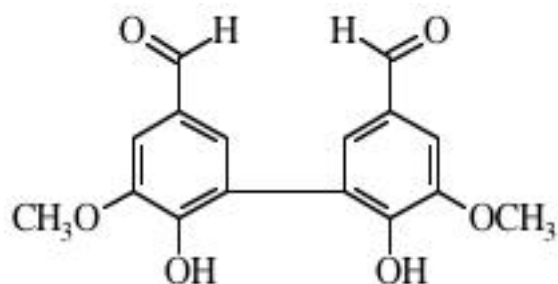
Notes:

J. Ralph GV 35.1
25mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.41	41	20.23	36	20.03	47
B OMe	55.85	47	56.25	48	55.51	60
A OMe	56.34	100	56.73	92	56.24	100
A OMe	56.34	100	56.73	92	56.24	100
β	72.53	35	72.65	40	70.85	32
A2	105.25	84	105.90	100	104.78	84
A6	105.25	84	105.90	100	104.78	84
B2	112.26	48	113.68	56	112.48	44
B5	114.95	49	115.73	48	113.80	39
B6	120.89	51	121.56	56	120.45	48
B1	122.64	49	122.80	56	121.37	43
A1	133.41	12	134.14	8	132.32	17
A4	132.58	27	133.81	20	132.38	39
B3	147.37	16	148.96	16	147.33	34
B4	149.79	17	150.90	16	148.96	29
A3	152.41	49	153.45	36	151.90	74
A5	152.41	49	153.45	36	151.90	74
Ac C=O	168.06	20	168.14	20	167.59	35
α	193.77	25	194.35	20	193.70	42

Compound Number 28

¹³C



Dehydrodivanillin

6,6'-Dihydroxy-5,5'-dimethoxybiphenyl-3,3'-dicarbaldehyde

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe					55.94	100
2					109.08	53
6					124.54	47
5					127.61	75
1					128.05	53
4					148.12	59
3					152.93	16
α					190.97	72

¹H (DMSO)

Atom	H Shifts	Mult	J
OMe	3.94	s	
2	7.44	s	
6	7.44	s	
α	9.81	s	
<u>Acetone</u>			
OMe	3.95	s	
2	7.42	d	J = 1.84
6	7.55	d	J = 1.84
α	9.84	s	

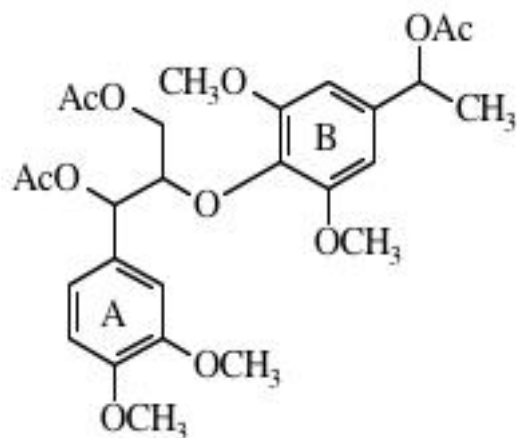
Notes:

J. Ralph KM 77.1

25mg contains impurities As this compound has a plane of symmetry the shifts for the other half are identical.

Compound Number 29

¹³C



threo

Veratrylglycerol- β -syringol ether triacetate
1,3-diacetoxy-1-(3,4-dimethoxyphenyl)-2-(4-(1-acetoxyethyl)-
2,6-dimethoxyphenoxy)propane

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	1.92	s	
Ac Me	2.00	s	
Ac Me	2.07	s	
B β	1.51	d	6.6
OMe	3.86	s	
OMe	3.86	s	
B OMe	3.80	s	
γ 1	-	-	
γ 2	4.29	dd	11.7, 3.6
B α	5.79	q	6.6
α	6.11	d	7.1
β	4.59	m	
B2,6	6.55	s	
A2	6.94	m	
A5	6.81	d	8.8
A6	6.95	m	

Notes:

S. Ralph III-14
 65mg sample has impurities
 γ 1 proton hidden by OMe's

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.75	41	20.62	51	20.36	40
Ac Me	21.01	32	20.96	52	20.62	35
Ac Me	21.34	34	21.14	41	20.96	38
B β	22.22	34	22.58	52	22.03	27
A OMe	55.88	63	56.02	71	55.43	52
A OMe	55.97	61	56.02	71	55.50	58
B OMe	56.08	100	56.33	100	55.80	100
B OMe	56.08	100	56.33	100	55.80	100
γ	63.84	26	64.43	48	63.36	21
B α	72.38	29	72.70	49	71.70	33
α	76.01	45	76.69	51	75.65	22
β	80.76	46	81.52	52	80.30	26
B2	103.29	77	103.91	86	102.90	50
B6	103.29	77	103.91	86	102.90	50
A2	110.70	28	112.03	44	110.80	29
A5	111.02	45	112.31	51	111.51	31
A6	119.92	49	120.59	48	119.58	30
A1	129.64	40	130.68	32	129.28	39
B1	136.22	14	137.06	19	135.43	22
B4	137.37	41	138.53	25	137.28	33
A3	148.89	35	150.05	29	148.53	46
A4	149.10	33	150.25	22	148.74	38
B3	152.88	60	153.68	51	152.27	66
B5	152.88	60	153.68	51	152.27	66
Ac C=O	169.76	22	169.78	25	169.11	37
Ac C=O	170.15	24	170.14	19	169.52	34
Ac C=O	170.57	31	170.59	24	169.89	40

Compound Number 30

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
					58.94	35
					63.09	73
					72.56	96
					73.83	92
					75.40	92
					101.14	54
					101.65	100

Xylan
Xylan,Birch

¹H (DMSO)

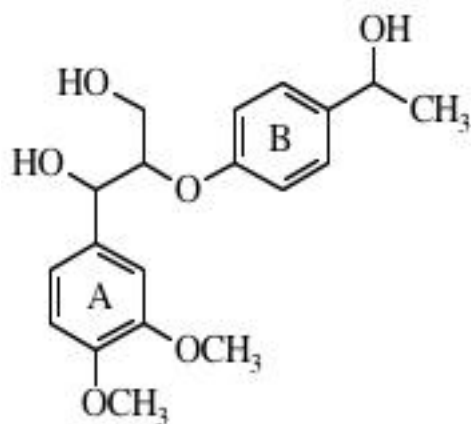
Atom	H Shifts	Mult	J

Notes:

IPC Xylan 79-7
60mg 147- Quantitative run 148- Run at 363K
shifts at 58.94 and 101.14 are for end groups

Compound Number 31

¹³C



threo

1-(3,4-Dimethoxyphenyl)-2-[4-(1-hydroxyethyl)phenoxy]propane-1,3-diol

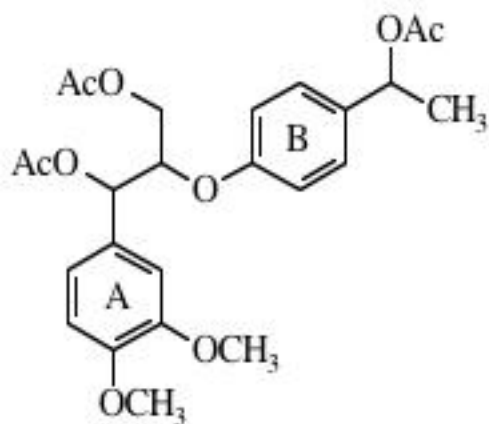
¹H (DMSO)

Atom	H Shifts	Mult	J
B β	1.28	d	
OMe	3.71	s	
OMe	3.71	s	
α	5.36	d	5.1

Notes:

S. Ralph SR111-7 28mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.03	34	26.15	33	25.81	39
OMe	55.88	88	55.99	41	55.30	44
OMe	55.88	88	56.04	41	55.40	44
γ	61.06	32	61.60	37	59.92	24
B α	69.74	34	69.48	33	67.57	44
α	73.47	27	73.18	41	70.77	41
β	82.92	34	84.04	41	82.98	34
A2	110.00	34	111.73	37	110.57	41
A5	111.00	34	112.18	33	111.17	34
B3	116.35	88	116.61	90	115.34	93
B5	116.35	88	116.61	90	115.34	93
A6	119.26	41	119.84	43	118.62	39
B2	126.84	100	127.14	100	126.15	100
B6	126.84	100	127.14	100	126.15	100
A1	132.46	27	135.41	24	134.78	44
B1	139.26	29	140.44	20	139.27	29
A3	148.81	27	149.53	12	147.69	29
A4	148.98	29	149.91	12	148.13	29
B4	157.45	29	158.87	20	157.62	49
erythro isomer						
γ	61.46		61.94		59.92	
α	73.88		73.81		71.37	
β	82.00		83.67		82.98	

Compound Number 32
¹³C

threo
1,3-diacetoxy-1-(3,4-dimethoxyphenyl)-2-[4-(1-acetoxyethyl)phenoxy] propane
¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.03	s	
Ac Me	2.03	s	
Ac Me	2.05	s	
B β	1.51	d	6.6
OMe	3.87	s	
OMe	3.87	s	
γ1	4.00	dd	11.8, 6.2
γ2	4.24	dd	11.9, 4.0
B α	5.84	q	6.6
α	6.02	d	6.6
β	4.70	m	

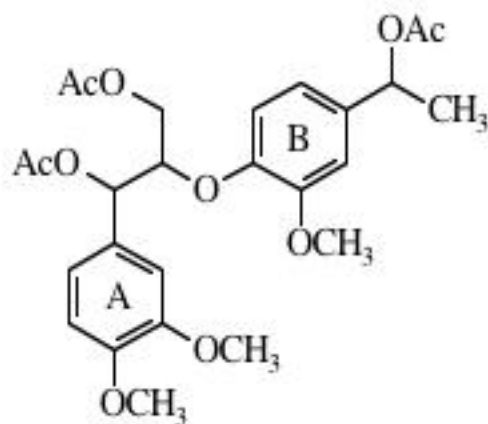
Notes:

 S. Ralph SR III-17AC
 28mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.69	35	20.56	26	20.38	67
Ac Me	21.04	43	20.89	34	20.64	64
Ac Me	21.35	39	21.13	28	20.93	69
B β	22.01	38	22.35	38	21.78	51
OMe	55.91	58	56.06	54	55.41	82
OMe	55.99	49	56.17	56	55.51	72
γ	62.91	42	63.46	30	62.32	28
B α	71.86	22	72.17	38	71.14	49
α	74.34	20	75.35	34	74.25	41
β	78.43	41	79.30	34	77.67	39
A2	110.51	38	112.16	33	110.85	41
A5	111.20	42	112.54	38	111.52	38
B3	116.40	84	117.10	67	115.98	100
B5	116.40	84	117.10	67	115.98	100
A6	119.92	39	120.84	49	119.82	41
B2	127.62	100	128.22	100	127.29	95
B6	127.62	100	128.22	100	127.29	95
A1	128.58	32	130.00	25	128.62	44
B1	135.13	27	136.10	20	134.59	44
A3	149.10	27	150.34	18	148.60	46
A4	149.41	23	150.61	16	148.87	44
B4	158.17	20	159.27	20	157.76	41
Ac C=O	169.81	26	169.90	16	169.28	41
Ac C=O	170.27	18	170.11	16	169.51	46
Ac C=O	170.55	24	170.58	16	169.92	38
erythro isomer:						
γ	62.59		63.11		61.88	
α	73.95		74.41		72.92	
β	78.43		78.93		76.96	

Compound Number 33

¹³C



threo

1,3-diacetoxy-1-(3,4-dimethoxyphenyl)-2-[4-(1-acetoxyethyl)-2-methoxyphenoxy] propane

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.00	s	
Ac Me	2.02	s	
Ac Me	2.06	s	
B β	1.52	d	6.5
OMe	3.85	s	
OMe	3.86	s	
OMe	3.87	s	
γ2	4.27	dd	11.9, 4.0
γ1	3.99	dd	11.9, 5.8
B α	4.82	q	6.5
α	6.07	d	6.7
β	4.63	m	

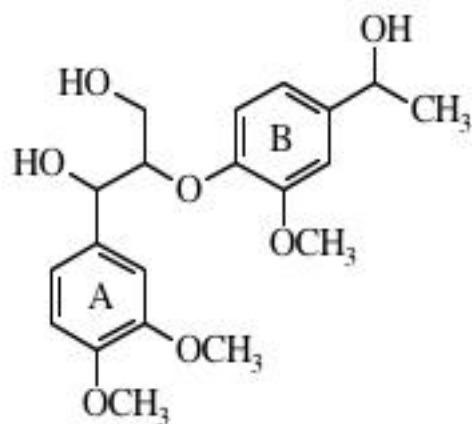
Notes:

S. Ralph SR III-15AC
35mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.71	40	20.59	64	20.36	70
Ac Me	21.05	41	20.95	52	20.64	55
Ac Me	21.35	45	21.14	48	20.94	77
B β	22.09	44	22.45	70	21.87	45
OMe	55.91	97	56.06	100	55.41	100
OMe	55.95	100	56.14	76	55.46	57
OMe	55.95	100	56.32	79	55.66	68
γ	63.26	32	63.80	61	62.61	29
B α	72.06	41	72.39	76	71.36	54
α	74.87	33	75.67	64	74.54	36
β	80.44	40	80.88	70	79.23	36
B2	110.58	35	111.79	70	110.64	34
A2	110.75	29	112.17	64	110.84	38
A5	111.12	41	112.49	73	111.48	39
B5	118.23	40	118.74	67	117.02	39
B6	118.66	47	119.19	76	118.08	43
A6	119.88	42	120.73	76	119.74	39
A1	128.93	45	130.22	55	128.75	45
B1	136.59	31	137.61	45	135.92	36
B4	147.72	18	148.68	36	147.12	36
A3	149.04	29	150.28	33	148.57	46
A4	149.30	27	150.51	39	148.83	43
B3	150.65	23	151.56	30	149.86	38
Ac C=O	170.54	26	169.88	30	169.22	39
Ac C=O	170.23	21	170.14	30	169.52	41
Ac C=O	169.76	27	170.59	36	169.91	45
erythro isomer:						
γ	62.74		63.25		62.04	
α	74.08		74.76		73.25	
β	79.98		80.23		78.29	

Compound Number 34

¹³C



threo

1-(3,4-dimethoxyphenyl)-2-[4-(1-hydroxyethyl)-2-methoxyphenoxy] propane-1,3-diol

¹H (chloroform)

Atom	H Shifts	Mult	J
B β	1.46	d	6.4
OMe	3.86	s	
OMe	3.86	s	
OMe	3.86	s	
B α	4.83	q	6.4
α	4.94	d	7.7
β	4.01	m	
γ1	3.46	mm	
γ2	3.60	dd	

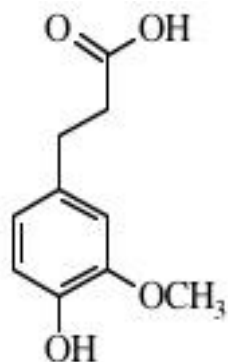
Notes:

S. Ralph SR III-15
28mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.22	35	26.10	95	25.83	91
OMe	55.92	100	55.93	100	55.20	92
OMe	55.92	100	56.01	90	55.41	83
OMe	55.92	100	56.17	88	55.52	100
γ	61.08	28	61.68	67	59.96	55
B α	69.98	38	69.66	90	67.79	86
α	73.84	32	73.62	67	70.72	50
β	89.01	19	88.12	52	84.56	38
B2	109.33	28	110.46	60	109.79	44
A2	110.03	32	111.67	67	110.65	47
A5	111.10	38	112.14	71	111.08	71
B5	118.40	32	118.58	64	115.57	35
B6	119.56	34	119.22	52	117.24	62
A6	120.22	17	119.99	69	118.59	56
A1	132.23	26	134.87	40	134.50	58
B1	141.94	21	142.61	33	140.50	61
B4	146.76	21	148.03	36	146.78	56
A3	148.90	22	149.54	33	147.68	55
A4	149.08	25	149.87	36	148.07	79
B3	151.00	15	151.20	33	149.33	64
erythro isomer:						
γ	60.82		61.68		59.96	
α	72.78		73.62		71.51	
b	87.01		86.50		83.82	

Compound Number 35

¹³C



Dihydroferulic Acid

3-(4-hydroxy-3-methoxyphenyl)propanoic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α	30.38	96	31.24	100	30.00	93
β	36.01	88	36.38	95	35.68	100
OMe	55.92	96	56.22	94	55.52	96
2	111.10	96	112.81	91	112.52	82
5	114.52	100	115.64	85	115.25	98
6	120.89	95	121.47	93	120.21	95
1	132.15	44	133.23	36	131.62	67
4	144.16	51	145.76	36	144.68	73
3	146.55	37	148.17	25	147.34	60
γ	178.88	40	174.26	18	173.77	61

¹H (chloroform)

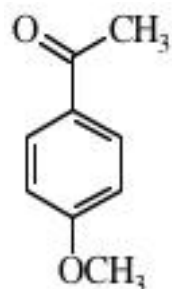
Atom	H Shifts	Mult	J
α	2.64	t	7.4
β	2.88	t	7.4
OMe	3.84	s	
2	6.71	m	
5	6.82	d	7.6
6	6.69	m	

Notes:

J. Obst
35mg

Compound Number 36

¹³C



4-Methoxyacetophenone
4-methoxyacetophenone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	26.28	30	26.33	31	26.29	34
OMe	55.43	60	55.85	47	55.44	50
3	113.68	86	114.45	95	113.75	100
5	113.68	86	114.45	95	113.75	100
1	130.35	15	131.28	12	129.89	18
2	130.55	100	131.18	100	130.40	97
6	130.55	100	131.18	100	130.40	97
4	163.48	11	164.31	11	163.06	20
α	196.62	12	196.23	8	196.14	14

¹H (chloroform)

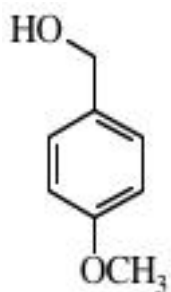
Atom	H Shifts	Mult	J
β	2.53	s	
OMe	3.85	s	
3,5	6.90	m	8.8
2,6	7.90	m	8.8

Notes:

Aldrich
57mg

Compound Number 37

¹³C



p-Methoxybenzyl alcohol
4-methoxybenzyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.23	49	55.39	58	54.94	56
α	64.68	35	64.34	45	62.59	46
3	113.87	100	114.27	100	113.40	100
5	113.87	100	114.27	100	113.40	100
2	128.56	97	128.82	92	127.86	99
6	128.56	97	128.82	92	127.86	99
1	133.21	16	135.23	13	134.49	27
4	159.05	13	159.64	12	158.14	19

¹H (chloroform)

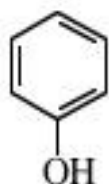
Atom	H Shifts	Mult	J
OMe	3.75	s	
α	4.51	s	
3,5	6.86	m	8.7
2,6	7.20	m	8.7

Notes:

Aldrich
65mg

Compound Number 38

¹³C



Phenol
phenol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
3	115.41	100	116.03	100	115.18	100
5	115.41	100	116.03	100	115.18	100
1	120.89	47	120.13	54	118.70	49
2	129.71	85	130.16	94	129.26	89
6	129.71	85	130.16	94	129.26	89
4	155.25	18	158.16	15	157.29	23

¹H (chloroform)

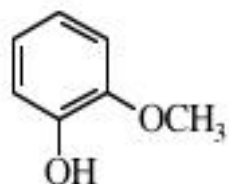
Atom	H Shifts	Mult	J
3,5	6.84	m	
1	6.93	m	
2,6	7.22	m	

Notes:

Aldrich JR 85-11
54mg

Compound Number 39

¹³C



Guaiacol
2-methoxyphenol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.86	100	56.16	94	55.47	99
2	110.81	95	112.48	99	112.30	97
5	114.60	83	115.84	94	115.51	85
1	120.15	94	120.39	100	119.09	91
6	121.47	85	121.94	92	120.83	100
3	145.70	21	147.48	21	146.52	49
4	146.63	17	148.33	19	147.59	37

¹H (chloroform)

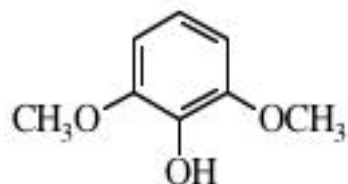
Atom	H Shifts	Mult	J
OMe	3.83	s	
OH	5.72	s	

Notes:

Aldrich JR A85.12
54mg

Compound Number 40

¹³C



Syringol
2,6-dimethoxyphenol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.27	100	56.55	100	55.89	100
OMe	56.27	100	56.55	100	55.89	100
2	105.03	100	106.57	100	105.70	95
6	105.03	100	106.57	100	105.70	95
1	119.06	49	119.16	44	118.06	42
4	134.97	12	137.08	8	135.70	21
3	147.31	23	148.86	16	148.16	39
5	147.31	23	148.86	16	148.16	39

¹H (chloroform)

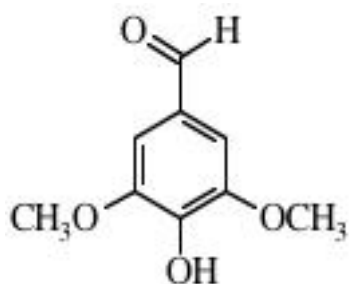
Atom	H Shifts	Mult	J
OMe	3.86	s	
OMe	3.86	s	
2,6	6.56	d	8.1
1	6.78	t	8.1

Notes:

Aldrich JR A 85.13
56mg

Compound Number 41

¹³C



Syringaldehyde

3,5-dimethoxy-4-hydroxybenzaldehyde

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.95	s	
2,6	7.15	s	
α	9.81	s	
<u>acetone</u>			
OMe	3.91	s	
2,6	7.23	s	
α	9.81	s	
OH	8.20	bs	

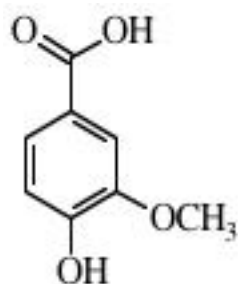
Notes:

J. Ralph JRA87.13
62mg
Poor solubility

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.48	100	56.64	100	56.02	100
OMe	56.48	100	56.64	100	56.02	100
2	106.81	80	107.74	80	107.05	67
6	106.81	80	107.74	80	107.05	67
1	128.34	24	129.02	19	127.14	34
4	141.03	20	142.92	15	142.11	28
3	147.44	30	148.94	25	148.09	56
5	147.44	30	148.94	25	148.09	56
α	190.79	52	191.05	45	190.99	38

Compound Number 42

¹³C



Vanillic acid

4-hydroxy-3-methoxy benzoic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.28	95	55.50	100
2			113.46	87	112.73	83
5			115.43	87	115.00	84
1			122.70	33	121.62	52
6			124.90	100	123.46	83
3			147.96	31	147.17	71
4			152.03	28	151.05	69
α			167.84	33	167.16	53

¹H (chloroform)

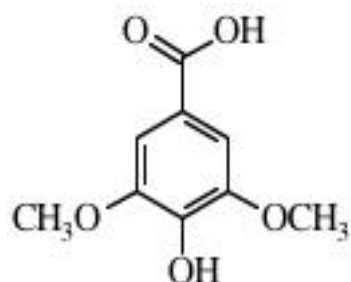
Atom	H Shifts	Mult	J
OMe	3.96	s	
2	7.59	d	1.9
5	6.97	d	8.3
6	7.72	dd	8.3, 1.9

Notes:

J. Ralph JRA89.12
55mg
not very soluble in CDCl₃

Compound Number 43

¹³C



Syringic acid
3,5-dimethoxy-4-hydroxybenzoic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.66	98	55.92	100
OMe			56.66	98	55.92	100
2			108.20	100	106.85	82
6			108.20	100	106.85	82
1			121.40	19	120.32	29
4			141.61	14	140.17	43
3			148.30	29	147.37	81
5			148.30	29	147.37	81
α			167.68	19	167.14	38

¹H (chloroform)

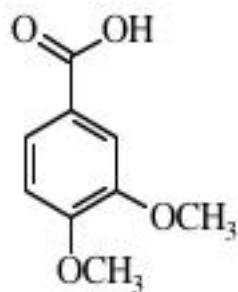
Atom	H Shifts	Mult	J
OMe	3.96	s	
2,6	7.40	s	

Notes:

J. Ralph JRA 89-13
55mg not very soluble in CDCl₃

Compound Number 44

¹³C



Veratric acid
3,4-dimethoxybenzoic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.02	100	56.08	100	55.41	100
OMe	56.06	86	56.12	91	55.58	93
2	110.36	87	111.64	81	110.93	85
5	112.38	87	113.34	72	111.93	73
1	121.77	46	123.64	25	122.98	43
6	124.61	94	124.42	78	123.16	85
3	148.72	56	149.89	22	148.30	54
4	153.78	46	154.37	19	152.60	42
α	172.08	50	167.53	28	167.08	55

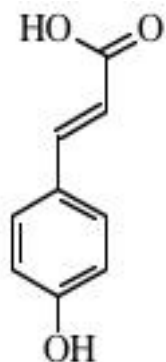
¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.94	s	
OMe	3.95	s	
2	7.60	d	1.9
5	6.92	d	8.5
6	7.78	dd	8.5, 1.9

Notes:

J. Ralph JRA 89-14
55mg

Compound Number 45

¹³C*trans*

p-Coumaric acid
4-hydroxycinnamic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β			115.51	45	115.30	38
3			116.66	100	115.72	100
5			116.66	100	115.72	100
1			126.95	22	125.24	34
2			130.90	91	129.98	99
6			130.90	91	129.98	99
α			145.95	45	144.11	43
4			160.49	26	159.54	43
γ			169.03	19	167.90	39

¹H (DMSO)

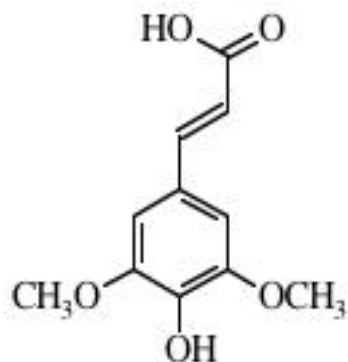
Atom	H Shifts	Mult	J
α	7.54	d	16.0
3,5	6.83	d	8.6
2,6	7.53	d	8.6
β	6.32	d	16.0

Notes:

Fluka
60mg
*not soluble in CDCl₃

Compound Number 46

¹³C



trans

Sinapinic acid

3,5-dimethoxy-4-hydroxycinnamic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.68	100	56.04	100
OMe			56.68	100	56.04	100
2			106.84	100	106.04	74
6			106.84	100	106.04	74
β			116.20	50	116.03	37
1			126.19	22	124.59	38
4			139.43	22	138.05	38
α			146.23	58	144.74	39
3			148.90	44	148.00	79
5			148.90	44	148.00	79
γ			168.26	28	167.90	45

¹H (DMSO)

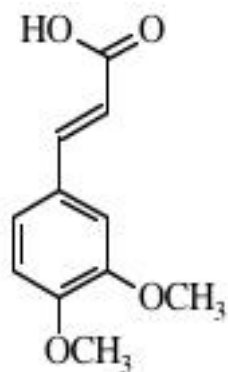
Atom	H Shifts	Mult	J
OMe	3.83	s	
2,6	7.00	s	
α	7.50	d	15.9
β	6.44	d	15.9

Notes:

Lancaster Synthesis
60mg *not very soluble in CDCl₃

Compound Number 47

¹³C



trans

3,4-Dimethoxycinnamic acid
3,4-dimethoxycinnamic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.92	98	56.08	90	55.49	94
OMe	55.99	92	56.13	100	55.56	100
2	109.88	94	111.20	84	110.35	74
5	111.09	96	112.40	82	111.50	71
β	114.94	94	116.60	80	116.68	75
6	123.10	100	123.43	94	122.53	76
1	127.08	72	128.31	39	127.05	72
α	146.95	91	145.64	90	144.08	71
3	149.31	53	150.61	29	148.97	68
4	151.56	47	152.48	27	150.77	55
γ	172.53	77	168.11	27	167.83	71

¹H (chloroform)

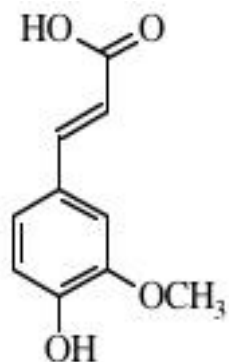
Atom	H Shifts	Mult	J
OMe	3.92	s	
OMe	3.92	s	
2	7.08	d	2.0
5	6.88	d	8.3
6	7.14	dd	8.3, 2.0
α	7.73	d	15.9
β	6.33	d	15.9

Notes:

K & K Labs
60mg

Compound Number 48

¹³C



trans

Ferulic acid
4-hydroxy-3-methoxycinnamic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.28	98	55.64	100
2			111.30	95	111.14	74
β			115.77	87	115.52	77
5			116.00	90	115.60	73
6			123.80	98	122.72	76
1			127.38	51	125.76	62
α			146.16	100	144.44	71
3			148.64	46	147.87	79
4			149.97	51	149.04	81
γ			168.88	60	167.93	76
d4-MeOH	56.44					
	111.71					
	115.89					
	116.46					
	123.94					
	127.77					
	146.89					
	149.30					
	150.43					
	170.93					

¹H (DMSO)

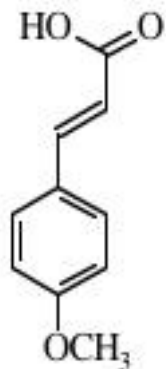
Atom	H Shifts	Mult	J
OMe	3.84	s	
2	7.29	d	1.9
5	6.83	d	8.2
6	7.10	dd	8.2,1.9
α	7.53	d	15.9
β	6.39	d	15.9

Notes:

Aldrich
60mg not very soluble in CDCl₃ Note: .0238 was run in d4-MeOH.

Compound Number 49

¹³C



trans

4-Methoxycinnamic acid
4-methoxycinnamic acid

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.85	s	
3,5	6.92	m	8.8
α	7.75	d	15.9
2,6	7.51	m	8.8
β	6.32	d	15.9

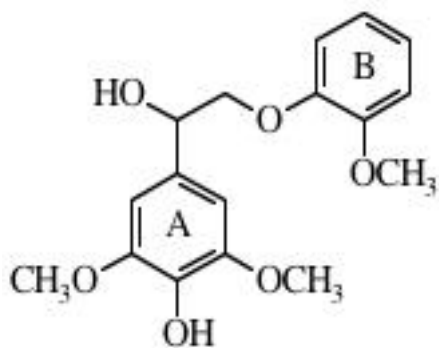
Notes:

Aldrich
66mg not CDCl₃ soluble

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			55.68	51	55.22	52
3			115.14	100	114.30	97
5			115.14	100	114.30	97
β			116.52	44	116.51	41
1			128.02	18	126.82	29
2			130.58	98	129.84	100
6			130.58	98	129.84	100
α			145.19	53	143.65	42
4			162.41	16	160.90	28
γ			168.11	22	167.78	35

Compound Number 50

¹³C



Syringylglycol- β -guaiacyl ether

1-(3,5-dimethoxy-4-hydroxyphenyl)-2-(2-methoxyphenoxy) ethanol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B OMe	55.84	50	56.24	49	55.41	52
A OMe	56.32	100	56.58	100	55.81	100
A OMe	56.32	100	56.58	100	55.81	100
α	72.47	54	72.85	51	70.97	47
β	76.39	48	76.15	45	73.98	38
A2	103.11	96	104.79	84	103.73	79
A6	103.11	96	104.79	84	103.73	79
B2	112.06	52	113.44	45	112.25	42
B5	115.96	50	115.52	38	113.40	38
B6	121.12	51	121.76	55	120.66	48
B1	122.50	56	122.29	55	120.79	47
A1	130.84	36	133.07	27	132.54	40
A4	134.46	31	136.13	24	134.51	36
A3	147.12	56	148.46	51	147.57	77
A5	147.12	56	148.46	51	147.57	77
B3	148.06	27	149.62	22	148.11	33
B4	150.11	23	150.84	18	148.94	37

¹H (chloroform)

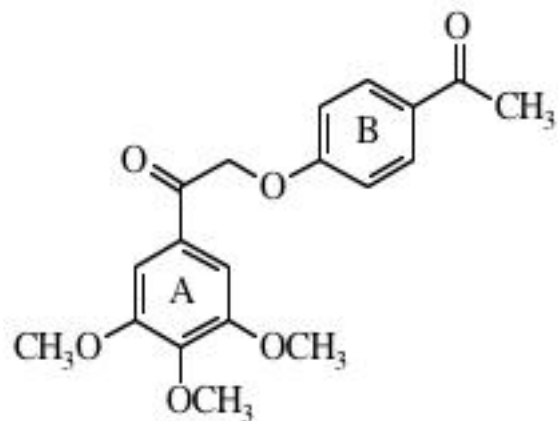
Atom	H Shifts	Mult	J
B OMe	3.85	s	
A OMe	3.87	s	
α	5.00	dd	9.9, 3.0
β 1	3.94	t	9.9
β 2	4.14	dd	9.9, 3.0
A2,6	6.66	s	

Notes:

S. Ralph SG 100mg
33mg

Compound Number 51

¹³C



□2-(4-Acetylphenoxy)-1-(3,4,5-trimethoxyphenyl)ethanone

¹H (chloroform)

Atom	H Shifts	Mult	J
B β	2.54	s	
A3,5 OMe	3.92	s	
A4 OMe	3.94	s	
β	5.32	s	
A2,6	7.26	s	
B3,5	6.96	m	8.9
B2,6	7.92	m	8.9

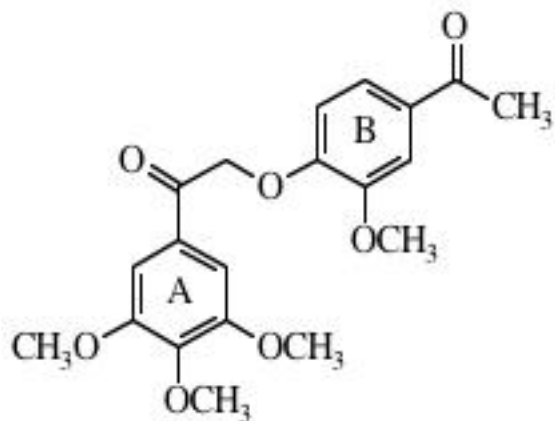
Notes:

L. Landucci LLL XVII 9A
26mg contains trace impurity

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	26.34	46	26.37	43	26.34	60
A3 OMe	56.42	86	56.68	88	56.12	100
A5 OMe	56.42	86	56.68	88	56.12	100
A4 OMe	61.00	35	60.72	33	60.12	52
β	70.62	35	71.10	37	70.11	37
A2	105.84	81	106.60	90	105.47	87
A6	105.84	81	106.60	90	105.47	87
B3	114.44	94	115.27	96	114.45	97
B5	114.44	94	115.27	96	114.45	97
A1	129.36	26	130.72	20	129.38	38
B2	130.62	100	131.11	100	130.26	92
B6	130.62	100	131.11	100	130.26	92
B1	131.16	26	131.70	20	130.11	37
A4	143.65	12	144.27	10	142.41	25
A3	153.32	57	154.41	41	152.88	77
A5	153.32	57	154.41	41	152.88	77
B4	161.77	28	163.09	22	161.79	40
α	192.49	32	193.05	24	192.70	37
B α	196.55	19	196.23	16	196.12	35

Compound Number 52

¹³C



2-(4-Acetyl-2-methoxyphenoxy)-1-(3,4,5-trimethoxyphenyl)ethanone □

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	26.23	55	26.30	53	26.25	49
B OMe	56.01	53	56.28	51	55.58	56
A3 OMe	56.32	100	56.64	100	56.12	100
A5 OMe	56.32	100	56.64	100	56.12	100
A4 OMe	60.96	47	60.70	33	60.13	49
β	71.57	32	71.84	42	70.48	28
A2	105.79	92	106.70	93	105.57	74
A6	105.79	92	106.70	93	105.57	74
B2	110.85	43	112.10	45	110.84	36
B5	112.27	43	113.40	48	112.24	38
B6	122.87	53	123.39	52	122.56	41
A1	129.33	28	130.74	25	129.40	36
B1	131.48	33	131.98	21	130.24	36
A4	143.44	17	144.21	12	142.45	23
B3	149.31	30	150.23	21	148.52	44
B4	151.49	27	152.98	18	151.61	44
A3	153.23	55	154.34	45	152.85	85
A5	153.23	55	154.34	45	152.85	85
α	192.68	25	193.34	22	192.76	36
Bα	196.64	25	196.32	19	196.19	36

¹H (chloroform)

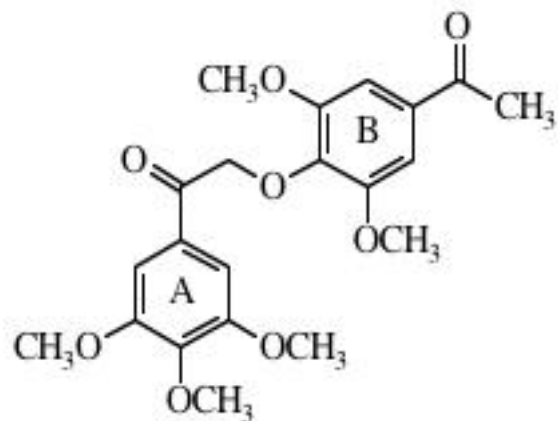
Atom	H Shifts	Mult	J
B β	2.54	s	
B OMe	3.95	s	
A3,5 OMe	3.92	s	
A4 OMe	3.93	s	
β	5.39	s	
A2,6	7.47	s	
B2	7.63	d	1.9
B5	6.80	d	8.3
B6	7.52	dd	8.3, 1.9

Notes:

L. Landucci LLL XVII 9c
28.5mg trace impurity present

Compound Number 53

¹³C



2-(4-Acetyl-2,6-dimethoxyphenoxy)-1-(3,4,5-trimethoxyphenyl)ethanone □ □

¹H (chloroform)

Atom	H Shifts	Mult	J
B β	2.59	s	
A3,5 OMe	3.92	s	
B3,5 OMe	3.88	s	
A4 OMe	3.91	s	
β	5.29	s	
A2,6	7.31	s	
B2,6	7.22	s	

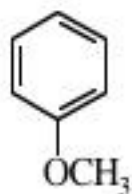
Notes:

L. Landucci LLL XVII 9d
37mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	26.43	26	26.55	43	26.52	47
A3 OMe	56.33	100	56.61	100	56.04	100
A5 OMe	56.33	100	56.61	100	56.04	100
B3 OMe	56.33	100	56.66	75	56.09	95
B5 OMe	56.33	100	56.66	75	56.09	95
A4 OMe	60.94	22	60.67	32	60.08	43
β	74.82	22	75.43	45	74.15	28
A2	105.87	100	106.81	86	105.52	70
A6	105.87	100	106.81	86	105.52	70
B2	105.87	100	106.95	91	105.84	70
B6	105.87	100	106.95	91	105.84	70
A1	129.99	15	131.21	20	129.69	30
B1	132.67	15	133.62	19	132.05	33
B4	140.75	10	141.68	13	140.24	27
A4	142.94	8	143.88	10	142.15	20
B3	152.53	33	153.61	38	152.04	65
B5	152.53	33	153.61	38	152.04	65
A3	153.12	33	154.23	36	152.80	70
A5	153.12	33	154.23	36	152.80	70
α	193.28	15	193.81	22	193.11	35
B α	196.71	14	196.70	19	196.61	28

Compound Number 54

¹³C



Anisole
Methoxybenzene

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.08	70	55.28	73	54.86	54
3	113.92	100	114.62	98	113.84	99
5	113.92	100	114.62	98	113.84	99
1	120.64	61	121.19	64	120.39	43
2	129.52	100	130.14	100	129.39	100
6	129.52	100	130.14	100	129.39	100
4	159.60	12	160.63	14	159.24	10

¹H (chloroform)

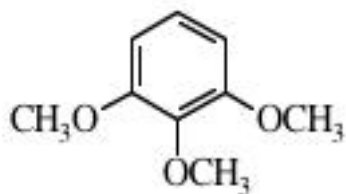
Atom	H Shifts	Mult	J
OMe	3.77	s	
3,5,1	6.90	m	
2,6	7.27	m	

Notes:

Aldrich
40mg

Compound Number 55

¹³C



1,2,3-trimethoxybenzene

¹H (chloroform)

Atom	H Shifts	Mult	J
3,5 OMe	3.85	s	
4 OMe	3.85	s	
2,6	6.57	d	8.3
1	6.98	t	8.3

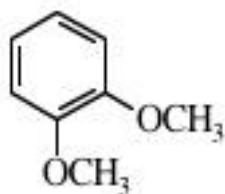
Notes:

Aldrich
40mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
3 OMe	56.09	100	56.35	91	55.77	100
5 OMe	56.09	100	56.35	91	55.77	100
4 OMe	60.80	38	60.43	38	59.90	48
2	105.34	88	106.54	100	105.56	95
6	105.34	88	106.54	100	105.56	95
1	123.61	51	124.30	42	123.57	49
4	138.27	8	139.52	8	137.69	10
3	153.56	23	154.67	19	153.16	33
5	153.56	23	154.67	19	153.16	33

Compound Number 56

¹³C



Veratrole
1,2-dimethoxybenzene

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.80	100	56.01	100	55.38	100
OMe	55.80	100	56.01	100	55.38	100
2	111.44	76	113.02	89	111.98	99
5	111.44	76	113.02	89	111.98	99
1	120.85	83	121.60	86	120.67	100
6	120.85	83	121.60	86	120.67	100
3	149.08	16	150.50	17	148.88	29
4	149.08	16	150.50	17	148.88	29

¹H (chloroform)

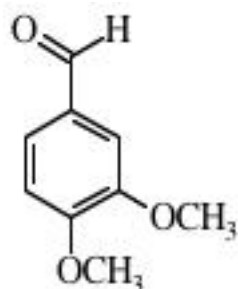
Atom	H Shifts	Mult	J
OMe	3.86	s	
2,5	6.89	m	
1,6	6.89	m	

Notes:

Aldrich
40mg

Compound Number 57

¹³C



Veratraldehyde
3,4-dimethoxybenzaldehyde

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.94	s	
OMe	3.97	s	
2	7.41	d	1.8
5	6.98	d	8.2
6	7.46	dd	8.2, 1.8
α	9.85	s	

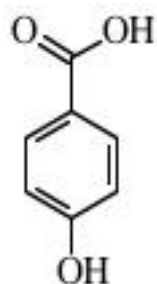
Notes:

Aldrich
40mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.00	100	56.07	100	55.47	100
OMe	56.17	93	56.29	91	55.82	85
2	109.05	65	110.31	80	109.46	66
5	110.46	88	111.85	91	111.22	83
6	126.77	79	126.72	94	126.00	79
1	130.19	37	131.21	27	129.65	49
3	149.66	21	150.77	20	149.17	38
4	154.51	25	155.63	16	154.18	37
α	190.78	70	191.16	79	191.21	84

Compound Number 58

¹³C



4-hydroxybenzoic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
3			115.99	94	115.06	100
5			115.99	94	115.06	100
1			122.43	14	121.35	27
2			132.78	100	131.47	87
6			132.78	100	131.47	87
4			162.65	21	161.55	39
α			168.24	20	167.11	33

¹H (DMSO)

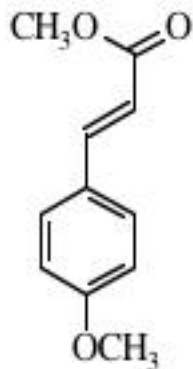
Atom	H Shifts	Mult	J
3,5	6.85	m	8.8
2,6	7.83	m	8.8

Notes:

Aldrich
40mg *CDCl₃ insoluble

Compound Number 59

¹³C



methyl (4-methoxy)cinnamate

¹H (chloroform)

Atom	H Shifts	Mult	J
γ OMe	3.79	s	
4 OMe	3.82	s	
2,6	7.46	m	8.8
α	7.65	d	16.0
3,5	6.89	m	8.8
β	6.31	d	16.0

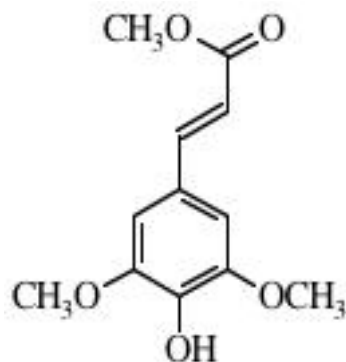
Notes:

J. Ralph PS 137x1
95mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ OMe	51.50	45	51.58	43	51.23	37
4 OMe	55.32	43	55.70	47	55.28	47
3	114.34	98	115.14	98	114.36	100
5	114.34	98	115.14	98	114.36	100
β	115.30	41	115.96	43	115.09	51
1	127.14	21	127.84	17	126.65	36
2	129.71	100	130.63	100	130.08	89
6	129.71	100	130.63	100	130.08	89
α	144.49	49	145.04	45	144.28	45
4	161.42	17	162.42	14	161.17	32
γ	167.68	18	167.81	15	166.90	23

Compound Number 60

¹³C



trans

Methyl Sinapate
methyl (3,5-dimethoxy-4-hydroxy)cinnamate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ OMe	51.60	45	51.46	24	51.13	51
3 OMe	56.34	100	56.68	88	56.06	100
5 OMe	56.34	100	56.68	88	56.06	100
2	105.17	86	106.83	100	106.26	85
6	105.17	86	106.83	100	106.26	85
β	115.50	47	115.73	47	114.58	42
1	125.85	30	126.08	22	124.34	43
4	137.30	28	139.46	19	138.36	37
α	145.15	52	145.99	38	145.32	43
3	147.29	53	148.88	43	148.00	82
5	147.29	53	148.88	43	148.00	82
γ	167.58	25	167.78	11	166.98	32

¹H (chloroform)

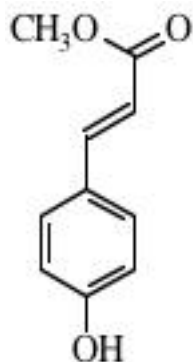
Atom	H Shifts	Mult	J
γ OMe	3.79	s	
3,5 OMe	3.90	s	
2,6	6.76	s	
α	7.60	d	15.9
β	6.30	d	15.9

Notes:

J. Ralph JRPS 135x1
52mg

Compound Number 61

¹³C



trans

Methyl p-Coumarate
methyl 4-hydroxycinnamate

¹H (chloroform)

Atom	H Shifts	Mult	J
γ OMe	3.80	s	
α	7.64	d	16.0
3,5	6.86	m	8.7
2,6	7.42	m	8.7
β	6.28	d	16.0

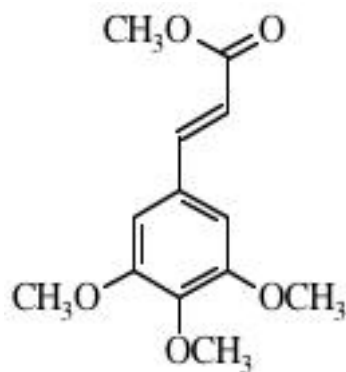
Notes:

J. Ralph JRPS 133.2x1
68mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ OMe	51.71	38	51.49	41	51.13	44
β	114.98	36	115.22	40	113.90	44
3	115.95	91	116.64	100	115.78	99
5	115.95	91	116.64	100	115.78	99
1	126.98	21	126.90	20	125.07	35
2	130.00	100	130.82	94	130.21	100
6	130.00	100	130.82	94	130.21	100
α	144.89	38	145.33	46	144.69	51
4	158.12	24	160.45	28	159.87	46
γ	168.18	14	167.87	14	166.99	30

Compound Number 62

¹³C



trans

methyl (3,4,5-trimethoxy)cinnamate

¹H (chloroform)

Atom	H Shifts	Mult	J
γ OMe	3.74	s	
3,5 OMe	3.82	s	
4 OMe	3.82	s	
2,6	6.70	s	
α	7.54	d	
β	6.29	d	15.9

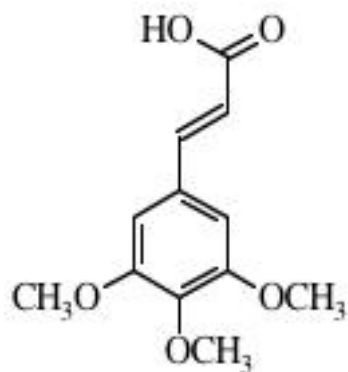
Notes:

J. Ralph JRPS 139x1
92mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ OMe	51.61	43	51.57	41	51.31	48
3 OMe	56.15	100	56.45	100	56.02	100
5 OMe	56.15	100	56.45	100	56.02	100
4 OMe	60.89	39	60.58	42	60.06	46
2	105.36	90	106.58	84	105.99	84
6	105.36	90	106.58	84	105.99	84
β	117.04	46	117.70	50	117.06	46
1	129.90	33	130.70	28	129.61	36
4	140.24	16	141.27	11	139.61	19
α	144.81	52	145.45	49	144.75	45
3	153.46	53	154.51	42	153.11	42
5	153.46	53	154.51	42	153.11	42
γ	167.29	25	167.51	22	166.78	34

Compound Number 63

¹³C



trans

3,4,5-trimethoxy cinnamic acid

¹H (chloroform)

Atom	H Shifts	Mult	J
3,5 OMe	3.89	s	
4 OMe	3.89	s	
2,6	6.78	s	
α	7.70	d	15.9
β	6.36	d	15.9

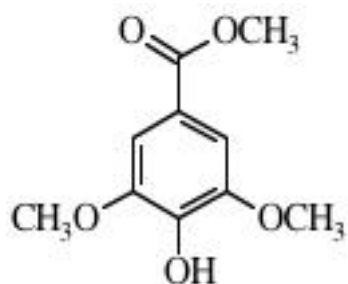
Notes:

Aldrich
100mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
3 OMe	56.19	100	56.49	100	55.98	100
5 OMe	56.19	100	56.49	100	55.98	100
4 OMe	60.96	35	60.60	43	60.05	69
2	105.67	81	106.62	87	105.77	80
6	105.67	81	106.62	87	105.77	80
b	116.55	44	118.15	55	118.51	49
1	129.52	39	130.83	30	129.87	48
4	140.62	18	141.24	12	139.38	27
α	147.02	42	145.87	46	144.14	53
3	153.48	76	154.54	47	153.10	91
5	153.48	76	154.54	47	153.10	91
γ	172.46	32	168.33	28	167.72	52

Compound Number 64

¹³C



Syringic acid methyl ester
methyl (4-hydroxy-3,5-dimethoxy)benzoate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α OMe	52.07	47	52.11	47	51.78	50
3 OMe	56.41	100	56.67	98	56.04	100
5 OMe	56.41	100	56.67	98	56.04	100
2	106.80	99	107.87	100	106.82	82
6	106.80	99	107.87	100	106.82	82
1	120.96	24	121.07	22	119.28	34
4	139.49	27	141.65	25	140.72	37
3	146.78	54	148.33	46	147.58	66
5	146.78	54	148.33	46	147.58	66
α	166.92	18	167.16	15	166.10	29

¹H (chloroform)

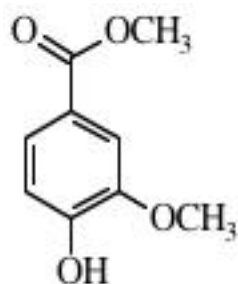
Atom	H Shifts	Mult	J
α OMe	3.89	s	
3,5 OMe	3.90	s	
2,6	7.31	s	

Notes:

J. Ralph JRPS 7x1
93.3mg

Compound Number 65

¹³C



Vanillic acid methyl ester
methyl (3-methoxy-4-hydroxy)benzoate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α OMe	52.02	83	52.00	79	51.64	89
4 OMe	56.07	100	56.29	91	55.60	100
2	111.98	81	113.20	89	112.54	80
5	114.33	91	115.58	89	115.19	96
1	122.13	37	122.43	38	120.52	53
6	124.23	98	124.53	100	123.44	88
3	146.41	34	148.08	29	147.36	64
4	150.29	45	152.14	46	151.53	78
α	167.12	24	167.15	23	166.06	46

¹H (chloroform)

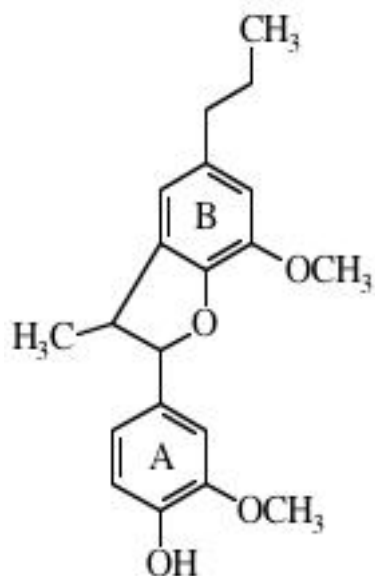
Atom	H Shifts	Mult	J
α OMe	3.88	s	
4 OMe	3.88	s	
2	7.53	d	1.8
5	6.93	d	8.3
6	7.62	dd	8.3, 1.8

Notes:

J. Ralph JRPS 3.1
101mg

Compound Number 66

¹³C



Dihydrodehydrodiisoeugenol

2-Methoxy-4-(7-methoxy-3-methyl-5-propyl-2,3-dihydro benzofuran-2-yl)phenol

¹H (chloroform)

Atom	H Shifts	Mult	J
B γ	0.96	t	7.3
γ	1.36	d	6.8
B β	1.64	m	7.3
B α	2.55	t	7.3
β	3.44	dd	9.6,6.8
OMe	3.86	s	
OMe	3.87	s	
α	5.07	d	9.6
B2	6.59	s	
B6	6.62	s	
A5	6.89	m	
A6	6.89	m	
A2	6.99	s	

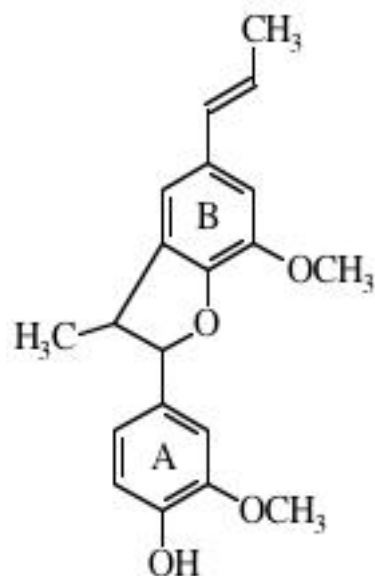
Notes:

J. Ralph JRL 109x2
44mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B γ	13.90	80	14.08	88	13.65	85
γ	17.44	72	17.83	88	17.17	81
B β	25.07	84	25.74	97	24.52	94
B α	38.09	71	38.54	79	37.27	77
β	45.81	85	46.43	91	44.71	74
OMe	55.99	100	56.28	100	55.59	100
OMe	55.99	100	56.41	97	55.64	100
α	93.61	66	93.80	94	92.37	70
A2	109.04	72	110.69	85	110.56	66
B2	111.91	65	113.63	76	112.24	57
A5	114.11	63	115.55	76	115.20	66
B6	115.46	74	116.39	85	115.35	68
A6	119.94	76	120.22	91	119.25	74
A1	132.28	52	133.03	53	130.82	77
B5	132.98	45	134.12	44	132.91	68
B1	136.29	45	136.62	59	135.32	64
B4	143.86	44	144.78	41	143.30	64
A4	145.41	24	146.59	32	144.93	45
B3	145.77	43	147.52	44	146.67	77
A3	146.71	35	148.39	38	147.59	77

Compound Number 67

¹³C



Dehydrodiisoeugenol

2-Methoxy-4-(7-methoxy-3-methyl-5-propenyl-2,3-dihydro benzofuran-2-yl) phenol

¹H (chloroform)

Atom	H Shifts	Mult	J
γ	1.37	d	6.8
B γ	1.87	dd	5.3, 1.2
β	3.44	dt	9.4, 6.8
OMe	3.85	s	
OMe	3.88	s	
α	5.09	d	9.4
B β	6.11	dq	15.8, 5.3
B α	6.36	dq	15.8, 1.2
B2	6.76	s	
B6	6.78	s	
A5	6.88	m	
A6	6.80	m	
A2	6.97	s	

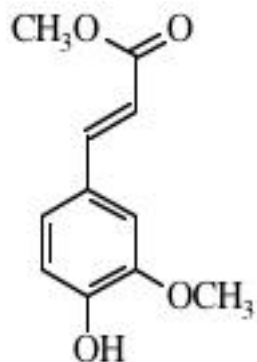
Notes:

J. Ralph JRKM 67-1
150mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	17.60	43	17.86	89	17.25	72
B γ	18.34	41	18.42	93	18.06	78
β	45.62	52	46.21	100	44.51	60
OMe	55.97	100	56.25	93	55.59	100
OMe	55.97	100	56.33	81	55.61	95
α	93.76	47	93.96	84	92.55	60
A2	108.97	48	110.66	86	109.74	50
B2	109.40	41	111.06	77	110.58	58
A5	113.36	46	114.30	87	113.29	58
B6	114.14	47	115.55	84	115.23	55
A6	119.91	47	120.21	93	119.25	60
B β	123.41	47	123.22	97	122.60	60
B α	130.98	51	132.05	93	130.68	52
A1	132.11	26	132.81	67	130.93	65
B5	132.22	34	132.83	61	131.39	62
B1	133.30	32	134.43	54	133.30	65
B4	144.15	28	145.03	26	143.61	60
A4	145.82	31	147.53	53	146.07	45
B3	146.62	30	147.72	20	146.71	55
A3	146.71	32	148.36	44	147.59	60

Compound Number 68

¹³C



trans

Methyl ferulate
methyl 4-hydroxy-3-methoxycinnamate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ OMe	51.60	80	51.47	86	51.12	90
3 OMe	55.93	90	56.32	100	55.68	100
2	109.56	92	111.34	98	111.32	71
β	114.86	96	115.51	100	114.19	72
5	115.09	85	116.03	98	115.54	81
6	123.00	100	123.78	88	122.99	81
1	126.92	58	127.38	50	125.56	66
α	145.03	92	145.65	96	145.02	78
3	146.89	51	148.66	44	147.92	65
4	148.11	58	149.99	50	149.38	72
γ	167.80	47	167.82	40	167.02	62

¹H (chloroform)

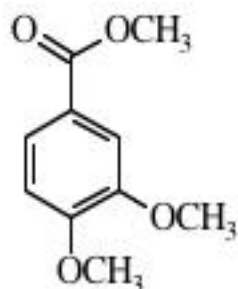
Atom	H Shifts	Mult	J
γ OMe	3.79	s	
3 OMe	3.89	s	
2	7.31	d	1.8
α	7.61	d	15.9
5	6.90	d	8.1
6	7.05	dd	8.1, 1.8
β	6.28	d	15.9

Notes:

J. Ralph JRKM 85.1
54mg

Compound Number 69

¹³C



Methylveratrate
methyl 3,4-dimethoxybenzoate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α OMe	51.93	45	52.00	68	51.79	86
OMe	55.99	100	56.10	100	55.50	100
OMe	55.99	100	56.10	100	55.66	94
2	110.32	45	111.65	75	111.07	86
5	112.05	46	112.99	70	111.70	82
1	122.71	16	123.37	25	121.84	51
6	123.58	49	124.08	77	123.13	93
3	148.65	17	149.90	23	148.46	51
4	153.00	16	154.38	19	152.98	43
α	166.82	14	166.92	19	165.96	35

¹H (chloroform)

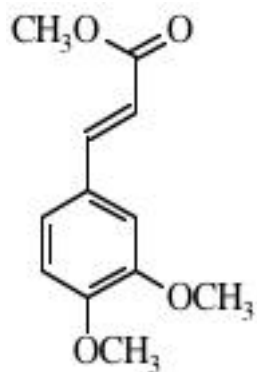
Atom	H Shifts	Mult	J
α OMe	3.89	s	
OMe	3.93	s	
OMe	3.93	s	
2	7.54	d	1.9
5	6.88	d	8.4
6	7.67	dd	8.4, 1.9

Notes:

J. Ralph JRPS 5.1
55mg

Compound Number 70

¹³C



trans

methyl 3,4-dimethoxycinnamate

¹H (chloroform)

Atom	H Shifts	Mult	J
γ OMe	3.79	s	
OMe	3.90	s	
OMe	3.90	s	
2	7.04	d	1.9
5	6.86	d	8.2
6	7.09	dd	8.2, 1.9
α	7.63	d	15.9
β	6.30	d	15.9

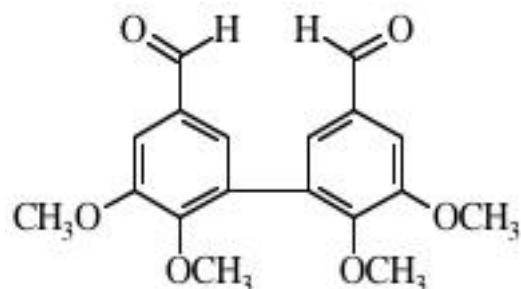
Notes:

J. Ralph JRPS 21x1
52mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ OMe	51.55	79	51.50	77	51.20	96
3 OMe	55.89	92	56.07	100	55.52	97
4 OMe	55.96	100	56.12	96	55.59	100
2	109.77	79	111.23	88	110.49	77
5	111.12	84	112.38	88	111.51	83
β	115.53	78	116.15	89	115.26	83
6	122.56	81	123.46	93	122.81	89
1	127.41	56	128.19	43	126.85	68
α	144.74	85	145.41	88	144.67	80
3	149.27	40	150.59	32	149.00	61
4	151.18	41	152.54	32	151.02	58
γ	167.58	49	167.71	39	166.92	61

Compound Number 71

¹³C



Dehydrodivertraldehyde

5,6,5',6'-Tetramethoxybiphenyl-3,3'-dicarbaldehyde

¹H (chloroform)

Atom	H Shifts	Mult	J
4 OMe	3.77	s	
3 OMe	3.99	s	
2	7.51	d	1.9
6	7.40	d	1.9
α	9.91	s	
<u>acetone</u>			
4 OMe	3.75	s	
3 OMe	4.01	s	
2	7.58	d	
6	7.44	d	
α	9.96	s	

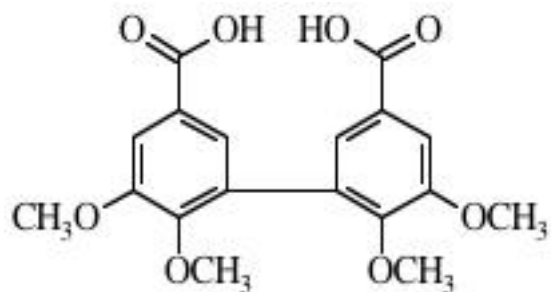
Notes:

Obst
38 mg contains impurity
As this compound has a plane of symmetry the shifts for the other half are identical.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
3 OMe	56.05	100	56.40	90	55.94	100
4 OMe	60.95	79	60.98	73	60.36	93
2	110.43	86	111.92	90	111.39	63
6	127.51	83	127.15	97	125.97	74
5	131.76	48	133.01	33	131.52	58
1	132.06	60	133.21	47	131.76	82
4	152.36	35	153.02	23	151.50	44
3	153.37	50	154.27	40	152.82	72
α	190.87	100	191.51	100	191.60	75

Compound Number 72

¹³C



Dehydrodiveratric acid

5,6,5',6'-Tetramethoxybiphenyl-3,3'-dicarboxylic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
3 OMe					55.81	98
4 OMe					60.19	100
2					112.91	48
6					124.10	65
1					125.84	73
5					131.27	62
4					150.04	67
3					152.11	94
α					166.72	60

¹H (DMSO)

Atom	H Shifts	Mult	J
3 OMe	3.64	s	
4 OMe	3.93	s	
2	7.42	d	1.9
6	7.71	d	1.9

Notes:

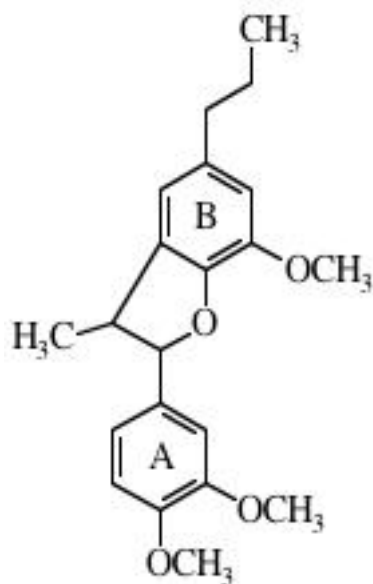
Obst 35 mg

* only soluble in DMSO * aldehyde impurity

As this compound has a plane of symmetry the shifts for the other half are identical.

Compound Number 73

¹³C



2-(3,4-Dimethoxyphenyl)-7-methoxy-3-methyl-5-propyl-2,3-dihydrobenzofuran

¹H (chloroform)

Atom	H Shifts	Mult	J
B γ	0.96	t	7.3
γ	1.37	d	6.8
B β	1.64	h	7.3
B α	2.55	t	7.3
β	4.45	dq	9.6, 6.8
OMe	3.86	s	
OMe	3.87	s	
OMe	3.88	s	
α	5.09	d	9.6
B2	6.59	s	
B6	6.62	s	
A5	6.83	d	8.2
A6	6.96	dd	8.2, 1.9
A2	7.00	dd	1.9

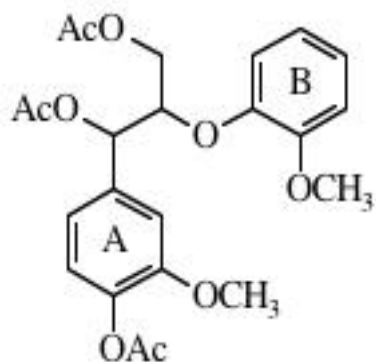
Notes:

Obst
45mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B γ	13.90	65	14.08	55	13.66	88
γ	17.47	63	17.90	55	17.18	75
B β	25.06	67	25.74	63	24.53	81
B α	38.09	63	38.53	62	37.28	69
β	45.77	60	46.47	55	44.87	68
OMe	55.92	100	56.12	100	55.47	100
OMe	55.92	100	56.12	100	55.47	100
OMe	56.00	62	56.41	60	55.66	76
α	93.48	61	93.58	62	92.11	62
A2	109.62	57	111.03	53	110.01	60
A5	110.88	58	112.57	58	111.58	60
B2	111.90	56	113.62	53	112.28	51
B6	115.44	52	116.40	55	115.37	60
A6	119.22	63	119.68	55	118.85	64
B5	132.90	25	134.07	33	132.49	55
A1	132.95	44	134.25	33	132.86	57
B1	136.30	38	136.69	32	135.46	61
B4	143.87	32	144.80	28	143.34	54
B3	145.42	25	146.57	18	144.92	37
A3	149.10	33	150.40	22	148.83	93
A4	149.16	32	150.49	23	148.83	93

Compound Number 74

¹³C



threo

Guaiacylglycerol- β -guaiacyl ether triacetate
1-(4-acetoxy-3-methoxyphenyl)-1,3-diacetoxy-2-(2-methoxyphenoxy)propane

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.63	86	20.45	89	20.28	94
Ac Me	20.68	78	20.58	84	20.35	100
Ac Me	21.02	88	20.91	61	20.63	82
OMe	55.81	100	56.21	92	55.54	100
OMe	55.96	94	56.30	100	55.76	91
γ	63.09	75	63.58	79	62.47	52
α	74.52	86	75.37	87	74.28	67
β	80.26	87	80.68	87	79.05	67
A2	111.75	86	112.66	87	111.62	64
B2	112.58	90	113.76	79	112.75	76
B5	118.79	91	119.22	95	117.47	73
A6	119.58	84	120.27	95	119.36	64
B6	121.00	90	121.66	87	120.64	76
A5	122.79	78	123.52	79	122.57	58
B1	123.31	91	123.75	87	122.62	58
A1	135.35	68	136.66	61	135.40	79
A4	139.93	49	140.88	37	139.19	58
B4	147.96	54	149.05	37	147.54	61
B3	150.84	54	151.81	39	150.13	73
A3	151.12	55	152.18	47	150.67	73
A4 Ac C=O	168.71	48	168.83	34	168.31	58
α Ac C=O	169.65	49	169.94	39	169.30	61
γ Ac C=O	170.52	51	170.62	42	169.89	67

¹H (chloroform)

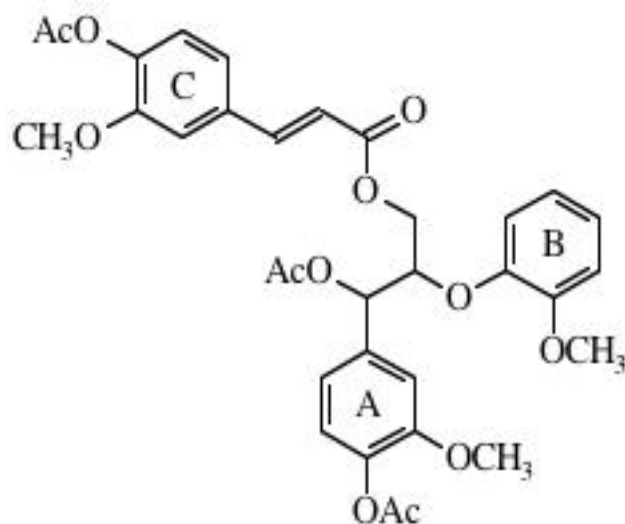
Atom	H Shifts	Mult	J
Ac Me	1.99	s	
Ac Me	2.05	s	
Ac Me	2.29	s	
OMe	3.80	s	
OMe	3.81	s	
γ 1	4.06	dd	11.9, 5.7
γ 2	4.32	dd	11.9, 4.5
α	6.12	d	6.3
β	4.63	m	

Notes:

R. Helm RFH5C
50mg

Compound Number 75

¹³C



threo

3-(4-Acetoxy-3-methoxyphenyl) acrylic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.28	s	
Ac Me	2.31	s	
Ac Me	2.07	s	
OMe	3.80	s	
OMe	3.80	s	
OMe	3.87	s	
γ1	4.20	dd	11.9, 5.2
γ2	4.42	dd	11.9, 4.2
β	4.70	m	
α	6.20	d	6.5
C β	6.35	d	15.9
C α	7.54	d	15.9

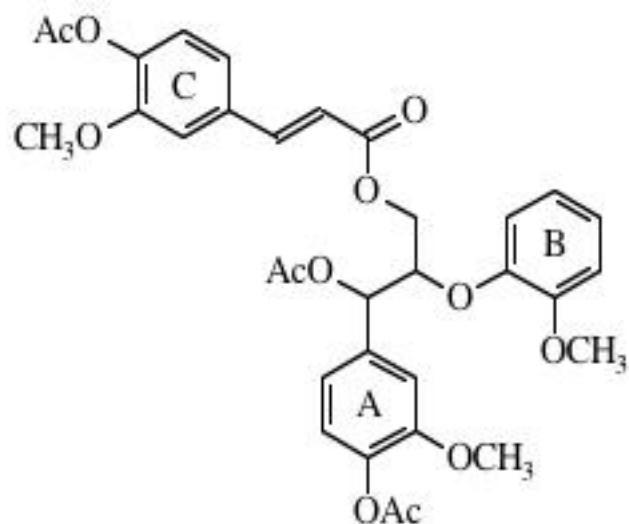
Notes:

R. Helm RFH101D1
40mg Vinyl C's at 124.08 and 145.16 in acetone. In CDCl₃ 123.23 and 144.62
Acetone 1H data in J. Ag. Food Chem. 41(4) 570-576, 1993

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.61	93	20.46	100	20.30	100
Ac Me	20.61	93	20.46	100	20.30	100
Ac Me	21.06	42	20.95	48	20.67	58
OMe	55.80	53	56.21	54	55.55	67
OMe	55.95	100	56.29	54	55.75	62
OMe	55.95	100	56.41	54	55.96	71
γ	63.35	28	63.94	39	62.87	21
α	74.64	35	75.54	39	74.44	33
β	80.51	37	80.85	41	79.20	33
C2	111.27	37	112.46	50	111.68	33
A2	111.74	35	112.70	43	111.86	46
B2	112.54	44	113.74	43	112.75	50
C β	117.58	35	118.62	48	117.53	54
B5	119.01	44	119.32	52	117.68	54
A6	119.55	40	120.29	43	119.38	33
B6	120.99	51	121.67	50	120.66	58
C6	121.44	44	122.25	46	121.62	46
A5	122.85	35	123.57	46	122.58	42
B1	123.23	49	123.78	48	122.67	38
C5	123.35	40	124.08	61	123.15	58
C1	133.16	30	134.09	30	132.81	46
A1	135.34	33	136.65	30	135.41	46
A4	139.93	26	140.91	26	139.21	50
C4	141.61	28	142.73	26	141.10	42
C α	144.62	42	145.16	48	144.30	42
B4	147.96	33	149.08	26	147.57	46
B3	150.93	33	151.87	26	150.16	46
A3	151.14	30	152.20	28	150.68	50
C3	151.42	40	152.64	35	151.13	54
C γ	166.24	28	166.62	35	165.74	50
Ac C=O	168.67	37	168.75	35	168.22	54
Ac C=O	168.70	33	168.82	26	168.29	50
Ac C=O	169.70	33	169.99	28	169.34	46

Compound Number 76

¹³C



erythro

3-(4-Acetoxy-3-methoxyphenyl) acrylic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.32	s	
Ac Me	2.29	s	
Ac Me	2.10	s	
OMe	3.77	s	
OMe	3.82	s	
OMe	3.87	s	
γ1	4.44	dd	11.9, 4.2
γ2	4.53	dd	11.9, 5.3
β	4.75	m	
α	6.14	d	5.5
C β	6.35	d	16.0
C α	7.54	d	16.0

Notes:

R. Helm RFH101D2

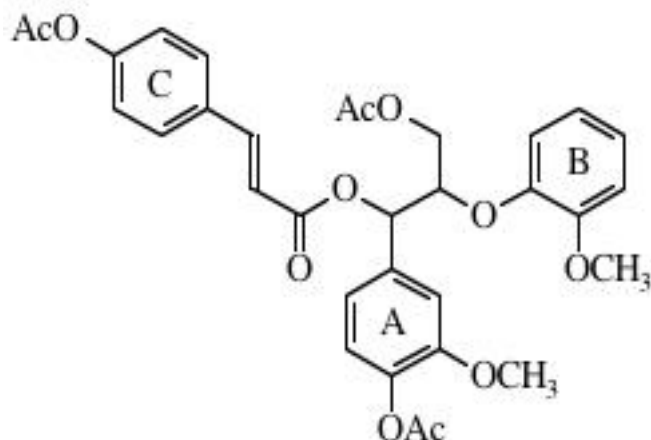
30mg Vinyl C's at 124.09 and 145.13 in acetone

Acetone 1H data in J. Ag. Food Chem. 41(4) 570-576, 1993

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.64	70	20.46	100	20.32	100
Ac Me	20.64	70	20.46	100	20.32	100
Ac Me	21.05	41	20.90	42	20.66	44
OMe	55.81	48	56.22	48	55.60	76
OMe	55.96	100	56.30	56	55.73	42
OMe	55.96	100	56.41	62	55.97	62
γ	62.88	30	63.34	36	62.26	31
α	73.96	31	74.72	42	73.28	30
β	80.46	38	80.52	44	78.58	41
C2	111.31	38	112.47	46	111.72	23
A2	112.05	33	112.77	46	111.86	34
B2	112.63	39	113.80	46	112.91	58
C β	117.70	36	118.62	40	117.70	41
B5	119.74	75	119.97	50	118.08	54
A6	119.74	75	120.44	44	119.41	32
B6	121.00	45	121.65	48	120.67	54
C6	121.44	38	122.22	48	121.60	31
A5	122.60	38	123.37	44	122.50	44
B1	123.23	44	124.09	86	122.90	44
C5	123.66	42	124.09	86	123.16	55
C1	133.22	31	134.09	32	132.80	56
A1	135.53	34	136.71	38	135.37	52
A4	139.80	30	140.79	28	139.11	44
C4	141.58	20	142.74	20	141.11	49
C α	144.61	34	145.13	48	144.28	48
B4	147.23	33	148.30	30	146.70	61
B3	151.00	30	152.11	36	150.38	38
A3	151.20	34	152.11	32	150.58	61
C3	151.42	31	152.65	32	151.16	39
C γ	166.40	34	166.64	32	165.77	45
Ac C=O	168.68	31	168.75	32	168.20	34
Ac C=O	168.75	28	168.86	28	168.31	45
Ac C=O	169.50	23	169.89	28	169.20	35

Compound Number 77

¹³C



erythro

3-(4-Acetoxyphenyl) acrylic acid 3-acetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propyl ester

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.02	s	
Ac Me	2.28	s	
Ac Me	2.30	s	
OMe	3.77	s	
OMe	3.81	s	
γ1	4.32	dd	11.9, 4.3
γ2	4.48	dd	11.9, 5.9
β	4.77	m	
α	6.20	d	5.0
C β	6.44	d	16.0
C2,6	7.13	m	8.6
C3,5	7.53	m	8.6
C α	7.65	d	16.0

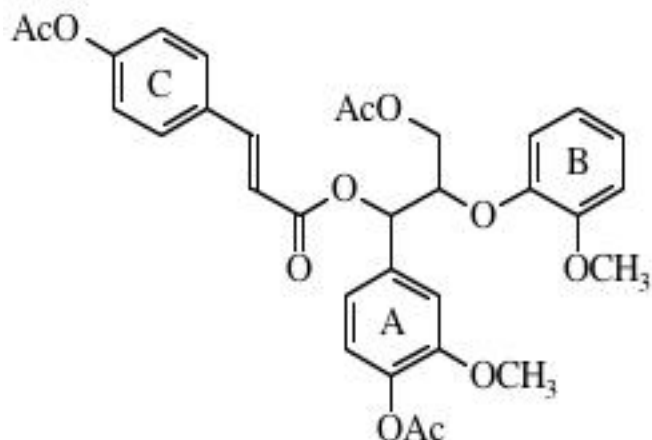
Notes:

R. Helm RFH119D1
47mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.64	64	20.46	67	20.30	71
Ac Me	20.75	57	20.62	48	20.39	77
Ac Me	21.09	60	20.95	48	20.79	68
OMe	55.82	55	56.24	60	55.61	74
OMe	55.94	64	56.31	54	55.74	74
γ	62.73	34	63.16	38	62.06	29
α	74.12	45	74.97	44	73.50	39
β	80.25	40	80.43	46	78.57	35
A2	111.88	45	112.82	42	111.73	42
B2	112.68	51	113.82	48	112.91	55
C β	117.66	47	118.65	40	117.55	48
B5	119.58	49	119.87	48	118.04	48
A6	119.66	47	120.45	46	119.31	39
B6	121.02	53	121.67	48	120.68	45
C3	122.15	91	123.20	100	122.31	100
C5	122.15	91	123.20	100	122.31	100
A5	122.60	43	123.38	44	122.52	42
B1	123.63	47	124.06	46	122.89	45
C2	129.31	100	130.25	92	129.65	97
C6	129.31	100	130.25	92	129.65	97
C1	131.91	34	132.79	35	131.49	48
A1	135.38	43	136.60	38	135.32	48
A4	139.78	34	140.82	27	139.12	48
C α	144.58	43	145.09	46	144.32	42
B4	147.18	36	148.38	25	146.76	52
B3	151.01	36	152.04	29	150.34	39
A3	151.15	38	152.11	29	150.57	35
C4	152.28	36	153.54	29	152.10	45
C γ	165.33	40	165.76	29	164.86	52
Ac C=O	168.74	32	168.85	29	168.32	55
Ac C=O	168.99	32	169.36	33	168.82	52
Ac C=O	170.72	36	170.71	31	169.95	55

Compound Number 78

¹³C



threo

3-(4-Acetoxyphenyl)acrylic acid 3-acetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propyl ester

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.01	s	
Ac Me	2.28	s	
Ac Me	2.30	s	
OMe	3.77	s	
OMe	3.82	s	
γ1	4.14	dd	11.9, 5.8
γ2	4.36	dd	11.9, 4.4
β	4.72	m	
α	6.23	d	6.4
C β	6.37	d	16.0
C2.6	7.12	m	8.6
C3.5	7.49	m	8.6
C α	7.55	d	16.0

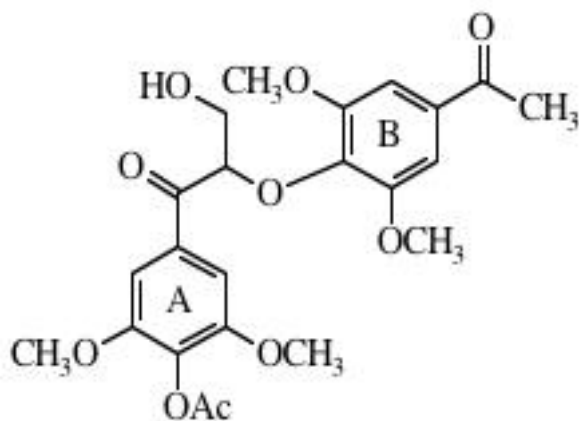
Notes:

R. Helm RFH119D2
44mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.64	56	20.44	44	20.29	78
Ac Me	20.72	56	20.60	34	20.38	74
Ac Me	21.10	51	20.95	47	20.78	63
OMe	55.77	59	56.17	59	55.53	85
OMe	55.97	59	56.31	51	55.80	74
γ	63.26	36	63.69	30	62.58	33
α	74.96	46	75.78	40	74.61	41
β	80.52	39	80.86	44	79.18	37
A2	111.71	43	112.73	34	111.71	41
B2	112.47	51	113.68	38	112.71	56
C β	117.78	49	118.73	43	117.56	56
B5	118.91	46	119.33	42	117.63	52
A6	119.49	43	120.27	45	119.36	37
B6	120.96	54	121.62	38	120.62	52
C3	122.14	90	123.16	100	122.28	100
C5	122.14	90	123.16	100	122.28	100
A5	122.84	38	123.56	38	122.57	52
B1	123.30	46	123.75	34	122.69	48
C2	129.26	100	130.15	69	129.56	93
C6	129.26	100	132.78	26	129.56	93
C1	131.96	39	132.78	26	131.50	56
A1	135.41	36	136.68	29	135.44	48
A4	139.94	38	140.94	23	139.25	52
C α	144.34	43	144.86	29	144.10	44
B4	148.08	38	149.10	26	147.56	59
B3	150.89	34	151.87	21	150.17	56
A3	151.14	36	152.21	21	150.69	44
C4	152.23	30	153.47	29	152.04	44
C γ	165.46	33	165.84	14	165.03	52
Ac C=O	168.70	30	168.77	19	168.27	37
Ac C=O	169.02	33	169.32	14	168.81	44
Ac C=O	170.56	30	170.62	22	169.90	48

Compound Number 79

¹³C



1-(4-acetoxy-3,5-dimethoxyphenyl)-2-(4-acetyl-2,6-dimethoxy phenoxy)-3-hydroxypropan-1-one

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.35	s	
B β	2.58	s	
A3,5 OMe	3.81	s	
B3,5 OMe	3.86	s	
β	5.22	dd	7.2, 3.3
A2,6	7.36	s	
B2,6	7.21	s	

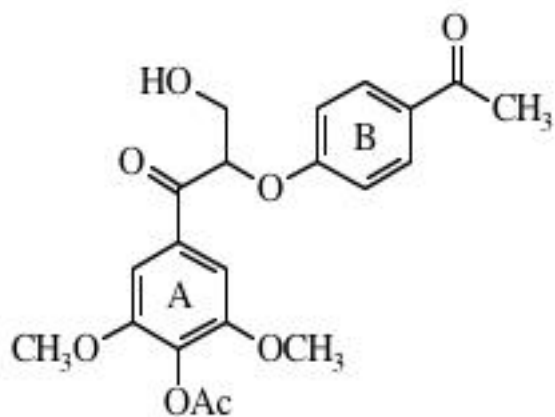
Notes:

SR III - 39
45mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.41	49	20.22	50	20.06	54
B β	26.41	57	26.54	50	26.48	53
OMe	56.24	100	56.56	82	56.01	100
OMe	56.24	100	56.56	82	56.01	100
OMe	56.39	89	56.70	100	56.18	89
OMe	56.39	89	56.70	100	56.18	89
γ	63.36	33	63.67	32	62.39	37
β	87.06	36	86.08	39	83.67	32
A2	105.72	94	106.52	84	105.44	67
A6	105.72	94	106.52	84	105.44	67
B2	105.75	76	106.62	90	105.85	70
B6	105.75	76	106.62	90	105.85	70
A1	133.17	27	133.66	27	131.79	39
A4	133.27	48	133.80	11	132.05	25
B1	133.27	48	134.87	23	133.69	37
B4	140.52	21	141.29	16	140.22	28
A3	152.33	68	153.21	94	151.62	68
A5	152.33	68	153.21	94	151.62	68
B3	152.36	70	153.21	94	151.71	79
B5	152.36	70	153.21	94	151.71	79
Ac C=O	168.05	27	168.15	21	167.60	33
B α	194.74	29	195.71	23	195.27	35
α	196.50	24	196.65	21	196.51	35

Compound Number 80

¹³C



1-(4-acetoxy-3,5-dimethoxyphenyl)-2-(4-acetylphenoxy)-3-hydroxypropan-1-one

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.34	s	
B β	2.51	s	
A3,5 OMe	3.82	s	
γ	4.19	m	
β	5.60	dd	5.8, 4.2
A2,6	7.32	s	
B3,5	6.90	m	8.9
B2,6	7.87	m	8.9

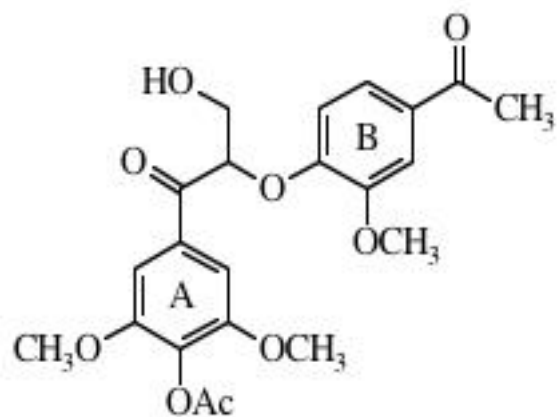
Notes:

SR III - 37
40mg
B2,6 and A1 shifts changes places in DMSO

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.40	49	20.21	46	20.05	51
B β	26.33	56	26.34	50	26.28	53
OMe	56.36	100	56.76	100	56.31	100
OMe	56.36	100	56.76	100	56.31	100
γ	63.32	38	63.94	37	62.41	29
β	81.33	49	82.26	40	80.64	32
A2	105.67	89	106.40	90	105.42	64
A6	105.67	89	106.40	90	105.42	64
B3	114.83	85	115.68	96	114.78	73
B5	114.83	85	115.68	96	114.78	73
B2	130.78	92	131.20	87	130.36	66
B6	130.78	92	131.20	87	130.36	66
A1	131.38	33	131.80	23	130.19	37
B1	132.25	31	133.97	29	132.74	34
A4	133.87	18	134.34	12	132.55	24
A3	152.55	60	153.47	46	151.98	64
A5	152.55	60	153.47	46	151.98	64
B4	161.00	33	162.44	27	161.22	41
Ac C=O	168.06	24	168.11	19	167.62	34
B α	194.60	29	195.47	19	194.76	34
α	196.64	31	196.21	17	196.08	31

Compound Number 81

¹³C



1-(4-acetoxy-3,5-dimethoxyphenyl)-2-(4-acetoxy-2-methoxyphenoxy)-3-hydroxypropan-1-one

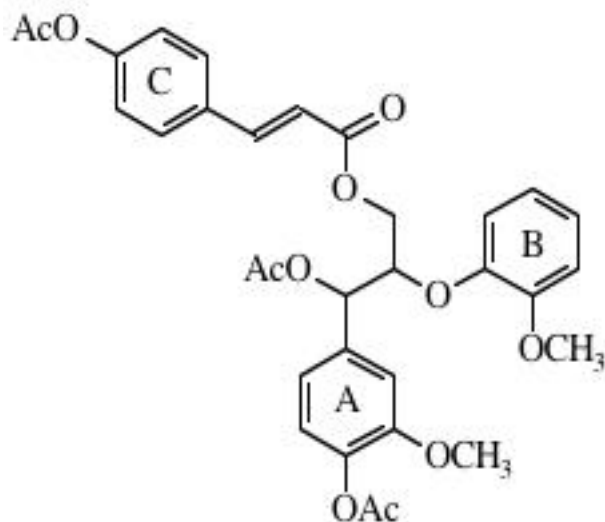
¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.34	s	
B β	2.53	s	
B3 OMe	3.89	s	
A3,5 OMe	3.85	s	
γ	4.17	d	5.1
β	5.53	t	5.1
A2,6	7.38	s	
B2	7.53	d	2.0
B5	6.82	d	8.4
B6	7.45	dd	8.4, 2.0

Notes:

SR III - 38
17mg
B1 and A4 switch places in DMSO A4 has very low intensity and is easy to follow

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.39	38	20.21	45	20.05	38
B β	26.23	67	26.30	55	26.23	71
B OMe	55.91	56	56.28	45	55.55	41
A OMe	56.32	59	56.69	100	56.22	100
A OMe	56.32	59	56.69	100	56.22	100
γ	63.47	27	63.91	42	62.32	32
β	83.63	38	83.76	50	81.51	46
A2	105.80	100	106.56	92	105.45	66
A6	105.80	100	106.56	92	105.45	66
B2	111.17	40	112.34	45	111.05	46
B5	114.89	33	114.72	45	113.02	56
B6	123.01	41	123.46	53	122.65	41
A1	132.23	35	132.37	21	130.46	47
B1	132.38	37	134.04	21	132.75	51
A4	133.75	16	134.22	11	132.46	21
B3	149.76	33	150.40	21	148.67	47
B4	150.76	16	152.27	21	150.96	50
A3	152.47	57	153.35	45	151.87	54
A5	152.47	57	153.35	45	151.87	54
Ac C=O	168.00	16	168.08	24	167.57	24
B α	194.85	17	195.94	24	195.02	50
α	196.57	21	196.27	21	196.14	41

Compound Number 82
¹³C

threo
4-Acetyoxycinnamic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propyl ester
¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.07	s	
Ac Me	2.28	s	
Ac Me	2.30	s	
OMe	3.79	s	
OMe	3.80	s	
γ1	4.23	dd	11.9, 5.8
γ2	4.42	dd	11.9, 4.2
β	4.72	m	
α	6.19	d	6.3
C β	6.34	d	16.0
C2,6	7.12	m	8.6
C3,5	7.51	m	8.6
C α	7.55	d	16.0

Notes:

R. Helm RFH87D1

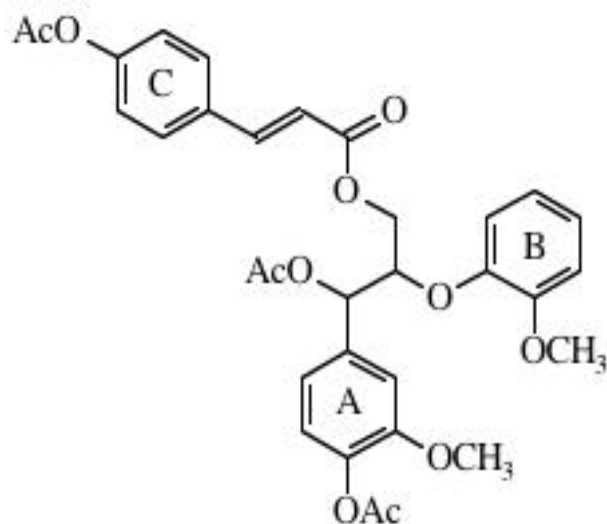
36.6mg

129.85 and 129.57 for Bα and C2,6 change places in DMSO see 1019

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.63	38	20.46	38	20.29	45
Ac Me	21.07	55	20.95	89	20.67	52
Ac Me	21.10	60	20.95	89	20.78	57
OMe	55.81	49	56.21	52	55.55	67
OMe	55.95	44	56.28	52	55.75	52
γ	63.39	28	63.93	33	62.86	21
α	74.62	36	75.53	21	74.43	33
β	80.50	36	80.88	41	79.25	33
A2	111.78	33	112.71	38	111.70	31
B2	112.55	42	113.75	42	112.76	45
C β	117.58	39	118.56	41	117.51	40
B5	118.98	47	119.36	47	117.59	50
A6	119.56	35	120.30	34	119.38	29
B6	121.01	43	121.68	51	120.66	48
C3	122.13	100	123.17	100	122.29	100
C5	122.13	100	123.17	100	122.29	100
A5	122.84	36	123.56	36	122.59	40
B1	123.35	41	123.78	48	129.85	17
C2	129.30	83	130.20	82	129.57	90
C6	129.30	83	130.20	82	129.57	90
C1	131.95	35	132.78	29	131.49	43
A1	135.36	34	136.67	30	135.43	40
A4	139.94	32	140.90	18	139.21	40
C α	144.22	44	144.71	42	143.87	40
B4	148.00	30	149.10	27	147.59	50
B3	150.92	30	151.88	21	150.18	43
A3	151.14	28	152.20	23	150.67	36
C4	152.23	27	153.48	27	152.04	40
C γ	166.28	32	166.56	30	165.66	40
Ac C=O	168.70	25	168.81	22	168.28	33
Ac C=O	169.02	32	169.35	36	168.83	45
Ac C=O	169.68	25	169.96	22	169.32	40

Compound Number 83

¹³C



erythro

4-Acetoxy-cinnamic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propyl ester

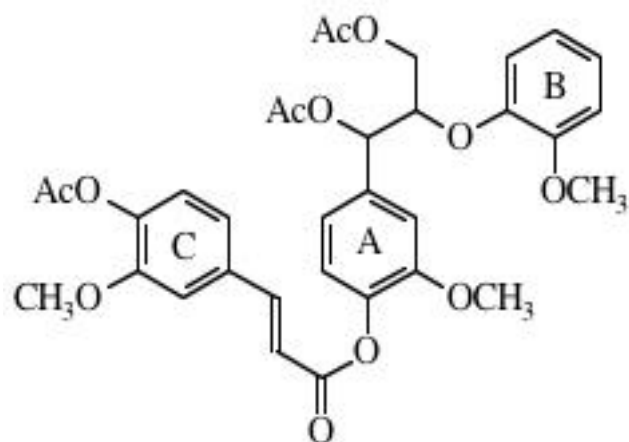
¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.10	s	
Ac Me	2.29	s	
Ac Me	2.30	s	
OMe	3.76	s	
OMe	3.81	s	
γ1	4.47	dd	11.9, 4.2
γ2	4.75	dd	11.9, 5.6
β	4.75	m	
α	6.14	d	5.4
C β	6.35	d	16.0
C α	7.56	d	16.0

Notes:

Rich Helm RFH87D2
38.6mg
see 1020

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.65	50	20.47	40	20.29	65
Ac Me	21.03	50	20.90	42	20.63	58
Ac Me	21.10	51	20.95	50	20.78	62
OMe	55.80	49	56.21	50	55.58	69
OMe	55.94	54	56.28	48	55.70	58
γ	62.93	32	63.34	34	62.26	23
α	74.01	39	74.73	42	73.28	35
β	80.43	44	80.54	36	78.58	31
A2	112.04	39	112.78	36	111.71	42
B2	112.64	40	113.79	46	112.89	46
C β	117.67	46	118.54	44	117.46	46
B5	119.73	71	120.01	44	118.09	46
A6	119.73	71	120.44	44	119.39	35
B6	121.01	44	121.64	48	120.65	46
C3	122.11	100	123.17	100	122.29	100
C5	122.11	100	123.17	100	122.29	100
A5	122.59	42	123.35	42	122.48	42
B1	123.66	46	124.09	44	122.89	46
C2	129.30	90	130.18	98	129.54	96
C6	129.30	90	130.18	98	129.54	96
C1	132.00	31	132.77	46	131.46	35
A1	135.53	39	136.71	30	135.36	46
A4	139.80	33	140.78	34	139.08	46
C α	144.19	43	144.68	38	143.85	46
B4	147.25	29	148.31	22	146.69	46
B3	151.00	35	152.10	46	150.35	42
A3	151.19	33	152.10	46	150.55	50
C4	152.21	24	153.48	22	152.02	38
C γ	166.42	33	166.57	30	165.67	46
Ac C=O	168.74	25	168.84	24	168.32	46
Ac C=O	169.02	31	169.35	26	168.84	50
Ac C=O	169.50	35	169.87	24	169.21	46

Compound Number 84
¹³C

erythro
3-(4-Acetoxy-3-methoxyphenyl)acrylic acid 4-[1,3-diacetoxy-2-(2-methoxyphenoxy)propyl]phenyl ester
¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.03	s	
Ac Me	2.10	s	
Ac Me	2.32	s	
OMe	3.79	s	
OMe	3.82	s	
OMe	3.86	s	
γ1	4.27	dd	11.9, 4.0
γ2	4.47	dd	11.9, 5.6
β	4.69	m	
α	6.11	d	5.4
C β	6.60	d	15.9
C α	7.80	d	15.9

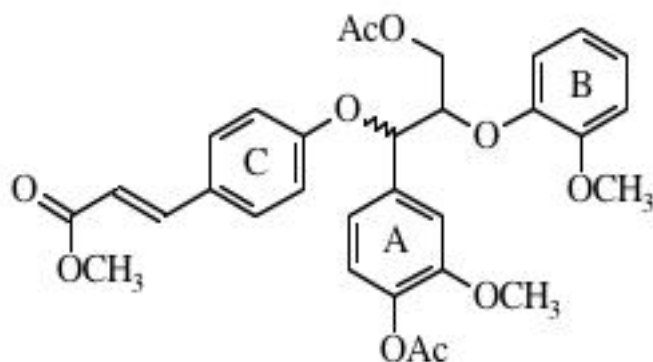
Notes:

R. Helm RFH9D
39.4mg
see 1026

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.62	77	20.47	92	20.31	81
Ac Me	20.76	68	20.61	79	20.37	88
Ac Me	21.01	70	20.87	74	20.60	81
OMe	55.81	85	56.21	100	55.58	100
OMe	55.94	79	56.28	89	55.72	75
OMe	56.00	100	56.44	89	55.98	100
γ	62.59	57	63.00	68	61.89	44
α	73.84	57	74.61	74	73.17	50
β	80.22	57	80.32	71	78.40	44
C2	111.41	68	112.60	74	111.69	44
A2	112.04	57	112.79	61	112.13	56
B2	112.68	64	113.81	87	112.90	69
C β	117.16	57	118.04	71	117.09	50
B5	119.55	68	119.82	84	117.96	69
A6	119.75	55	120.45	71	119.36	44
B6	121.01	64	121.63	95	120.64	75
C6	121.54	68	122.47	79	121.90	56
A5	122.67	55	123.42	66	122.54	44
B1	123.33	68	124.04	84	122.87	56
C5	123.63	60	124.16	82	123.18	62
C1	133.17	49	134.02	63	132.77	50
A1	135.48	45	136.73	50	135.40	50
A4	139.77	40	140.70	39	139.03	50
C4	141.78	40	142.96	34	141.30	50
C α	145.85	57	146.39	66	145.79	50
B4	147.18	47	148.26	39	146.63	69
B3	151.10	57	152.04	50	150.32	62
A3	151.14	51	152.17	55	150.63	62
C3	151.49	53	152.73	61	151.17	62
C γ	164.57	42	164.96	50	164.22	50
Ac C=O	168.64	51	168.74	58	168.21	56
Ac C=O	169.50	40	169.86	50	169.20	56
Ac C=O	170.74	38	170.70	42	169.96	69

Compound Number 85

¹³C



3-{4-[3-Acetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propoxy]phenyl}acrylic acid methyl ester

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	1.95	s	
Ac Me	2.27	s	
OMe	3.71	s	
OMe	3.76	s	
OMe	3.77	s	
γ	4.61	m	
β	4.46	m	
α	5.51	d	5.0
C β	6.27	d	16.0
C3,5	6.88	m	8.7
C2,6	7.39	m	8.7
C α	7.59	d	16.0

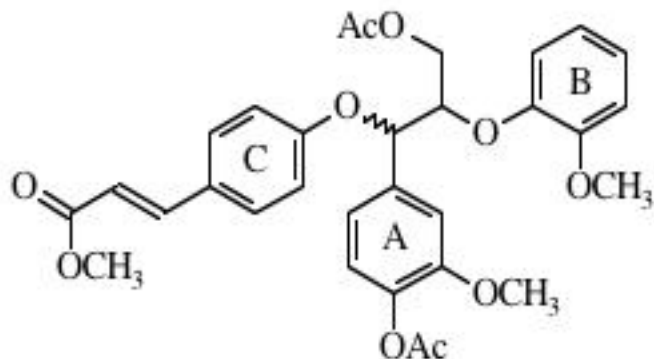
Notes:

R. Helm RFH111D1
39.0 mg
Isomer of 86

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.62	54	20.45	55	20.29	77
Ac Me	20.72	51	20.60	48	20.39	71
C γ OMe	51.54	49	51.52	52	51.19	71
OMe	55.72	56	56.17	61	55.53	87
OMe	55.96	52	56.27	61	55.70	81
γ	62.79	41	63.18	42	62.20	39
α	78.84	44	79.69	52	77.75	45
β	82.13	43	81.73	48	79.67	48
A2	110.95	47	112.62	48	111.97	45
B2	112.61	48	113.79	55	112.85	61
C β	115.75	48	116.52	52	115.50	52
C3	116.22	100	117.18	100	116.08	94
C5	116.22	100	117.18	100	116.08	94
B5	119.05	44	119.93	55	117.78	58
A6	119.92	54	120.27	45	119.39	45
B6	121.05	48	121.63	55	120.62	61
A5	122.86	49	123.50	52	122.52	45
B1	123.75	44	123.99	48	122.69	45
C1	127.82	47	128.60	35	127.21	58
C2	129.63	95	130.56	94	129.96	100
C6	129.63	95	130.56	94	129.96	100
A1	136.23	46	137.03	42	135.78	55
A4	139.65	32	140.73	26	139.00	58
C α	144.26	44	144.77	55	143.99	52
B4	147.06	34	148.41	29	146.95	61
B3	151.23	35	152.04	29	150.26	65
A3	151.32	34	152.26	32	150.58	58
C4	159.48	34	160.44	32	158.88	61
A γ C=O	167.59	32	167.59	29	166.74	65
A4 C=O	168.70	30	168.78	29	168.24	42
C γ	170.74	39	170.69	32	169.98	65

Compound Number 86

¹³C



3-{4-[3-Acetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propoxy]phenyl}acrylic acid methyl ester

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	1.99	s	
Ac Me	2.28	s	
C γ OMe	3.75	s	
OMe	3.77	s	
OMe	3.79	s	
γ1	4.13	dd	11.8, 5.9
γ2	4.42	dd	11.7, 4.3
β	4.68	m	
α	5.51	d	5.3
C β	6.27	d	16.0
C2,6	7.37	m	8.7
C α	7.59	d	16.0

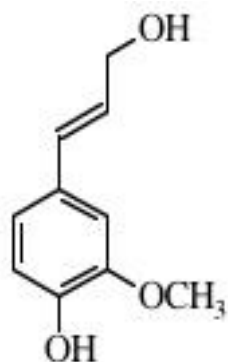
Notes:

Rich Helm RFH111D2
35mg
Isomer of 85

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.62	62	20.45	50	20.28	92
Ac Me	20.72	55	20.59	50	20.36	84
C γ OMe	51.53	51	51.52	55	51.17	72
OMe	55.69	55	56.14	50	55.45	92
OMe	55.96	59	56.30	52	55.74	80
γ	63.32	37	63.70	36	62.55	36
α	79.79	43	80.57	43	78.99	44
β	81.51	43	81.71	48	79.91	44
A2	111.00	45	112.61	48	111.77	44
B2	112.43	53	113.68	52	112.70	60
C β	115.68	51	116.43	40	115.36	52
C3	116.25	99	117.12	95	116.02	100
C5	116.25	99	117.12	95	116.02	100
B5	119.13	46	119.33	48	117.27	56
A6	119.23	50	120.27	48	119.42	44
B6	120.95	55	121.61	45	120.58	64
A5	122.93	46	123.67	64	122.35	44
B1	123.40	49	123.67	64	122.70	44
C1	127.72	38	128.47	43	127.02	60
C2	129.58	100	130.52	100	129.90	100
C6	128.58	100	130.52	43	129.90	100
A1	135.56	42	136.80	43	135.66	56
A4	139.86	29	140.88	26	139.12	52
C α	144.28	50	144.80	48	144.02	52
B4	148.03	33	149.21	29	147.68	56
B3	150.94	29	151.85	29	150.07	56
A3	151.42	33	152.37	26	150.75	52
C4	159.50	39	160.59	31	159.19	60
C γ C=O	167.60	39	167.60	29	166.74	64
A4 C=O	168.64	28	168.76	29	168.21	52
A γ	170.50	33	170.62	24	169.91	60

Compound Number 87

¹³C



trans

Coniferyl alcohol
4-hydroxy-3-methoxy cinnamyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.88	100	56.20	100	55.47	100
γ	63.71	87	63.42	80	61.63	86
2	108.52	80	110.06	76	109.66	84
5	114.57	93	115.76	83	115.36	86
6	120.25	87	120.60	91	119.30	86
β	126.22	90	128.07	78	127.38	91
1	129.30	45	130.26	41	128.41	67
α	131.24	82	130.45	72	128.87	81
4	145.63	46	147.14	41	146.06	67
3	146.75	38	148.41	30	147.60	63

¹H (acetone)

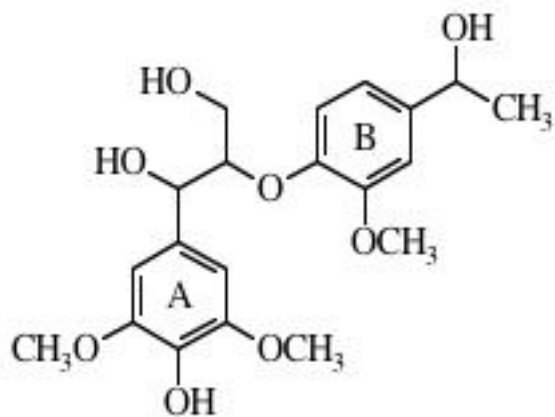
Atom	H Shifts	Mult	J
γ OH	3.78	t	5.6
OMe	3.86	s	
γ's	4.18	td	5.5, 1.5
β	6.22	dt	15.9, 5.5
α	6.49	dt	15.9, 15
5	6.76	d	8.1
6	6.84	dd	8.1, 1.9
2	7.04	d	1.9
4 OH	7.63	s	

Notes:

Aldrich
30mg
Proton data from 360 MHz spectrum in acetone..S.Q.

Compound Number 88

¹³C



threo

1-(4-Hydroxy-3,5-dimethoxyphenyl)-2-[4-(1-hydroxyethyl)-2-methoxyphenoxy]propane-1,3-diol

¹H (acetone)

Atom	H Shifts	Mult	J
B β	1.38	d	6.4
B OMe	3.87	s	
A3,5 OMe	3.80	s	
α OH	4.50	d	3.9
A2,6	6.77	s	

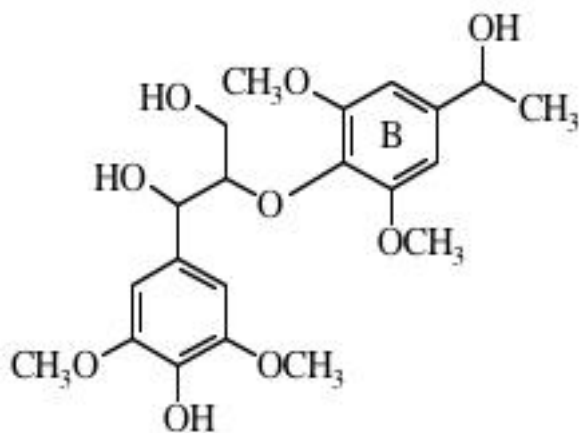
Notes:

S Ralph SRIII-43
30mg Small amount of 4 Ac present.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.24	37	26.23	47	25.84	70
B OMe	55.87	47	56.27	59	55.44	69
A OMe	56.33	100	56.59	100	55.73	100
A OMe	56.33	100	56.59	100	55.73	100
γ	61.04	28	61.94	34	59.99	26
B α	69.95	48	69.73	54	67.80	63
α	74.12	33	74.05	46	70.87	28
β	89.03	30	88.50	32	84.39	21
A2	103.79	66	105.36	95	104.06	53
A6	103.79	66	105.36	95	104.06	53
B2	109.30	36	110.58	39	109.65	27
B5	118.40	35	118.65	44	115.29	27
B6	120.27	22	119.45	34	117.20	36
A1	130.71	28	132.80	22	131.93	34
A4	134.56	25	136.12	20	134.24	29
B1	142.02	29	142.85	6	140.36	31
B4	146.66	25	148.27	29	146.73	33
A3	147.09	52	148.38	43	147.30	73
A5	147.09	52	148.38	43	147.30	73
B3	150.99	18	151.38	21	149.23	37

Compound Number 89

¹³C



threo

1-(4-Hydroxy-3,5-dimethoxyphenyl)-2-[4-(1-hydroxyethyl)-2,6-dimethoxyphenoxy]propane-1,3-diol

¹H (acetone)

Atom	H Shifts	Mult	J
B β	1.39	d	6.4
A3,5 OMe	3.80	s	
B3,5 OMe	3.89	s	
B α	4.81	m	
α	4.97	dd	7.3, 2.9
B2,5	6.77	s	
A2,6	6.76	s	
γ 2	3.31	m	
B α OH	4.27	d	4.1
α OH	4.44	d	2.9

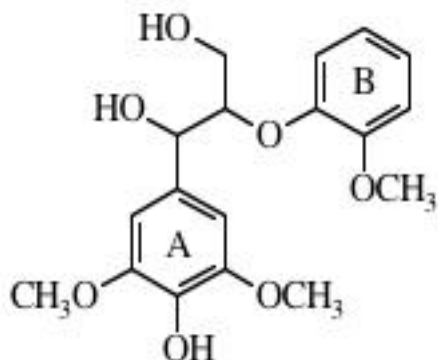
Notes:

S Ralph SRIII-44
30mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.43	37	26.27	45	25.84	28
OMe	56.12	94	56.50	100	55.80	100
OMe	56.12	94	56.50	100	55.80	100
OMe	56.31	100	56.57	95	55.80	100
OMe	56.31	100	56.57	95	55.80	100
γ	60.48	31	61.41	29	60.15	12
B α	70.21	43	69.98	41	68.09	26
α	74.34	37	74.22	36	71.54	16
β	88.97	37	89.69	36	87.11	16
B2	102.27	75	103.41	87	102.49	32
B6	102.27	75	103.41	87	102.49	32
A2	104.04	70	105.46	72	104.14	30
A6	104.04	70	105.46	72	104.14	30
A1	130.99	33	132.60	25	131.97	17
B1	134.10	21	135.54	12	134.22	15
A4	134.46	31	136.11	21	134.50	17
B4	142.94	32	144.61	26	142.91	17
A3	147.02	56	148.30	36	147.25	36
A5	147.02	56	148.30	36	147.25	36
B3	152.88	56	153.58	42	152.14	35
B5	152.88	56	153.58	42	152.14	35

Compound Number 90

¹³C



threo

Syringylglycerol- β -guaiacyl ether

□ 1-(4-Hydroxy-3,5-dimethoxyphenyl)-2-(2-methoxyphenoxy) propane
-1,3-diol

¹H (acetone)

Atom	H Shifts	Mult	J
B OMe	3.86	s	
A3,5 OMe	3.79	s	
α	4.88	dd	6.0, 3.7
β	4.22	m	
α OH	4.49	d	3.7
A2,6	6.86	s	

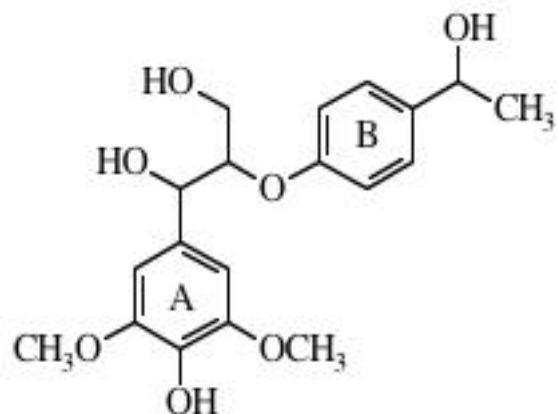
Notes:

S. Ralph SRIII-45
30mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B OMe	55.88	56	56.24	62	55.45	75
A OMe	56.32	100	56.54	100	55.72	100
A OMe	56.32	100	56.54	100	55.72	100
γ	61.02	37	61.89	40	60.01	18
α	74.16	39	73.97	40	70.88	36
β	89.22	34	88.19	46	84.03	32
A2	103.81	64	105.28	74	104.07	59
A6	103.81	64	105.28	74	104.07	59
B2	112.16	50	113.27	39	112.38	51
B5	120.86	40	119.66	4	115.52	33
B6	121.67	53	121.91	52	120.58	51
B1	124.17	40	123.30	56	120.90	37
A1	130.71	24	132.72	23	131.89	39
A4	134.57	19	136.07	16	134.26	30
A3	147.10	49	148.34	36	147.31	72
A5	147.10	49	148.34	36	147.31	72
B4	147.58	17	149.60	18	148.18	26
B3	151.22	23	151.65	15	149.55	33

Compound Number 91

¹³C



1-(4-Hydroxy-3,5-dimethoxyphenyl)-2-[4-(1-hydroxyethyl)phenoxy]propane-1,3-diol

¹H (acetone)

Atom	H Shifts	Mult	J
B β	1.35	d	6.4
A3,5 OMe	3.79	s	
A2,6	6.77	s	
B2,6	7.23	m	8.6

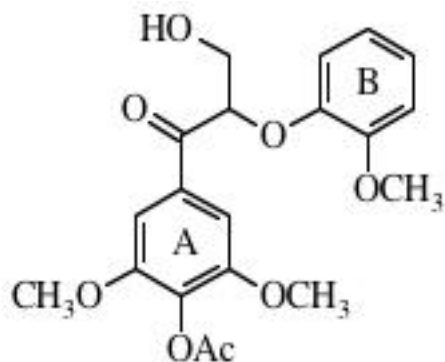
Notes:

S. Ralph SRIII-46
20mg contains 4-AC impurity.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.07	39	26.17	58	25.81	88
A OMe	56.34	100	56.58	94	55.82	100
A OMe	56.34	100	56.58	94	55.82	100
γ	61.14	30	61.73	32	60.01	27
B α	69.75	42	69.50	58	67.57	73
α	73.85	28	73.54	34	71.09	33
β	82.97	24	84.14	32	83.01	33
A2	103.70	52	105.27	64	104.12	58
A6	103.70	52	105.27	64	104.12	58
B3	116.34	64	116.64	100	115.34	100
B5	116.34	64	116.64	100	115.34	100
B2	126.84	84	127.15	90	126.13	85
B6	126.84	84	127.15	90	126.13	85
A1	130.90	23	133.23	26	132.31	39
A4	134.56	23	136.00	14	134.31	30
B1	139.33	23	140.47	20	139.21	39
A3	147.07	44	148.32	44	147.36	76
A5	147.07	44	148.32	44	147.36	76
B4	157.42	19	158.98	18	157.69	42

Compound Number 92

¹³C



1-(4-acetoxy-3,5-dimethoxyphenyl)-3-hydroxy-2-(2-methoxyphenoxy)propan-1-one

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.34	s	
B OMe	3.82	s	
A3,5 OMe	3.83	s	
γ	4.09	d	5.2
β	5.38	t	5.2
A2,6	7.36	s	

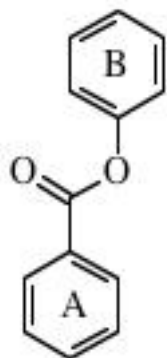
Notes:

S. Ralph SR111-40
30mg *A1 + A4 switch around in CDCl3

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.41	54	20.21	44	20.04	65
B OMe	55.73	54	56.07	49	55.39	60
A OMe	56.29	100	56.60	100	56.12	100
A OMe	56.29	100	56.60	100	56.12	100
γ	63.39	40	63.88	21	62.35	38
β	84.41	47	84.02	36	81.59	32
A2	105.84	87	106.50	82	105.38	68
A6	105.84	87	106.50	82	105.38	68
B2	112.33	49	113.57	41	112.64	38
B5	117.86	42	116.84	29	114.73	32
B6	121.23	50	121.57	53	120.49	48
B1	123.61	42	123.15	40	121.67	38
A4	133.42	12	133.93	7	132.25	20
A1	132.81	28	134.31	18	132.99	37
B4	146.71	23	148.17	16	146.73	35
B3	150.24	26	150.90	16	149.13	33
A3	152.32	48	153.19	34	151.75	77
A5	152.32	48	153.19	34	151.75	77
Ac C=O	168.06	20	168.10	17	167.58	32
α	195.72	22	196.70	20	195.86	35

Compound Number 93

¹³C



Phenyl benzoate
Benzoic acid phenyl ester

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B3	121.70	90	122.61	89	121.85	85
B5	121.70	90	122.61	89	121.85	85
B1	125.84	52	126.51	51	125.92	43
A2	128.54	100	129.47	100	128.88	100
A6	128.54	100	129.47	100	128.88	100
B2	129.45	100	130.15	96	129.50	100
B6	129.45	100	130.15	96	129.50	100
A1	129.57	15	130.42	19	128.94	25
A3	130.13	95	130.60	98	129.72	99
A5	130.13	95	130.60	98	129.72	99
A4	133.53	48	134.39	54	133.93	42
B4	150.96	12	151.99	14	150.62	27
α	165.11	9	165.32	9	164.51	15

¹H (chloroform)

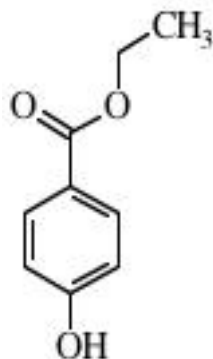
Atom	H Shifts	Mult	J
A2,6	8.21	m	8.3

Notes:

Aldrich
60mg
A1 changes position in DMSO

Compound Number 94

¹³C



Ethyl 4-hydroxybenzoate
ethyl 4-hydroxybenzoate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3	14.30	46	14.63	47	14.24	53
CH2	61.13	44	60.84	42	60.04	44
3	115.34	100	115.92	100	115.27	91
5	115.34	100	115.92	100	115.27	91
1	122.13	21	122.69	10	120.61	20
2	131.94	90	132.30	90	131.35	100
6	131.94	90	132.30	90	131.35	100
4	160.74	26	162.44	22	161.93	40
α	167.45	17	166.49	10	165.56	21

¹H (chloroform)

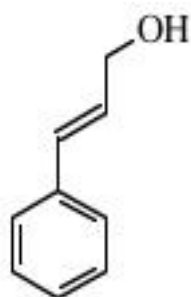
Atom	H Shifts	Mult	J
CH3	1.39	t	7.1
CH2	4.36	q	7.1
A3,5	6.91	m	8.8
A2,6	7.95	m	8.8

Notes:

Aldrich
60mg

Compound Number 95

¹³C



trans

Cinnamyl alcohol

(E)-3-phenyl-2-propen-1-ol(E)-cinnamyl alcohol

¹H (chloroform)

Atom	H Shifts	Mult	J
γ	4.25	dd	5.6, 1.1
β	6.30	dt	15.9, 5.6
α	6.54	dt	15.9, 1.1

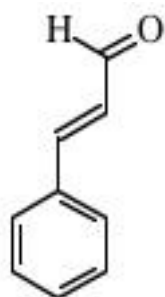
Notes:

Fluka
60mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	63.39	41	63.12	52	61.50	42
2	126.40	72	126.98	100	126.05	88
6	126.40	72	126.98	100	126.05	88
β	127.57	41	127.93	51	127.08	48
3	128.52	100	129.25	95	128.49	100
5	128.52	100	129.25	95	128.49	100
4	128.52	100	129.90	42	128.37	40
α	130.86	34	130.90	49	130.72	47
1	136.66	13	138.08	14	136.87	18

Compound Number 96

¹³C



trans

Cinnamaldehyde
(E)-3-phenyl-2-propenal(E)-cinnamaldehyde

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
2	128.45	100	129.30	91	128.69	100
6	128.45	100	129.30	91	128.69	100
4	128.45	100	129.40	48	128.50	48
3	129.04	92	129.81	100	129.02	96
5	129.04	92	129.81	100	129.02	96
β	131.20	41	131.78	55	131.13	48
1	133.96	12	135.19	12	134.07	23
α	152.66	21	153.19	32	153.00	35
γ	193.54	25	193.96	30	194.19	32

¹H (chloroform)

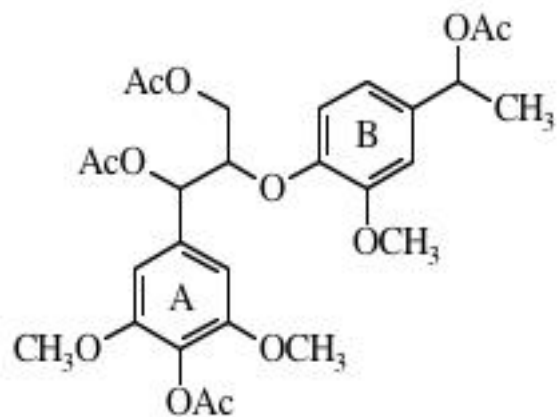
Atom	H Shifts	Mult	J
β	6.69	dd	16.0, 7.7
α	7.50	d	16.0
γ	9.68	d	7.7

Notes:

Fluka
60mg

Compound Number 97

¹³C



threo

1-(4-acetoxy-3,5-dimethoxyphenyl)-1,3-diacetoxy-2-[4-(1-acetoxyethyl)-2-methoxyphenoxy]

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.00	s	
Ac Me	2.06	s	
Ac Me	2.07	s	
Ac Me	2.32	s	
B β	1.52	d	6.6
B OMe	3.83	s	
A3,5 OMe	3.81	s	
γ1	4.07	dd	11.8, 5.7
γ2	4.32	dd	11.8, 4.6
β	4.60	m	
B α	5.82	q	6.6
α	6.08	d	6.2
A2,6	6.67	s	

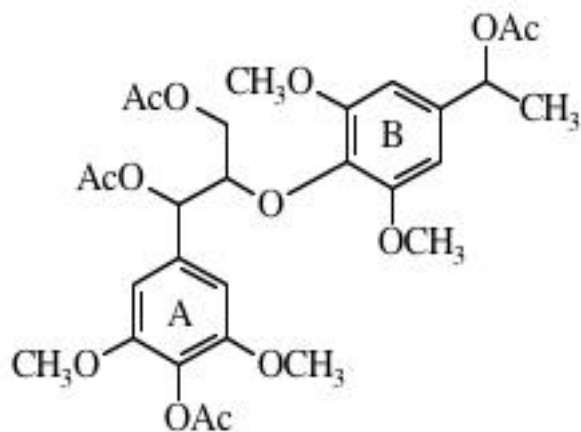
Notes:

S. Ralph SRIII-43
40mg
ca 90% threo

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.42	42	20.23	49	20.04	58
Ac Me	20.70	32	20.62	46	20.37	67
Ac Me	21.04	37	20.93	40	20.63	50
Ac Me	21.35	42	21.15	44	20.93	67
B β	22.08	34	22.46	40	21.87	42
B OMe	55.88	50	56.29	59	55.61	54
A OMe	56.21	100	56.52	100	55.96	100
A OMe	56.21	100	56.52	100	55.96	100
γ	62.98	21	63.58	37	62.42	25
B α	72.06	26	72.40	48	71.35	42
α	74.65	24	75.64	41	74.54	29
β	80.12	24	80.68	33	79.08	29
A2	104.09	55	104.93	81	103.91	33
A6	104.09	55	104.93	81	103.91	33
B2	110.64	18	111.71	32	110.55	21
B5	118.22	24	118.71	30	117.03	33
B6	118.65	26	119.18	43	118.05	42
A4	128.83	18	129.65	10	127.78	21
A1	134.71	32	136.12	32	134.92	38
B1	136.72	26	137.72	24	136.00	33
B4	147.53	16	148.51	22	146.99	42
B3	150.58	32	151.52	25	149.82	42
A3	152.17	53	153.14	51	151.52	75
A5	152.17	53	153.14	51	151.52	75
A4 Ac C=O	168.47	26	168.40	21	167.88	33
α Ac C=O	169.66	18	169.96	19	169.32	33
B αAc C=O	170.27	24	170.17	17	169.52	38
γAc C=O	170.55	26	170.65	19	169.92	33

Compound Number 98

¹³C



threo

1-(4-acetoxy-3,5-dimethoxyphenyl)-1,3-diacetoxy-2-[4-(1-acetoxyethyl)-2,6-dimethoxyphenoxy]propane

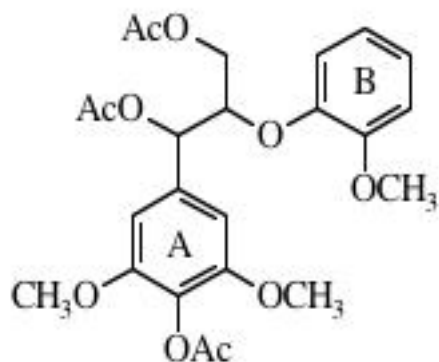
¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.01	s	
Ac Me	2.07	s	
Ac Me	2.08	s	
Ac Me	2.32	s	
B β	1.52	d	6.6
OMe	3.78	s	
OMe	3.80	s	
γ1	3.94	dd	11.8, 7.3
γ2	4.36	dd	11.8, 4.5
β	4.54	m	
B α	5.79	q	6.6
α	6.12	d	6.1
B2,6	6.55	s	
A2,6	6.70	s	

Notes:

S. Ralph SR111-44
131mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.42	47	20.23	40	20.06	49
Ac Me	20.72	42	20.63	35	20.37	46
Ac Me	21.02	31	20.92	31	20.62	35
Ac Me	21.33	36	21.14	41	20.95	57
Bβ	22.25	31	22.56	29	22.02	32
OMe	56.02	96	56.36	91	55.78	100
OMe	56.02	96	56.36	91	55.78	100
OMe	56.21	100	56.45	100	55.98	95
OMe	56.21	100	56.45	100	55.98	95
γ	63.53	18	64.18	32	63.22	22
B α	72.35	25	72.68	35	71.72	37
α	75.61	31	76.62	26	75.73	18
β	80.64	35	81.44	33	80.27	23
B2	103.14	46	103.92	55	102.85	38
B6	103.14	46	103.92	55	102.85	38
A2	104.18	46	104.78	57	103.76	49
A6	104.18	46	104.78	57	103.76	49
A4	128.64	14	129.42	9	127.75	11
A1	135.46	28	136.61	29	135.39	32
B1	135.95	11	136.96	17	135.48	35
B4	137.57	32	138.68	26	137.40	35
A3	151.98	61	152.94	49	151.52	65
A5	151.98	61	152.94	49	151.52	65
B3	152.87	38	153.69	49	152.27	66
B5	152.87	38	153.69	49	152.27	66
A4 Ac C=O	168.49	19	168.37	20	167.93	29
α Ac C=O	169.70	15	169.80	22	169.27	35
B α Ac C=O	170.16	19	170.11	20	169.56	40
γ Ac C=O	170.50	25	170.56	19	169.95	40

Compound Number 99
¹³C

threo
1-(4-acetoxy-3,5-dimethoxyphenyl)-1,3-diacetoxy-2-(2-methoxyphenoxy)propane
¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	1.97	s	
Ac Me	2.02	s	
Ac Me	2.21	s	
A3,5 OMe	3.80	s	
OMe	3.81	s	
γ1	4.04	dd	11.9, 5.6
γ2	4.26	dd	11.9, 4.2
β	4.79	m	
α	6.08	d	6.5
A2,6	6.85	s	
B1	6.97	m	8.2, 8.1, 1.3
B2	6.99	m	8.2, 1.0
B5	7.04	m	8.0, 1.3
B6	6.87	m	8.0, 8.1, 1.0

Notes:

S. Ralph SRIII-45

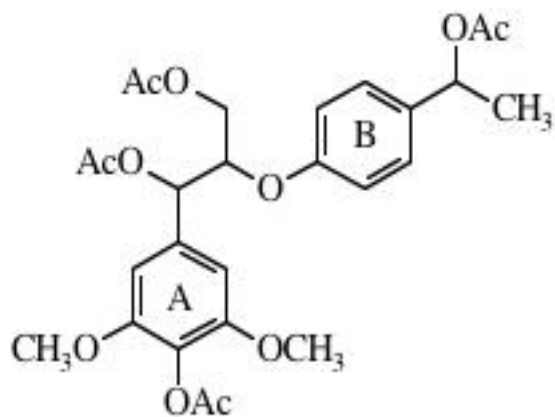
55mg ca 80% threo

*CS assignments for overlapping 1H patterns A2,6 and B1,B2,B5 and B6 from deconvolution and simulation spectra, MacNuts, Acorn NMR Inc.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.42	48	20.24	56	20.05	68
Ac Me	20.71	36	20.62	48	20.39	50
Ac Me	21.05	40	20.94	44	20.65	47
B OMe	55.77	54	56.20	63	55.52	59
OMe	56.20	100	56.52	100	55.97	100
OMe	56.20	100	56.52	100	55.97	100
γ	63.08	32	63.60	43	62.48	26
α	74.77	35	75.67	43	74.58	35
β	80.23	36	80.64	48	79.00	35
A2	104.08	61	104.93	81	103.92	62
A6	104.08	61	104.93	81	103.92	62
B2	112.48	34	113.71	44	112.69	41
B5	118.61	40	119.04	43	117.31	41
B6	120.98	41	121.66	48	120.63	53
B1	123.28	42	123.68	44	122.49	35
A4	128.79	10	129.65	10	127.81	21
A1	134.80	31	136.18	27	134.99	41
B4	147.92	20	149.06	17	147.54	38
B3	150.76	20	151.75	21	150.06	35
A3	152.16	50	153.14	41	151.56	74
A5	152.16	50	153.14	41	151.56	74
A4 Ac C=O	168.47	21	168.41	29	167.89	29
α Ac C=O	169.68	20	169.97	17	169.34	26
γ Ac C=O	170.55	19	170.66	19	169.94	29

Compound Number 100

¹³C



threo

1-(4-acetoxy-3,5-dimethoxyphenyl)-1,3-diacetoxy-2-[4-(1-acetoxyethyl)phenoxy] propane

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	1.99	s	
Ac Me	2.05	s	
Ac Me	2.05	s	
Ac Me	2.32	s	
B β	1.51	d	6.6
A3,5 OMe	3.80	s	
γ1	4.06	dd	11.8, 6.1
γ2	4.25	dd	11.8,-
β	4.69	m	
B α	5.83	q	6.6
α	6.03	d	6.3
A2,6	6.63	s	
B3,5	6.89	m	7.8
B2,6	7.28	m	7.8

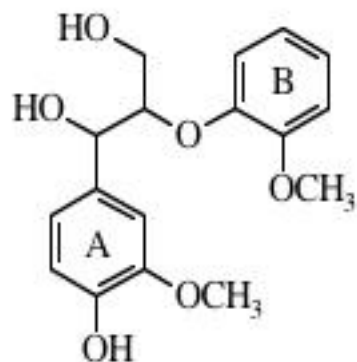
Notes:

S. Ralph SRIII-46
24mg
CDCl3 spectrum poor

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.43	33	20.23	49	20.04	66
Ac Me	20.68	40	20.60	38	20.38	69
Ac Me	21.03	45	20.89	47	20.62	59
Ac Me	21.36	48	21.15	40	20.92	72
B β	22.01	36	22.36	36	21.76	50
OMe	56.25	100	56.58	89	56.01	100
OMe	56.25	100	56.58	89	56.01	100
γ	62.67	33	63.31	33	62.15	25
B α	71.85	45	72.19	40	71.12	22
α	74.24	21	75.45	36	74.32	28
β	78.17	26	79.23	22	77.60	25
A2	104.09	76	105.05	89	104.00	62
A6	104.09	76	105.05	89	104.00	62
B3	116.32	60	117.12	49	116.00	84
B5	116.32	60	117.12	49	116.00	84
B2	127.67	88	128.29	100	127.28	78
B6	127.67	88	128.29	100	127.28	78
A4	128.95	5	129.80	4	127.83	5
B1	134.35	31	135.98	27	134.66	56
A1	135.26	29	136.24	24	134.81	59
A3	152.28	52	153.25	47	151.57	72
A5	152.28	52	153.25	47	151.57	72
B4	158.02	19	159.20	18	157.68	34
A4 Ac C=O	168.44	21	168.39	22	167.86	28
α Ac C=O	169.69	24	170.02	20	169.37	38
B α Ac C=O	170.30	21	170.19	13	169.52	41
γ Ac C=O	170.56	24	170.68	20	169.94	31

Compound Number 101

¹³C



erythro

Guaiacylglycerol- β -guaiacyl ether

1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propan-1,3-diol

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.83	s	
OMe	3.84	s	
α	4.95	d	4.8
β	4.16	m	

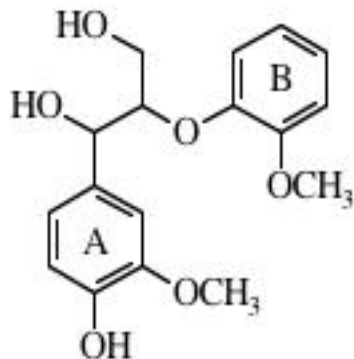
Notes:

J. Ralph JRB 178.3
30mg
J. Ralph Holzforschung 42(1988) p273-5

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.86	82	56.20	97	55.35	100
OMe	55.94	100	56.27	100	55.52	84
γ	60.75	76	61.81	81	60.04	59
α	72.78	76	73.82	81	71.60	72
β	87.02	75	86.72	100	83.67	66
A2	108.81	71	111.38	94	111.35	62
B2	112.19	75	113.50	81	112.60	69
A5	114.31	84	115.12	90	114.48	66
B5	119.07	73	119.70	90	115.86	59
A6	120.57	75	120.45	94	119.43	66
B6	121.59	90	121.85	100	120.56	78
B1	124.00	80	123.32	100	120.89	69
A1	131.95	51	134.23	55	133.15	69
A4	145.09	49	146.61	42	145.35	78
A3	146.64	45	147.93	39	146.86	72
B4	146.89	35	149.04	35	148.00	62
B3	151.40	39	151.96	35	149.68	56

Compound Number 102

¹³C



threo

Guaiacylglycerol- β -guaiacyl ether

1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.86	s	
OMe	3.90	s	
α	4.96	d	8.0
β	4.02	m	

Notes:

J. Ralph JRGV 135.X1

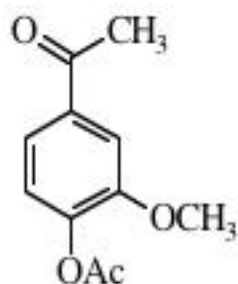
21mg

J. Ralph Holzforschung 42(1988) p.273-5

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.91	92	56.21	96	55.33	97
OMe	55.97	100	56.31	100	55.53	100
γ	61.06	72	61.90	75	60.02	59
α	74.00	80	73.93	84	70.90	69
β	89.45	72	88.58	84	84.37	62
A2	109.46	86	111.41	96	110.96	66
B2	112.18	88	113.40	86	112.50	66
A5	114.35	88	115.21	78	114.57	62
B5	120.25	88	120.06	90	115.79	62
A6	120.98	75	120.57	88	118.92	62
B6	121.69	94	121.95	80	120.60	76
B1	124.21	85	123.44	88	120.96	69
A1	131.51	46	133.81	43	132.86	76
A4	145.59	48	146.82	39	145.33	79
A3	146.68	42	148.00	29	146.89	66
B4	147.63	35	149.70	31	148.32	59
B3	151.27	38	151.80	29	149.62	59

Compound Number 103

¹³C



Acetylated acetovanillone
4-acetoxy-3-methoxyacetophenone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.61	65	20.46	64	20.29	83
β	26.49	81	26.63	84	26.62	88
OMe	56.05	100	56.37	97	55.88	100
2	111.51	97	112.44	97	111.62	77
6	121.94	88	122.38	93	121.56	83
5	122.80	95	123.77	100	123.02	84
1	135.96	37	136.93	30	135.62	51
4	143.87	26	144.80	21	143.21	35
3	151.41	33	152.40	24	150.92	41
Ac C=O	168.46	30	168.64	26	168.12	44
α	196.91	30	196.89	29	196.88	40

¹H (chloroform)

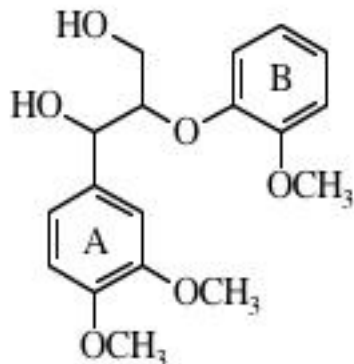
Atom	H Shifts	Mult	J
Ac Me	2.59	s	
β	2.33	s	
OMe	3.88	s	
2	7.59	d	1.9
5	7.12	d	8.1
6	7.54	dd	8.1, 1.9

Notes:

IPC
45mg

Compound Number 104

¹³C



threo

Veratrylglycerol- β -guaiacyl ether

1-(3,4-Dimethoxyphenyl)-2-(2-methoxyphenoxy)propane-1,3-diol

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.82	s	
OMe	3.83	s	
OMe	3.84	s	
α	4.96	d	5.0
β	4.15	m	

Notes:

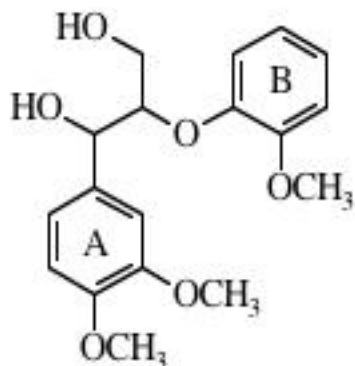
LL Landucci

75mg Shifts reported are for threo isomer-minor isomer of this mixture, see 105 also

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.84	76	56.03	100	55.22	72
OMe	55.88	100	56.11	97	55.42	82
OMe	55.88	100	56.27	94	55.52	100
γ	61.04	16	61.70	60	60.02	48
α	73.77	16	73.64	74	70.77	18
β	88.82	14	87.92	28	84.26	20
A2	110.05	15	111.89	67	110.67	20
A5	111.07	45	112.29	74	111.13	53
B2	112.21	43	113.36	31	112.52	23
A6	119.55	15	120.03	72	115.84	23
B5	120.52	15	119.56	32	118.62	22
B6	121.61	19	121.83	34	120.56	32
B1	123.93	17	123.30	66	120.95	23
A1	132.38	12	135.01	16	134.47	22
B4	147.65	10	148.92	25	147.72	27
A4	148.83	12	149.67	15	147.98	43
A3	149.04	12	149.96	32	148.25	20
B3	151.07	11	151.61	10	149.67	23

Compound Number 105

¹³C



erythro

Veratrylglycerol-β-guaiacyl ether

1-(3,4-Dimethoxyphenyl)-2-(2-methoxyphenoxy)-propane-1,3-diol

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.85	s	
OMe	3.85	s	
OMe	3.85	s	
α	4.99	d	4.8
β	4.17	m	
γ1	3.69	m	
γ2	3.92	m	
A2	6.90	m	
A6	6.99	m	
<u>acetone</u>			
OMe	3.76		
OMe	3.77		
OMe	3.81		
α	4.91		
β	4.29		
γ1	3.67		
γ2	3.81		
A2	7.11	d	2.1
A6	6.86	d	8.45

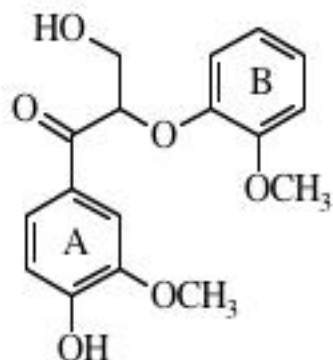
Notes:

LL Landucci
30mg alpha OH proton 4.55 in acetone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.87	73	56.07	87	55.23	92
OMe	55.91	100	56.15	87	55.44	100
OMe	55.91	100	56.30	95	55.54	97
γ	60.81	46	61.79	30	60.03	61
α	72.75	50	73.75	36	71.54	69
β	87.10	50	86.58	74	83.62	67
A2	109.41	46	111.97	80	111.03	72
A5	111.08	50	112.35	84	111.14	75
B2	112.21	53	113.55	84	112.61	75
A6	118.49	50	120.06	100	115.95	72
B5	120.68	50	119.64	85	119.18	67
B6	121.58	48	121.86	87	120.56	81
B1	124.02	45	123.32	87	120.95	72
A1	132.70	37	135.50	31	134.79	69
B4	146.96	26	149.03	31	147.76	56
A4	148.48	26	149.63	31	147.99	61
A3	149.02	27	150.04	34	148.10	67
B3	151.47	26	151.96	31	149.72	53

Compound Number 106

¹³C



Erone

3-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propan-1-one

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.83	s	
OMe	3.87	s	
γ	4.08	d	5.1
β	5.43	t	5.1

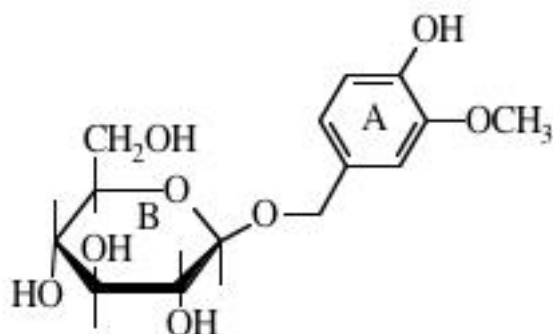
Notes:

S. Ralph
45mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.82	100	56.20	97	55.46	96
OMe	56.02	96	56.24	100	55.50	100
γ	63.70	72	64.11	41	62.52	55
β	83.94	88	83.69	82	81.32	61
A2	110.88	87	112.48	73	111.71	56
B2	112.35	89	113.65	85	112.67	60
A5	114.21	87	115.50	82	114.48	57
B5	117.56	79	116.70	81	114.98	55
B6	121.18	92	121.57	88	120.48	66
B1	123.26	88	122.94	82	121.47	60
A6	124.16	88	124.66	86	123.51	54
A1	127.68	56	128.72	42	126.79	52
B4	146.91	55	148.29	36	146.94	56
A3	146.95	59	148.36	41	147.49	61
B3	150.12	42	150.86	27	149.13	54
A4	151.28	62	152.76	41	152.22	68
α	194.91	52	195.64	42	194.69	50

Compound Number 107

¹³C



Vanillyl- β -D-Glucoside

2-(4-Hydroxy-3-methoxybenzyloxy)-6-hydroxymethyl tetrahydropyran-3,4,5-triol

¹H Not run

Atom	H Shifts	Mult	J

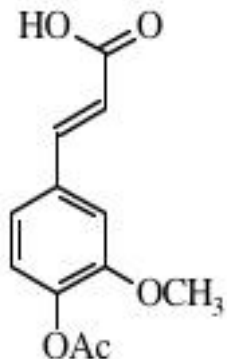
Notes:

M.Mozuch 88/71/1
20mg not soluble in CDCl₃

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.30	100	55.46	100
B6			63.00	76	61.09	57
B4			70.98	76	69.40	61
B2			71.74	90	70.09	86
B5			74.90	86	73.40	93
α			77.48	84	76.66	89
B3			78.02	88	76.82	86
B1			102.70	79	101.52	82
A2			112.81	88	112.29	82
A5			115.41	87	114.90	82
A6			121.77	87	120.50	79
A1			130.28	50	128.57	79
A3			147.00	46	145.80	75
A4			148.21	33	147.25	71

Compound Number 108

¹³C



Acetylated ferulic acid
4-acetoxy-3-methoxycinnamic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.48	86	20.29	98
OMe			56.42	96	55.90	100
2			112.48	80	111.79	76
β			119.48	76	119.47	80
6			122.03	91	121.20	84
5			124.11	100	123.10	82
1			134.38	39	133.19	64
4			142.62	26	140.77	56
α			144.79	89	143.23	80
3			152.71	34	151.09	64
Ac C=O			167.70	41	167.50	78
γ			168.78	36	168.29	66

¹H (chloroform)

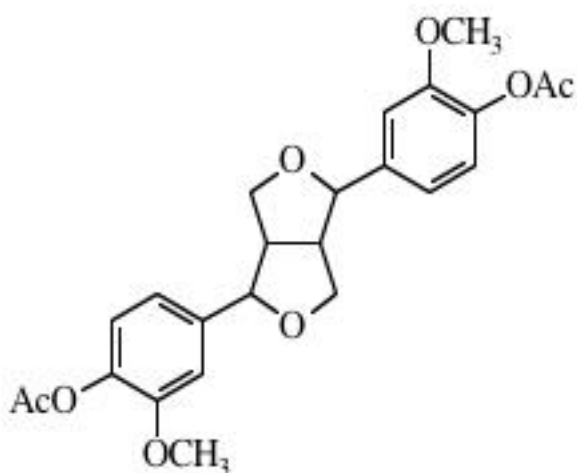
Atom	H Shifts	Mult	J
Ac Me	2.33	s	
OMe	3.88	s	
α	7.04	d	15.9
β	6.41	d	15.9

Notes:

R. Helm RFH 83F1
50mg not soluble in CDCL3

Compound Number 109

¹³C



Pinoresinol diacetate

Acetic acid 4-[4-(4-acetoxy-3-methoxyphenyl) tetrahydrofuro[3,4-c]furan-1-yl]-2-methoxyphenyl ester

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.30	s	
OMe	3.83	s	
β	3.08	m	
γ1	3.92	dd	9.0, 3.2
γ2	4.27	dd	9.0, 6.8
α	4.78	d	3.9
6	6.88	dd	8.1, 1.4
2	6.99	m	
5	7.00	m	

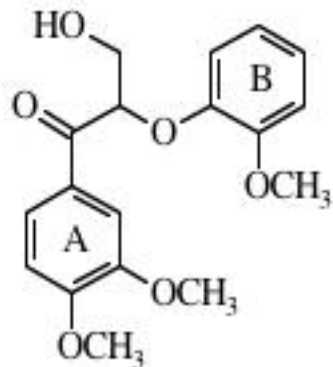
Notes:

J. Pew
As this compound has a plane of symmetry the shifts for the other half are identical.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.62	86	20.48	76	20.28	85
β	54.36	94	55.42	92	53.75	85
OMe	55.92	100	56.23	100	55.67	100
γ	71.95	86	72.58	79	71.24	78
α	85.50	93	86.22	92	84.64	80
2	109.91	87	111.12	81	110.33	78
6	117.92	88	118.63	84	117.78	76
5	122.74	77	123.46	83	122.50	83
4	139.13	37	140.15	27	138.42	51
1	140.11	61	141.80	43	140.41	71
3	151.23	48	152.28	35	150.70	66
Ac C=O	168.99	42	168.98	25	168.44	58

Compound Number 110

¹³C



Veratrone

1-(3,4-Dimethoxyphenyl)-3-hydroxy-2-(2-methoxyphenoxy)propan-1-one

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.84	s	
OMe	3.90	s	
OMe	3.93	s	
γ	4.08	m	
β	5.42	t	5.2
A2	7.61	d	2.0
A6	7.76	dd	8.4, 2.0

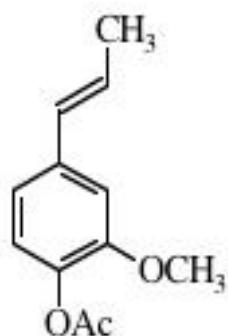
Notes:

LL Landucci
34mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.82	94	56.05	59	55.39	84
OMe	55.97	100	56.05	59	55.46	100
OMe	56.10	100	56.21	100	55.70	87
γ	63.73	77	64.11	52	62.47	68
β	84.31	89	83.88	65	81.38	71
A2	110.17	81	111.53	56	110.75	68
A5	111.04	83	112.23	57	110.87	71
B2	112.35	89	113.74	67	112.68	71
B5	117.96	74	116.95	61	114.58	71
B6	121.17	85	121.59	69	120.48	74
B1	123.40	94	123.04	65	121.56	74
A6	123.63	77	124.28	56	123.24	65
A1	128.10	42	129.44	28	127.88	61
B4	146.97	34	148.43	20	146.88	52
A3	149.20	47	150.07	22	148.50	65
B3	150.30	38	151.01	20	149.14	55
A4	153.95	40	154.89	22	153.40	58
α	195.04	49	195.92	26	195.14	55

Compound Number 111

¹³C



acetylated isoeugenol
1-(3-methoxy-4-acetoxyphenyl)-1-propene

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	18.37	91	18.45	81	18.11	94
Ac Me	20.62	73	20.45	68	20.32	86
OMe	55.77	100	56.10	100	55.64	100
2	109.69	77	110.54	89	109.73	95
6	118.36	96	118.90	97	117.99	100
5	122.65	85	123.53	97	122.68	92
β	126.01	85	126.34	94	125.80	79
α	130.48	87	131.36	94	130.24	92
1	137.06	41	137.70	35	136.44	71
4	138.65	25	139.88	21	138.24	46
3	151.02	31	152.26	24	150.86	52
Ac C=O	169.04	32	168.95	23	168.46	40

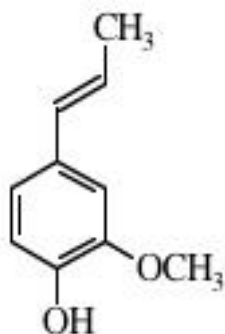
¹H (chloroform)

Atom	H Shifts	Mult	J
γ	1.85	dd	6.35, 1.4
Ac Me	2.28	s	
OMe	3.81	s	
β	6.17	dq	15.7, 6.35
α	6.35	dd	15.7, 1.4

Notes:

J. Ralph JRPS115.1
50mg

Compound Number 112

¹³C

Isoeugenol

1-(3-methoxy-4-hydroxyphenyl)-1-propene

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	18.30	86	18.38	88	18.05	98
OMe	55.82	100	56.13	100	55.50	100
2	108.01	81	109.64	83	109.41	87
5	114.43	95	115.66	89	115.41	91
6	119.30	98	119.89	100	118.78	95
β	123.34	86	122.97	89	121.98	95
1	130.66	42	130.93	30	129.11	56
α	130.78	96	131.86	85	130.87	88
4	144.79	44	146.61	37	145.80	72
3	146.61	26	148.28	27	147.64	61

¹H (chloroform)

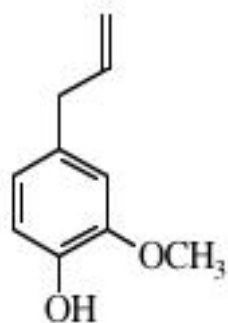
Atom	H Shifts	Mult	J
γ	1.83	dd	6..5, 1.6
OMe	3.84	s	
β	6.05	dq	15.7, 6.5
α	6.30	dd	15.7, 1.6

Notes:

Aldrich
50mg contains an impurity

Compound Number 113

¹³C



Eugenol
4-Allyl-2-methoxyphenol

¹H (chloroform)

Atom	H Shifts	Mult	J
α	3.30	d	6.6
OMe	3.84	s	
γ	5.04	m	
β	5.94	ddt	6.6
5	6.83	d	8.5

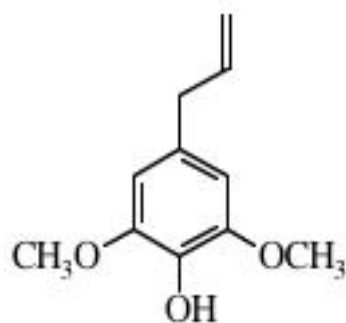
Notes:

Aldrich
50mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α	39.88	84	40.32	90	39.08	99
OMe	55.86	100	56.16	100	55.49	100
2	111.17	94	112.83	81	112.58	82
γ	114.31	98	115.31	71	115.11	82
5	115.46	86	115.61	93	115.35	100
6	121.19	96	121.66	86	120.48	76
1	131.90	36	132.07	27	130.39	56
β	137.83	72	139.05	68	138.13	82
4	143.93	32	145.68	32	144.72	63
3	146.47	27	148.13	25	147.43	50

Compound Number 114

¹³C



4-Allyl-2,6-dimethoxyphenol

¹H (chloroform)

Atom	H Shifts	Mult	J
α	3.30	d	6.7
OMe	3.85	s	
2,6	6.40	s	
γ1	5.04	m	
β	5.94	ddt	16.8, 10.2, 6.7

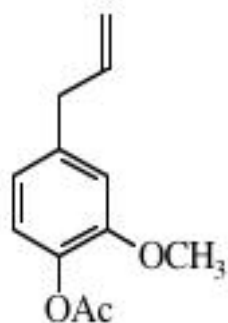
Notes:

Aldrich 50mg Extraneous peaks around 106 and 119

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α	40.31	49	40.73	53	39.53	66
OMe	56.26	97	56.58	99	55.89	100
OMe	56.26	97	56.58	99	55.89	100
2	105.26	100	106.83	100	105.83	83
6	105.26	100	106.83	100	105.83	83
γ	115.65	46	115.42	45	115.26	48
1	131.06	23	131.13	19	129.63	30
4	133.10	16	135.19	15	133.81	28
β	137.60	43	138.95	36	137.98	47
3	147.03	36	148.60	28	147.93	54
5	147.03	36	148.60	28	147.93	54

Compound Number 115

¹³C



acetylated eugenol
1-(3-methoxy-4-acetoxyphenyl)-2-propene

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.64	76	20.45	73	20.30	69
α	40.08	100	40.51	100	39.26	100
OMe	55.81	89	56.08	100	55.57	81
2	112.76	89	113.66	87	112.82	67
γ	116.12	76	116.03	79	115.87	68
5	120.66	100	121.10	92	120.15	76
6	122.51	100	123.37	92	122.48	68
β	137.03	78	138.32	69	137.34	68
4	138.05	24	139.24	21	137.53	31
1	138.98	43	139.72	37	138.66	43
3	150.89	28	152.10	25	150.61	33
Ac C=O	169.12	32	168.95	25	168.47	33

¹H (chloroform)

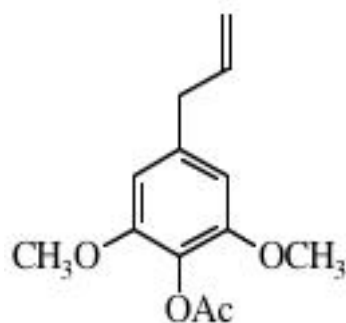
Atom	H Shifts	Mult	J
Ac Me	2.29	s	
α	3.36	d	6.7
OMe	3.80	s	
2			
γ	5.07	m	
β	5.95	ddt	16.8, 10.2, 6.7
A6	6.75	m	
A2	6.77	m	
A5	6.94	d	7.9

Notes:

J. Ralph JRC91.1
50mg

Compound Number 116

¹³C



1-(3,5-dimethoxy-4-acetoxyphenyl)-2-propene

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.43	40	20.24	38	20.09	52
α	40.64	45	41.06	47	39.89	100
OMe	56.07	100	56.32	94	55.80	97
OMe	56.07	100	56.32	94	55.80	97
2	105.16	88	105.93	100	105.01	88
6	105.16	88	105.93	100	105.01	88
γ	116.22	39	116.11	44	115.97	47
4	126.99	8	128.10	6	126.33	12
β	136.90	38	138.24	37	137.27	47
1	138.52	25	139.32	20	138.31	35
3	151.97	34	153.06	25	151.58	57
5	151.97	34	153.06	25	151.58	57
Ac C=O	168.81	13	168.56	15	168.06	27

¹H (chloroform)

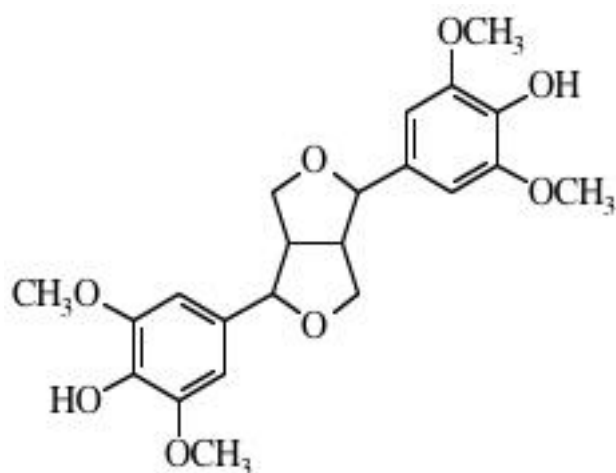
Atom	H Shifts	Mult	J
Ac Me	2.31	s	
α	3.34	d	6.7
OMe	3.79	s	
2,6	6.43	s	
γ	5.09	m	
β	5.95	ddt	16.8, 10.1, 6.7

Notes:

J. Ralph JRPS143.1
50mg

Compound Number 117

¹³C



Syringylresinol

3,3',5,5'-tetramethoxy-7,9',7',9-diepoxylignan-4,4'-diol

¹H (chloroform)

Atom	H Shifts	Mult	J
β	4.28	m	
OMe	3.90	s	
γ ²	4.28	m	
α	4.73	d	4.3
2,6	6.58	s	

Notes:

IPC - Pearl

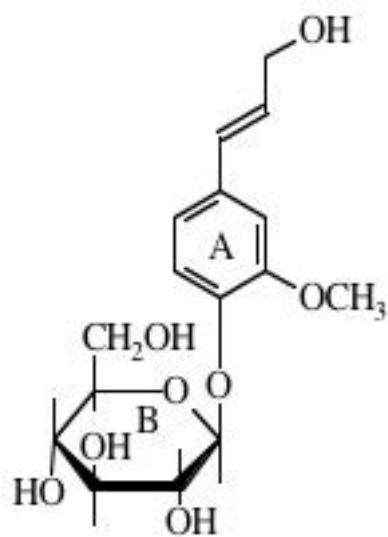
14mg

As this compound has a plane of symmetry the shifts for the other half are identical.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	54.38	49	55.33	61	53.59	39
OMe	56.41	100	56.69	100	55.95	100
OMe	56.41	100	56.69	100	55.95	100
γ	71.83	47	72.37	57	70.99	41
α	86.08	44	86.81	54	85.26	41
2	102.78	79	104.52	100	103.59	78
6	102.78	79	104.52	100	103.59	78
1	132.13	29	133.24	26	131.36	35
4	134.38	25	136.23	17	134.81	33
3	147.19	50	148.69	26	147.82	69
5	147.19	50	148.69	26	147.82	69

Compound Number 118

¹³C



Coniferin

4-(3-hydroxy-1-propenyl)-2-methoxyphenyl-
β-D-glucopyranoside

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe					55.57	100
B6					60.60	49
γ					61.51	88
B4					69.60	68
B2					73.12	68
B5					76.76	67
B3					76.91	70
B1					100.00	65
A2					109.84	56
A5					115.25	58
A6					118.89	63
α					128.31	79
β					128.87	70
A1					130.95	70
A4					145.89	67
A3					148.94	70

¹H (DMSO)

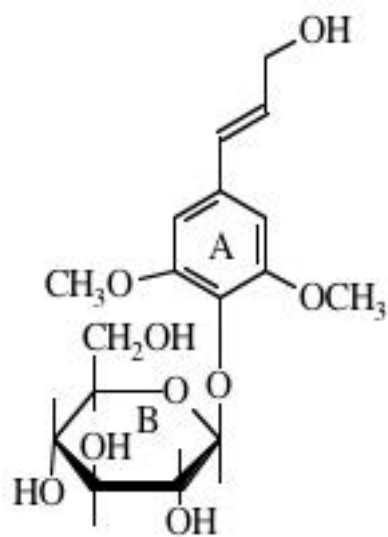
Atom	H Shifts	Mult	J
OMe	3.78	s	
γ1,γ2	4.10	dd	5.03
β	6.28	dt	15.9,5.0
α	6.47	d	15.9
A2	7.06	d	1.8
A5	7.02	d	8.4
A6	6.89	dd	8.4,1.8
B1	4.89	d	7.3
B2,3,4,5	3.34-3.18	nr	
B6 α	3.46	m	
B6 β	3.67	ddd	
B6 OH	4.54	t	5.7
γ OH	4.83	t	5.6

Notes:

IPC - Pearl
53mg only soluble in DMSO
Terashima, Ralph, Landucci, Holzforschung, 50(1995)p. 151-155

Compound Number 119

¹³C



Syringin

4-(3-hydroxy-1-propenyl)-2,6-dimethoxy- β -D-glucopyranoside

¹H (DMSO)

Atom	H Shifts	Mult	J
OMe	3.77	s	
γ 1	4.11	dd	5.0
β	6.63	dt	15.9,4.7
α	6.47	d	15.9
A2,6	6.73	s	
B1	4.91	d	4.8
B2,3,4,5	3.18-3.04	nr	
B6 α	3.4	m	
B6 β	3.59	ddd	
B6 OH	4.29	t	5.4
γ OH	4.85	t	5.5

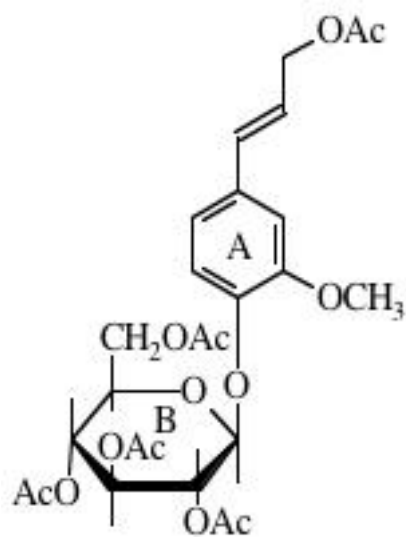
Notes:

IPC - Pearl
 50mg only soluble in DMSO
 Terashima, Ralph, Landucci, Holzforschung, 50(1995)p. 151-155

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe					56.27	100
OMe					56.27	100
B6					60.82	29
γ					61.37	45
B4					69.86	37
B2					74.09	37
B5					76.45	37
B3					77.08	37
B1					102.51	35
A2					104.39	62
A6					104.39	62
α					128.35	37
β					130.05	37
A1					132.52	35
A4					133.80	26
A3					152.60	77
A5					152.60	77

Compound Number 120

¹³C



Coniferin acetate

4-(3-hydroxy-1-propenyl)-2-methoxy phenyl- β -D-glycopyranoside pentaacetate

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.03		
Ac Me	2.03		
Ac Me	2.07		
Ac Me	2.07		
Ac Me	2.09		
OMe	3.80	s	
γ	4.70	d	6.4
β	6.20	dt	15.8, 6.3
α	6.59	d	15.8
A6	6.89	bd	8.2
A2	6.94	bs	
A5	7.07	d	8.2

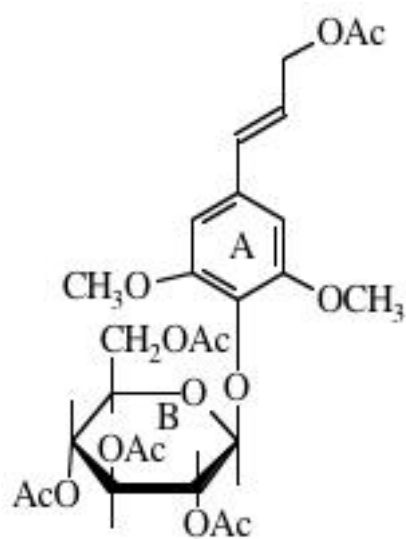
Notes:

S. Ralph III-58
50mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.60	100	20.51	50	20.23	75
Ac Me	20.60	100	20.59	100	20.28	100
Ac Me	20.60	100	20.59	100	20.30	100
Ac Me	20.66	66	20.59	100	20.41	77
Ac Me	20.95	46	20.78	43	20.65	92
OMe	56.07	57	56.47	50	55.90	77
B6	61.97	38	62.69	36	61.66	33
γ	64.93	52	65.23	45	64.32	67
B4	68.46	47	69.33	43	68.15	46
B2	71.24	47	71.96	39	70.77	48
B5	72.02	45	72.56	41	70.86	52
B3	72.61	48	73.23	38	71.92	46
B1	100.67	47	100.79	48	98.76	46
A2	110.58	44	111.55	38	110.61	52
A5	119.57	46	119.77	37	118.05	46
A6	119.93	48	120.26	40	119.34	54
β	122.83	56	123.86	44	123.02	58
A1	133.02	37	133.63	30	132.14	54
α	133.58	48	133.82	40	132.67	60
A4	146.09	32	147.19	26	145.66	56
A3	150.69	38	151.44	26	149.91	58
Ac C=O	169.26	34	169.58	24	168.91	50
Ac C=O	169.36	32	169.96	25	169.24	52
Ac C=O	170.15	34	170.22	28	169.49	56
Ac C=O	170.47	34	170.58	26	169.90	58
Ac C=O	170.71	22	170.69	16	170.07	44

Compound Number 121

¹³C



Syringin acetate

4-(3-hydroxy-1-propenyl)-2,6-dimethoxy phenyl-β-D-glucopyranoside penta acetate

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.03	s	
Ac Me	2.03	s	
Ac Me	2.03	s	
Ac Me	2.03	s	
Ac Me	2.09	s	
OMe	3.84	s	
γ	4.71	d	6.4
β	6.22	dt	16.8, 6.4
α	6.57	d	16.8
A2,6	6.61	s	

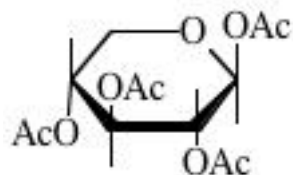
Notes:

S. Ralph III - 58
50mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.60	52	20.56	100	20.25	51
Ac Me	20.68	100	20.56	100	20.36	75
Ac Me	20.68	100	20.56	100	20.36	75
Ac Me	20.68	100	20.67	49	20.36	75
Ac Me	20.95	39	20.77	43	20.64	54
OMe	56.32	89	56.69	97	56.13	100
OMe	56.32	89	56.69	97	56.13	100
B6	62.35	32	62.91	40	61.82	25
γ	64.84	41	65.14	49	64.19	42
B4	68.56	36	69.47	48	68.26	31
B2	71.99	42	72.51	46	70.73	31
B5	72.08	42	72.81	48	71.54	31
B3	73.11	40	73.61	48	72.14	29
B1	101.21	36	101.69	43	100.48	31
A2	104.09	72	105.10	89	104.09	56
A6	104.09	72	105.10	89	104.09	56
β	123.30	39	124.38	46	123.74	36
A1	133.11	31	134.02	33	132.79	56
α	133.86	42	134.11	41	132.79	56
A4	134.56	23	135.38	19	133.87	32
A3	153.07	63	154.06	54	152.68	68
A5	153.07	63	154.06	54	152.68	68
Ac C=O	169.25	29	169.59	22	168.94	34
Ac C=O	169.41	30	169.94	24	169.24	36
Ac C=O	170.31	30	170.24	29	169.48	31
Ac C=O	170.51	25	170.48	24	169.81	37
Ac C=O	170.75	20	170.64	17	170.04	32

Compound Number 122

¹³C



$\alpha + \beta$ Xylose Acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.42	62	20.35	59	20.21	43
Ac Me	20.54	40	20.46	43	20.25	54
Ac Me	20.60	83	20.51	71	20.34	100
Ac Me	20.60	83	20.55	100	20.34	100
Ac Me	20.66	88	20.55	100	20.34	100
Ac Me	20.66	88	20.55	100	20.34	100
Ac Me	20.74	41	20.65	70	20.44	62
Ac Me	20.79	55	20.65	70	20.52	49
5	60.65	49	61.12	57	60.05	32
5	62.76	31	63.14	35	62.01	18
4	68.35	32	69.09	41	67.99	41
4	68.67	53	69.22	59	68.10	28
3	69.39	100	69.87	63	68.83	41
3	69.39	100	70.24	67	68.93	41
2	69.53	38	70.30	48	69.36	25
2	70.97	34	71.54	37	70.52	23
1	89.26	54	89.76	56	88.60	38
1	92.05	31	92.67	41	91.49	24
Ac C=O	168.92	37	169.35	17	168.78	19
Ac C=O	168.92	37	169.53	21	169.02	43
Ac C=O	169.22	18	169.66	17	169.02	43
Ac C=O	169.65	31	170.01	17	169.36	24
Ac C=O	169.68	35	170.10	23	169.41	33
Ac C=O	169.68	35	170.19	40	169.49	24
Ac C=O	169.75	23	170.22	36	169.54	33
Ac C=O	170.02	27	170.22	36	169.58	37

¹H (chloroform)

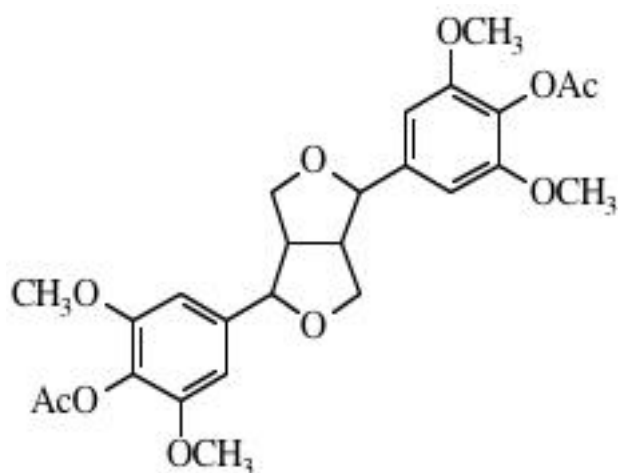
Atom	H Shifts	Mult	J
Ac Me	2.02	s	
Ac Me	2.049	s	
Ac Me	2.049	s	
Ac Me	2.052	s	
Ac Me	2.052	s	
Ac Me	2.06	s	
Ac Me	2.11	s	
Ac Me	2.17	s	

Notes:

S. Ralph III - 58
50mg mixture of $\alpha + \beta$

Compound Number 123

¹³C



Syringylresinol diacetate

Acetic acid 4-[4-(4-acetoxy-3,5-dimethoxyphenyl) tetrahydrofuro[3,4-c]furan-1-yl]-2,6-dimethoxyphenyl ester

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.33	s	
β	3.09	m	
OMe	3.83	s	
γ1	3.95	dd	9.1, 3.3
γ2	4.31	dd	9.1, 6.7
α	4.77	d	4.1
A2,6	6.59	s	

Notes:

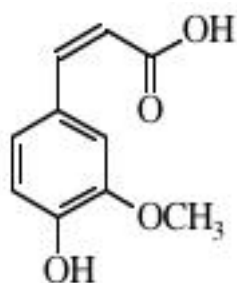
S. Ralph III - 58

20mg

As this compound has a plane of symmetry the shifts for the other half are identical.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.46	42	20.26	52	20.07	44
β	54.42	41	55.41	58	53.72	41
OMe	56.23	100	56.46	98	55.90	100
OMe	56.23	100	56.46	98	55.90	100
γ	72.11	47	72.71	54	71.38	36
α	85.85	47	86.51	56	84.93	34
2	102.29	85	103.30	100	102.44	63
6	102.29	85	103.30	100	102.44	63
1	128.06	12	128.91	8	127.04	19
4	139.63	30	141.41	31	140.03	31
3	152.30	50	153.23	44	151.60	68
5	152.30	50	153.23	44	151.60	68
Ac C=O	168.76	23	168.59	15	168.01	29

Compound Number 124

¹³C*cis*

cis - Ferulic Acid
(Z)-4-hydroxy-3-methoxycinnamic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.93	100	56.16	97	55.38	100
2	113.15	87	114.99	89	114.30	80
5	113.98	89	115.23	100	114.78	75
β	115.50	87	116.82	97	116.77	69
6	126.17	80	126.51	100	124.78	82
1	126.79	44	127.80	36	126.09	57
α	145.97	38	144.40	89	141.90	70
3	146.36	76	147.60	31	146.72	52
4	147.50	51	149.04	39	147.90	41
γ	171.34	44	167.85	31	167.54	51

¹H (methanol)

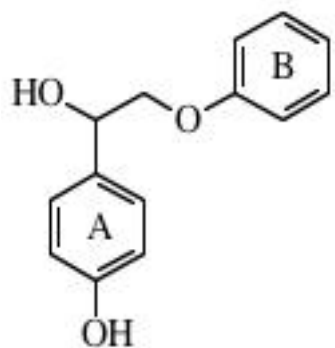
Atom	H Shifts	Mult	J
OMe	3.85	s	
β	5.77	d	12.9
α	6.80	d	12.9
5	6.76	d	8.0
6	7.09	dd	8.1, 2.0
2	7.70	d	2.0

Notes:

J. Obst
 25mg Thanks to Rong Ji et.al, Chemosphere (2005) 1169-1181 for noting the miss assignment of C6 and Cβ

Compound Number 125

¹³C



1-(4-hydroxyphenyl)-2-phenoxyethanol

¹H (chloroform)

Atom	H Shifts	Mult	J
α	5.05	dd	8.3, 3.6
β	4.05	m	

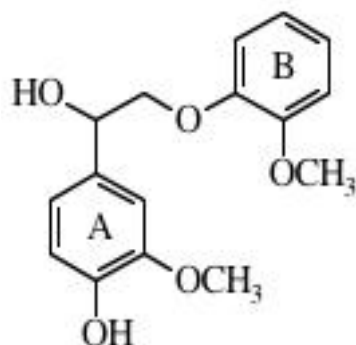
Notes:

JR C37.1
52mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α	72.31	43	72.42	41	70.55	44
β	73.25	49	74.32	50	73.07	39
B3	114.73	93	115.43	90	114.49	100
B5	114.73	93	115.43	90	114.49	100
A3	115.51	98	115.76	88	114.74	92
A5	115.51	98	115.76	88	114.74	92
B1	121.33	51	121.37	46	120.38	42
A2	127.80	98	128.39	95	127.42	85
A6	127.80	98	128.39	95	127.42	85
B2	129.55	100	130.12	100	129.32	94
B6	129.55	100	130.12	100	129.32	94
A1	131.68	20	133.53	22	132.63	25
A4	155.77	28	157.61	22	156.54	38
B4	158.41	20	159.84	15	158.52	29

Compound Number 126

¹³C



1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)ethanol

¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.88	s	
OMe	3.89	s	
α	5.02	dd	9.3, 3.0
β1	3.93	dd	10.0, 9.3
β2	4.15	dd	10.0, 3.0

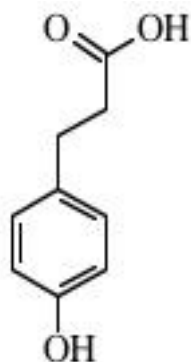
Notes:

JR 145.2
62mg * 76.50 shift in CDCL3
falls under solvent peak.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.90	87	56.28	95	55.52	100
OMe	55.97	87	56.35	92	55.52	100
α	72.20	67	72.71	70	70.81	61
β	76.50	100	76.32	95	74.15	51
A2	108.87	70	111.01	95	110.75	52
B2	112.16	77	113.67	88	112.51	52
A5	114.26	77	115.37	82	113.75	49
B5	116.21	73	115.93	75	114.92	57
A6	119.37	77	119.89	95	118.67	55
B6	121.13	77	121.83	100	120.74	66
B1	122.58	73	122.45	90	120.92	60
A1	131.61	33	134.17	35	133.46	47
A4	145.46	30	146.84	30	145.66	52
A3	146.68	27	148.12	22	147.21	44
B3	148.10	23	149.74	25	148.23	43
B4	150.26	20	151.06	18	149.10	38

Compound Number 127

¹³C



Dihydrocoumaric acid
3-(4-hydroxyphenyl)propionic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α	29.94	53	30.68	43	29.58	43
β	35.75	40	36.33	46	35.70	41
3	115.46	92	115.99	100	115.04	93
5	115.46	92	115.99	100	115.04	93
2	129.36	100	130.00	79	129.00	100
6	129.36	100	130.00	79	129.00	100
1	132.10	14	132.54	17	130.92	34
4	154.55	22	156.42	18	155.46	34
γ	176.90	5	174.68	10	173.81	27

¹H (chloroform)

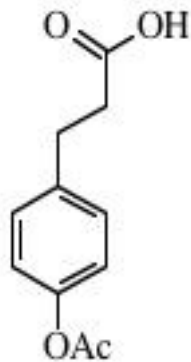
Atom	H Shifts	Mult	J
β	2.63	t	7.0
α	2.88	t	7.0
3,5	6.77	m	8.6
2,6	7.06	m	8.6

Notes:

IPC Pearl Coll.
60mg

Compound Number 128

¹³C



acetylated dihydrocoumaric acid
3-(4-acetoxyphenyl)propionic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.06	39	20.91	39	20.73	45
α	29.96	51	30.80	53	29.68	46
β	35.48	46	35.80	55	35.14	36
3	121.56	100	122.37	86	121.47	100
5	121.56	100	122.37	86	121.47	100
2	129.24	100	129.94	100	129.09	94
6	129.24	100	129.94	100	129.09	94
1	137.78	27	139.24	20	138.29	29
4	149.17	19	150.24	14	148.70	25
Ac C=O	169.78	14	169.65	13	169.14	23
γ	178.63	20	174.18	17	173.60	24

¹H (chloroform)

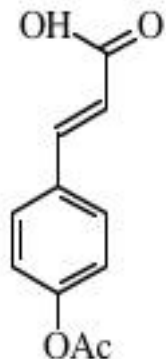
Atom	H Shifts	Mult	J
Ac Me	2.27	s	
β	2.67	t	7.3
α	2.92	t	7.3
2,6	6.99	m	8.5
3,5	7.19	m	8.5

Notes:

IPC Pearl Coll.
60mg Contains unacetylated cmpd also

Compound Number 129

¹³C



trans

acetylated coumaric acid
(E)-4-acetoxycinnamic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.12	45	20.96	43	20.76	54
β	117.38	47	119.32	50	119.29	38
3	122.22	100	123.19	100	122.28	98
5	122.22	100	123.19	100	122.28	98
2	129.48	100	130.07	95	129.32	100
6	129.48	100	130.07	95	129.32	100
1	131.82	26	133.04	19	131.89	38
α	145.80	42	144.44	43	142.88	43
4	152.50	24	153.41	17	151.80	31
Ac C=O	168.98	21	167.68	21	167.48	30
γ	171.14	13	169.39	14	168.92	26

¹H (chloroform)

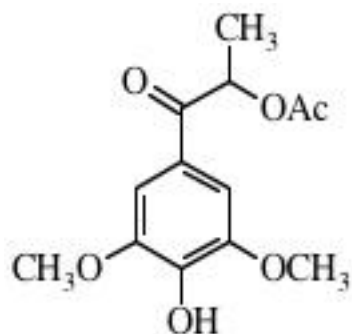
Atom	H Shifts	Mult	J
Ac Me	2.31	s	
β	6.41	d	16.0
3,5	7.15	m	8.6
2,6	7.57	m	8.6
α	7.75	d	16.0

Notes:

IPC Pearl coll.
60mg

Compound Number 130

¹³C



2-acetoxy-1-(4-hydroxy-3,5-dimethoxyphenyl)propan-1-one

¹H (chloroform)

Atom	H Shifts	Mult	J
γ	1.53	d	7.0
Ac Me	2.15	s	
OMe	3.94	s	
β	5.96	q	7.0
2,6	7.24	s	

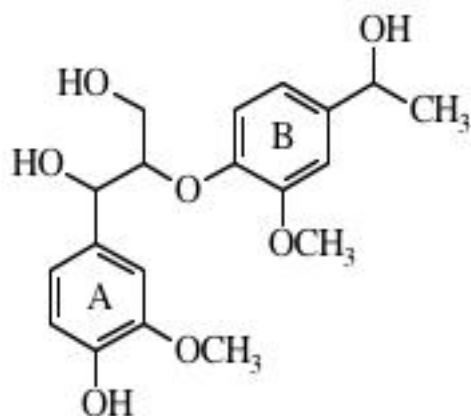
Notes:

IPC Pearl coll.
60mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	17.44	41	17.77	43	17.43	51
Ac Me	20.78	29	20.63	38	20.40	43
OMe	56.57	100	56.85	100	56.22	100
OMe	56.57	100	56.85	100	56.22	100
β	70.94	47	71.98	48	71.15	40
2	106.12	84	107.38	98	106.43	76
6	106.12	84	107.38	98	106.43	76
1	125.83	16	126.17	13	124.02	31
4	140.42	13	142.41	7	141.67	29
3	147.02	30	148.59	18	147.75	57
5	147.02	30	148.59	18	147.75	57
Ac C=O	170.45	13	170.42	13	169.70	29
α	195.11	16	195.30	15	194.63	29

Compound Number 131

¹³C



threo

1-(4-hydroxy-3-methoxyphenyl)-2-[4-(1-hydroxyethyl)-2-methoxyphenoxy]propane-1,3-diol

¹H (chloroform)

Atom	H Shifts	Mult	J
B β	1.46	d	6.4
OMe	3.84	s	
OMe	3.86	s	
B α	4.82	q	6.4
α	4.92	d	7.7
A5	7.03	d	8.2

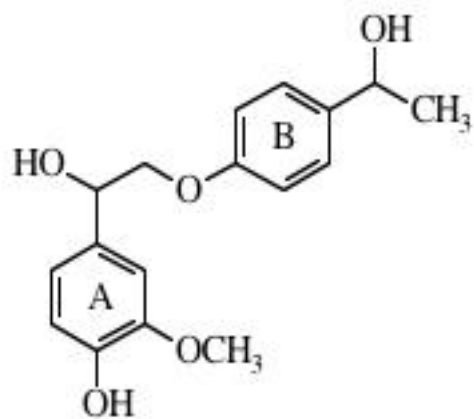
Notes:

S. Ralph SRIII-62-1
35mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.20	68	26.21	66	25.80	90
OMe	55.90	86	56.24	85	55.35	67
OMe	55.98	100	56.31	100	55.52	87
γ	61.09	46	61.89	61	60.02	49
B α	70.01	73	69.74	80	67.78	85
α	73.93	59	73.95	63	70.91	38
β	89.03	51	88.72	51	84.74	36
B2	109.35	54	110.67	58	109.79	36
A2	109.54	57	111.45	76	110.98	38
A5	114.42	59	115.24	64	114.57	49
B5	118.41	62	118.70	64	115.62	38
B6	120.17	65	119.68	68	117.24	49
A6	120.23	49	120.59	71	118.93	44
A1	131.56	38	133.85	34	132.89	54
B1	141.90	43	142.92	41	140.44	38
A4	145.57	51	146.83	41	145.31	59
A3	146.72	54	148.04	29	146.87	100
B4	146.78	35	148.31	31	146.87	100
B3	150.99	35	151.45	31	149.31	46
erythro isomer:						
γ	60.8		61.9		60.0	
α	72.8		73.8		71.6	
β	86.9		86.9		83.9	
A1	132.0		134.3		133.2	

Compound Number 132

¹³C



1-(4-hydroxy-3-methoxyphenyl)-2-[4-(1-hydroxyethyl)-2-methoxyphenoxy]ethanol

¹H (chloroform)

Atom	H Shifts	Mult	J
B β	1.46	d	6.4
OMe	3.90	s	
β1	3.96	dd	9.7, 8.6
β2	4.06	dd	9.7, 3.5
B α	4.84	q	6.4
α	5.03	dd	8.6, 3.5

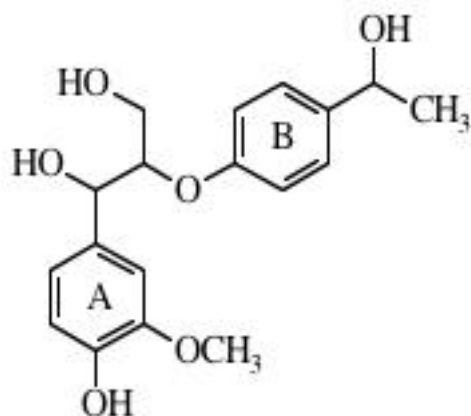
Notes:

S. Ralph SR111-63-1
50mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.05	40	26.20	40	25.83	54
OMe	55.98	52	56.27	50	55.50	62
B α	69.91	44	69.50	39	67.52	62
α	72.43	50	72.65	46	70.68	46
β	73.58	44	74.65	48	73.22	38
A2	108.82	44	110.89	39	110.55	35
B3	114.64	87	115.07	84	113.95	96
B5	114.64	87	115.07	84	113.95	96
A5	114.37	56	115.42	38	114.88	46
A6	119.33	52	119.88	41	118.63	42
B2	126.73	100	127.27	100	126.28	100
B6	126.73	100	127.27	100	126.28	100
A1	131.66	25	134.30	21	133.30	37
B1	138.66	23	140.41	21	139.30	37
A4	145.57	25	146.86	21	145.60	40
A3	146.70	25	148.16	15	147.17	38
B4	157.81	23	158.80	18	157.19	38

Compound Number 133

¹³C



major

1-(4-hydroxy-3-methoxyphenyl)-2-[4-(1-hydroxyethyl)phenoxy]-propane-1,3-diol

¹H (chloroform)

Atom	H Shifts	Mult	J
B β	1.47	d	6.4
OMe	3.87	s	
β	4.37	m	
Bα	4.85	q	6.4
α	4.96	d	6.7

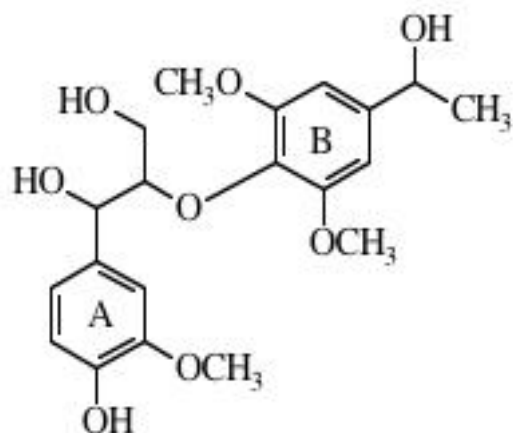
Notes:

S. Ralph SRIII-63-3
70mg
2:1 isomeric mixture,

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.08	49	26.07	52	25.78	64
OMe	56.00	72	56.22	53	55.45	49
γ	61.24	34	61.69	34	60.00	27
B α	69.86	64	69.52	52	67.60	62
α	73.94	43	73.38	36	70.95	24
β	83.28	45	84.16	38	83.14	29
A2	109.42	45	111.37	45	110.90	22
A5	114.38	47	115.19	48	114.68	33
B3	116.47	91	116.69	81	115.39	78
B5	116.47	91	116.69	81	115.39	78
A6	119.99	49	120.34	42	118.96	29
B2	126.88	100	127.14	100	126.14	100
B6	126.88	100	127.14	100	126.14	100
A1	131.60	26	134.18	25	133.19	36
B1	139.39	26	140.38	31	139.20	44
A4	145.68	19	146.63	25	145.33	42
A3	146.72	17	147.92	25	146.93	40
B4	157.50	21	158.92	23	157.71	33
minor isomer shifts						
γ	61.54		62.04		60.11	
α	74.04		73.99		71.50	
β	82.09		83.75		83.14	
B3,5	116.54		116.81		115.54	
A6	119.33		120.47		119.37	
B2,6	126.78		127.10		126.07	
A1	132.35		134.44		133.32	
B4	157.06		158.55		157.41	

Compound Number 134

¹³C



threo

□ 1-(4-Hydroxy-3-methoxyphenyl)-2-[4-(1-hydroxyethyl)-2,6-dimethoxyphenoxy]propane-1,3-diol

¹H (chloroform)

Atom	H Shifts	Mult	J
B β	1.47	d	6.4
A OMe	3.86	s	
B OMe's	3.89	s	
B α	4.83	q	6.4
α	5.00	d	8.8
B2,6	6.63	s	
A2	6.95	s	
A5	6.85	d	8.3
A6	6.91	dd	8.3, 1.7

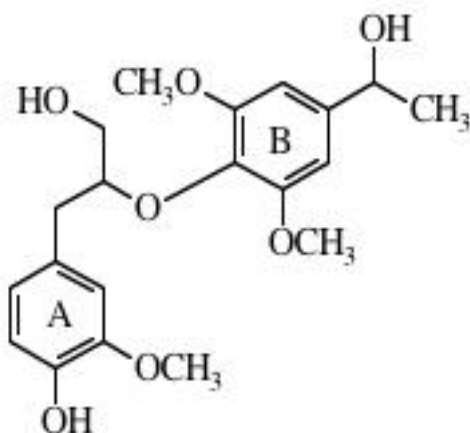
Notes:

S. Ralph SRIII-64-1
35mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.39	37	26.27	42	25.81	51
A OMe	55.96	45	56.23	49	55.46	51
B OMe	56.14	100	56.54	100	55.80	100
B OMe	56.14	100	56.54	100	55.80	100
γ	60.55	30	61.35	41	60.09	27
B α	70.29	39	70.01	44	68.07	56
α	74.10	35	74.10	42	71.48	34
β	89.00	35	89.82	40	87.20	37
B2	102.32	69	103.48	87	102.53	63
B6	102.32	69	103.48	87	102.53	63
A2	109.90	36	111.51	41	110.97	24
A5	114.36	37	115.24	54	114.56	32
A6	120.34	38	120.75	48	119.14	37
A1	131.89	26	133.67	26	132.82	39
B1	134.26	15	135.57	13	134.56	24
B4	142.80	23	144.64	26	142.88	41
A4	145.44	29	146.79	24	145.23	39
A3	146.56	30	147.95	25	146.77	37
B3	152.91	50	153.64	45	152.13	73
B5	152.91	50	153.64	45	152.13	73

Compound Number 135

¹³C



3-(4-hydroxy-3-methoxyphenyl)-2-[4-(1-hydroxyethyl)-2,6-dimethoxyphenoxy]propan-1-ol

¹H (chloroform)

Atom	H Shifts	Mult	J
B β	1.47	d	6.4
α1	2.97	dd	13.6, 8.8
α2	3.20	dd	13.6, 5.4
B OMe	3.85	s	
A OMe	3.83	s	
B α	4.82	q	6.4
β	4.18	m	
B2,6	6.61	s	
A6	6.74	dd	8.0, 1.9
A2	6.80	d	1.9
A5	6.82	d	8.0

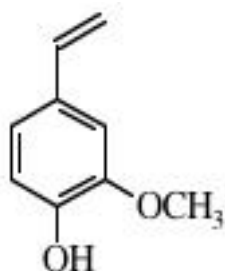
Notes:

S. Ralph SRIII-64-2
30mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	25.30	35	26.26	45	25.81	54
α	37.32	36	38.03	45	36.77	26
A OMe	55.94	58	56.23	48	55.46	49
B OMe	56.11	100	56.44	100	55.74	100
B OMe	56.11	100	56.44	100	55.74	100
γ	62.31	34	62.84	36	61.58	26
B α	70.42	35	70.04	39	68.13	51
β	84.52	42	85.30	48	83.40	36
B2	102.45	62	103.53	66	102.50	56
B6	102.45	62	103.53	66	102.50	56
A2	112.31	37	113.93	38	113.55	31
A5	114.27	46	115.51	48	115.01	36
A6	122.10	37	122.80	46	121.57	38
A1	130.13	25	130.80	25	129.24	38
B1	134.64	14	135.57	11	133.95	21
B4	142.09	19	144.15	14	142.83	38
A4	144.07	25	145.80	14	144.55	36
A3	146.38	20	148.04	18	147.03	36
B3	153.29	46	154.08	39	152.61	74
B5	153.29	46	154.08	39	152.61	74

Compound Number 136

¹³C



Vinyl guaiacol
2-methoxy-4-vinylphenol
4-vinylguaiacol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.86	100	56.17	83	55.52	77
2	108.14	51	109.85	50	109.61	47
β	111.38	78	111.09	100	110.81	73
5	114.40	85	115.69	42	115.34	74
6	120.03	88	120.58	86	119.46	93
1	130.26	24	130.59	22	128.77	44
α	136.62	78	137.70	86	136.63	100
A4	145.64	20	147.55	9	146.68	43
A3	146.63	22	148.38	14	147.64	37

¹H (acetone)

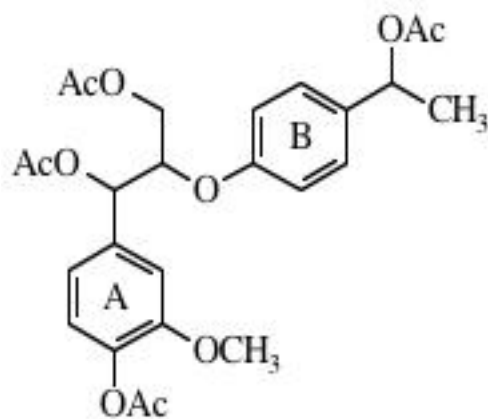
Atom	H Shifts	Mult	J
OMe	3.84	s	
β1	5.04	dd	10.9, 1.1
β2	5.62	dd	17.6, 1.1
α	6.63	dd	17.6, 10.9
A5	6.78	d	8.1
A6	6.90	dd	8.1, 1.9
A2	7.07	d	1.9

Notes:

J. Ralph
30mg

Compound Number 137

¹³C



threo

1,3-diacetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-[4-(1-acetoxyethyl)phenoxy] propane

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	1.98	s	
Ac Me	2.05	s	
Ac Me	2.05	s	
Ac Me	2.29	s	
B β	1.51	d	6.6
OMe	3.81	s	
γ1	4.04	dd	11.8, 6.1
γ2	4.27	dd	11.8, 3.8
B α	5.83	q	6.6
α	6.07	d	6.3
β	4.69	m	
<u>erythro</u>			
B β	1.50	d	6.6
α	6.03	d	5.2
B α	5.82	q	6.6

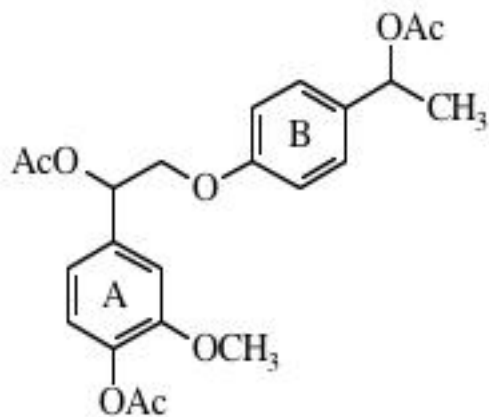
Notes:

S. Ralph SRIII-65-A 52mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.62	65	20.45	52	20.28	100
Ac Me	20.62	65	20.56	35	20.36	93
Ac Me	20.98	54	20.86	39	20.61	81
Ac Me	21.34	50	21.14	41	20.92	100
B β	22.00	44	22.34	38	21.78	64
OMe	55.98	65	56.31	42	55.82	69
γ	62.64	36	63.24	28	62.16	31
B α	71.85	49	72.17	27	71.14	57
α	74.00	36	75.07	32	74.00	40
β	78.08	25	79.10	22	77.57	36
A2	111.64	32	112.61	32	111.65	45
B5	116.31	68	117.08	51	116.01	98
B3	116.31	68	117.08	51	116.01	98
A6	119.60	40	120.37	43	119.45	40
A5	122.96	39	123.63	32	122.71	45
B2	127.66	100	128.27	100	127.30	100
B6	127.66	100	128.27	100	127.30	100
B1	134.86	32	136.20	18	134.71	40
A1	135.22	24	136.39	22	135.25	48
A4	140.05	18	140.97	14	139.25	36
A3	151.20	22	152.25	18	150.73	45
B4	157.97	17	159.12	19	157.69	40
A4 Ac C=O	168.71	20	168.81	18	168.30	43
Ac C=O	169.69	19	169.99	14	169.35	45
Ac C=O	170.29	18	170.18	14	169.51	48
Ac C=O	170.55	22	170.65	14	169.82	45
erythro isomer:						
γ	62.32		62.88		61.73	
B α	71.85		72.17		71.14	
α	73.62		74.21		72.81	
β	78.40		78.86		76.99	
B4	157.58		158.59		157.03	

Compound Number 138

¹³C



1-Acetoxy-1-(4-acetoxy-3-methoxyphenyl)2-[4-(1-acetoxyethyl)phenoxy] ethane

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	2.04	s	
Ac Me	2.11	s	
Ac Me	2.31	s	
Bβ	1.51	d	6.6
OMe	3.85	s	
β1	4.13	dd	10.4, 3.9
β2	4.25	dd	10.4, 7.8
Bα	5.83	q	6.6
α	6.12	dd	7.8, 3.9
B3,5	6.86	m	8.7
B2,6	7.28	m	8.7

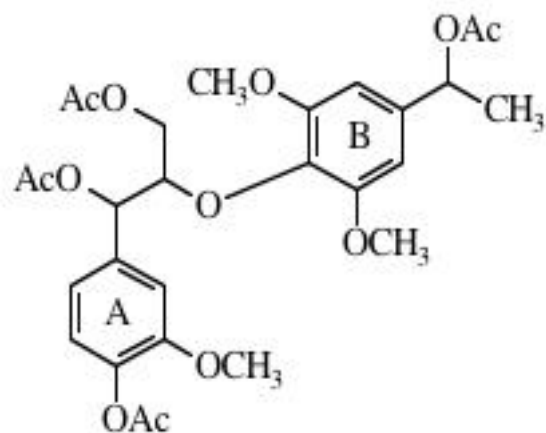
Notes:

S. Ralph SRIII-65-B
14mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.65	52	20.45	46	20.28	68
Ac Me	21.12	46	20.94	42	20.73	64
Ac Me	21.37	40	21.13	36	20.92	64
B β	21.98	52	22.35	50	21.78	64
OMe	55.98	59	56.30	52	55.79	64
β	70.49	43	71.18	44	69.76	36
B α	71.92	43	72.20	47	71.13	56
α	73.52	43	74.21	47	73.01	48
A2	111.26	39	112.20	42	111.34	40
B3	114.72	87	115.45	100	114.55	100
B5	114.72	87	115.45	100	114.55	100
A6	119.09	52	119.70	43	118.71	44
A5	122.95	53	123.61	44	122.66	52
B2	127.62	100	128.27	88	127.29	100
B6	127.62	100	128.27	88	127.29	100
B1	134.50	29	135.58	24	134.09	40
A1	135.85	30	137.17	24	135.84	44
A4	139.90	16	140.87	13	139.09	32
A3	151.20	27	152.28	20	150.69	36
B4	158.09	25	159.08	20	157.55	44
A4 Ac C=O	168.88	20	168.84	8	168.38	36
Ac C=O	169.98	20	170.13	14	169.49	36
Ac C=O	170.30	16	170.13	14	169.58	32

Compound Number 139

¹³C



threo

G-β-S5

1,3-diacetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-[4-(1-acetoxy ethyl)-2,6-dimethoxyphenoxy] propane

¹H (chloroform)

Atom	H Shifts	Mult	J
Ac Me	1.99	s	
Ac Me	2.06	s	
Ac Me	2.07	s	
Ac Me	2.30	s	
B β	1.51	d	6.6
A OMe	3.82	s	
B OMe	3.77	s	
γ1	3.95	dd	11.8, 3.2
γ2	4.34	dd	11.8, 4.7
β	4.54	m	
B α	5.79	q	6.6
α	6.15	d	6.3
B2,6	6.54	s	
A2	7.08	bs	
A5	6.99	m	
A6	6.99	m	

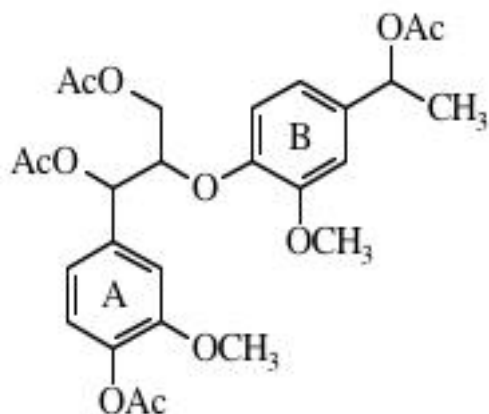
Notes:

S. Ralph SRIII-65-C 51mg
erythro shifts from SRVII 138BB in acetone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.64	46	20.45	53	20.30	46
Ac Me	20.70	41	20.58	43	20.60	26
Ac Me	21.00	29	20.92	38	20.95	37
Ac Me	21.34	36	21.14	43	22.01	19
B β	22.23	25	22.57	32	22.06	19
A OMe	55.99	65	56.28	57	55.78	100
B OMe	56.02	100	56.39	100	55.78	100
B OMe	56.02	100	56.39	100	55.78	100
γ	63.48	18	64.17	42	63.14	13
B α	72.38	29	72.71	48	71.70	23
α	75.25	36	76.25	32	75.28	13
β	80.59	35	81.38	42	80.11	18
B2	103.21	47	104.01	68	102.88	32
B6	103.21	47	104.01	68	102.88	32
A2	111.92	21	112.64	38	111.53	15
A6	119.65	39	120.24	50	119.25	21
A5	122.51	39	123.34	48	122.53	19
A1	135.96	26	136.92	17	135.25	19
B1	135.96	26	137.14	30	135.84	25
B4	137.54	22	138.78	32	137.44	24
A4	139.72	21	140.71	18	139.08	21
A3	150.91	26	152.02	27	150.58	26
B3	152.91	43	153.79	50	152.30	45
B5	152.91	43	153.79	50	152.30	45
A4 Ac C=O	168.80	19	168.86	20	168.37	19
Ac C=O	169.71	12	169.85	23	169.25	20
Ac C=O	170.19	15	170.16	20	169.56	20
Ac C=O	170.54	19	170.57	22	169.89	22
erythro isomer						
γ			63.28			
Bα			72.68			
α			75.06			
β			81.26			
B2,6			103.91			
2			112.17			
6			119.99			
5			123.36			

Compound Number 140

¹³C



threo

1,3-diacetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-[4-(1-acetoxyethyl)-2-methoxyphenoxy] propane

¹H (chloroform)

Atom	H Shifts	Mult	J
B β	1.51	d	6.6
Ac Me	1.99	s	
Ac Me	2.06	s	
Ac Me	2.065	s	
Ac Me	2.30	s	
OMe	3.82	s	
OMe	3.83	s	
γ1	4.04	dd	11.9, 5.6
γ2	4.30	dd	11.9, 4.6
β	4.61	m	
B α	5.82	q	6.6
α	6.11	d	6.3

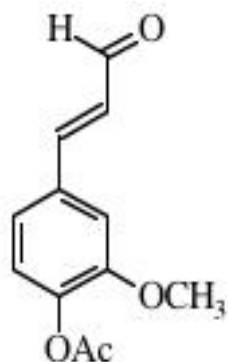
Notes:

S. Ralph SRIII-65-D
44mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.64	89	20.45	51	20.28	92
Ac Me	20.68	71	20.58	47	20.35	100
Ac Me	21.01	63	20.91	38	20.62	74
Ac Me	21.35	64	21.15	53	20.94	87
B β	22.09	57	22.45	39	21.89	58
OMe	55.92	100	56.29	100	55.66	84
OMe	55.97	86	56.29	100	55.78	71
γ	62.99	41	63.55	37	62.43	32
B α	72.06	57	72.39	46	71.37	71
α	74.41	41	75.34	39	74.26	39
β	80.14	41	80.68	39	79.10	45
B2	110.74	29	111.76	26	110.64	37
A2	111.74	46	112.64	32	111.62	45
B5	118.35	43	118.85	28	117.18	50
B6	118.67	56	119.19	43	118.09	61
A6	119.57	64	120.28	44	119.38	50
A5	122.80	60	123.51	41	122.63	47
A1	135.24	53	136.60	37	135.36	55
B1	136.76	43	137.78	22	136.11	53
A4	139.94	39	140.88	17	139.21	47
B4	147.53	24	148.48	17	147.00	50
B3	150.65	36	151.57	20	149.92	63
A3	151.12	43	152.18	21	150.68	55
A4 Ac C=O	168.74	37	168.82	16	168.32	42
Ac C=O	169.66	29	169.94	14	169.31	47
Ac C=O	170.25	27	170.16	14	169.53	47
Ac C=O	170.53	31	170.62	18	169.91	53
erythro isomer						
γ	63.0		62.5		61.8	
α	73.7		74.5		73.1	
β	80.1		80.2		78.3	
B4	146.7		147.7		146.1	

Compound Number 141

¹³C



acetylated coniferylaldehyde
4-acetoxy-3-methoxycinnamaldehyde

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.57	57	20.43	62	20.28	86
OMe	55.98	95	56.44	91	55.99	91
2	111.55	67	112.65	62	112.08	62
6	121.82	78	122.68	71	122.04	71
5	123.49	100	124.25	100	123.32	93
β	128.74	89	129.68	98	128.72	100
1	132.97	45	134.17	38	133.00	69
4	142.30	20	143.22	18	141.55	34
3	151.66	26	152.77	24	151.22	48
α	151.74	52	152.55	51	152.29	52
Ac C=O	168.52	21	168.72	16	168.19	34
γ	193.27	50	193.89	49	194.17	60

¹H (acetone)

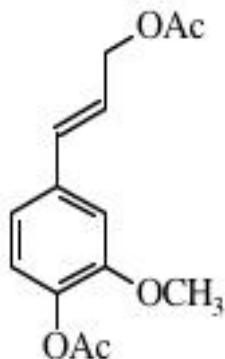
Atom	H Shifts	Mult	J
Ac Me	2.25	s	
OMe	3.89	s	
β	6.79	dd	15.9, 7.7
5	7.15	d	8.1
6	7.29	d	8.1, 1.9
2	7.49	d	1.9
α	7.64	d	15.9
γ	9.69	d	7.7

Notes:

S. Ralph SRIII-76B
30mg
in acetone 3 & α switch places

Compound Number 142

¹³C



acetylated coniferyl alcohol
4-acetoxy-3-methoxycinnamylacetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.59	75	20.45	72	20.27	98
Ac Me	20.92	56	20.76	48	20.60	76
OMe	55.88	100	56.24	91	55.75	96
γ	64.84	84	65.13	82	64.12	96
2	110.34	73	111.23	51	110.41	80
6	119.37	92	119.92	100	118.99	100
5	122.88	97	123.74	96	122.83	98
β	123.61	90	124.90	93	124.16	100
α	133.52	97	133.62	97	132.29	100
1	135.30	43	136.26	39	134.97	62
4	139.76	21	140.82	18	139.08	40
3	151.21	35	152.43	25	150.94	56
A4 Ac C=O	168.83	30	168.89	22	168.37	49
γ Ac C=O	170.68	21	170.69	16	170.02	33

¹H (acetone)

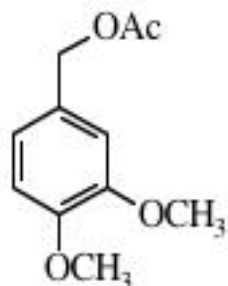
Atom	H Shifts	Mult	J
Ac Me	2.04	s	
Ac Me	2.23	s	
OMe	3.8	s	
γ	4.69	dd	
β	6.36	dt	
α	6.68	dt	
5	7.01	m	
6	7.01	m	
2	7.21	s	

Notes:

M.Mozuch 177/95 47mg

Compound Number 143

¹³C



Acetylated veratryl alcohol
3,4-dimethoxybenzylacetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.03	36	20.83	33	20.66	57
OMe	55.96	100	56.18	100	55.50	100
OMe	55.96	100	56.18	100	55.50	100
α	66.38	58	66.53	62	65.47	82
2	111.27	50	112.76	36	111.70	54
5	112.06	52	113.50	38	112.34	61
6	121.33	66	121.90	68	120.88	84
1	128.60	24	129.99	15	128.45	36
3	149.14	18	150.38	13	148.66	30
4	149.26	17	150.45	11	148.75	28
Ac C=O	170.82	12	170.85	10	170.15	25

¹H (acetone)

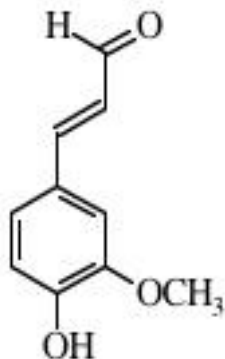
Atom	H Shifts	Mult	J
Ac Me	2.01	s	
OMe	3.79	s	
OMe	3.80	s	
α	5.00	s	
5	6.91	m	
6	6.91	m	
2	6.98	s	

Notes:

M.Mozuch 177/95 48mg

Compound Number 144

¹³C



coniferaldehyde
4-hydroxy-3-methoxycinnamaldehyde

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.05	100	56.41	92	55.74	63
2	109.75	90	111.66	70	111.59	44
5	115.06	93	116.21	100	115.68	59
6	124.03	92	124.68	78	123.86	56
β	126.35	95	127.03	92	125.69	100
1	126.66	38	127.46	32	125.69	100
4	147.11	33	148.83	27	148.02	37
3	149.12	43	150.78	35	150.15	39
α	153.16	57	153.89	57	153.83	46
γ	193.62	95	193.78	65	193.84	50

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.93	s	
β	6.67	dd	15.8, 7.8
5	6.92	d	8.2
6	7.21	dd	8.2, 2.0
2	7.38	d	2.0
α	7.57	d	15.8
γ	9.64	d	7.8

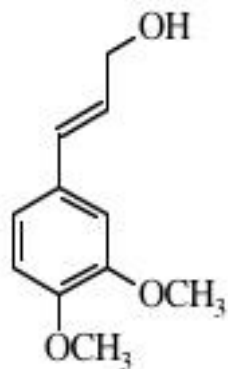
Notes:

Aldrich 40mg

Note: In DMSO β and 1 are coincident

Compound Number 145

¹³C



3,4-dimethoxycinnamyl alcohol

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.79	s	
OMe	3.82	s	
γ	4.20	dd	5.4, 1.5
β	6.26	dt	15.9, 5.4
α	6.49	dt	15.9, 1.5
5	6.88	m	
6	6.89	m	
2	7.06	d	1.7

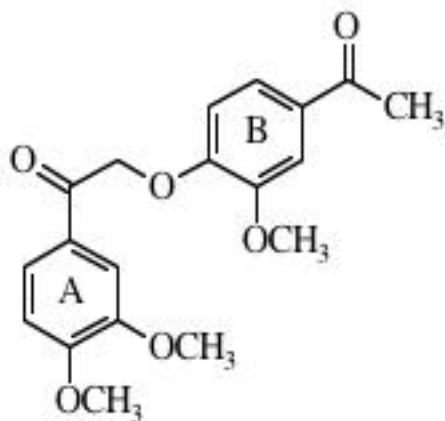
Notes:

M.Mozuch 199/16 25mg
 Note: only 8 mg was used for DMSO spec.
 and 1 and α switch places in CDCl₃

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.87	100	56.12	100	55.50	100
OMe	55.95	97	56.18	90	55.55	86
γ	63.76	71	63.34	57	61.63	81
2	109.14	53	110.59	47	109.33	58
5	111.34	58	112.92	56	111.91	58
6	119.69	97	120.24	89	119.16	81
β	126.65	77	128.90	85	128.53	81
α	131.09	94	130.14	89	128.60	91
1	129.87	33	131.40	23	129.94	47
3	149.01	21	150.10	16	148.36	93
4	149.14	23	150.55	15	148.91	40

Compound Number 146

¹³C



2-(4-Acetyl-2-methoxyphenoxy)-1-(3,4-dimethoxyphenyl) ethanone

¹H (acetone)

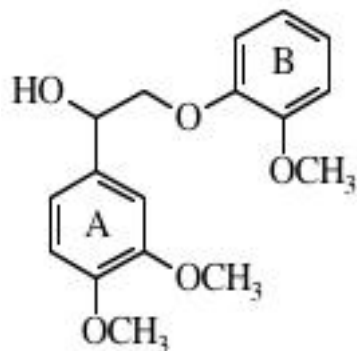
Atom	H Shifts	Mult	J
B β	2.50	s	
OMe	3.87	s	
OMe	3.89	s	
OMe	3.90	s	
β	5.56	s	
B5	6.94	d	8.9
A5	7.07	d	8.4
A6	7.75	dd	8.4, 1.9

Notes:

LLL XVII-19A

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	26.16	54	26.29	56	26.22	60
OMe	56.03	77	56.21	86	55.59	96
OMe	56.10	100	56.30	100	55.63	96
OMe	56.10	100	56.36	82	55.78	80
β	71.39	48	71.71	61	70.30	56
A2	110.30	55	111.63	46	110.32	51
A5	110.54	43	111.77	68	110.92	51
B2	111.10	43	112.29	45	111.03	64
B5	112.57	38	113.55	48	112.28	56
B6	122.74	62	123.45	83	122.58	100
A6	122.85	67	123.54	90	122.58	100
A1	127.58	22	128.67	23	127.08	44
B1	131.52	26	132.02	24	130.24	40
A3	149.40	29	150.32	32	148.54	44
B3	149.40	29	150.32	32	148.69	47
B4	151.79	22	153.19	25	151.73	40
A4	154.14	23	155.19	24	153.61	38
α	192.22	29	192.90	24	192.24	44
B α	196.56	23	196.36	20	196.17	33

Compound Number 147

¹³C

1-(3,4-Dimethoxyphenyl)-2-(2-methoxyphenoxy)ethanol

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.78	s	
OMe	3.82	s	
OMe	3.82	s	
β1	4.0	dd	9.9, 7.7
β2	4.07	dd	9.9, 4.2
α	4.98	m	
A2	7.14	d	1.9

Notes:

LLL V-59B

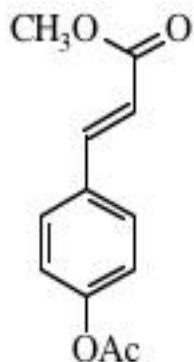
β-carbon in CDCl₃ was observed as shoulder on solvent.

Very limited solubility in acetone; DEPT was run in DMSO.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.93	100	56.13	83	55.38	51
OMe	55.93	100	56.26	100	55.57	100
OMe	56.01	77	56.36	63	55.57	98
α	72.17	67	72.59	67	70.68	47
β	76.53	67	76.22	76	74.07	40
A2	109.67	41	111.63	59	110.48	36
A5	111.28	44	112.77	66	111.56	37
B2	112.21	45	113.67	64	112.55	37
B5	116.28	45	115.82	57	113.79	33
A6	118.67	64	119.44	100	118.32	48
B6	121.15	67	121.86	71	120.73	52
B1	122.61	67	122.43	84	120.94	47
A1	132.36	23	135.50	33	135.11	35
B3	148.14	17	149.71	29	147.99	25
A3	148.89	21	149.71	29	148.20	26
A4	149.23	20	149.84	29	148.46	29
B4	150.30	17	150.30	29	149.11	22

Compound Number 148

¹³C



acetylated methyl coumarate
methyl 4-acetoxycinnamate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.02	100	20.93	40	20.79	47
OMe	51.66	11	51.70	45	51.70	47
β	118.04	11	118.75	48	118.75	45
3	122.23	25	123.10	100	122.30	100
5	122.23	25	123.10	100	122.30	100
2	129.24	24	130.02	100	129.50	100
6	129.24	24	130.02	100	129.50	100
1	132.13	9	132.81	40	131.70	36
α	143.80	12	144.21	48	143.49	47
4	152.31	4	153.34	18	152.06	26
γ	167.31	4	167.36	17	166.56	26
Ac C=O	169.05	4	169.36	17	168.84	26

¹H (acetone)

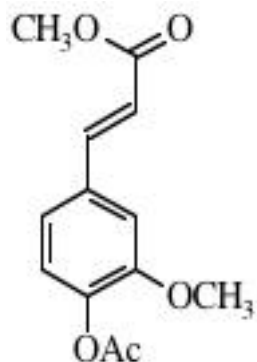
Atom	H Shifts	Mult	J
Ac Me	2.27	s	
OMe	3.75	s	
β	6.51	d	16.0
3,5	7.18	m	8.7
α	7.67	d	16.0
2,6	7.69	m	8.7

Notes:

J. Ralph P.S. 169.1
50mg
contains 30% unacetylated

Compound Number 149

¹³C



acetylated methyl ferulate
methyl 4-acetoxy-3-methoxycinnamate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.54	68	20.46	70	20.28	100
γ OMe	51.62	73	51.69	85	51.34	83
OMe	55.94	100	56.44	100	55.95	96
2	111.52	71	112.59	78	112.01	71
β	118.13	85	118.95	85	118.05	96
6	120.20	87	122.04	89	121.37	83
5	123.30	98	124.12	100	123.11	88
1	133.41	47	134.25	33	132.92	67
4	141.66	27	142.73	22	140.98	42
α	144.12	85	144.68	100	143.81	92
3	151.57	37	152.72	30	151.10	58
γ	167.15	32	167.41	33	166.52	58
Ac C=O	168.59	27	168.76	26	168.19	46

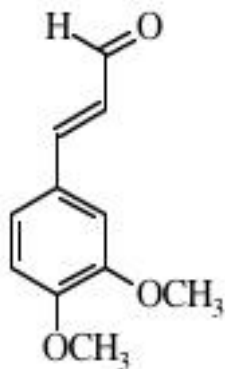
¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.25	s	
γ OMe	3.74	s	
OMe	3.86	s	
β	6.54	d	16.0
5	7.09	d	8.1
6	7.23	dd	8.1, 1.7
2	7.41	d	1.7
α	7.64	d	16.0

Notes:

J. Ralph P.S. 171.1

Compound Number 150

¹³C

3,4-dimethoxy cinnamaldehyde

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.88	s	
OMe	3.90	s	
β	6.70	dd	15.8, 7.7
5	7.05	d	8.3
6	7.28	dd	8.3, 7.0
2	7.38	d	7.0
α	7.62	d	15.8
γ	9.67	d	7.7

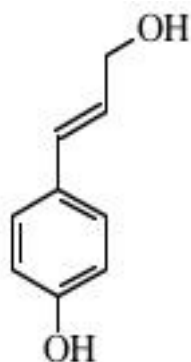
Notes:

S. Ralph SRIII-81
50mg
DMSO nmr 20mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.01	100	56.26	100	55.51	100
OMe	56.06	95	56.32	100	55.51	100
2	110.20	49	111.66	58	110.58	42
5	111.32	63	112.61	72	111.55	58
6	123.41	80	124.30	82	123.50	61
β	126.78	81	127.57	91	126.42	67
1	127.17	34	128.28	31	126.80	42
3	149.52	20	150.73	15	148.93	30
4	152.11	17	153.24	18	151.53	30
α	152.71	51	153.64	58	153.27	45
γ	193.39	56	193.83	62	193.81	55

Compound Number 151

¹³C



p-Coumaryl alcohol
4-hydroxycinnamyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ			63.47	36	61.66	36
3			116.19	100	115.28	96
5			116.19	100	115.28	96
β			127.67	41	127.06	42
2			128.33	89	127.27	100
6			128.33	89	127.27	100
1			129.73	14	127.86	27
α			130.29	42	128.64	45
4			157.78	22	156.70	29

¹H (acetone)

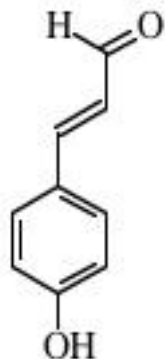
Atom	H Shifts	Mult	J
γ	4.20	bd	5.2
β	6.21	dt	15.8, 5.5
α	6.51	bd	15.9
3,5	6.80	m	8.7
2,6	7.31	m	8.7

Notes:

S. Ralph
36mg

Compound Number 152

¹³C



p-Coumaraldehyde
4-hydroxy cinnamaldehyde

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
3			116.84	96	115.88	97
5			116.84	96	115.88	97
1			126.73	46	125.34	51
β			126.96	15	125.15	29
2			131.48	100	130.81	100
6			131.48	100	130.81	100
α			153.64	37	153.50	37
4			161.24	19	160.49	31
γ			193.81	40	193.80	46

¹H (acetone)

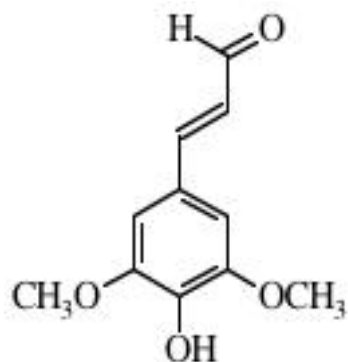
Atom	H Shifts	Mult	J
β	6.62	dd	15.8, 7.7
3,5	6.94	m	8.7
α	7.58	d	15.8
2,6	7.61	m	8.7
γ	9.64	d	7.7

Notes:

S. Ralph
35mg
order of β & 1 are reversed in DMSO

Compound Number 153

¹³C



Sinapaldehyde
3,4-dimethoxy-4-hydroxycinnamaldehyde

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.45	100	56.76	100	56.08	100
OMe	56.45	100	56.76	100	56.08	100
2	105.73	80	107.39	81	106.71	77
6	105.73	80	107.39	81	106.71	77
1	125.62	22	126.15	18	124.40	26
β	126.81	50	127.28	51	126.03	46
4	138.24	15	140.26	6	139.13	14
3	147.44	32	149.02	23	148.02	43
5	147.44	32	149.02	23	148.02	43
α	153.09	32	154.22	38	154.12	37
γ	193.32	35	193.70	26	193.75	40

¹H (acetone)

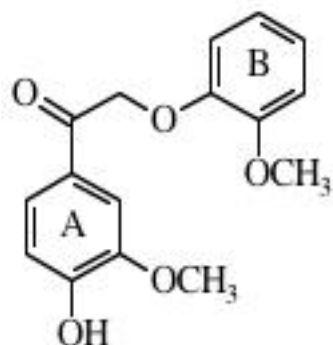
Atom	H Shifts	Mult	J
OMe	3.90	s	
β	6.69	dd	15.8, 7.7
2,6	7.08	s	
α	7.55	d	15.8
γ	9.63	d	7.7

Notes:

S. Ralph
25mg

Compound Number 154

¹³C



1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)- ethanone

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.83	s	
OMe	3.92	s	
β	5.36	s	

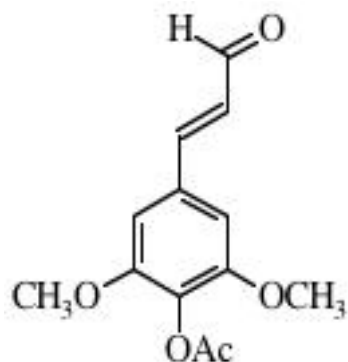
Notes:

S. Ralph

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.95	96	56.26	100	55.54	83
OMe	56.12	100	56.26	100	55.62	100
β	72.08	67	72.42	51	70.46	58
A2	110.31	74	111.84	57	111.21	58
B2	112.31	63	113.68	46	112.50	58
A5	114.06	93	115.42	57	113.70	58
B5	114.88	56	115.71	43	115.00	83
B6	120.86	93	121.48	69	120.46	100
B1	122.38	96	122.55	66	121.19	83
A6	123.41	85	123.94	71	122.79	83
A1	127.62	37	128.24	23	126.18	58
A3	146.86	33	148.30	20	147.56	92
B3	147.69	22	149.14	17	147.56	92
B4	149.82	26	150.86	14	148.96	42
A4	151.02	48	152.69	17	152.18	67
α	193.17	37	193.27	23	192.60	42

Compound Number 155

¹³C



Acetylated sinapaldehyde
4-acetoxy-3,5-dimethoxycinnamaldehyde

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.39	43	20.23	40	20.05	50
OMe	56.25	100	56.68	100	56.20	100
OMe	56.25	100	56.68	100	56.20	100
2	105.13	86	106.26	88	105.63	84
6	105.13	86	106.26	88	105.63	84
β	128.79	52	129.80	48	128.93	47
1	131.23	9	132.01	8	130.20	13
4	132.30	26	133.55	22	132.39	39
α	152.20	34	153.08	36	152.77	66
3	152.63	47	153.64	33	152.05	37
5	152.63	47	153.64	33	152.05	37
Ac C=O	168.30	17	168.37	15	167.76	24
γ	193.25	36	193.94	36	194.18	39

¹H (acetone)

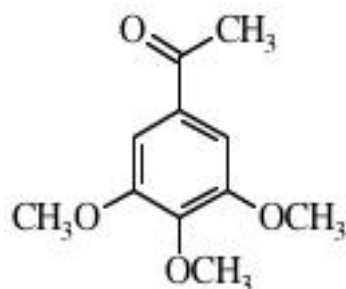
Atom	H Shifts	Mult	J
Ac Me	2.26	s	
OMe	3.87	s	
β	6.81	dd	15.9, 7.6
2,6	7.12	s	
α	7.61	d	15.9
γ	9.68	d	7.6

Notes:

Pearl Coll.
40mg
α and 3,5 change places in DMSO

Compound Number 156

¹³C



3,4,5-Trimethoxyacetophenone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	26.39	43	26.52	47	26.50	51
OMe	56.34	100	56.57	100	56.01	100
OMe	56.34	100	56.57	100	56.01	100
4 OMe	60.91	41	60.64	44	60.07	47
2	106.00	75	106.85	80	105.80	87
6	106.00	75	106.85	80	105.80	87
1	132.49	23	133.51	19	132.18	30
4	142.77	9	143.62	8	141.91	11
3	153.08	41	154.16	33	152.68	60
5	153.08	41	154.16	33	152.68	60
α	196.79	16	196.76	15	196.70	17

¹H (acetone)

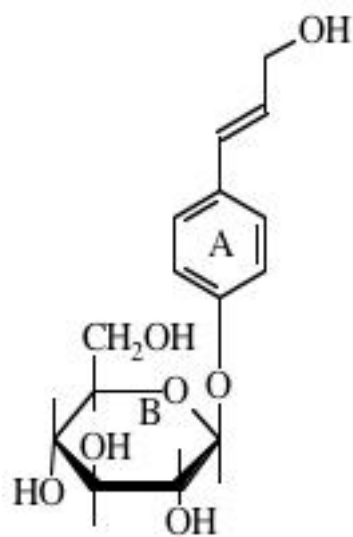
Atom	H Shifts	Mult	J
β	2.56	s	
4 OMe	3.80	s	
3,5 OMe	3.89	s	
2,6	7.29	s	

Notes:

Aldrich
48mg

Compound Number 157

¹³C



p-Gluco cinnamyl alcohol
4-(3-hydroxy-1-propenyl)phenyl-β-D-glucopyranoside

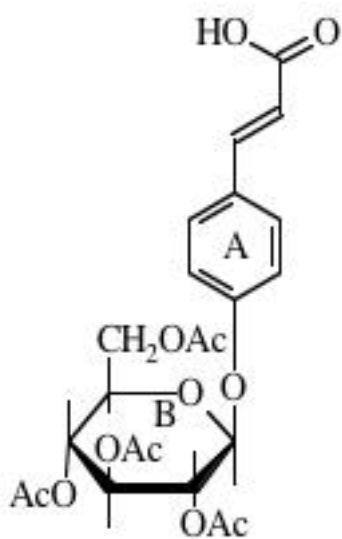
¹H (DMSO)

Atom	H Shifts	Mult	J
γ	4.09	dd	5.2
β	6.24	dt	15.9, 5.0
α	6.49	bd	16.0
A3,5	6.98	d	8.7
A2,6	7.35	d	8.7
B1	4.84	d	7.3
B2,3,4,5	3.36-3.14	nr	
B6 α	3.46	m	11.7, 6.0
B6 β	3.70	ddd	11.7
B6 OH	4.58	t	5.7
γOH	4.83	t	5.4

Notes:

N. Terashima
 15mg only DMSO soluble
 Terashima, Ralph, Landucci, Holzforschung, 50(1995)p. 151-155

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B6					60.63	36
γ					61.49	45
B4					69.64	45
B2					73.14	41
B5					76.51	41
B3					76.94	50
B1					100.32	41
A3					116.23	91
A5					116.23	91
A2					127.02	100
A6					127.02	100
α					127.97	50
β					128.71	45
A1					130.58	36
A4					156.62	41

Compound Number 158
¹³C

acetylated p-gluco cinnamic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.58	100	18.86	100	20.22	91
Ac Me	20.58	100	18.86	100	20.22	91
Ac Me	20.58	100	20.52	70	20.28	81
Ac Me	20.58	100	20.58	70	20.37	66
B6	61.97	32	62.73	47	61.52	41
B4	68.29	42	69.29	43	67.96	47
B2	71.17	42	71.96	43	70.60	47
B5	72.23	45	72.75	43	70.84	53
B3	72.68	48	73.33	47	71.86	44
B1	98.55	39	98.86	40	96.67	44
A3	117.18	90	117.81	87	116.48	100
A5	117.18	90	117.81	87	116.48	100
β	116.31	42	117.96	47	117.80	47
A1	129.38	29	130.39	23	128.98	41
A2	129.90	81	130.60	83	129.76	100
A6	129.90	81	130.60	83	129.76	100
α	145.76	39	144.67	40	143.05	53
4	158.52	29	159.39	33	157.60	38
γ	169.25	29	167.83	27	167.50	41
Ac C=O	169.39	32	169.71	23	168.95	44
Ac C=O	170.20	29	170.02	27	169.17	44
Ac C=O	170.51	29	170.29	27	169.44	38
Ac C=O	171.26	26	170.62	27	169.82	47

¹H (acetone)

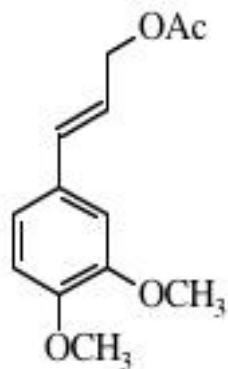
Atom	H Shifts	Mult	J
β	6.44	d	16.0
A3,5	7.13	d	8.8
α	7.64	d	8.7
A2,6	7.68	d	15.7

Notes:

N. Terashima
 22mg
 β + 3,5 switch places in CDCl₃

Compound Number 159

¹³C



3,4-dimethoxycinnamyl acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.01	60	20.79	44	20.64	47
OMe	55.88	100	56.08	100	55.41	100
OMe	55.94	100	56.08	100	55.41	100
γ	65.25	87	65.48	59	64.43	47
2	109.07	60	110.48	40	109.28	33
5	111.20	67	112.67	46	111.63	37
6	120.03	87	120.78	58	119.73	50
β	121.19	100	122.28	58	121.37	50
1	129.34	47	130.37	24	128.81	30
α	134.28	87	134.54	58	133.25	43
3	149.14	33	150.54	19	148.83	43
4	149.31	40	150.62	17	148.83	43
Ac C=O	170.84	27	170.72	15	170.05	20

¹H (acetone)

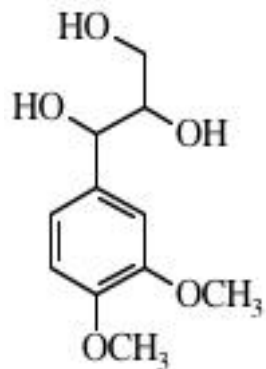
Atom	H Shifts	Mult	J
Ac Me	2.02	s	
OMe	3.79	s	
OMe	3.82	s	
γ	4.65	dd	6.5, 1.3
β	6.22	dt	15.9, 6.4
α	6.61	bd	15.9
5	6.89	d	8.3
6	6.95	dd	8.3, 1.9
2	7.10	q	1.9

Notes:

S. Ralph 15mg

Compound Number 160

¹³C



Veratryl glycerol
1-(3,4-dimethoxyphenyl)glycerol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.98	100	56.10	94		
OMe	55.98	100	56.20	94		
γ	63.41	50	63.98	100		
β	74.87	47	74.70	88		
α	75.81	53	77.21	88		
2	109.71	33	111.82	62		
5	111.25	33	112.54	69		
6	119.04	50	119.91	88		
1	133.04	27	136.24	56		
3	149.08	23	149.70	31		
4	149.28	27	150.16	31		

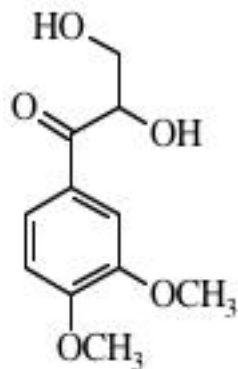
¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.77	s	
OMe	3.78	s	
γ1	3.36	dd	
γ2	3.48	dd	
β	3.62	m	
α	4.58	d	
5	6.86	m	
6	6.86	m	
2	7.00	bs	

Notes:

M. Mozuch 2mg
No DEPT run and not run in DMSO

Compound Number 161

¹³C

1-(3,4-dimethoxyphenyl)-2,3-dihydroxypropan-1-one

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.89	s	
OMe	3.92	s	
β	5.13	m	
5	7.08	d	8.4
2	7.55	d	2.0
6	7.71	dd	2.0, 8.4

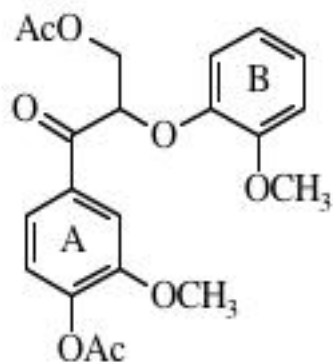
Notes:

M. Mozuch 17 mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.11	100	56.20	72		
OMe	56.21	100	56.28	76		
γ	65.95	93	66.30	100		
β	74.17	93	75.28	90		
2	110.34	79	111.64	76		
5	110.77	71	112.03	48		
6	123.46	100	124.23	86		
1	126.55	43	128.45	24		
3	149.52	50	150.28	28		
4	154.42	36	155.09	28		
α	197.65	50	199.22	41		

Compound Number 162

¹³C



Erone diacetate

3-acetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propan-1-one

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.62	100	20.48	100		
Ac Me	20.75	65	20.64	70		
OMe	55.75	75	56.16	79		
OMe	56.08	85	56.46	85		
γ	64.36	70	64.66	70		
β	80.58	60	80.50	67		
A2	112.73	85	113.45	66		
B2	112.73	85	113.93	64		
B5	118.53	65	118.58	56		
B6	121.04	80	121.67	74		
A6	122.34	70	122.81	67		
B1	122.97	75	124.04	89		
A5	123.66	80	124.04	89		
A1	133.67	40	134.87	39		
A4	144.38	30	145.35	20		
B4	146.82	25	147.86	33		
B3	150.43	35	151.40	25		
A3	151.47	35	152.50	39		
A4 Ac C=O	168.30	35	168.58	28		
γ Ac C=O	170.82	30	170.90	28		
α	194.59	40	195.10	31		

¹H (acetone)

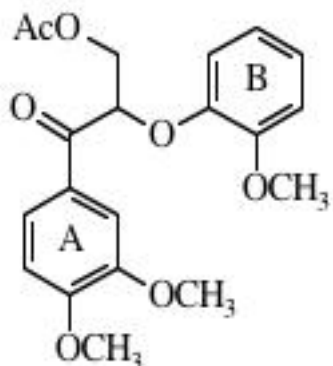
Atom	H Shifts	Mult	J
Ac Me	1.98	s	
Ac Me	2.27	s	
OMe	3.76	s	
OMe	3.88	s	
γ1	4.49	dd	6.5, 11.9
γ2	4.65	dd	3.9, 11.9
β	5.84	dd	3.9, 6.5
A2,6	7.81	m	
A5	7.23	d	8.8

Notes:

L.Landucci 30 mg
Not run in DMSO

Compound Number 163

¹³C



Veratrone acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.78	84	20.64	64	20.44	95
OMe	55.79	100	56.05	82	55.40	93
OMe	55.96	95	56.17	100	55.53	100
OMe	56.07	93	56.22	96	55.74	90
γ	64.62	86	64.85	79	63.60	67
β	80.28	89	80.00	82	79.08	67
A2	110.22	82	111.59	82	110.70	74
A5	111.10	84	112.06	82	110.98	76
B2	112.67	88	113.85	86	112.88	76
B5	118.05	88	117.99	79	115.61	74
B6	120.96	93	121.57	89	120.53	83
A6	123.33	89	123.69	82	122.28	79
B1	123.76	95	124.27	86	123.23	79
A1	128.04	47	128.96	39	127.29	57
B4	146.92	37	147.95	32	146.33	55
A3	149.04	46	150.13	36	148.58	55
B3	150.32	39	151.25	32	149.37	55
A4	153.88	44	155.11	36	153.67	57
Ac C=O	170.84	42	170.89	32	170.00	55
α	194.05	46	194.24	39	193.22	62

¹H (acetone)

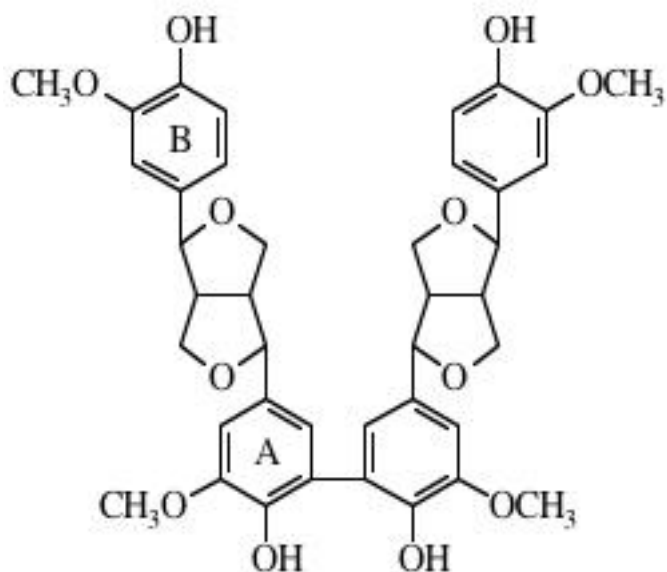
Atom	H Shifts	Mult	J
Ac Me	1.98	s	
OMe	3.77	s	
OMe	3.85	s	
OMe	3.89	s	
γ1	4.47	dd	6.8, 11.9
γ2	4.62	dd	3.9, 11.9
β	5.81	dd	3.9
A5	7.06	d	8.5
A2	7.66	d	2.0
A6	7.84	dd	2.0, 8.4

Notes:

L.Landucci
35 mg

Compound Number 164

¹³C



Pinoresinol biphenyl

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A β	54.13	81	55.26	100	53.60	93
Bβ	54.18	81	55.26	100	53.60	93
OMe	55.97	100	56.25	69	55.57	100
OMe	56.22	91	56.48	83	55.90	77
A γ	71.66	62	72.19	60	70.86	53
B γ	71.82	62	72.33	59	70.98	51
A α	85.82	72	86.67	93	85.14	66
Bα	85.93	72	86.67	93	85.21	56
A2	108.17	47	109.38	49	108.61	34
B2	108.64	74	110.58	57	110.39	77
B5	114.28	77	115.51	58	115.08	73
B6	118.98	72	119.62	62	118.60	68
A6	120.93	51	121.96	51	120.90	36
A5	124.06	34	125.96	23	125.44	26
A1	132.82	55	133.50	41	131.28	44
B1	132.82	55	134.17	31	132.16	47
A4	142.31	47	144.01	28	142.96	38
B4	145.26	51	146.82	35	145.85	54
B3	146.73	47	148.28	33	147.46	65
A3	147.40	45	148.68	38	147.63	41

¹H (acetone)

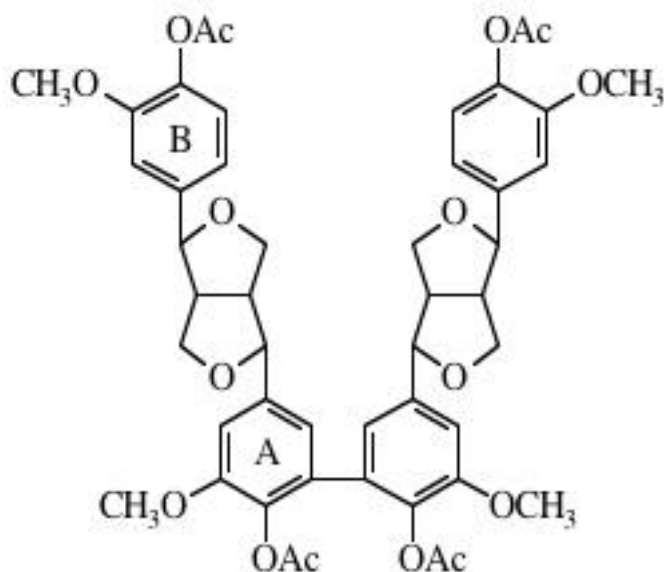
Atom	H Shifts	Mult	J
OMe	3.82	s	
OMe	3.87	s	
A,B γ2	4.21	dd	6.8, 9.0
A,B α	4.67	d	4.5

Notes:

J.Pew
15 mg
As this compound has a plane of symmetry the shifts for the other half are identical.

Compound Number 165

¹³C



Pinoresinol biphenyl acetate

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.00	s	
Ac Me	2.21	s	
OMe	3.80	s	
OMe	3.84	s	
A,B β	3.14	m	
A,B γ2	4.28	m	
A,Bα	4.80	m	

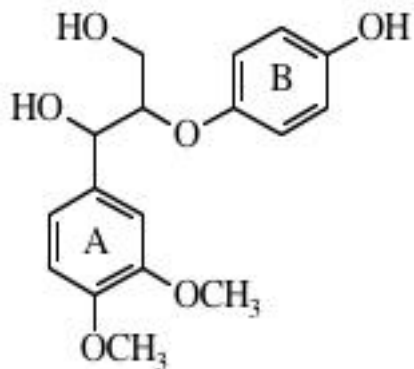
Notes:

J. Pew
 7 mg intensities for some peaks are irregular
 As this compound has a plane of symmetry the shifts for the other half are identical.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.47	65	20.42	77	20.19	66
Ac Me	20.67	55	20.49	92	21.16	100
A β	54.28	65	55.40	86	54.57	74
B β	54.37	52	55.40	86	54.57	74
OMe	55.96	73	56.22	71	56.52	99
OMe	56.17	85	56.47	64	56.82	66
A γ	71.95	66	72.62	100	72.09	69
B γ	72.05	45	72.62	100	72.09	69
A α	85.49	100	86.17	72	85.32	47
B α	85.49	100	86.17	72	85.42	63
A2	109.40	41	110.55	41	110.80	20
B2	109.89	46	111.09	55	111.18	61
B6	117.96	54	118.62	53	118.63	65
A6	119.79	50	120.26	38	119.80	22
B5	122.76	58	123.47	60	123.36	63
A5	131.38	32	132.09	26	131.16	33
A4	136.93	18	137.76	20	136.84	31
B4	139.13	28	140.12	20	139.23	42
A1	139.40	28	141.07	31	140.59	43
B1	140.02	29	141.80	35	141.24	41
A3	151.24	31	152.27	34	151.52	55
B3	151.51	35	152.59	38	151.86	48
A Ac C=O	168.71	25	168.83	26	168.93	26
B Ac C=O	169.08	26	169.02	34	169.32	51

Compound Number 166

¹³C



1-(3,4-dimethoxyphenyl)-2-(4-hydroxyphenoxy)propan-1,3-diol

¹H (acetone)

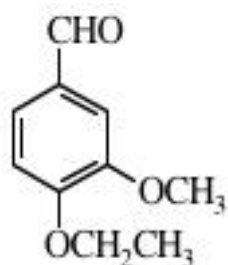
Atom	H Shifts	Mult	J
γ1	3.49	dd	5.2, 11.3
OMe	3.77	s	
OMe	3.77	s	
β	4.26	m	
α	4.95	d	5.0

Notes:

M. Mozuch
40 mg
not very soluble in CDCl₃, not run in DMSO

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.03	61		
OMe			56.09	63		
γ			61.58	40		
α			73.29	40		
β			85.37	48		
A2			111.84	46		
A5			112.30	54		
B2			116.42	100		
B6			116.42	100		
B3			118.70	100		
B5			118.70	100		
A6			119.90	46		
A1			135.53	27		
A3			149.56	22		
A4			149.97	25		
B1			152.52	27		
B4			153.12	19		
minor isomer						
γ			61.96			
α			73.94			
β			85.17			

Compound Number 167

¹³C

Ethyl vanillin

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Me	14.38	87	14.92	75		
OMe	55.77	100	56.00	100		
CH ₂	64.39	88	65.02	83		
2	108.97	59	110.36	79		
5	111.07	73	112.52	93		
6	126.53	65	126.65	70		
1	129.69	33	130.98	30		
3	149.51	23	150.72	20		
4	153.71	24	154.88	20		
α	190.60	73	191.06	72		

¹H (acetone)

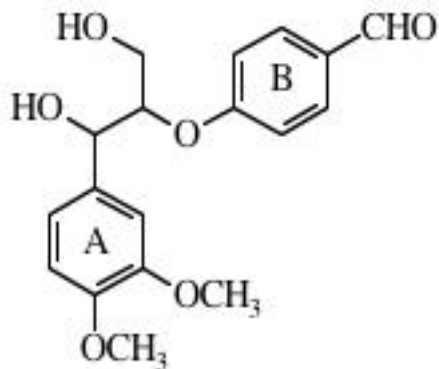
Atom	H Shifts	Mult	J
Me	1.42	t	7.0
OMe	3.89	s	
CH ₂	4.15	q	7.0
5	7.08	d	8.2
2	7.41	d	1.9
6	7.49	dd	1.9, 8.2
α	9.85	s	

Notes:

M. Mozuch
40 mg
Not run in DMSO

Compound Number 168

¹³C



1-(3,4-dimethoxyphenyl)-2-(4-carboxymethylphenoxy)
propan-1,3-diol

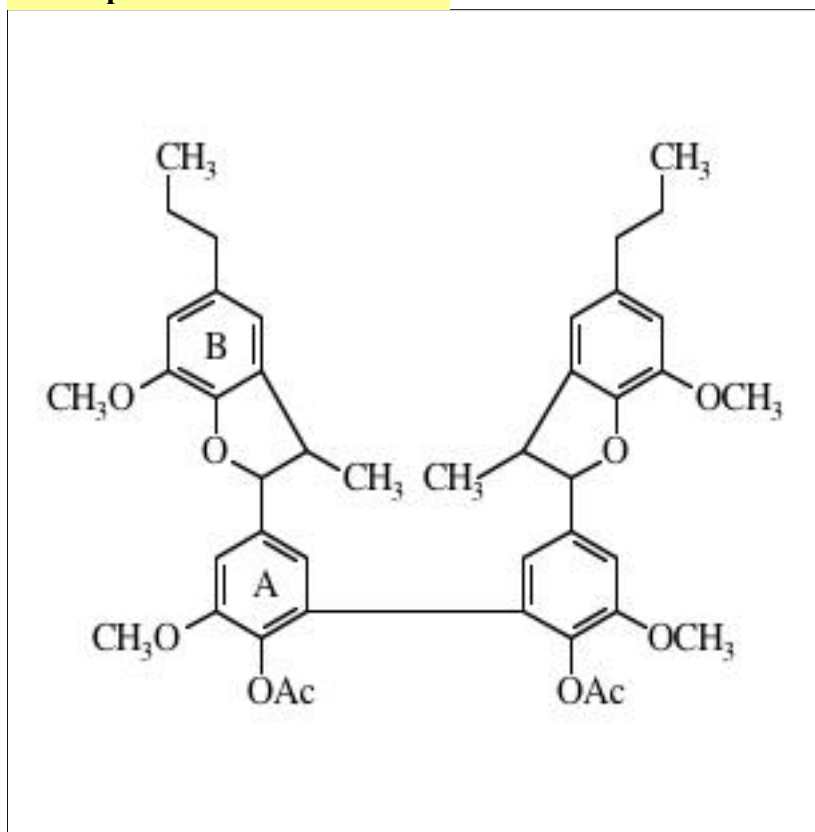
¹H (chloroform)

Atom	H Shifts	Mult	J
OMe	3.82	s	
β	4.54	m	
α	4.99	d	5.6
B 2,6	7.72	m	
B α	9.78	s	

Notes:

S. Kawai
50 mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.87	100	56.03	91		
γ	61.71	37	62.00	39		
α	74.04	41	73.55	36		
β	81.49	38	83.70	38		
A2	109.66	38	111.84	44		
A5	111.06	41	112.22	45		
B3	116.00	84	116.94	100		
B5	116.00	84	116.94	100		
A6	119.16	37	120.09	36		
A1	130.24	27	130.89	27		
B2	131.94	77	132.18	80		
B6	131.94	77	132.18	80		
B1	132.82	33	135.16	23		
A3	148.82	19	149.63	17		
A4	149.00	26	149.93	19		
B4	162.93	28	164.83	20		
B α	190.78	31	191.01	47		
Minor isomer						
γ	61.37					
α	73.62					
β	82.58					

Compound Number 169
¹³C

Phenylcoumaran biphenyl acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B γ	13.75	100	14.10	97	13.71	100
γ	17.71	75	18.49	74	17.81	57
Ac Me	20.26	77	20.30	67	19.96	49
B β	24.92	85	25.73	64	24.56	83
B α	37.91	82	38.53	86	37.29	60
β	45.76	73	46.82	61	45.26	49
OMe	55.85	88	56.43	100	55.66	79
OMe	56.00	81	56.48	93	56.04	64
α	92.66	66	92.74	74	91.15	43
B2	109.60	40	110.63	68	110.13	38
A2	111.74	52	113.65	69	112.29	40
B6	115.33	68	116.42	81	115.42	45
A6	120.42	38	120.46	56	119.24	23
A1	130.96	45	132.00	46	130.33	45
B1	132.48	62	133.69	68	132.47	51
A5	136.36	59	137.00	47	135.76	53
A4	137.28	33	138.28	29	136.61	36
B5	138.51	62	140.22	46	138.84	47
B3	143.69	55	144.86	31	143.40	53
A3	145.07	40	146.36	29	144.73	43
B4	151.39	56	152.72	49	151.24	47
Ac C=O	168.36	26	168.66	28	168.02	26

¹H (acetone)

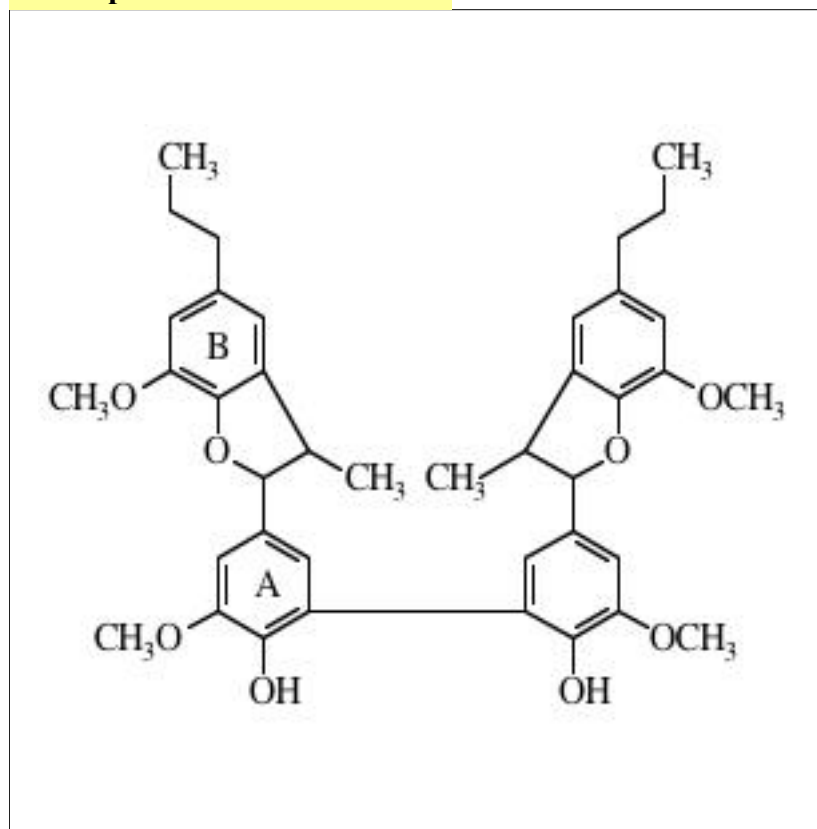
Atom	H Shifts	Mult	J
B γ	0.92	t	7.3
γ	1.41	d	6.8
B β	1.60	m	7.5
Ac Me	2.02	s	
B α	2.51	m	7.3
β	3.42	m	
OMe	3.82	s	
OMe	3.85	s	
α	5.18	d	8.7
B2	6.63	s	
B6	6.69	s	
A2	6.96	d	1.8
A6	7.25	d	1.9

Notes:

J. Pew
50 mg
As this compound has a plane of symmetry the shifts for the other half are identical.

Compound Number 170

¹³C



Phenyl coumaran biphenyl

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B γ	13.91	100	14.10	100	13.77	100
γ	17.48	70	17.87	78	17.28	76
B β	25.08	84	25.79	100	24.62	84
B α	38.07	84	38.54	93	37.32	64
β	45.68	79	46.48	74	44.80	50
OMe	56.00	80	56.40	89	55.66	84
OMe	56.20	85	56.50	93	55.94	68
α	93.52	72	93.84	81	92.39	48
B2	108.42	49	109.38	63	108.67	32
A2	111.83	54	113.57	70	112.19	46
B6	115.44	69	116.40	81	115.42	52
A6	122.01	61	122.57	74	121.57	36
A5	123.90	48	125.82	33	125.33	42
B1	132.15	64	132.38	48	129.98	46
A1	132.96	57	134.15	56	132.94	56
B5	136.28	62	136.65	48	135.41	58
B3	142.71	56	144.74	56	143.32	58
A4	143.82	49	144.79	56	143.78	48
A3	145.34	33	146.58	30	144.91	48
B4	147.41	52	148.76	56	147.74	50

¹H (acetone)

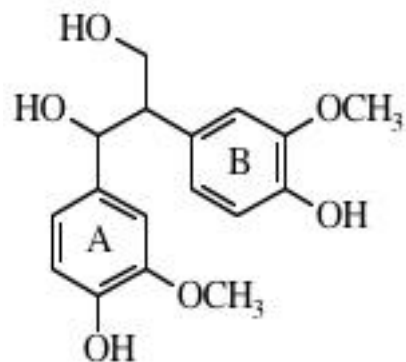
Atom	H Shifts	Mult	J
B γ	0.92	t	7.3
γ	1.37	d	6.8
B β	1.61	h	7.4
B α	2.52	t	7.4
β	3.44	m	
OMe	3.80	s	
OMe	3.89	s	
α	5.09	d	9.4
B2	6.63	s	
B6	6.68	s	
A2	7.02	d	1.8
A6	7.11	d	1.9

Notes:

J. Pew
30 mg
As this compound has a plane of symmetry the shifts for the other half are identical.

Compound Number 171

¹³C



1,2-diguaiacylpropane-1,3-diol

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.67	s	
OMe	3.72	s	
β	2.94	m	
α	5.02	d	

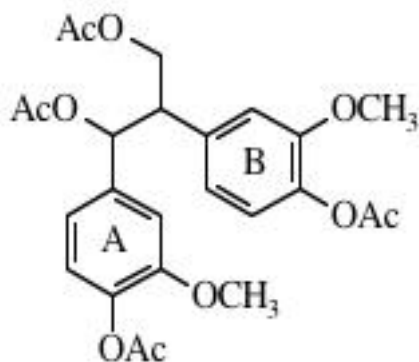
Notes:

S. Ralph
15 mg
β higher ppm than OMe's in acetone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	55.60	46	56.46	85	54.69	74
OMe	55.90	100	56.05	90	54.87	100
OMe	55.90	100	56.15	100	55.06	95
γ	64.25	49	64.42	78	62.20	60
α	75.78	51	74.86	70	71.96	67
A2	109.06	54	111.18	72	110.27	71
B2	111.80	51	114.18	72	113.46	74
A5	113.98	56	114.82	92	113.98	90
B5	114.58	51	115.01	88	114.03	81
A6	119.70	51	119.92	82	118.13	74
B6	121.54	51	123.00	82	121.32	71
B1	130.29	27	132.17	52	130.96	69
A1	133.99	32	136.59	60	135.49	71
B4	144.97	32	145.91	42	144.13	74
A4	145.32	29	146.12	45	144.36	64
B3	146.53	27	147.54	52	146.05	69
A3	146.63	27	147.60	45	146.24	67

Compound Number 172

¹³C



1,2-diguaiacylpropane-1,3-diol tetraacetate

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	1.93	s	
Ac Me	1.98	s	
Ac Me	2.21	s	
Ac Me	2.22	s	
β	3.52	m	
γ1	4.21	dd	6.6, 11.0
γ2	4.38	dd	6.8, 11.3
α	6.18	d	6.6

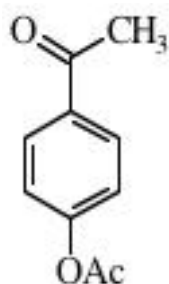
Notes:

S. Ralph
15 mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.63	92	20.45	68	20.28	82
Ac Me	20.63	92	20.45	68	20.28	82
Ac Me	20.79	48	20.67	43	20.44	56
Ac Me	20.96	49	20.84	46	20.53	63
β	50.09	43	50.97	48	49.08	35
OMe	55.88	100	56.20	100	55.60	100
OMe	55.88	100	56.20	100	55.60	100
γ	64.02	42	64.86	42	63.94	28
α	74.87	42	75.56	46	74.49	35
A2	111.24	41	112.07	43	111.00	28
B2	113.32	46	114.49	42	113.38	37
A6	119.13	11	119.71	49	118.69	39
B6	120.98	47	121.91	48	120.71	39
B5	122.46	52	123.12	58	122.15	41
A5	122.58	47	123.29	51	122.38	34
B1	135.77	33	137.41	29	136.55	34
A1	136.91	33	138.70	26	137.52	35
B4	139.04	21	140.02	17	138.15	32
A4	139.58	21	140.48	17	138.71	32
B3	150.71	27	151.78	22	150.14	39
A3	150.86	24	151.97	20	150.40	34
Ac C=O	168.76	28	168.88	23	168.32	42
Ac C=O	168.84	27	168.94	22	168.32	42
α Ac C=O	169.63	26	169.64	20	169.19	32
γ Ac C=O	170.74	26	170.74	20	169.98	35
Minor isomer						
β			50.70			
γ			64.71			
α			76.50			

Compound Number 173

¹³C



4-acetoxy-acetophenone

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.28	s	
β	2.57	s	
3	7.24	d	8.9
2	8.02	d	8.9

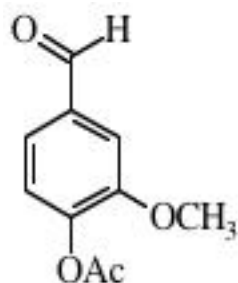
Notes:

Jamie Milhaupt
JR-JMA 29.1
50 mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.11	39	20.98	40	20.51	47
β	26.55	41	20.64	45	26.62	46
3	121.75	92	122.75	100	122.02	93
5	121.75	92	122.75	100	122.02	93
2	129.91	100	130.53	94	129.78	100
6	129.91	100	130.53	94	129.78	100
1	134.72	15	135.65	11	134.39	23
4	154.35	15	155.43	11	154.08	22
Ac C=O	168.78	15	169.27	13	168.73	19
α	196.75	13	196.80	11	196.75	15

Compound Number 174

¹³C



Vanillin acetate
4-formyl-2-methoxy phenyl acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.58	72	20.45	62	20.29	90
OMe	56.06	100	56.46	86	55.96	100
2	110.92	85	112.31	79	111.84	90
6	123.40	98	124.39	100	123.46	90
5	124.59	87	124.44	100	123.63	100
1	135.23	40	136.43	25	135.00	51
4	144.93	24	145.83	18	144.19	34
3	151.96	30	153.03	20	151.50	41
Ac C=O	168.26	28	168.57	18	168.01	41
α	190.97	92	191.76	71	191.87	95

¹H (acetone)

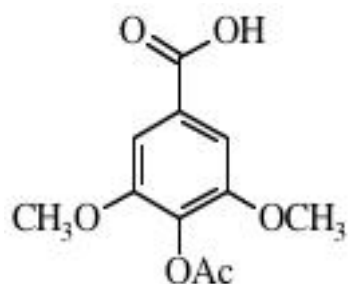
Atom	H Shifts	Mult	J
Ac Me	2.27	s	
OMe	3.91	s	
2	7.57	d	0.8
5	7.29	d	7.8
6	7.55	dd	7.8, 0.8
α	9.97	s	

Notes:

Jamie Milhaupt
JR-JMA 23.1
50mg

Compound Number 175

¹³C



Syringic Acid Acetate
4-acetoxy-3,5-dimethoxy benzoic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.43	47	20.23	43	19.93	50
OMe	56.34	100	56.65	98	55.92	100
OMe	56.34	100	56.65	98	55.92	100
2	106.90	100	107.12	100	105.72	83
6	106.90	100	107.12	100	105.72	83
1	127.15	12	129.34	17	128.72	33
4	133.37	14	133.63	12	131.44	17
3	152.19	57	153.21	33	151.48	63
5	152.19	57	153.21	33	151.48	63
α	168.17	27	166.97	21	166.44	35
Ac C=O	171.25	20	168.18	19	167.52	30

¹H (acetone)

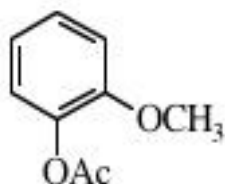
Atom	H Shifts	Mult	J
Ac Me	2.27	s	
OMe	3.88	s	
2,6	7.37	s	

Notes:

Jamie Milhaupt
JR-JMA 25.1
25 mg

Compound Number 176

¹³C



Guaiacol acetate
2-methoxyphenyl acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.64	64	20.48	68	20.21	84
OMe	55.78	100	56.12	95	55.62	96
2	112.39	93	113.41	94	112.74	99
5	120.72	97	121.30	100	120.47	100
1	122.78	95	123.66	98	122.76	97
6	126.86	95	127.50	97	126.79	93
4	139.75	19	141.01	15	139.33	28
3	151.10	22	152.36	19	150.87	35
Ac C=O	168.99	21	168.93	17	168.43	34

¹H (acetone)

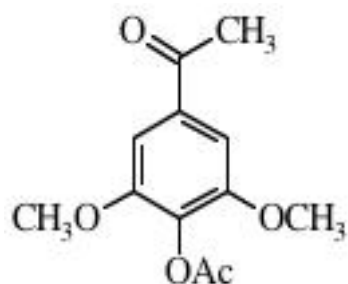
Atom	H Shifts	Mult	J
Ac Me	2.22	s	
OMe	3.79	s	
2	6.93	m	
5	7.20	m	
1	7.05	m	
6	7.05	m	

Notes:

Jamie Milhaupt
JR-JMA 27.1
54 mg

Compound Number 177

¹³C



Acetosyringone acetate
4-acetoxy-3,5-dimethoxy acetophenone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.41	43	20.23	40	20.86	50
β	26.50	44	26.68	47	27.47	50
OMe	52.28	100	56.66	100	56.94	100
OMe	56.28	100	56.66	100	56.94	100
2	105.10	94	105.89	100	105.79	88
6	105.10	94	105.89	100	105.79	88
4	132.81	9	133.70	6	132.75	13
1	135.11	23	136.19	13	135.69	31
3	152.20	40	153.28	26	152.56	57
5	152.20	40	153.28	26	156.56	57
Ac C=O	168.14	17	168.21	13	168.43	27
α	196.75	17	196.92	13	197.64	28

¹H (acetone)

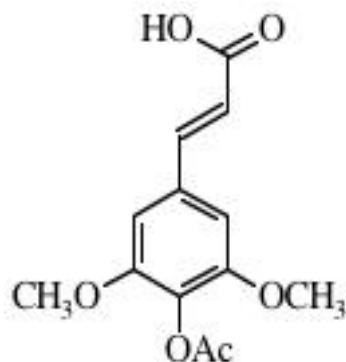
Atom	H Shifts	Mult	J
Ac Me	2.25	s	
β	2.58	s	
OMe	3.87	s	
2,6	7.31	s	

Notes:

Jamie Milhaupt
JR-JMA 31.1
50 mg

Compound Number 178

¹³C



Sinapic acid acetate
4-acetoxy-3,5-dimethoxy cinnamic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.41	51	20.23	48	20.03	60
OMe	56.27	100	56.66	100	56.20	100
OMe	56.27	100	56.66	100	56.20	100
2	105.19	87	106.42	100	105.93	68
6	105.19	87	106.42	100	105.93	68
b	116.92	41	117.90	48	117.16	38
4	131.30	11	132.15	10	130.30	19
1	131.93	31	132.95	25	131.78	34
α	148.34	44	149.06	45	148.37	34
3	152.60	57	153.60	40	151.97	66
5	152.60	57	153.60	40	151.97	66
γ	162.19	25	163.11	15	162.61	28
Ac C=O	168.33	25	168.35	20	167.74	32

¹H (acetone)

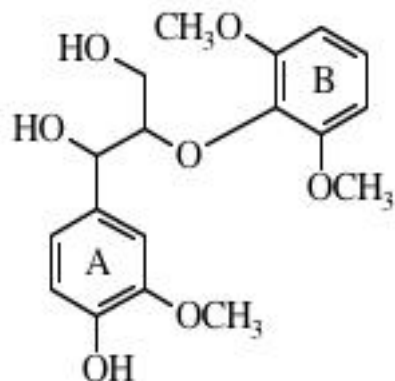
Atom	H Shifts	Mult	J
Ac OMe	2.29	s	
OMe	3.86	s	
2,6	7.13	s	
β	6.66	d	5.9
α	7.79	d	5.9

Notes:

20 mg
sample has a minor impurity

Compound Number 179

¹³C



threo

Guaiacylglycerol- β -syringyl ether
1-(4-hydroxy-3-methoxyphenyl)-2-(2,6-dimethoxyphenoxy)
propane-1,3-diol

¹H (acetone)

Atom	H Shifts	Mult	J
γ 1	3.29	m	
γ 2	3.64	m	
α	5.00	dd	7.5, 2.6
β	3.51	m	
B2	6.73	d	8.4
A2	7.07	d	1.8
A5	6.78	d	8.0
A6	6.92	dd	8.0, 1.8
B1	7.04	t	8.4
A4	7.46	s	
α OH	4.36	dd	2.6, 1.1

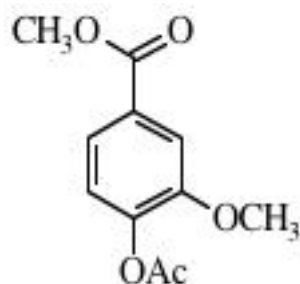
Notes:

S. Lemke SLI 75B
17.7mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.97	58	56.23	37	55.45	49
OMe	56.16	100	56.58	100	55.85	100
OMe	56.16	100	56.58	100	55.85	100
γ	60.49	42	61.31	46	60.08	31
α	74.13	45	74.07	44	71.40	39
β	89.06	47	89.76	51	86.96	34
B2	105.36	98	106.53	93	105.64	72
B6	105.36	98	106.53	93	105.64	72
A2	109.91	44	111.51	46	110.93	36
A5	114.33	45	115.23	49	114.55	39
A6	120.40	47	120.76	53	119.10	37
B1	124.50	47	124.90	53	123.26	39
A1	132.00	26	133.71	23	132.86	36
B4	135.38	15	137.16	11	136.18	22
A4	145.46	27	146.81	23	145.20	36
A3	146.58	24	147.95	18	146.76	33
B3	153.26	35	154.19	35	152.69	58
B5	153.26	35	154.19	35	152.69	58
erythro isomer						
γ	60.59		60.94		59.71	
α	72.52		73.35		72.04	
β	87.03		87.83		86.12	

Compound Number 180

¹³C



4-acetoxy-3-methoxy methyl benzoate

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.27	s	
α OMe	3.89	s	
OMe	3.88	s	
2	7.65	d	1.9
5	7.18	d	8.0
6	7.63	dd	8.0, 1.9

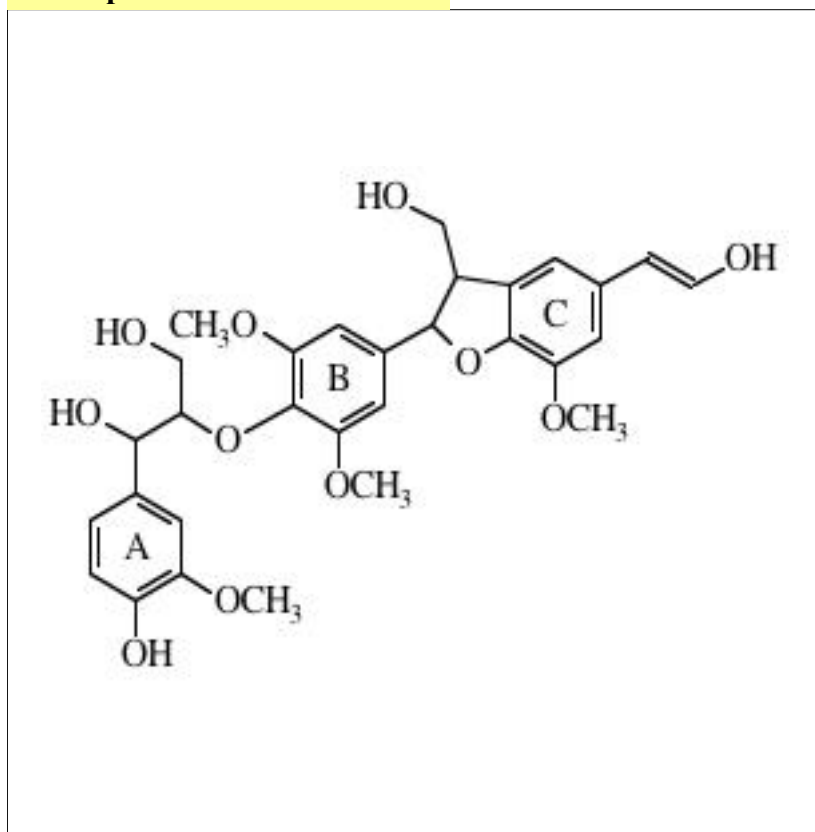
Notes:

Jamie Milhaupt
JR-JMA 43.1
50 mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.61	73	20.45	72	20.33	96
α OMe	52.26	77	52.45	74	52.60	91
OMe	56.07	96	56.40	100	55.95	91
2	113.44	88	113.96	82	112.96	77
6	122.60	93	123.05	88	122.06	100
5	122.78	100	123.85	88	123.24	93
1	128.82	34	129.67	30	128.32	52
4	143.64	22	144.81	20	143.28	41
3	151.07	28	152.30	24	150.93	49
α	166.33	33	166.53	20	165.56	46
Ac C=O	168.43	29	168.59	22	168.14	46

Compound Number 181

¹³C



G-b-S-c-CA

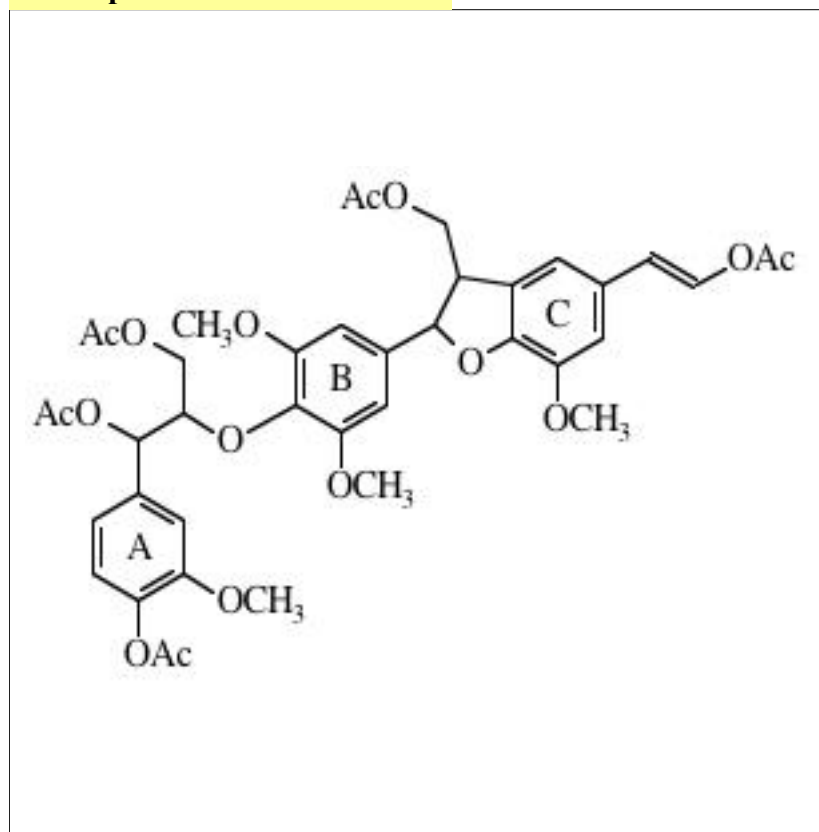
¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.82	s	
OMe	3.84	s	
OMe	3.89	s	
α	5.00	m	
B α	5.62	d	6.5
B2,6	6.83	s	
C β	6.25	dt	15.8, 5.4
C α	6.54	d	15.9

Notes:

S. Luque SLL 11C
 7mg Assignments from 360 MHz expts in acetone. Spectrum in CDCl₃ weak 3's,4's, and 1's uncertain Landucci, Luque and Ralph, J. Wood Chem. Tech., 15 (4), 493-513 (1995)

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	53.94	48	54.91	35	52.93	27
OMe	56.10	86	56.24	61	55.42	55
OMe	56.10	86	56.50	52	55.90	73
OMe	56.34	80	56.61	100	55.71	100
OMe	56.34	80	56.61	100	55.71	100
γ	60.66	33	60.97	38	59.64	24
C γ	63.81	28	63.36	41	61.52	31
B γ	64.21	16	64.62	34	62.71	28
α	72.64	20	73.37	41	71.98	33
β	87.19	29	87.87	38	86.14	31
B α	88.18	15	88.36	28	86.93	19
B2	103.26	45	104.10	66	103.24	40
B6	103.26	45	104.10	66	103.24	40
A2	108.53	29	110.89	41	110.81	39
C2	110.67	21	111.89	31	110.88	39
A5	114.29	40	115.20	42	114.56	30
C6	114.89	33	116.06	35	114.82	22
A6	118.84	30	120.01	39	119.19	21
C β	126.87	23	128.57	35	128.02	22
C5	130.15	13	130.15	15	128.78	24
C α	131.51	27	130.40	35	129.22	21
C1	131.34	31	132.20	18	130.63	19
A1	131.34	31	133.73	18	133.15	27
B1	134.75	13	136.10	8	134.79	15
B4	137.86	25	139.09	14	136.59	21
C3	144.57	12	145.22	11	143.59	25
A4	144.94	23	146.44	20	145.18	31
A3	146.71	17	147.97	17	146.86	36
C4	148.76	10	148.82	7	146.86	36
B3	153.53	39	154.26	30	152.60	43
B5	153.53	100	154.26	30	152.60	43

Compound Number 182
¹³C

G-b-S-c-CA (acetate)

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.68	56	20.49	56	20.33	80
Ac Me	2078	52	20.61	51	20.31	80
Ac Me	20.85	49	20.77	58	20.55	43
Ac Me	21.07	56	20.82	64	20.67	50
Ac Me	21.07	56	20.93	54	20.71	51
B β	50.51	30	51.32	36	49.37	22
OMe	55.96	48	56.28	56	55.73	53
OMe	56.10	100	56.45	100	55.82	100
OMe	56.10	100	56.45	100	55.82	100
OMe	56.10	100	56.51	78	55.82	100
γ	62.64	24	63.29	26	62.06	15
C γ	65.19	39	65.51	40	64.51	35
B γ	65.33	28	65.96	36	64.76	21
α	74.00	26	75.03	32	73.68	18
β	80.95	21	81.37	33	79.94	22
Bα	88.55	28	88.86	32	87.60	21
B2	103.08	57	103.94	65	103.13	39
B6	103.08	57	103.94	65	103.13	39
C2	110.72	26	112.19	29	111.07	24
A2	111.50	29	112.30	42	111.07	24
C6	115.33	29	116.33	36	115.24	20
A6	119.18	24	120.01	35	118.79	22
C β	121.37	33	122.30	35	121.41	25
A5	122.44	31	123.29	44	122.54	25
C5	127.52	24	129.08	24	127.99	25
C1	130.74	23	131.60	23	130.13	27
C α	134.28	31	134.70	35	133.48	27
B4	135.16	11	136.15	12	134.30	23
A1	136.12	16	137.09	22	135.63	22
B1	136.62	24	138.02	26	136.41	23
A4	139.51	21	140.56	21	138.89	22
C3	144.46	23	145.41	22	143.89	24
C4	148.19	17	149.31	14	147.55	19
A3	150.86	21	152.03	23	150.57	27
B3	153.38	47	154.19	45	152.65	47
B5	153.38	47	154.19	45	152.65	47
Ac C=O	168.88	21	168.97	21	168.44	25
Ac C=O	169.50	22	169.95	28	169.32	25
Ac C=O	170.71	24	170.70	24	169.94	28
Ac C=O	170.85	37	170.79	23	170.12	23
Ac C=O	170.85	37	170.98	24	170.25	30

¹H (acetone)

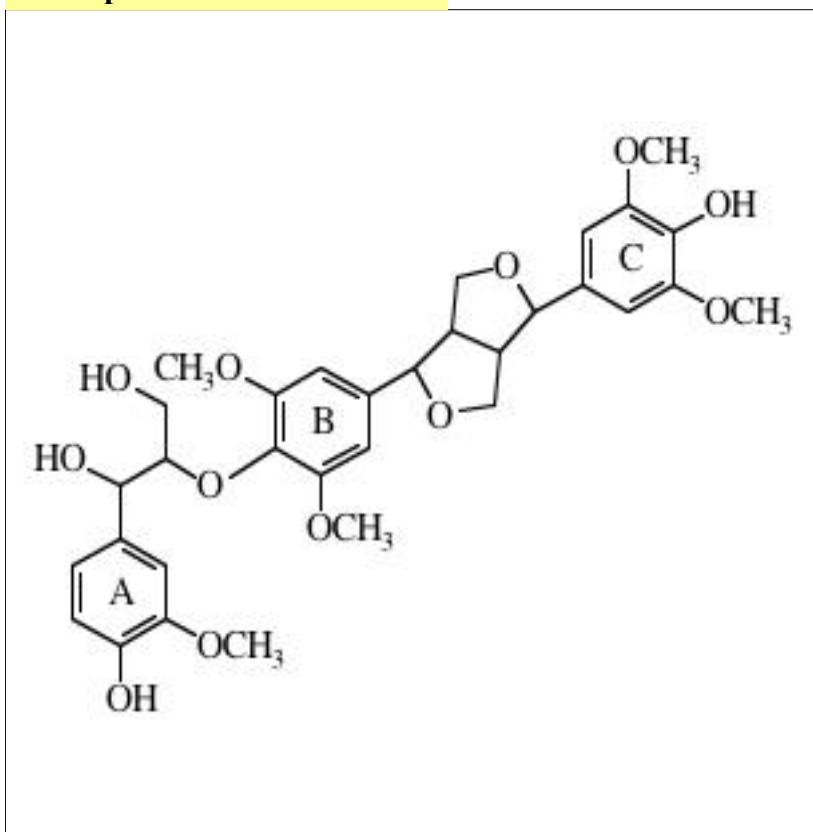
Atom	H Shifts	Mult	J
γ1	4.16	dd	11.9, 4.0
C γ	4.65	dd	6.5, 1.2
α	6.06	d	4.5
β	4.73	m	
B α	5.54	d	7.1
B2,6	6.76	s	
C2	7.14	m	
C β	6.24	dt	15.8, 6.5
C α	6.64	d	15.9

Notes:

L. Landucci SR VII-9,
8mg Assignments in d₆-acetone based on 360MHz cosy df br HMBC and HMQC
exps. Landucci, Luque and Ralph, J. Wood Chem. Tech., 15(4), 493-513 (1995)

Compound Number 183

¹³C



G-b-S-r-S

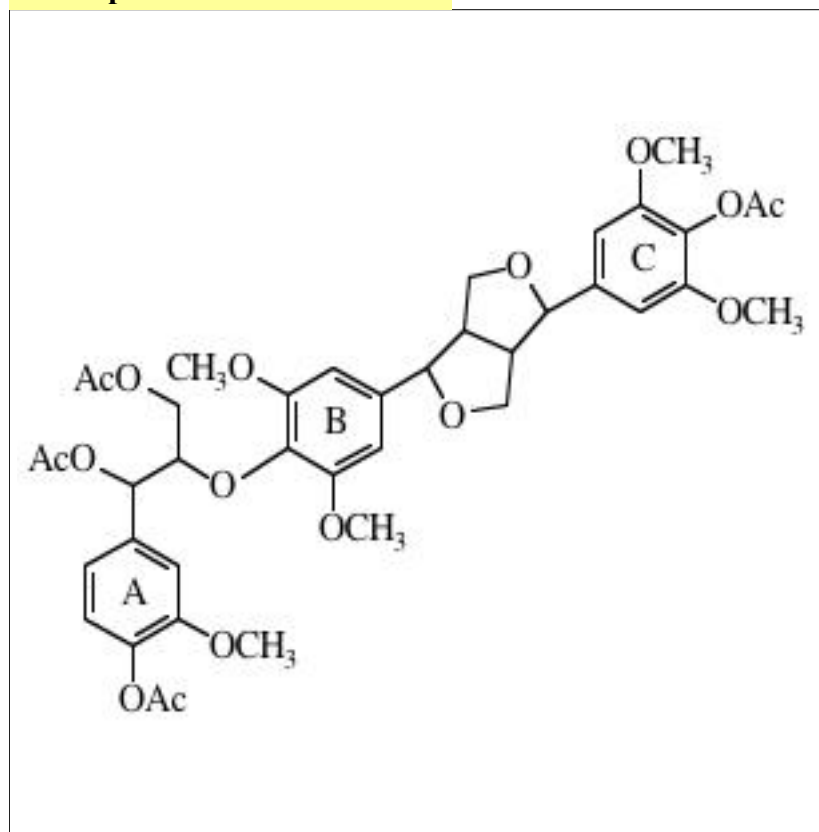
¹H (acetone)

Atom	H Shifts	Mult	J
B β	3.11	m	
C β	3.11	m	
γ 2	3.44	dd	72.0, 3.4
β	4.17	m	
C γ	4.22	m	
B γ	4.22	m	
C α	4.67	d	4.0
B α	4.73	d	4.0
α	4.98	d	3.4
B2	6.76	s	
C2	6.67	s	
A2	7.03	s	

Notes:

S. Luge SR VII 9
 34mg Assignments in d6-acetone based on 360MHz HMBC and HMQC exps
 Landucci, Luque and Ralph, J. Wood Chem. Tech., 15(4), 493-513 (1995)

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	54.32	27	55.23	32	53.61	22
C β	54.48	26	55.39	36	53.76	27
OMe	56.00	66	56.28	54	55.53	53
OMe	56.27	80	56.60	100	55.99	100
OMe	56.27	80	56.60	100	55.99	100
OMe	56.44	62	56.67	79	55.99	100
OMe	56.44	62	56.67	79	55.99	100
γ	60.57	36	60.97	34	59.84	22
C γ	71.76	22	72.38	33	71.13	22
B γ	72.08	25	72.57	33	71.27	25
α	72.56	29	73.38	39	72.12	27
B α	85.98	41	86.57	41	85.12	33
C α	85.98	41	86.72	30	85.32	23
β	87.03	27	87.78	42	86.14	32
B2	102.88	100	104.09	70	103.29	46
B6	102.88	100	104.09	70	103.29	46
C2	102.88	100	104.50	55	103.68	51
C6	102.88	100	104.50	55	103.67	51
A2	108.61	34	110.93	38	110.96	28
A5	114.28	39	115.21	41	114.65	28
A6	118.80	33	120.04	39	119.36	28
C1	131.37	22	133.10	18	131.38	22
A1	131.91	18	133.74	20	133.26	23
B1	134.36	14	135.67	17	134.77	20
C4	134.52	15	136.20	16	134.89	20
B4	137.80	19	139.05	24	136.89	23
A3	144.94	28	146.43	29	145.32	35
A4	146.71	27	147.96	28	146.96	34
C3	147.29	33	148.67	33	147.90	44
C5	147.29	33	148.67	33	147.90	44
B3	153.45	44	154.15	47	152.61	47
B5	153.45	44	154.15	47	152.61	47



G-b-S-r-S (acetate)

¹H (acetone)

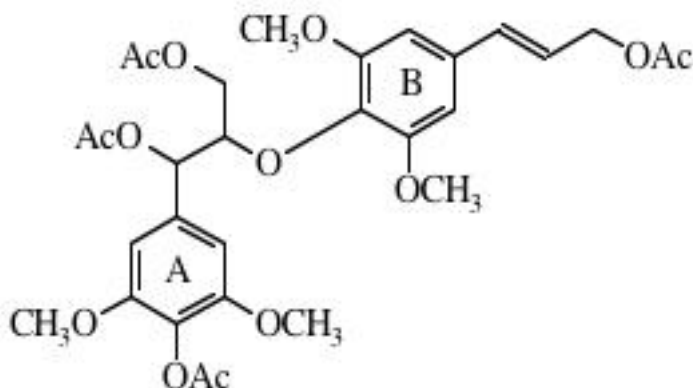
Atom	H Shifts	Mult	J
B,C γ1	3.90	dd	
γ 1	4.18	ddd	11.9, 4.1, 1.8
B,C γ2	4.27	dd	
γ2	4.39	ddd	11.8, 5.9, 0.8
B α	4.72	d	4.4
C α	4.76	d	4.4
α	6.05	dd	4.7, 2.6
B2,6	6.68	s	
C2,6	6.74	s	
A6	6.96	dd	8.1, 1.8
A2	7.14	d	1.8
A5	7.01	d	7.4

Notes:

L. Landucci XXI 36

40mg Assign'ts in d6-acetone based on the HMBC exp't H assign'ts for 360 MHz spectra Landucci, Luque and Ralph, J. Wood Chem. Tech., 15(4), 493-513 (1995)

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.32	42	20.24	33	20.11	45
Ac Me	20.51	46	20.48	63	20.31	81
Ac Me	20.63	46	20.61	52	20.31	81
Ac Me	20.93	46	20.94	56	20.66	45
B β	54.16	25	55.33	30	53.67	39
C β	54.33	35	55.43	33	53.81	35
OMe	55.79	44	56.26	57	55.69	45
OMe	55.96	89	56.38	90	55.78	100
OMe	55.96	89	56.38	90	55.78	100
OMe	56.09	100	56.46	100	55.94	97
OMe	56.09	100	56.46	100	55.94	97
γ	62.50	26	63.29	36	62.10	26
B γ	71.87	25	72.65	53	71.36	45
C γ	71.98	25	72.65	53	71.36	45
α	73.82	21	75.05	30	73.72	23
β	80.62	21	81.28	22	79.86	16
B α	85.63	33	86.45	31	84.92	32
C α	85.77	30	86.54	33	85.06	32
C2	102.12	75	103.23	55	102.44	68
C6	102.12	75	103.23	55	102.44	68
B2	102.64	51	103.73	54	102.80	42
B6	102.64	51	103.73	54	102.80	42
A2	111.37	28	112.21	34	110.95	23
A6	119.09	26	120.04	25	118.80	16
A5	122.26	33	123.26	37	122.49	23
C4	127.87	14	128.85	8	127.06	19
B4	134.41	18	135.48	13	133.63	23
A1	135.97	18	137.12	18	135.71	19
B1	137.13	26	138.89	17	137.53	32
A4	139.35	26	140.54	21	138.86	26
C1	139.58	28	141.44	17	140.14	35
A3	150.68	26	152.00	23	150.53	29
C3	152.16	49	153.21	31	151.64	68
C5	152.16	49	153.21	31	151.64	68
B3	153.19	49	154.04	37	152.54	48
B5	153.19	49	154.04	37	152.54	48
Ac C=O	168.64	25	168.61	15	168.08	29
Ac C=O	168.72	26	168.94	29	168.41	29
Ac C=O	169.36	28	169.92	30	169.31	35
Ac C=O	170.70	28	170.67	31	169.94	35

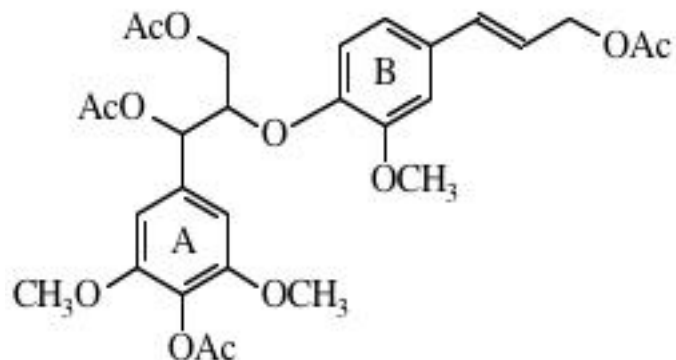
Compound Number 185
¹³C

S-b-SA (acetate)
¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	3.81	s	
Ac Me	3.85	s	
γ2	4.19	dd	11.8, 4.1
γ1	4.43	dd	11.8, 6.1
B γ	4.68	dd	7.4, 1.2
α	6.07	d	4.2
β	4.74	dt	6.1, 4.2
A6 or B6	3.78	s	
A2 or B2	6.80	s	
B β	6.33	dt	15.8, 6.3
B α	6.63	d	16.0

Notes:

S. Ralph SRVII 15A
67mg Landucci, Luque and Ralph, J. Wood Chem. Tech.15(4), 493-513 (1995)

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.46	43	20.26	49	20.04	47
Ac Me	20.76	43	20.63	47	20.29	52
Ac Me	20.99	43	20.80	44	20.62	75
Ac Me	21.07	47	20.93	47	20.62	75
OMe	56.02	96	56.39	100	55.73	100
OMe	56.02	96	56.39	100	55.73	100
OMe	56.17	100	56.49	96	55.86	91
OMe	56.17	100	56.49	96	55.84	91
γ	62.76	34	63.28	40	62.07	26
B γ	64.92	43	65.25	48	64.16	40
α	74.25	35	75.29	41	73.84	91
β	80.93	37	81.56	42	79.98	91
A2	103.69	65	104.52	77	103.20	55
A6	103.69	65	104.52	77	103.20	55
B2	103.95	57	104.60	78	103.53	58
B6	103.95	57	104.60	78	103.53	58
B β	122.95	35	124.09	44	123.32	35
A4	128.49	11	129.32	11	127.47	19
B1	132.41	31	133.30	26	131.88	29
Bα	134.07	38	134.36	48	132.96	37
A1	135.37	18	136.46	17	134.40	28
B4	135.53	30	136.62	28	135.19	31
A3	151.93	51	153.02	43	151.44	64
A5	151.93	51	153.02	43	151.44	64
B3	153.22	53	154.14	49	152.58	62
B5	153.22	53	154.14	49	152.58	62
Ac C=O	168.57	18	168.51	22	167.91	26
Ac C=O	169.57	24	169.95	25	169.24	31
Ac C=O	170.82	27	170.68	26	169.86	35
Ac C=O	170.82	27	170.74	20	170.00	26

Compound Number 186
¹³C

S-b-CA (acetate)

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.54	34	20.25	45	20.04	45
Ac Me	20.86	37	20.64	43	20.38	52
Ac Me	21.12	46	20.80	41	20.63	75
Ac Me	21.12	46	20.89	47	20.63	75
OMe	55.91	57	56.29	54	55.61	56
OMe	56.29	100	56.54	100	55.90	100
OMe	56.29	100	56.54	100	55.90	100
γ	62.73	37	63.09	43	61.88	29
B γ	56.15	43	65.36	52	64.31	45
α	74.05	46	74.78	46	73.20	35
β	80.21	37	80.17	43	78.01	32
A2	104.52	83	105.14	81	103.94	65
A6	104.52	83	105.14	81	103.94	65
B2	110.41	43	111.40	45	110.26	33
B5	119.04	43	119.16	44	117.14	37
B6	119.89	46	120.49	40	119.43	39
B β	122.36	49	123.52	48	122.30	40
A4	128.85	14	129.61	11	127.66	23
B1	131.93	31	132.56	27	130.71	31
B α	133.90	43	134.13	48	132.84	40
A1	134.82	31	136.11	26	134.78	32
B4	147.37	29	148.33	22	146.56	31
B3	151.06	29	151.92	21	150.11	33
A3	152.13	60	153.06	38	151.38	65
A5	152.13	60	153.06	38	151.38	65
Ac C=O	168.59	23	168.46	21	167.90	31
Ac C=O	169.55	31	169.89	22	169.18	32
Ac C=O	170.84	26	170.75	29	169.96	36
Ac C=O	170.90	23	170.75	29	170.03	29

¹H (acetone)

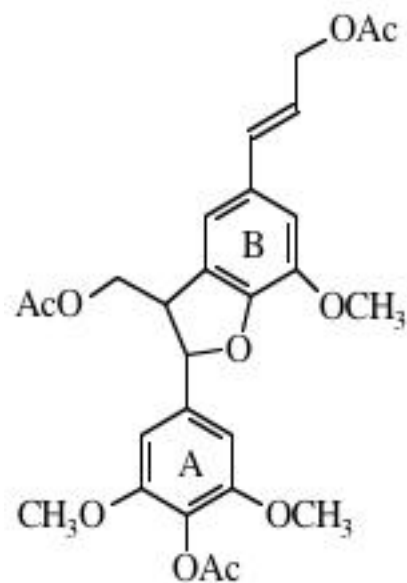
Atom	H Shifts	Mult	J
OMe	3.86	s	
OMe	3.81	s	
γ1	4.38	dd	11.9, 5.9
γ2	4.26	dd	11.9, 4.1
B γ	4.68	dd	6.4, 1.2
β	4.89	m	
α	6.05	d	5.1
B β	6.30	dt	15.8, 6.4
B α	6.63	d	15.9
A2,6	6.87	s	
B2	7.15	d	1.6

Notes:

S. Ralph SR VII 16D
 15mg Landucci, Luque and Ralph, J. Wood Chem. Tech., 15(4), 493-513 (1995)

Compound Number 187

¹³C



S-c-CA (acetate)

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.48	dd	11.1, 5.5
γ2	4.37	dd	11.1, 7.3
B γ	4.67	d	6.4
α	5.59	d	7.1
B β	6.25	dt	15.9, 6.4
B α	6.65	d	15.9
A2	6.84	s	
B2 or B6	7.05	s	
B2 or B6	7.07	s	

Notes:

S. Ralph SR VII 21C
8mg
Landucci, Luque and Ralph, J. Wood Chem. Tech., 15(4), 493-513 (1995)

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.53	45	20.25	30	20.13	46
Ac Me	20.92	43	20.74	30	20.57	52
Ac Me	21.11	42	20.82	30	20.73	54
β	50.62	47	51.37	32	49.37	34
OMe	56.18	58	56.54	100	55.84	55
OMe	56.31	100	56.54	100	56.00	100
OMe	56.31	100	56.54	100	56.00	100
B γ	65.26	53	65.50	35	64.51	48
γ	65.43	42	65.96	34	64.47	34
α	88.44	42	88.76	31	87.46	37
A2	102.65	81	103.51	62	102.86	73
A6	102.65	81	103.51	62	102.86	73
B2	110.87	43	112.38	31	111.11	33
B6	115.42	45	116.34	31	115.24	34
B β	121.44	47	122.36	31	121.46	39
B5	127.51	34	129.03	15	127.98	36
A4	128.68	13	129.52	6	127.74	18
B1	130.85	34	131.70	16	130.22	36
B α	134.33	47	134.67	31	133.46	37
A1	135.97	36	140.50	18	138.92	34
B3	144.53	30	145.55	15	143.90	34
B4	148.26	21	149.28	10	147.49	25
A3	152.43	53	153.40	27	151.77	69
A5	152.43	53	153.40	27	151.77	69
Ac C=O	168.69	25	168.57	12	168.02	28
Ac C=O	170.79	30	170.75	8	170.13	28
Ac C=O	170.93	15	170.94	8	170.28	37



G-b-SA acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.72	55	20.49	55	20.35	100
Ac Me	20.81	48	20.61	51	20.35	100
Ac Me	21.06	49	20.81	47	20.70	79
Ac Me	21.02	57	20.94	54	20.70	79
OMe	55.99	58	56.31	64	55.73	62
OMe	56.07	100	56.44	100	55.82	96
OMe	56.07	100	56.44	100	55.82	96
γ	62.74	32	63.24	43	62.05	27
B γ	65.00	39	65.26	49	64.24	37
α	74.09	35	75.07	38	73.67	29
β	81.03	36	81.57	39	80.04	29
B2	103.76	67	104.71	84	103.62	60
B6	103.76	67	104.71	84	103.62	60
A2	111.56	32	111.46	47	110.92	28
A6	119.24	33	119.94	39	118.72	28
A5	122.51	36	123.34	46	122.58	43
B β	122.97	41	124.14	45	123.43	34
B1	132.46	28	133.39	25	132.02	28
B α	134.16	36	134.40	41	133.02	35
A1	135.38	14	136.46	16	134.36	24
B4	136.11	26	137.14	28	135.66	27
A4	139.56	19	140.60	14	138.88	24
A3	150.91	22	152.10	22	150.59	29
B3	153.29	45	154.23	39	152.69	52
B5	153.29	45	154.23	39	152.69	52
Ac C=O	168.92	19	168.94	18	168.45	27
Ac C=O	169.55	26	169.92	24	169.33	33
Ac C=O	170.88	38	170.66	22	169.95	36
Ac C=O	170.88	38	170.66	22	170.10	27

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.84	s	
γ1	4.42	dd	11.8, 6.0
γ2	4.18	dd	11.8, 4.1
B γ	4.69	dd	6.2, 1.1
α	6.08	d	4.3
B2,6	6.80	s	
B β	6.33	dt	15.9, 6.2
B α	6.64	d	16.0

Notes:

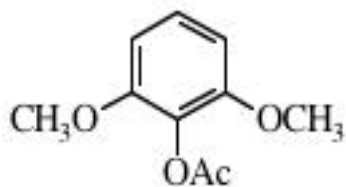
S. Ralph SR VII - 17A

16mg

Landucci, Luque and Ralph, J. Wood Chem. Tech., 15(4), 493-513 (1995)

Compound Number 189

¹³C



2,6-dimethoxyphenol acetate

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.22	s	
OMe	3.37	s	
2,6	6.69	d	8.5
1	7.13	t	8.5

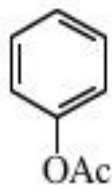
Notes:

Jamie Milhaupt
JR-JMA 35.1
40mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.45	36	20.27	35	20.12	47
OMe	56.12	100	56.40	100	55.89	96
OMe	56.12	100	56.40	100	55.89	96
2	104.91	90	105.77	95	105.00	100
6	104.91	90	105.77	95	105.00	100
1	126.23	47	126.92	53	126.23	53
4	128.85	5	129.94	5	128.11	9
3	152.34	24	153.43	22	151.90	42
5	152.34	24	153.43	22	151.90	42
Ac C=O	168.71	11	168.56	10	168.04	19

Compound Number 190

¹³C



phenol acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.12	33	20.94	36	20.75	47
3	121.58	89	122.57	97	121.70	100
5	121.58	89	122.57	97	121.70	100
1	125.82	50	126.36	57	125.63	59
2	129.42	100	130.09	100	129.35	100
6	129.42	100	130.09	100	129.35	100
4	150.74	10	151.96	10	150.44	16
Ac C=O	169.48	10	169.61	10	169.05	14

¹H (acetone)

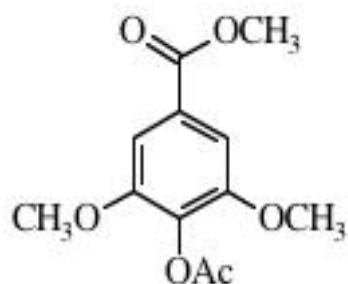
Atom	H Shifts	Mult	J
Ac Me	2.23	s	
3,5	7.12	m	
1	7.22	m	
2,6	7.40	m	

Notes:

Jamie Milhaupt
JR-JMA 55
54mg

Compound Number 191

¹³C



methyl (4-acetoxy-3,5-dimethoxy) benzoate

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.26	s	
α OMe	3.88	s	
OMe	3.87	s	
2,6	7.33	s	

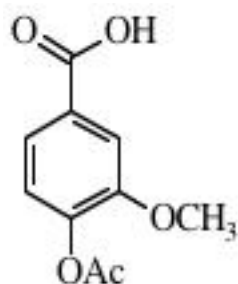
Notes:

Jamie Milhaupt
JR-JMA 41.1
40mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.40	42	20.22	43	20.06	48
α OMe	52.34	45	52.57	45	52.36	49
OMe	56.32	100	56.68	96	56.17	100
OMe	56.32	100	56.68	96	56.17	100
2	106.34	95	106.87	100	105.79	90
6	106.34	95	106.87	100	105.79	90
1	128.10	21	129.04	17	127.70	29
4	132.63	9	133.69	8	131.96	10
3	152.10	39	153.27	26	151.81	58
5	152.10	39	153.27	26	151.81	58
α	166.37	16	166.61	11	165.75	25
Ac C=O	168.14	17	168.17	13	167.67	26

Compound Number 192

¹³C



4-acetoxy-3-methoxy benzoic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.65	91	20.46	82	20.37	88
OMe	56.12	100	56.40	99	55.90	100
2	113.38	93	114.25	90	113.18	84
6	122.98	96	123.31	100	122.16	90
5	123.46	91	123.80	100	123.05	85
1	128.00	44	129.96	30	129.58	52
4	144.43	40	144.79	22	142.98	46
3	151.20	53	152.26	27	150.82	56
α	168.52	51	167.04	37	166.66	59
Ac C=O	171.37	56	168.65	37	168.21	54

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.28	s	
OMe	3.90	s	
2	7.70	s	
6	7.67	dd	7.6, 1.8
5	7.19	dd	7.7, 1.0

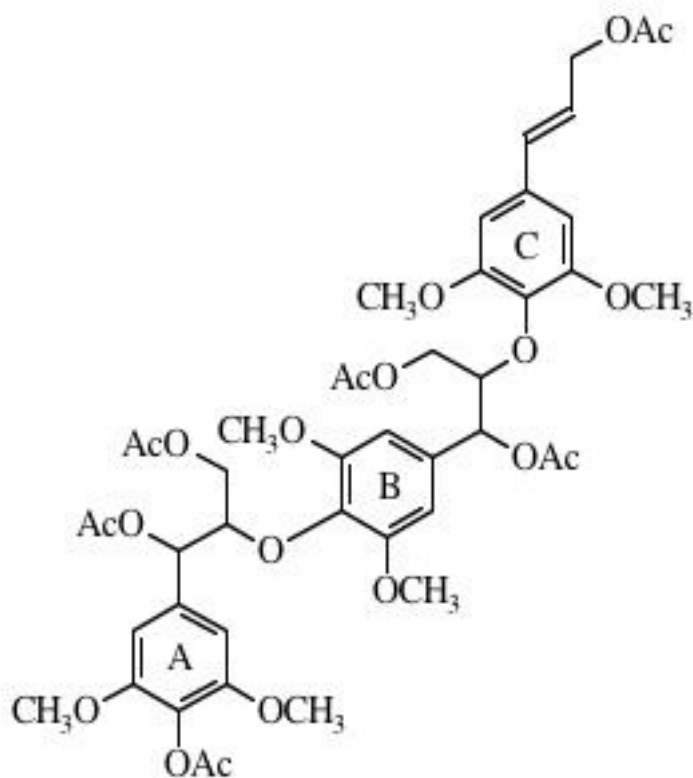
Notes:

Jamie Milhaupt
JR-JMA 39.1

41mg 2D short range XH corr confirms assignment of 5 and 6.

Compound Number 193

¹³C



S-b-S-b-SA (acetate)

¹H (acetone)

Atom	H Shifts	Mult	J
A,B γ2	4.14	m	
A,B γ1	4.40	m	
C γ	4.70	d	11.2
A,B α	6.06,6.03	d	4.0
C β	6.33	dt	15.6

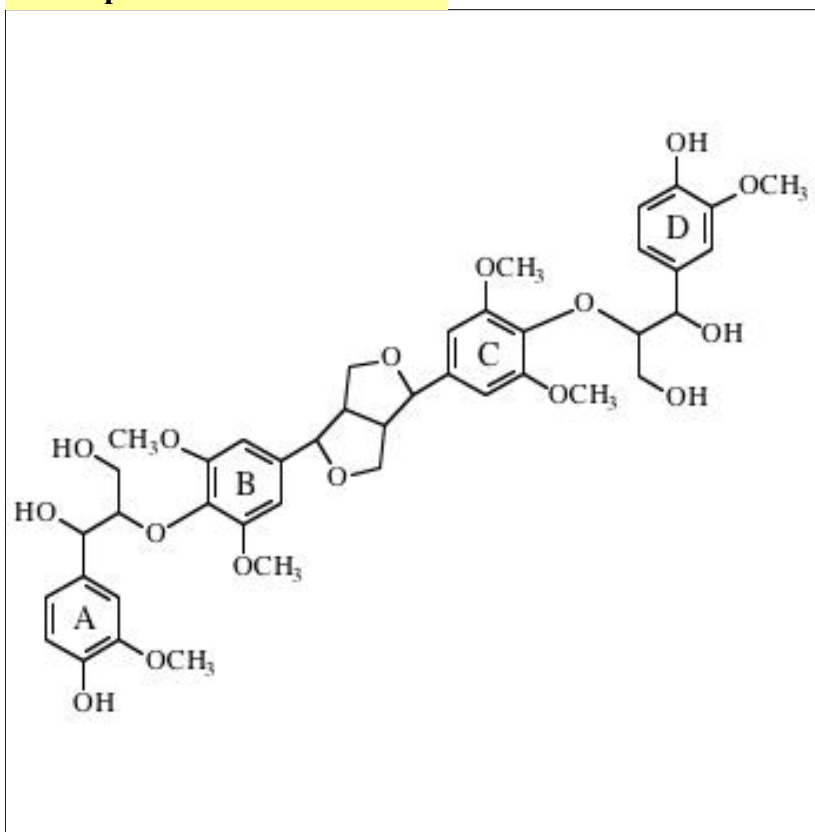
Notes:

L.Landucci
LLL XIV 148BA
10 mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.53	70	20.26	41	20.04	50
Ac Me	20.53	70	20.26	41	20.04	50
Ac Me	20.85	56	20.67	27	20.21	33
Ac Me	20.85	56	20.80	21	20.30	35
Ac Me	21.15	73	20.95	46	20.61	70
Ac Me	21.15	73	20.95	46	20.61	70
OMe	56.12	100	56.46	100	55.72	100
OMe	56.12	100	56.46	100	55.72	100
OMe	56.26	100	56.46	100	55.72	100
OMe	56.26	100	56.46	100	55.72	100
OMe	56.26	100	56.46	100	55.85	92
OMe	56.26	100	56.46	100	55.85	92
γ	62.88	33	63.44	22	62.22	26
B γ	62.88	33	63.44	22	62.22	26
C γ	65.00	22	65.26	17	64.16	19
α	74.35	23	75.43	32	73.97	20
B α	74.50	23	75.43	32	73.97	20
β	80.89	33	81.42	14	79.89	17
B β	80.89	33	81.56	14	79.89	17
A2	103.81	41	104.67	49	103.35	46
A6	103.81	41	104.67	49	103.35	46
B2	104.10	44	104.67	49	103.35	46
B6	104.10	44	104.67	49	103.35	46
C2	104.33	35	104.96	20	103.53	30
C6	104.33	35	104.96	20	103.53	30
C β	123.04	17	124.09	12	123.29	13
A4	128.54	11	129.36	7	127.48	15
C1	132.45	11	133.25	9	131.80	11
B1	133.24	16	134.06	9	132.46	8
C α	134.12	18	134.38	12	132.95	15
C4	135.40	10	136.54	9	134.25	9
A1	135.63	12	136.60	9	134.45	7
B4	135.81	13	136.64	9	135.16	13
A3	151.96	42	153.01	26	151.40	43
A5	151.96	42	153.01	26	151.40	43
B3	153.08	29	153.88	21	152.29	34
B5	153.08	29	153.88	21	152.29	34
C3	153.29	33	154.16	19	152.54	26
C5	153.29	33	154.16	19	152.54	26
A4 Ac C=O	168.68	15	168.50	18	167.89	24
Ac C=O	169.52	18	169.95	28	169.23	33
Ac C=O	169.66	19	169.95	28	169.23	33
Ac C=O	170.79	17	170.67	23	169.83	39
Ac C=O	170.94	27	170.67	23	169.83	39
Ac C=O	170.94	27	170.67	23	169.98	12

Compound Number 194

¹³C



G-b-S-r-S-b-G

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B,C β	54.48	30	55.37	40	53.56	31
OMe	56.00	80	56.26	70	55.41	69
OMe	56.27	100	56.62	100	55.89	100
OMe	56.27	100	56.62	100	55.89	100
A,D γ	60.56	43	60.97	34	59.73	25
B,C γ	72.01	27	72.64	38	71.21	25
A,D α	72.55	32	73.38	36	72.00	25
B,C α	85.86	25	86.53	40	84.97	25
A,D β	87.08	30	87.84	45	86.05	19
B,C 2	102.82	68	104.12	74	103.22	50
B,C 6	102.82	68	104.12	74	103.22	50
A,D 2	108.45	36	110.93	40	110.85	25
A,D 5	114.19	41	115.19	49	114.54	25
A,D 6	118.75	43	120.05	38	119.24	25
A,D 1	131.31	25	133.77	19	133.18	25
B,C 1	134.41	16	135.74	17	134.69	25
B,C 4	137.63	23	139.00	21	136.68	25
A,D 4	144.89	30	146.45	26	145.20	38
A,D 3	146.64	32	147.96	26	146.85	38
B,C 3	153.49	50	154.20	47	152.50	56
B,C 5	153.49	50	154.20	47	152.50	56

¹H (acetone)

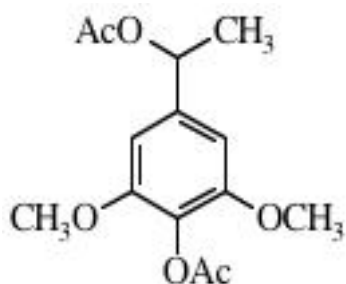
Atom	H Shifts	Mult	J
OMe	3.83	s	
OMe	3.87	s	
A,D γ2	3.71	dd	12.0, 3.4
A,D α	4.98	d	3.2
B,C α	4.75	d	2.3
B,C 2,6	6.77	s	
A,D 2	7.04	d	1.6

Notes:

S. Luque 12E
 8 mg Landucci, Luque and Ralph, J. Wood Chem. Tech., 15(4), 493-513 (1995)
 As this compound has a plane of symmetry the shifts for the other half are identical.

Compound Number 195

¹³C



1-(4-acetoxy-3,5-dimethoxyphenyl)-1-acetoxy ethane

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.04	s	
Ac Me	2.22	s	
β	1.49	d	6.6
OMe	3.80	s	
α	5.80	q	6.6
2,6	6.74	s	

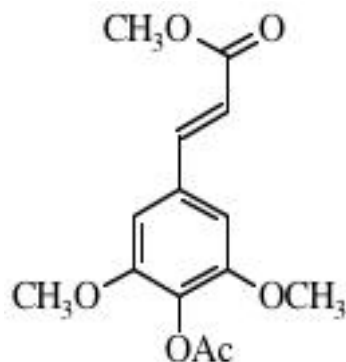
Notes:

J. Milhaupt
A 51
41mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.47	43	20.24	41	20.03	53
Ac Me	21.36	36	21.12	38	20.90	51
β	22.24	47	22.62	52	22.02	50
OMe	56.17	100	56.44	97	56.89	100
OMe	56.17	100	56.44	97	56.89	100
α	72.28	51	72.64	52	71.58	51
2	102.94	87	103.51	100	102.54	82
6	102.94	87	103.51	100	102.54	82
4	128.24	8	129.11	6	127.25	14
1	140.03	27	141.50	23	140.23	36
3	152.12	39	153.16	29	151.57	56
5	152.12	39	153.16	29	151.57	56
Ac C=O	168.69	18	168.52	14	168.00	28
α Ac C=O	170.15	15	170.16	14	169.54	26

Compound Number 196

¹³C



Acetylated Sinapic acid methyl ester

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.36	45	20.23	39	20.00	49
γ OMe	51.68	45	51.70	48	51.34	47
OMe	56.12	100	56.61	95	56.08	100
OMe	56.12	100	56.61	95	56.08	100
2	104.65	100	105.83	100	105.24	88
6	104.65	100	105.83	100	105.24	88
β	118.05	52	118.97	46	118.18	47
4	130.40	10	131.45	7	129.60	17
1	132.64	29	133.56	26	132.30	38
α	144.51	51	145.15	52	144.26	45
3	152.38	49	153.53	38	151.90	63
5	152.38	49	153.53	38	151.90	63
γ	167.11	24	167.44	18	166.57	30
Ac C=O	168.39	22	168.38	16	167.83	29

¹H (acetone)

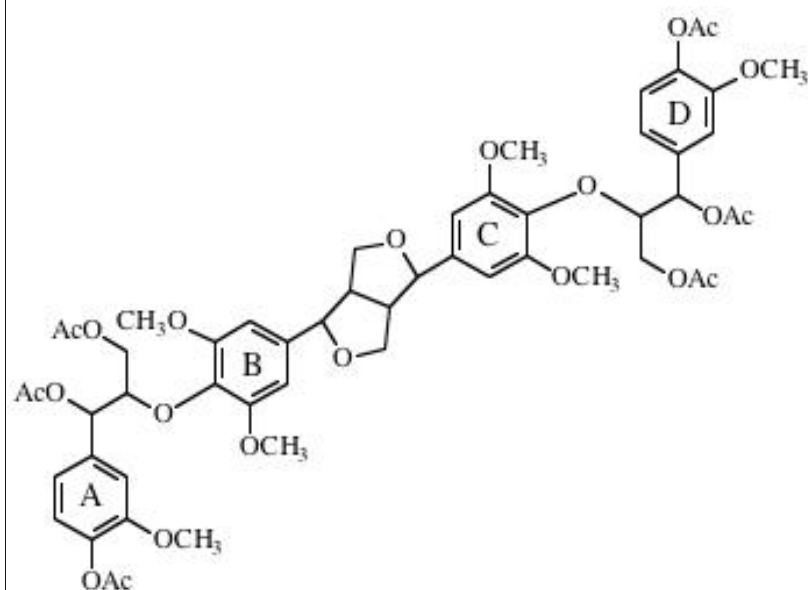
Atom	H Shifts	Mult	J
Ac Me	2.25	s	
γ OMe	3.75	s	
OMe	3.87	s	
2,6	7.08	s	
β	6.58	d	16.0
α	7.62	d	16.1

Notes:

J. Milhaupt
A 45
47mg

Compound Number 197

¹³C



G-b-S-r-S-b-G (acetate)

¹H (acetone)

Atom	H Shifts	Mult	J
B,C β	3.10	m	
OMe	3.80	s	
OMe	3.82	s	
B γ1	3.91	m	
A γ2	4.16	m	
B γ2	4.25	m	
A γ2	4.40	dd	
Aβ	4.68	m	
B,C α	4.72	m	
A,D α	6.06	m	
B,C 2,6	6.69	s	
A 6	6.96	dd	
A 5	7.02	d	
A 2	7.15	s	

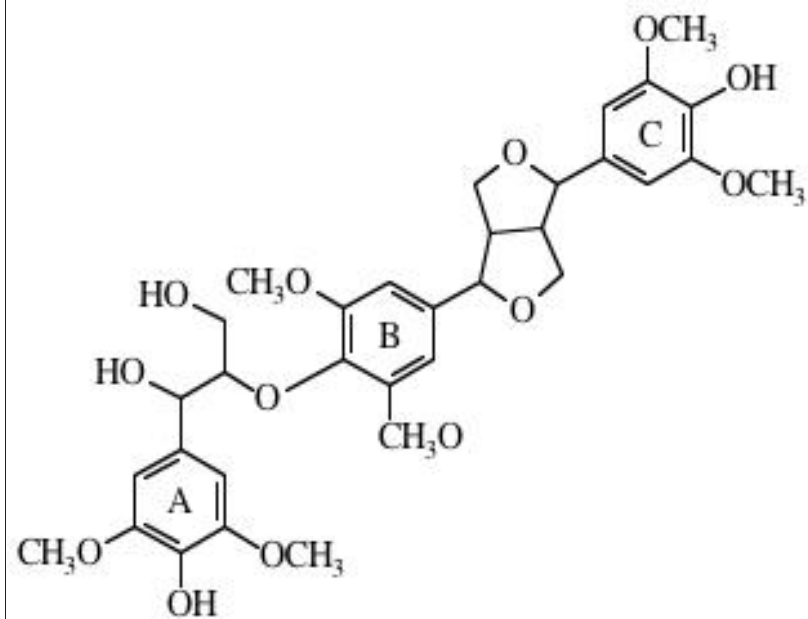
Notes:

S. Luque SLL 13F, 11 mg
¹H data from 360 MHz spectrum. The β-O-4 units are erythro,
 Landucci, Luque and Ralph J. Wood Chem. Tech., 15(4), 493-513 (1995) As this
 compound has a plane of symmetry, the shifts for the other half are identical.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.74	83	20.48	80	20.27	86
Ac Me	20.83	69	20.61	62	20.27	86
Ac Me	21.14	59	20.94	64	20.61	43
B,C β	54.45	22	55.38	31	53.65	22
A,D OMe	56.00	72	56.26	69	55.63	66
B,C OMe	56.18	100	56.39	100	55.73	100
B,C OMe	56.18	100	56.39	100	55.73	100
A,D γ	62.78	28	63.27	33	62.02	18
B,C γ	72.06	13	72.60	33	71.24	21
A,D α	74.01	26	75.04	31	73.64	17
A,D β	80.87	25	81.30	24	79.83	20
B,C α	85.94	23	86.52	31	84.93	19
B,C 2	102.86	48	103.71	58	102.69	31
B,C 6	102.86	48	103.71	58	102.69	31
A,D 2	111.58	27	112.20	33	110.85	16
A,D 6	119.27	28	120.03	24	118.72	16
A,D 5	122.48	29	123.25	36	122.43	18
B,C 4	134.60	12	135.47	11	133.51	14
A,D 1	136.19	16	137.15	18	135.61	15
B,C 1	137.35	16	138.96	20	137.50	14
A,D 4	139.56	22	140.54	22	138.79	17
A,D 3	150.90	20	152.01	22	150.46	21
B,C 3	153.42	43	154.05	44	152.46	34
B,C 5	153.42	43	154.05	44	152.46	34
4 Ac C=O	168.92	28	168.92	33	168.35	32
αAc C=O	169.56	23	169.90	27	169.24	31
γAc C=O	170.91	28	170.65	33	169.87	29

Compound Number 198

¹³C



S-b-S-r-S

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	54.43	27	55.27	19	53.59	20
C β	54.57	21	55.42	19	53.73	20
OMe	56.34	68	56.63	100	55.88	76
OMe	56.34	68	56.63	100	55.88	76
OMe	56.45	100	56.63	100	56.01	100
OMe	56.45	100	56.63	100	56.01	100
OMe	56.49	88	56.63	100	56.01	100
OMe	56.49	88	56.63	100	56.01	100
γ	60.65	27	61.03	17	59.90	14
C γ	71.80	18	72.40	21	71.10	18
B γ	72.17	16	72.61	20	71.26	21
α	72.77	14	73.63	17	72.38	20
B α	86.01	23	86.61	20	85.10	20
C α	86.01	23	86.73	21	85.30	22
β	87.24	18	87.87	17	86.20	21
B2	102.69	45	104.10	36	103.28	33
B6	102.69	45	104.10	36	103.28	33
C2	102.84	64	104.51	43	103.65	46
C6	102.84	64	104.51	43	103.65	46
A2	102.94	50	104.91	40	104.29	37
A6	102.94	50	104.91	40	104.29	37
A1	130.46	11	132.73	11	131.36	21
C1	132.00	16	133.13	13	132.42	18
B1	134.05	18	135.86	13	134.42	21
A4	134.51	21	135.86	13	134.86	26
C4	134.51	21	136.23	10	134.86	26
B4	137.91	18	139.07	13	136.79	13
A3	147.15	43	148.38	26	147.40	39
A5	147.15	43	148.38	26	147.40	39
C3	147.29	36	148.68	21	147.88	45
C5	147.29	36	148.68	21	147.88	45
B3	153.55	36	154.16	20	152.55	33
B5	153.55	36	154.16	20	152.55	33

¹H (acetone)

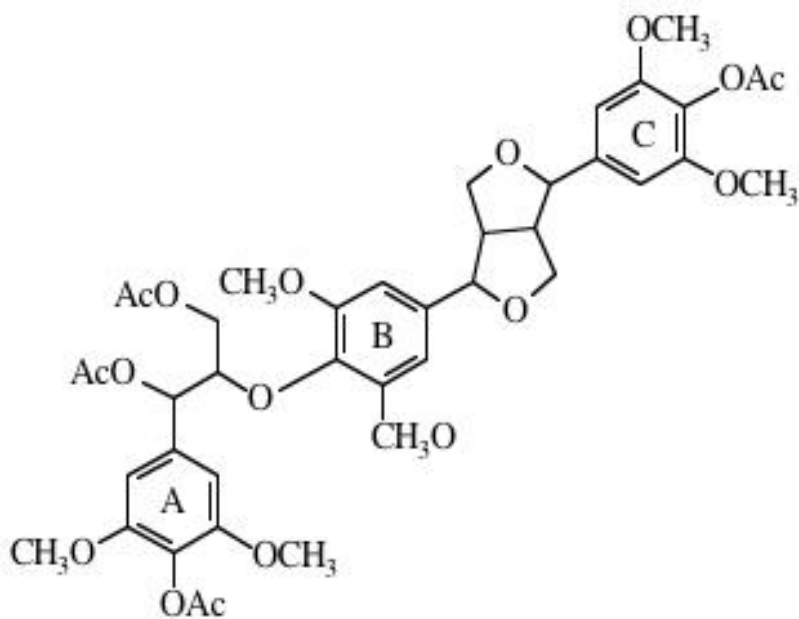
Atom	H Shifts	Mult	J
B,C β	3.12	m	
OMe	3.80	s	
OMe	3.82	s	
OMe	3.88	s	
B α	4.68	d	4.0
C α	4.74	d	4.0
α	4.99	m	
B 2,6	6.69	s	
C 2,6	6.71	s	
A 2,6	6.78	s	

Notes:

S. Luque SLL I 12E
 10 mg A4 was coincident with other shifts, the assignments were inferred from other models and peak heights.
 Landucci, Luque and Ralph, J. Wood Chem. Tech., 15(4), 493-513 (1995)

Compound Number 199

¹³C



S-b-S-r-S (acetate)

¹H (acetone)

Atom	H Shifts	Mult	J
B,C β	3.11	m	
B α	4.73	d	
C α	4.76	d	
α	6.05	m	
2,6	6.70	s	
2,6	6.76	s	

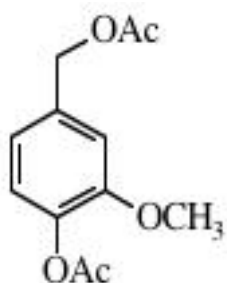
Notes:

S. Luque SLL 13F
 15mg
 Landucci, Luque and Ralph, J. Wood Chem. Tech., 15(4), 493-513 (1995)

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.53	52	20.26	49	20.06	45
Ac Me	20.53	52	20.26	49	20.06	45
Ac Me	20.86	31	20.63	26	20.29	32
Ac Me	21.16	30	20.94	26	20.63	34
B β	54.39	17	55.33	20	53.61	23
Cβ	54.52	23	55.44	23	53.85	23
OMe	56.17	65	56.38	64	55.72	68
OMe	56.17	65	56.38	64	55.72	68
OMe	56.23	88	56.46	100	55.87	100
OMe	56.23	88	56.46	100	55.87	100
OMe	56.29	100	56.46	100	55.87	100
OMe	56.29	100	56.46	100	55.87	100
γ	62.81	18	63.41	19	62.16	13
C γ	72.07	21	72.66	44	71.31	34
B γ	72.19	21	72.66	44	71.31	34
α	74.25	16	75.33	15	73.92	13
β	80.78	15	81.29	11	79.76	12
B α	85.82	21	86.45	25	84.85	19
C α	85.98	20	86.56	20	85.00	18
C2	102.30	48	103.23	47	102.36	44
C6	102.30	48	103.23	47	102.36	44
B2	102.84	32	103.71	35	102.70	26
B6	102.84	32	103.71	35	102.70	26
A2	104.07	41	104.68	34	103.30	26
A6	104.07	41	104.68	34	103.30	26
C1	128.05	7	128.85	7	126.98	9
A4	128.51	11	129.34	7	127.45	12
B4	134.67	13	135.61	9	133.69	12
A1	135.66	11	136.65	10	135.21	12
B1	137.27	13	138.83	12	137.38	14
C4	139.74	16	141.45	15	140.08	18
A3	151.92	33	152.95	20	151.38	32
A5	151.92	33	152.95	20	151.38	32
C3	152.34	31	153.22	24	151.58	39
C5	152.34	31	153.22	24	151.58	39
B3	153.35	25	153.98	22	152.41	26
B5	153.35	25	153.98	22	152.41	26
Ac C=O	168.63	18	168.48	15	167.91	22
Ac C=O	168.85	16	168.58	15	168.02	19
Ac C=O	169.53	16	169.91	14	169.26	19
Ac C=O	170.94	16	170.76	15	169.89	19

Compound Number 200

¹³C



Vanillyl alcohol diacetate
4-hydroxy-3-methoxybenzyl alcohol diacetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.57	76	20.45	75	20.25	97
Ac Me	20.93	59	20.78	55	20.59	78
OMe	55.84	100	56.20	92	55.68	100
α	65.86	91	66.10	99	65.10	90
2	112.50	91	113.32	83	112.58	92
6	120.67	89	121.04	96	120.16	92
5	122.77	95	123.57	100	122.67	89
1	134.80	45	136.23	37	134.99	64
4	139.62	26	140.64	20	138.97	43
3	151.07	33	152.19	24	150.69	52
4 Ac C=O	168.84	29	168.93	24	168.42	49
α Ac C=O	170.66	23	170.79	19	170.15	36

¹H (acetone)

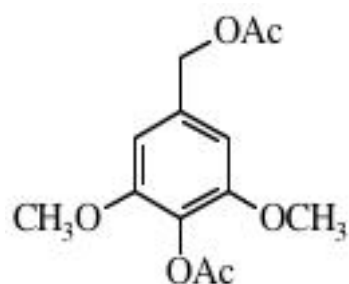
Atom	H Shifts	Mult	J
Ac Me	2.04	s	
Ac Me	2.23	s	
OMe	3.80	s	
α	5.06	s	
6	6.96	dd	8.1,1.8
5	7.03	d	8.0
2	7.11	d	1.7

Notes:

S. Ralph
35mg

Compound Number 201

¹³C



Syringyl alcohol diacetate
3,5-dimethoxy-4-hydroxy benzyl alcohol diacetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.47	59	20.23	49	20.05	62
Ac Me	21.05	31	20.79	27	20.63	42
OMe	56.21	100	56.46	100	55.91	100
OMe	56.21	100	56.46	100	55.91	100
α	66.37	48	66.46	44	65.45	42
2	105.13	89	105.67	93	104.84	80
6	105.13	89	105.67	93	401.84	80
4	128.58	7	129.43	6	127.57	12
1	134.42	21	135.77	19	134.49	32
3	152.21	39	153.19	27	151.59	53
5	152.21	39	153.19	27	151.59	53
4 Ac C=O	168.67	16	168.50	12	167.97	28
α Ac C=O	170.77	12	170.80	9	170.14	17

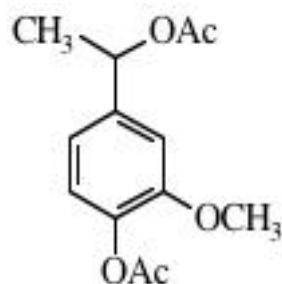
¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.06	s	
Ac Me	2.22	s	
OMe	3.80	s	
α	5.05	s	
2,6	6.76	s	

Notes:

J. Milhaupt A 53
35 mg
Sample has impurity

Compound Number 202

¹³C

1-(4-acetoxy-3-methoxyphenyl)-1-acetoxyethane

¹H (acetone)

Atom	H Shifts	Mult	J
β	1.49	d	6.6
Ac Me	2.03	s	
Ac Me	2.22	s	
OMe	3.82	s	
α	5.83	q	6.6
6	6.95	dd	8.1,1.8
5	7.02	d	8.1
2	7.11	d	1.8

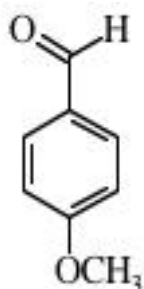
Notes:

J. Milhaupt
A 49.1
35mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.69	79	20.47	79	20.28	96
Ac Me	21.37	65	21.12	64	20.90	87
β	22.21	91	22.57	86	22.00	87
OMe	55.93	100	56.21	88	55.70	100
α	71.96	89	72.31	91	71.26	96
2	110.60	88	111.30	78	110.46	82
6	118.44	95	118.73	98	117.74	87
5	122.75	89	123.51	100	122.60	96
1	139.33	26	140.32	17	138.62	42
4	140.52	44	141.88	36	140.60	58
3	151.05	31	152.18	24	150.66	42
4 Ac C=O	169.01	31	168.95	22	168.44	49
α Ac C=O	170.21	30	170.17	19	169.55	42

Compound Number 203

¹³C



4-methoxy benzaldehyde

¹H (acetone)

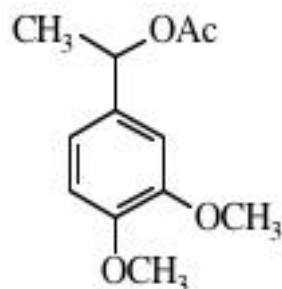
Atom	H Shifts	Mult	J
OMe	3.89	s	
3,5	7.08	d	8.8
2,6	7.85	d	8.8
α	9.86	s	

Notes:

Aldrich
60mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.51	51	56.03	58	55.51	38
3	114.26	100	115.16	100	114.35	87
5	114.26	100	115.16	100	114.35	87
1	129.90	14	131.11	11	129.57	18
2	131.88	97	132.43	90	131.65	100
6	131.88	97	132.43	90	131.65	100
4	164.55	14	165.44	11	164.10	18
α	190.68	45	191.09	42	191.01	51

Compound Number 204

¹³C

1-(3,4-dimethoxyphenyl)-1-acetoxyethane

¹H (acetone)

Atom	H Shifts	Mult	J
β	1.47	d	6.6
Ac Me	2.00	s	
OMe	3.78	s	
OMe	3.81	s	
α	5.78	q	6.6
5,6	6.90	m	
2	6.97	s	

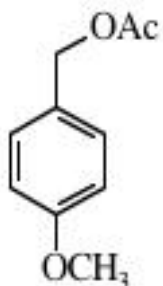
Notes:

J. Milhaupt
A 141
38mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.39	39	21.18	38	20.93	62
β	21.99	55	22.41	57	21.82	72
OMe	55.91	100	56.13	100	55.43	100
OMe	55.91	100	56.13	100	55.43	100
α	72.20	51	72.51	54	71.42	73
2	109.69	46	111.16	43	109.93	67
5	111.06	49	112.63	46	111.57	70
6	118.64	53	119.25	54	118.12	70
1	134.19	24	135.54	17	134.02	45
4	148.76	16	150.01	12	148.32	35
3	148.96	18	150.29	12	148.58	36
Ac C=O	170.29	15	170.21	13	169.51	31

Compound Number 205

¹³C



4-methoxybenzyl alcohol acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.01	32	20.85	33	20.61	36
OMe	55.23	51	55.53	61	54.98	50
α	66.07	53	66.25	57	65.18	45
3	113.94	100	114.60	100	113.70	100
5	113.94	100	114.60	100	113.70	100
1	128.10	17	129.43	14	128.03	24
2	130.08	99	130.78	100	129.85	98
6	130.08	99	130.78	100	129.85	98
4	159.65	14	160.57	12	159.07	13
Ac C=O	170.85	11	170.85	10	170.13	13

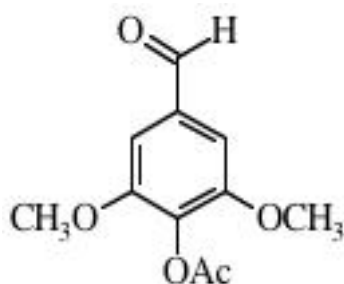
¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.00	s	
OMe	3.78	s	
α	5.01	s	
3,5	6.91	d	8.7
2,6	7.31	d	8.7

Notes:

J. Milhaupt
A 139
56mg

Compound Number 206

¹³C

Syringaldehyde acetate
3,5-dimethoxy-4-acetoxy-benzaldehyde

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.41	39	20.21	37	20.01	50
OMe	56.35	100	56.72	100	56.20	100
OMe	56.35	100	56.72	100	56.20	100
2	106.09	92	106.72	84	106.00	92
6	106.09	92	106.72	84	106.00	92
4	133.82	7	134.60	5	132.83	12
1	134.36	22	135.62	10	134.20	34
3	152.88	32	153.91	22	152.35	51
5	152.88	32	153.91	22	152.35	51
Ac C=O	168.01	14	168.15	11	167.58	23
α	191.00	45	191.82	31	191.89	48

¹H (acetone)

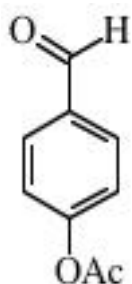
Atom	H Shifts	Mult	J
Ac Me	2.28	s	
OMe	3.90	s	
2,6	7.28	s	
α	9.93	s	

Notes:

J. Milhaupt
A 147
42mg

Compound Number 207

¹³C



4-Acetoxy benzaldehyde

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.30	s	
3,5	7.35	d	8.6
2,6	7.97	d	8.6
α	10.01	s	

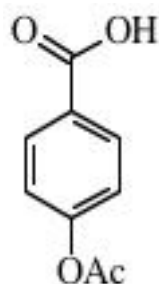
Notes:

J. milhaupt
137.5
42mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.06	39	20.98	39	20.78	42
3	122.32	100	123.43	100	122.63	98
5	122.32	100	123.43	100	122.63	98
2	131.12	92	131.68	100	130.85	100
6	131.12	92	131.68	100	130.95	100
1	133.93	16	135.13	13	133.75	19
4	155.30	12	156.42	11	154.99	16
Ac C=O	168.62	12	169.27	9	168.64	16
α	190.88	38	191.83	34	191.84	42

Compound Number 208

¹³C



4-Acetoxy benzoic acid

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.29	s	
3,5	7.26	d	8.8
2,6	8.08	d	8.8

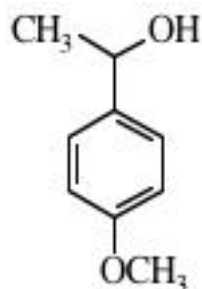
Notes:

J. Milhaupt
27mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.25	48	20.98	48	20.80	48
3	121.84	100	122.76	95	121.96	100
5	121.84	100	122.76	95	121.96	100
1	126.96	20	128.81	15	128.31	21
2	131.95	96	131.91	100	130.78	99
6	131.95	96	131.91	100	130.78	99
4	155.09	26	155.55	18	153.86	25
α	168.89	22	167.00	17	166.55	20
Ac C=O	171.38	13	169.28	15	168.75	25

Compound Number 209

¹³C



4-Methoxy benzyl alcohol

¹H (acetone)

Atom	H Shifts	Mult	J
β	1.37	d	6.5
OMe	3.76	s	
α	4.79	m	
3,5	6.86	d	8.7
2,6	7.29	d	8.6

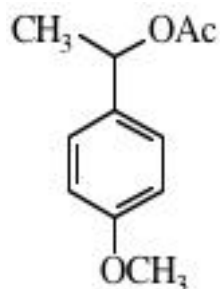
Notes:

J. Milhaupt
JMA 145
42mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	25.04	52	26.20	54	25.89	15
OMe	55.27	48	55.43	62	54.92	15
α	69.84	44	69.50	42	67.60	15
3	113.82	91	114.20	100	113.25	100
5	113.82	91	114.20	100	113.25	100
2	126.67	100	127.27	92	126.34	100
6	126.67	100	127.27	92	126.34	100
1	138.12	17	140.18	11	139.34	7
4	158.90	14	159.49	13	157.90	6

Compound Number 210

¹³C



1-(4-acetoxyphenyl)-1-acetoxy ethane

¹H (acetone)

Atom	H Shifts	Mult	J
β	1.46	d	6.6
Ac Me	1.98	s	
OMe	3.78	s	
α	5.79	q	6.6
3,5	6.90	d	8.8
2,6	7.30	d	8.8

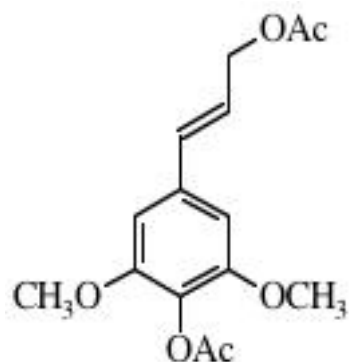
Notes:

J. Milhaupt
JMA 149
23mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.44	35	21.16	34	20.92	44
β	22.01	56	22.35	57	21.76	51
OMe	55.32	48	55.51	44	54.98	46
α	72.06	47	72.28	46	71.18	48
3	113.90	100	114.52	100	113.63	100
5	113.90	100	114.52	100	113.63	100
2	127.64	100	128.26	92	127.28	100
6	127.64	100	128.26	92	127.28	100
1	133.82	19	134.94	15	133.52	25
4	159.34	13	160.22	11	158.69	20
Ac C=O	170.38	12	170.20	10	169.49	19

Compound Number 211

¹³C



Sinapyl alcohol diacetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.51	46	20.26	44	20.05	49
Ac Me	21.05	33	20.79	33	20.62	45
OMe	56.21	100	56.47	100	55.90	100
OMe	56.21	100	56.47	100	55.90	100
γ	64.90	50	65.13	51	64.06	45
2	103.38	88	104.18	93	103.22	78
6	103.38	88	104.18	93	103.22	78
β	123.71	49	124.99	44	124.32	41
4	128.75	8	129.68	5	127.69	14
α	134.01	49	134.04	44	132.55	42
1	134.71	26	135.67	17	134.33	30
3	152.28	42	153.36	32	151.73	58
5	152.28	42	153.36	32	151.73	58
4 Ac C=O	168.71	21	168.51	16	167.395	25
γ Ac C=O	170.85	14	170.72	9	170.01	20

¹H (acetone)

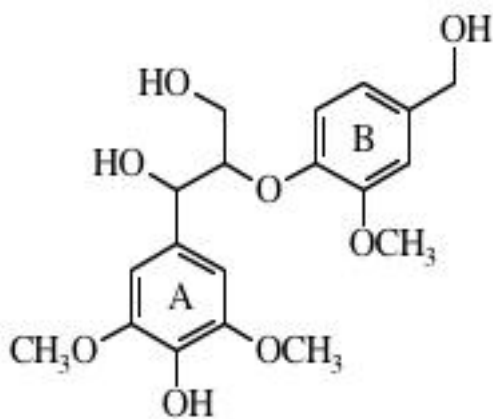
Atom	H Shifts	Mult	J
Ac Me	2.04	s	
Ac Me	2.22	s	
OMe	3.82	s	
γ	4.69	dd	6.2, 1.2
2,6	6.84	s	
β	6.38	dt	15.8, 6.2
α	6.66	d	15.9

Notes:

J.Milhaupt
JMA 111
20mg

Compound Number 212

¹³C



Syringylglycerol- β -vanillyl alcohol ether
 1-(4-Hydroxy-3,5-dimethoxyphenyl)-2-[4-(1-hydroxymethyl)-2-methoxyphenoxy]propane-1,3-diol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B OMe	55.90	54	56.28	59	55.44	70
A OMe	56.34	100	56.60	100	55.74	100
A OMe	56.34	100	56.60	100	55.74	100
γ	61.05	44	61.95	41	60.00	51
B α	64.87	54	64.54	46	62.74	68
α	74.16	47	74.06	51	70.88	57
β	89.20	45	88.56	49	84.44	54
A2	103.82	73	105.41	94	104.13	76
A6	103.82	73	105.41	94	104.13	76
B2	110.98	48	111.95	51	110.97	57
B5	119.98	49	119.60	52	115.43	54
B6	120.50	45	120.02	48	118.58	57
A1	130.66	32	132.82	32	131.93	54
A4	134.61	29	136.17	32	134.31	46
B1	137.06	29	137.97	28	135.45	49
B4	146.93	38	148.42	49	146.93	46
A3	147.10	51	148.50	30	147.34	70
A5	147.10	51	148.50	30	147.34	70
B3	151.16	27	151.54	27	149.39	49

¹H (acetone)

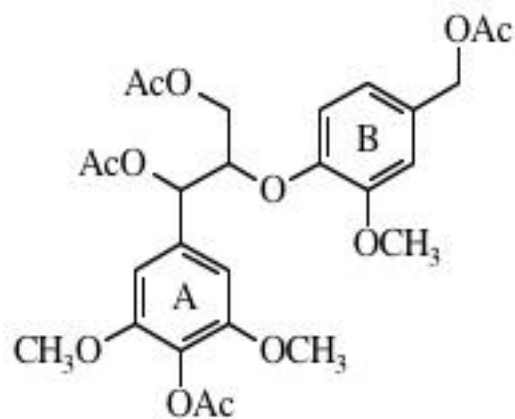
Atom	H Shifts	Mult	J
A OMe	3.80	s	
B OMe	3.86	s	
γ 1	3.50	m	
γ 2	3.69	m	
β	4.18	m	
B α	4.56	d	5.6
α	4.87	m	
A 2,6	6.78	s	
6	6.84	dd	8.2,2.0
2	7.03	d	1.9
5	7.12	d	8.2

Notes:

T. Duch
 I-57
 25mg

Compound Number 213

¹³C



Syringylglycerol- β -vanillyl alcohol ether tetra-acetate
1-(4-acetoxy-3,5-dimethoxyphenyl)-1,3-diacetoxy-2-[4-(1-acetoxymethyl)-2-methoxyphenoxy]

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	1.98	s	
Ac Me	2.03	s	
Ac Me	2.09	s	
A4 Ac Me	2.21	s	
A OMe	3.80	s	
B OMe	3.83	s	
γ 1	4.05	s	12.3,5.9
γ 2	4.27	s	11.9,4.0
β	4.81	s	
B α	5.02	s	
α	6.08	d	6.5
A 2,6	6.86	s	
B6	6.91	dd	8.3,1.8
B5	7.03	d	8.4
B2	7.05	d	1.6

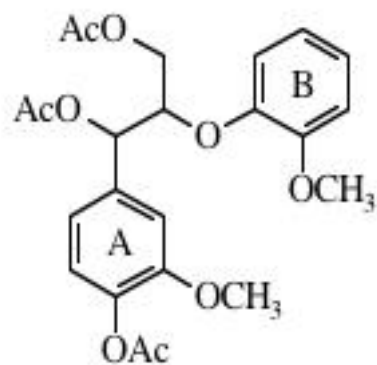
Notes:

T.Duch
I-55
40 mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.36	45	20.24	51	20.03	66
Ac Me	20.64	57	20.63	75	20.38	62
Ac Me	20.97	68	20.83	45	20.65	100
Ac Me	20.97	68	20.95	50	20.65	100
B OMe	55.80	34	56.31	60	55.60	66
A OMe	56.14	100	56.55	100	55.98	100
A OMe	56.14	100	56.55	100	55.98	100
γ	62.91	27	63.59	46	63.37	48
B α	66.08	66	66.35	57	65.28	57
α	74.57	50	75.64	50	74.48	53
β	80.14	48	80.72	55	79.02	53
A2	104.02	89	105.13	99	103.94	90
A6	104.02	89	105.13	99	103.94	90
B2	112.70	52	113.94	59	112.86	60
B5	118.12	48	118.67	55	116.91	60
B6	121.15	52	121.77	56	120.69	62
A4	128.79	20	129.70	22	127.92	52
B1	130.88	36	132.09	30	130.30	57
A1	134.63	39	136.18	37	134.92	57
B4	147.90	34	148.97	29	147.38	55
B3	150.60	36	151.57	34	149.79	59
A3	152.14	61	153.21	57	151.55	78
A5	152.14	61	153.21	57	151.55	78
A4 Ac C=O	168.42	30	168.46	30	167.88	50
α Ac C=O	169.60	32	170.02	34	169.32	57
γ Ac C=O	170.48	34	170.72	24	167.94	59
B α Ac C=O	170.79	25	170.88	24	170.15	40

Compound Number 214

¹³C



erythro

Guaiacylglycerol- β -guaiacyl ether acetate

1-(4-acetoxy-3-methoxyphenyl)-1,3-diacetoxy-2-(2-methoxyphenoxy)propane

¹H (acetone)

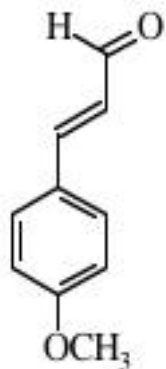
Atom	H Shifts	Mult	J
Ac Me	1.94	s	
Ac Me	2.08	s	
Ac Me	2.23	s	
OMe	3.81	s	
OMe	3.83	s	
γ 1	4.22	dd	11.9,4.2
γ 2	4.39	dd	11.9,5.8
β	4.83	m	
α	6.09	d	5.0

Notes:

S. Ralph
Mixture is 65/35 erythro/threo
35mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.57	100	20.46	84	20.22	100
Ac Me	20.66	66	20.59	69	20.29	100
Ac Me	20.93	71	20.86	57	20.53	73
OMe	55.78	91	56.26	100	55.54	81
OMe	55.90	85	56.32	100	55.66	81
γ	62.55	57	63.03	55	61.84	44
α	73.79	60	74.63	55	73.10	49
β	80.15	71	80.37	59	78.36	47
A2	112.02	54	112.83	55	111.61	58
B2	112.70	61	113.90	62	112.89	51
B5	119.51	79	119.88	59	117.93	51
A6	119.71	56	120.46	59	119.28	59
B6	120.98	86	121.68	69	120.61	71
A5	122.52	60	123.36	61	122.43	58
B1	123.58	59	124.08	60	122.83	49
A1	135.41	32	136.71	41	135.30	44
A4	139.80	22	140.85	21	139.05	32
B4	147.18	21	148.33	18	146.61	29
B3	150.97	24	152.11	32	150.30	31
A3	151.11	24	152.11	32	150.52	34
Ac C=O	168.69	26	168.89	26	168.31	36
Ac C=O	169.44	26	169.89	25	169.16	37
Ac C=O	170.68	23	170.74	20	169.94	27

Compound Number 215

¹³C

p-Methoxy cinnamaldehyde

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.34	46	55.81	52	55.35	43
3	114.48	100	115.35	100	114.51	100
5	114.48	100	115.35	100	114.51	100
β	126.33	46	127.37	47	126.31	51
1	126.67	22	127.91	16	126.69	23
2	130.28	92	131.26	95	130.65	98
6	130.28	92	131.26	95	130.65	98
α	152.72	44	153.22	41	153.10	40
4	162.13	15	163.08	11	161.75	20
γ	193.66	46	193.81	44	194.00	43

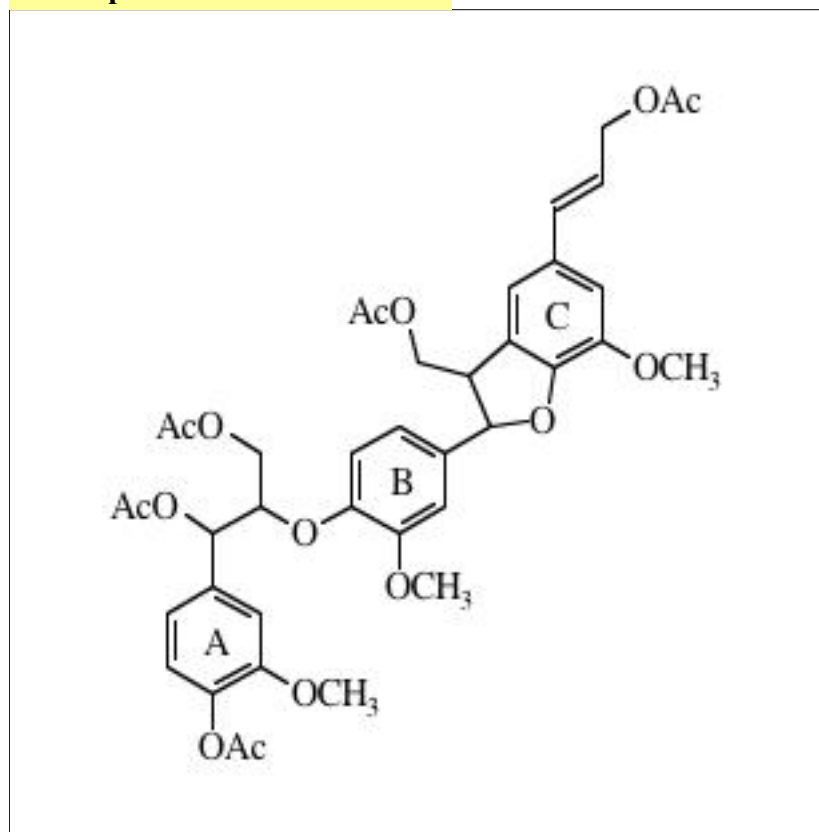
¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.86	s	
β	6.65	dd	15.9,7.7
3,5	7.02	d	8.9
α	7.60	d	15.9
2,6	7.68	d	8.9
γ	9.66	d	7.7

Notes:Pew Collection
50 mg

Compound Number 216

¹³C



G-b-G-c-CA (acetate)

¹H (acetone)

Atom	H Shifts	Mult	J
C γAc Me	1.93	s	
A, B γ Ac Me	2.04	s	
A α Ac Me	2.06	s	
A4 Ac Me	2.21	s	
B β	3.75	m	
A, B OMe	3.81	s	
C OMe	3.89	s	
A γ1	4.22	dd	4.1, 12.0
A γ2	4.36	dd	5.9, 12.0
B γ1	4.32	dd	7.6, 11.1
B γ2	4.43	dd	5.4, 11.1
C γ	4.65	dd	1.3, 6.5
β	4.86	m	
B α	5.55	d	6.8
α	6.05	d	5.2
C β	6.23	dt	6.5, 15.8
C α	6.64	d	15.8
B6	6.91	dd	2.0, 8.3
B5	7.00	d	8.3
B2	7.07	d	2.0
A2	7.23	m	

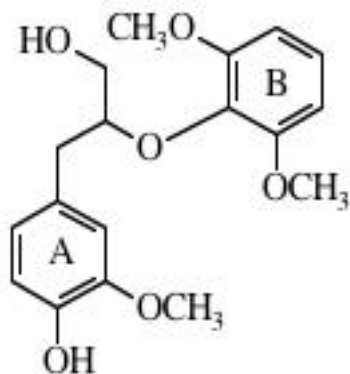
Notes:

S.Ralph
VII-70A
Assignments in acetone are based on
360MHZ HMBC and HMQC expts.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.63	111	20.45	104	20.32	97
A αAc Me	20.74	107	20.60	88	20.40	84
B γAc Me	20.79	99	20.68	92	20.51	68
C γAc Me	20.96	141	20.80	86	20.62	73
A γAc Me	21.00	141	20.86	86	20.70	73
B β	50.37	59	51.24	65	49.34	25
OMe	55.88	100	56.28	130	55.71	125
OMe	55.91	121	56.28	130	55.71	125
OMe	56.00	69	56.28	130	55.71	125
γ	62.45	46	63.04	65	61.85	33
C γ	65.18	76	65.49	100	64.49	50
B γ	65.29	43	65.95	73	64.76	31
α	73.66	40	74.48	71	73.01	32
β	80.25	57	80.30	105	78.30	31
B α	88.23	41	88.54	59	87.17	29
B2	110.28	86	111.50	76	110.74	16
C2	110.60	67	112.17	95	110.93	28
A2	111.88	81	112.71	69	111.62	29
C6	115.31	75	116.33	85	115.26	27
B6	118.69	45	119.14	56	117.49	21
B5	119.18	76	119.41	77	118.30	15
A6	119.60	67	120.45	92	119.33	37
C β	121.24	80	122.23	100	121.34	40
A5	122.59	79	123.33	99	122.50	35
C5	127.49	58	129.01	72	127.89	25
C1	130.60	72	131.53	90	130.04	32
C α	134.30	94	134.71	111	133.49	35
A1	135.30	42	136.60	68	135.05	20
B1	135.80	53	137.06	50	135.26	28
A4	139.75	65	140.78	70	139.06	39
C3	144.41	66	145.39	78	143.84	38
B4	147.19	42	148.14	59	146.54	23
C4	148.20	51	149.31	53	147.53	29
B3	150.96	71	151.95	72	150.16	28
A3	151.19	71	152.08	71	150.54	49
A4 C=O	168.80	48	168.92	67	168.43	47
A αC=O	169.49	56	169.89	68	169.26	46
C γC=O	170.74	75	170.77	107	170.04	61
B γC=O	170.76	92	170.95	94	170.15	41
A γC=O	170.88	59	170.95	94	170.28	47

Compound Number 217

¹³C



3-(4-hydroxy-3-methoxyphenyl)-2-[2,6-dimethoxyphenoxy]propan-1-ol

¹H (acetone)

Atom	H Shifts	Mult	J
α	3.03	dd	13.6,5.4
γ	3.50	m	
A OMe	3.82	s	
B OMe	3.83	s	
β	4.17	m	
B 2,6	6.69	d	
A 5,6	6.74	m	
A2	6.90	s	
B1	7.01	dd	8.8
Ar OH	7.39	s	

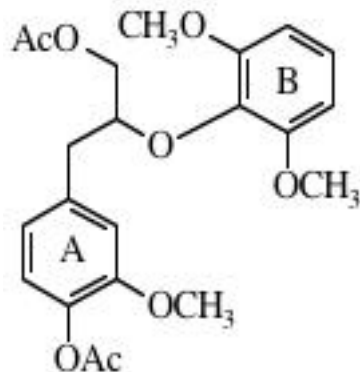
Notes:

T. Duch
TDI-143, 39mg
Assignments in acetone are based on
HMBC and HMQC expts.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α	37.30	43	37.97	23	36.86	22
OMe	55.90	61	56.19	27	55.52	34
OMe	56.09	91	56.45	40	55.86	61
OMe	56.09	91	56.45	40	55.86	61
γ	62.21	37	62.78	20	61.69	22
β	84.48	45	85.29	24	83.46	31
B2	105.42	83	106.49	38	105.65	36
B6	105.42	83	106.49	38	105.65	36
A2	112.31	44	113.89	22	113.58	29
A5	114.28	45	115.52	22	115.11	31
A6	122.09	43	122.81	24	121.68	30
B1	123.95	46	124.51	24	123.41	31
A1	130.13	30	130.76	17	129.32	26
B4	135.66	21	137.09	13	135.65	22
A4	144.12	28	145.71	15	144.64	25
A3	146.44	27	148.05	15	147.15	25
B3	153.60	41	154.61	18	153.29	38
B5	153.60	41	154.61	18	153.29	38

Compound Number 218

¹³C



Acetic acid 3-(4-acetoxy-3-methoxyphenyl)-2-[2,6-dimethoxyphenoxy] propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
α	3.06	t	11.5,6.5
B OMe	3.76	s	
OMe	3.79	s	
γ	4.11	d	4.8
β	4.51	m	
B 2,6	6.64	d	8.3
A6	6.86	dd	8.0,1.8
A5	6.95	d	8.2
B1	6.98	dd	8.2,8.0
A2	7.07	d	1.8

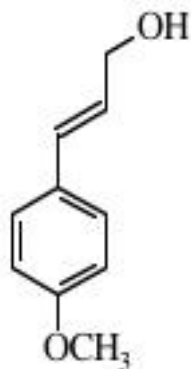
Notes:

T. Duch TDI-143 Ac'd,
32mg Assignments in acetone are based on HMBC and HMQC expts.
A1,B4, and A4 are too close to positively identify.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.70	42	20.49	44	20.37	38
Ac Me	20.85	31	20.65	35	20.46	38
α	38.26	31	38.82	33	37.51	23
OMe	55.97	76	56.12	40	55.60	35
OMe	55.97	76	56.30	77	55.74	53
OMe	55.97	76	56.30	77	55.74	53
γ	65.35	31	65.72	33	64.78	22
β	80.49	35	80.86	33	79.44	25
B2	105.20	68	106.29	59	105.39	42
B6	105.20	68	106.29	59	105.39	42
A2	113.95	33	114.77	32	113.76	25
A6	121.64	39	122.34	33	121.30	23
A5	122.30	36	123.12	38	122.27	27
B1	123.92	34	124.53	36	123.74	26
B4	135.89	18	137.12	17	137.28	18
A1	137.13	28	137.89	22	136.71	23
A4	138.26	21	139.37	17	137.69	19
A3	150.69	23	151.85	20	150.35	21
B3	153.66	35	154.65	26	153.16	32
B5	153.66	35	154.65	26	153.16	32
Ac C=O	169.17	22	169.08	21	168.60	21
γ Ac C=O	170.92	22	170.80	18	170.16	21

Compound Number 219

¹³C



trans

p-Methoxy coumaryl alcohol
4-methoxy cinnamyl alcohol

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.76 (3.78)	s	
γ	4.20 (4.25)	bs	
β	6.24 (6.19)	dt	15.9, 5.4
α	6.53 (6.52)	d	15.9
3,5	6.86 (6.83)	d	8.7
2,6	7.33 (7.28)	d	8.7

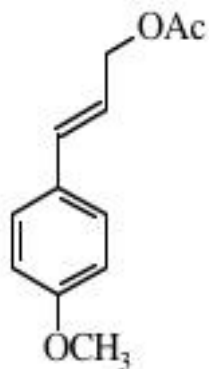
Notes:

S.Ralph 55mg
SRVIII-45
CDCl₃ 1H shifts in ()'s

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.30	45	55.48	37	55.00	26
γ	63.76	42	63.36	33	61.62	33
3	113.99	78	114.73	67	113.96	62
5	113.99	78	114.73	67	113.96	62
2	127.69	82	128.24	67	127.27	66
6	127.69	82	128.24	67	127.27	66
β	126.43	44	128.61	33	128.20	43
α	130.82	32	129.76	34	128.27	32
1	129.57	14	130.78	9	129.51	15
4	159.32	12	160.05	8	158.57	13

Compound Number 220

¹³C



trans

p-Methoxy coumaryl alcohol acetate
4-methoxy cinnamyl alcohol acetate

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.01	s	
OMe	3.78	s	
γ	4.65	dd	6.4, 1.2
β	6.19	dt	15.7, 6.4
3,5	6.89	d	8.8
2,6	7.38	d	8.8

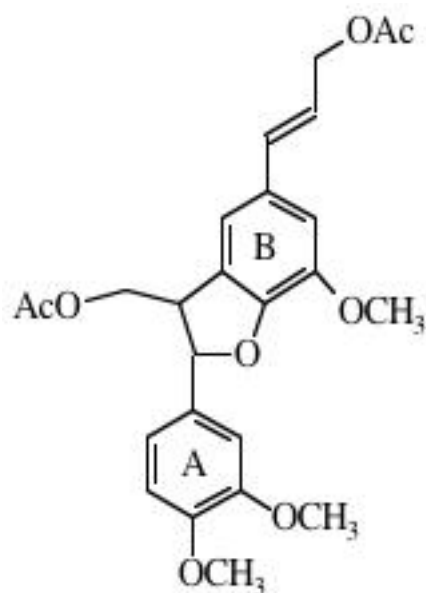
Notes:

S.Ralph
30mg
gHSQC, gHMBC Acetone shifts confirmed

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.07	27	20.82	19	20.64	21
OMe	55.35	48	55.59	31	55.05	26
γ	65.39	46	65.52	32	64.48	26
3	114.13	86	114.91	55	114.02	50
5	114.13	86	114.91	55	114.02	50
β	121.00	40	122.21	33	121.17	25
2	127.94	85	128.69	65	127.74	53
6	127.94	85	128.69	65	127.74	53
1	130.17	11	130.80	7	129.86	7
α	134.10	41	134.32	28	133.00	24
4	159.73	13	160.71	5	159.13	10
Ac C=O	170.90	10	170.77	6	170.07	8

Compound Number 221

¹³C



V-c-CA

4-methoxy phenyl coumaran diacetate

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.00	s	
Ac Me	2.02	s	
OMe	3.79	s	
OMe	3.80	s	
OMe	3.88	s	
γ1	4.38	dd	11.1, 7.4
γ2	4.43	dd	11.1, 5.6
Bγ	4.66	dd	7.4, 0.9
Aα	5.54	d	7.0
Bβ	6.23	dt	15.8, 6.4
Bα	6.64	d	15.9

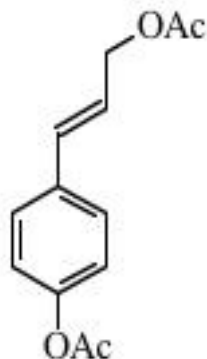
Notes:

S.Ralph 51mg
 SRVII-104
 HMBC and HMQC in acetone
 gamma's and A3 and A4 are very close and may be switched

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.78	29	20.70	26	20.50	29
Ac Me	20.99	25	20.83	20	20.67	27
β	50.32	29	51.16	38	49.36	21
OMe	55.97	62	56.20	50	55.53	47
OMe	55.97	62	56.20	50	55.53	47
OMe	56.08	34	56.48	28	55.75	29
Bγ	65.19	31	65.52	29	64.51	27
γ	65.35	29	65.96	29	64.77	19
α	88.61	28	88.84	27	87.44	22
A2	109.39	30	110.95	26	109.96	23
B2	110.81	27	112.29	25	111.05	19
A5	111.21	30	112.77	26	111.76	24
B6	115.35	28	116.35	28	115.29	21
A6	118.78	31	119.35	28	118.47	25
Bβ	121.22	30	122.21	28	121.34	23
B5	127.76	13	129.18	13	128.06	20
B1	130.56	14	131.46	15	130.03	20
A1	132.94	18	134.53	14	132.88	20
Bα	134.35	29	134.75	28	133.55	22
B3	144.45	17	145.40	13	143.90	17
B4	148.35	11	149.40	8	147.67	12
A3	149.30	26	150.48	11	148.87	30
A4	149.30	26	150.55	10	148.87	30
Ac C=O	170.73	16	170.79	7	170.12	14
Ac C=O	170.73	10	170.94	12	170.26	20

Compound Number 222

¹³C



trans

4-hydroxy cinnamyl alcohol diacetate
Coumaryl alcohol acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ Ac Me	20.98	31	20.78	27	20.63	30
4 Ac Me	21.12	47	20.96	38	20.86	40
γ	64.95	39	65.17	36	64.18	28
3	121.79	78	122.85	62	121.97	58
5	121.79	78	122.85	62	121.97	58
β	123.58	36	124.89	31	123.97	28
2	127.62	75	128.29	65	127.43	57
6	127.62	75	128.29	65	127.43	57
α	133.19	36	133.28	30	132.05	28
1	134.08	13	134.99	13	133.64	15
4	150.52	12	151.70	9	150.13	13
4 Ac C=O	169.32	14	169.55	10	169.03	13
γ Ac C=O	170.78	10	170.74	8	170.07	9

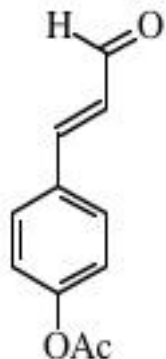
¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	2.03	s	
4 Ac Me	2.24	s	
γ	4.69	dd	6.2, 1.3
β	6.32	dt	16.0, 6.2
α	6.69	d	16.0
3,5	7.08	d	8.6
2,6	7.47	d	8.6

Notes:

S.Ralph 37mg

Compound Number 223

¹³C*trans*

4-acetoxy cinnamaldehyde
Coumaryl aldehyde acetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.11	70	20.98	25	20.65	45
3	122.43	125	123.40	64	122.33	100
5	122.43	125	123.40	64	122.33	100
β	128.73	86	129.60	27	128.41	47
2	129.70	125	130.60	62	129.81	98
6	129.70	125	130.60	62	129.81	98
1	131.75	27	132.91	10	131.59	20
α	151.44	72	152.21	25	151.73	44
4	152.90	25	154.01	9	152.41	18
Ac C=O	168.97	22	169.40	6	168.70	17
γ	193.44	65	193.95	26	193.97	49

¹H (acetone)

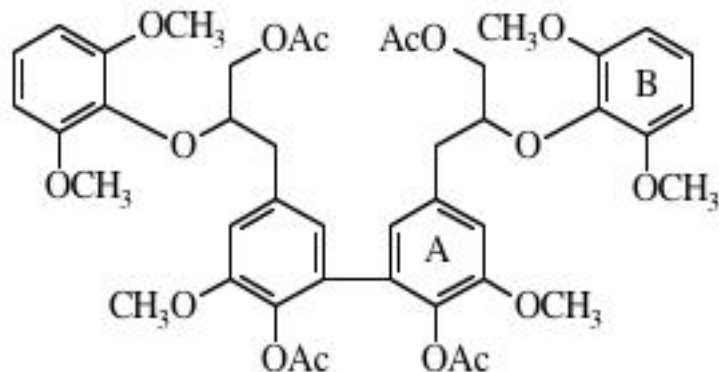
Atom	H Shifts	Mult	J
Ac Me	2.27	s	
β	6.73	dd	16.0, 7.6
3,5	7.22	d	8.6
α	7.66	d	16.0
2,6	7.76	d	8.5
γ	9.70	d	7.6

Notes:

S.Ralph
27mg

Compound Number 224

¹³C



S-b-G-5,5-G-b-S ($\alpha = \text{CH}_2$)

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.34	30	20.32	18	19.88	34
Ac Me	20.80	37	20.68	20	20.35	59
α	38.29	24	38.90	15	37.58	22
OMe	56.00	91	56.33	71	55.71	120
OMe	56.00	91	56.33	71	55.71	120
OMe	56.00	91	56.33	71	55.84	40
γ	65.26	25	65.69	17	64.70	28
β	80.43	28	80.91	18	79.49	31
B2	105.31	68	106.27	40	105.42	81
B6	105.31	68	106.27	40	105.42	81
A2	113.43	24	114.11	14	113.29	20
A6	128.48	23	124.07	11	122.66	20
B1	123.92	32	124.57	14	123.70	36
A5	131.10	18	131.92	8	130.30	23
B4	136.00	15	137.04	17	135.36	31
A1	136.19	29	137.04	17	135.42	31
A4	136.19	29	137.04	17	135.84	29
A3	151.02	20	152.12	12	150.67	26
B3	153.17	42	154.64	22	153.17	69
B5	153.17	42	154.64	22	153.17	69
4 Ac C=O	168.68	8	168.80	6	167.98	19
γ Ac C=O	170.82	19	170.80	10	170.02	35

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	1.93	s	
Ac Me	1.99	s	
α	3.07	m	
OMe	3.74	s	
OMe	3.82	s	
γ	4.14	d	4.8
β	4.51	bt	4.9
B2,6	6.62	d	8.4
A6	6.76	s	
A2	7.09	d	1.4

Notes:

S.Ralph SRVII 109D

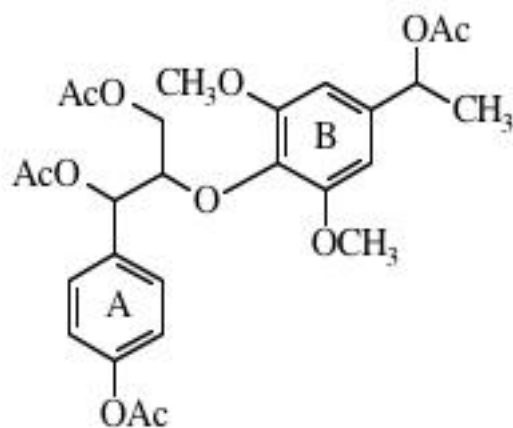
44mg

2D HMBC in CDCL3A4 and A1 identical chemical shift and B4 very close

As compound has a plane of symmetry thru A5 only half the shifts are reported

Compound Number 225

¹³C



erythro

H-b-S

¹H (acetone)

Atom	H Shifts	Mult	J
Bβ	1.47	d	6.6
Ac Me	1.84	s	
Ac Me	2.03	s	
Ac Me	2.12	s	
A4 Ac Me	2.25	s	
OMe	3.79	s	
γ1	4.15	dd	11.9, 4.2
γ2	4.38	dd	11.9, 5.9
β	4.69	m	
Bα	5.78	q	6.6
α	6.07	d	4.6
B2,6	6.68	s	
A3,5	7.11	d	8.5
A2,6	7.45	d	8.5

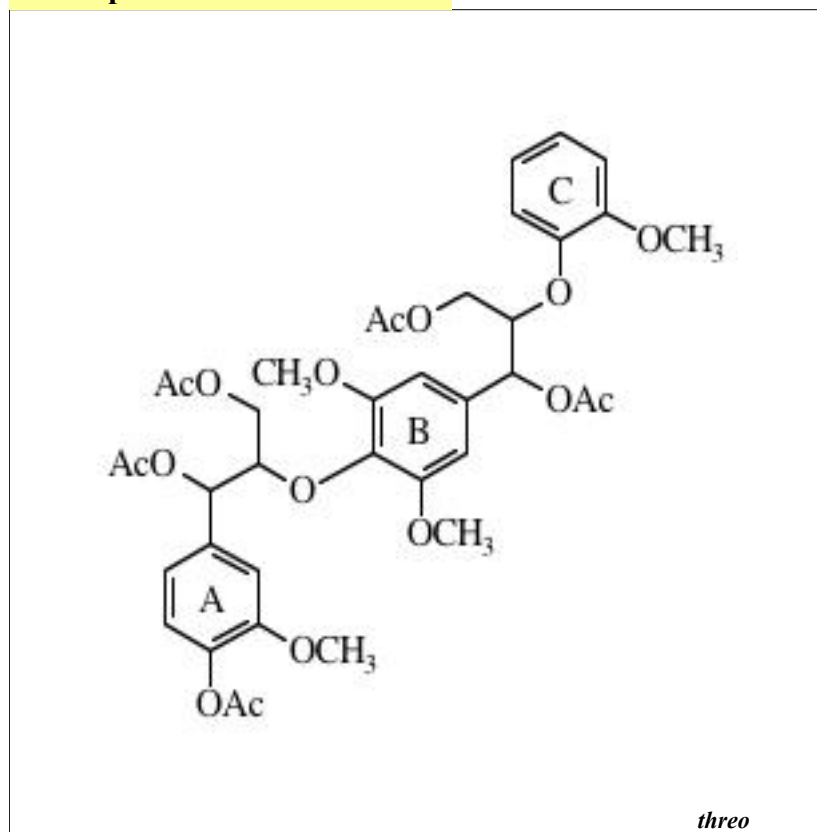
Notes:

S.Ralph
 SRVII-139E3 18mg
 gHMQC and gHMBC in acetone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.78	39	20.55	18	20.22	27
Ac Me	20.12	40	20.95	31	20.60	28
Ac Me	21.19	47	20.95	31	20.74	32
Ac Me	21.44	36	21.16	18	20.95	28
Bβ	22.26	34	22.60	21	21.99	25
OMe	56.08	78	56.38	44	55.75	54
OMe	56.08	78	56.38	44	55.75	54
γ	62.66	26	63.19	18	61.94	15
Bα	72.38	36	72.68	17	71.59	22
α	73.94	29	74.90	15	73.49	15
β	80.88	20	81.26	13	79.79	16
B2	103.29	67	103.98	38	102.85	39
B6	103.29	67	103.98	38	102.85	39
A3	121.36	57	122.33	37	121.56	45
A5	121.36	57	122.33	37	121.56	45
A2	128.06	42	128.89	30	128.72	37
A6	128.06	42	128.89	30	128.72	37
A1	134.69	14	135.64	7	134.26	10
B4	134.96	19	135.84	17	135.05	15
B1	137.91	21	139.17	11	137.40	15
A4	150.37	19	151.53	8	149.96	14
B3	153.22	40	154.08	17	152.52	29
B5	153.22	40	154.08	17	152.52	29
A4 Ac C=O	169.36	17	169.61	7	169.08	19
Aα Ac C=O	169.62	16	169.93	9	169.08	19
Bα Ac C=O	170.29	17	170.21	6	169.55	18
Aγ Ac C=O	170.29	17	170.66	10	169.90	19

Compound Number 226

¹³C



G-bt-S-bt-G

threo

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ Ac Me	20.69	44	20.48	99	20.28	55
γAc Me	20.75	50	20.58	96	20.28	55
α Ac Me	20.79	43	20.67	96	22.41	41
αAc Me	21.09	70	20.92	103	22.41	50
4 Ac Me	21.09	70	20.96	116	20.65	50
OMe	55.80	44	56.19	115	55.48	45
OMe	55.90	44	56.24	119	55.62	43
OMe	56.04	71	56.43	127	55.78	66
OMe	56.04	71	56.43	127	55.78	66
Aγ	62.74	27	63.36	63	62.19	22
Bγ	63.16	28	63.72	71	62.56	21
Aα	73.99	29	75.07	69	73.74	25
Bα	74.87	28	75.71	54	74.60	19
Bβ	80.36	18	80.76	69	79.15	24
Aβ	80.78	21	81.38	70	79.94	23
B2	104.30	51	105.27	125	104.13	43
B6	104.30	51	105.27	125	104.13	43
A2	111.60	16	112.26	47	110.95	21
C2	112.49	33	113.68	75	112.61	34
C5	118.50	37	118.95	60	117.23	23
A6	119.24	19	120.01	60	118.78	23
C6	120.98	31	121.66	81	120.60	34
A5	122.37	25	123.26	78	122.46	43
C1	123.24	30	123.61	89	122.46	43
B1	132.59	12	133.70	37	132.42	17
B4	135.35	10	136.40	19	134.48	16
A1	136.03	16	137.04	41	135.59	18
A4	139.49	16	140.53	33	138.85	21
C4	148.00	16	149.14	34	147.58	21
C3	150.77	25	151.74	37	150.03	22
A3	150.77	25	152.01	35	150.53	21
B3	153.14	27	153.96	68	152.43	37
B5	153.14	27	153.96	68	152.43	37
A4 Ac C=O	168.84	17	168.95	37	168.40	20
α Ac C=O	169.49	18	169.92	49	169.29	26
α Ac C=O	169.76	17	169.99	49	169.29	36
γ Ac C=O	170.51	20	170.61	60	169.92	39
γAc C=O	170.82	19	170.61	60	169.92	39

¹H (acetone)

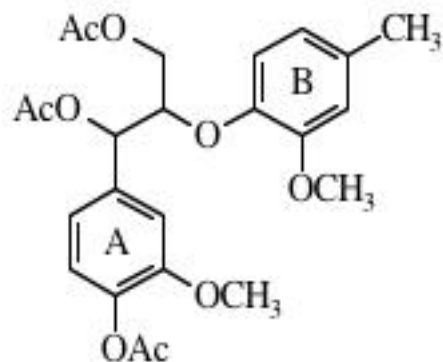
Atom	H Shifts	Mult	J
γ Ac Me	1.84		
γ Ac Me	1.98		
α Ac Me	2.00		
αAc Me	2.10		
A4 Ac Me	2.22		
OMe	3.80		
γ	4.03	m	
γ1,γ2	4.22	m	
γ	4.41	dd	11.8, 6.05
Aβ	4.71	m	
Bβ	4.79	m	
A,Bα	6.07	bd	6.31
B2,6	6.79	d	2.8

Notes:

S.Ralph SRVII-140C2
30mg
gHSQC and gHMBC in acetone

Compound Number 227

¹³C



erythro

G-b-G

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.61	66	20.47	61	20.31	30
Ac Me	20.74	48	20.62	51	20.40	30
Ac Me	20.99	48	20.89	45	20.62	42
Bα	21.09	58	21.07	45	20.68	20
OMe	55.70	74	56.14	62	55.47	23
OMe	55.89	57	56.27	55	55.69	20
γ	62.48	43	62.95	45	61.80	12
α	73.70	45	74.58	44	73.10	17
β	80.57	59	80.63	45	78.71	19
A2	111.84	46	112.63	67	111.50	21
B2	113.49	46	114.61	50	113.60	15
B5	119.54	63	120.07	44	118.21	15
A6	119.69	49	120.30	51	119.17	17
B6	121.21	53	121.85	54	120.77	23
A5	122.55	46	123.36	45	122.50	14
B1	133.53	27	133.79	20	132.26	17
A1	135.62	28	136.82	27	135.45	17
A4	139.69	20	140.73	14	138.98	12
B4	144.76	22	145.94	15	144.24	13
B3	150.86	24	151.83	15	150.12	16
A3	150.95	25	152.11	17	150.53	15
A4 Ac C=O	168.79	23	168.92	18	168.41	14
α Ac C=O	169.50	24	169.91	17	169.26	14
γ Ac C=O	170.78	22	170.76	15	170.03	12
threo isomer						
γ	63.04		63.58			
α	74.54		75.38			
β	80.59		80.98			

¹H (acetone)

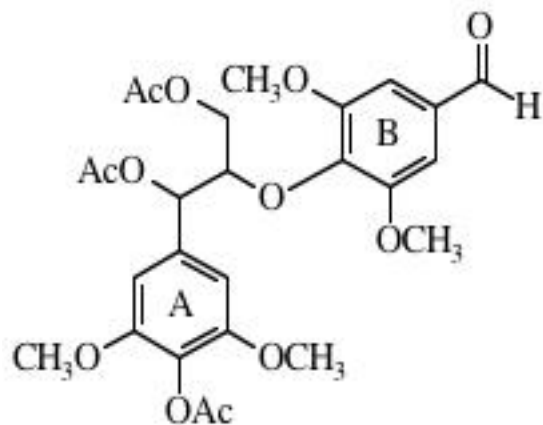
Atom	H Shifts	Mult	J
Ac Me	1.94	s	
Ac Me	2.08	s	
Bα	2.22	s	
Ac Me	2.25	s	
OMe	3.79	s	
OMe	3.83	s	
γ1	4.20	dd	11.9, 4.2
γ2	4.37	dd	11.9, 5.8
β	4.74	m	
α	6.06	d	5.0
B6	6.65	bd	8.1
B2	6.82	bs	
B5	6.85	d	8.2
A5,6	7.04	m	
A2	7.23	s	
γ1 isomer	3.99		
γ2 isomer	4.25		
α isomer	6.10		

Notes:

S.Ralph
 SRVII-141-1 31mg
 gHSQC and gHMBC in acetone

Compound Number 228

¹³C



S-b-S

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.44	21	20.24	147	20.09	45
α AcMe	20.70	15	20.58	108	20.31	34
γ Ac Me	21.04	13	20.89	98	20.63	37
A OMe	56.18	49	56.50	270	55.93	79
A OMe	56.18	49	56.50	270	55.93	79
B OMe	56.18	49	56.58	279	55.99	87
B OMe	56.18	49	56.58	279	55.99	87
γ	62.90	11	63.40	96	62.26	18
α	74.17	12	75.17	93	73.81	22
β	80.87	12	81.67	98	80.21	20
A2	104.07	22	104.61	181	103.39	37
A6	104.07	22	104.61	181	103.39	37
B2	106.50	24	107.18	183	106.37	42
B6	106.50	24	107.18	183	106.37	42
A4	128.61	3	129.41	21	127.60	10
B1	132.08	8	133.26	54	131.82	18
A1	135.04	9	136.27	53	134.94	20
B4	140.89	4	141.81	28	140.06	16
A3	151.95	15	153.06	86	151.54	43
A5	151.95	15	153.06	86	151.54	43
B3	153.46	14	154.43	86	152.95	46
B5	153.46	14	154.43	86	152.95	46
A4 Ac C=O	168.60	7	168.52	48	168.03	21
α Ac C=O	169.46	9	169.94	50	169.35	25
γ Ac C=O	170.76	6	170.66	46	169.96	23
Bα	191.01	12	191.69	98	191.82	22

¹H (acetone)

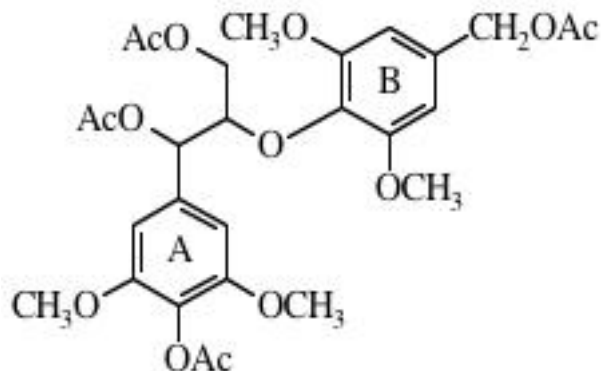
Atom	H Shifts	Mult	J
γ Ac Me	1.87	s	
α Ac Me	2.14	s	
A4 Ac Me	2.22	s	
OMe	3.82	s	
OMe	3.95	s	
γ 1	4.22	dd	11.9, 3.8
γ 2	4.47	dd	11.9, 6.2
β	4.95	dt	6.6, 4.2
α	6.09	d	4.2
A 2,6	6.81	s	
B 2,6	7.25	s	
Bα	9.90	s	

Notes:

L.Landucci LLL XXII-134C
35mg
gHSQC and gHMBC in acetone

Compound Number 229

¹³C



erythro

S-b-S

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.86	s	
Bα Ac Me	2.05	s	
a Ac Me	2.14	s	
A4 Ac Me	2.22	s	
OMe	3.81	s	
OMe	3.82	s	
γ1	4.18	dd	11.9, 4.2
γ2	4.43	dd	11.9, 6.0
β	4.74	dt	6.2, 4.2
Bα	5.02	s	
α	6.08	d	4.3
B 2,6	6.71	s	
A 2,6	6.78	s	

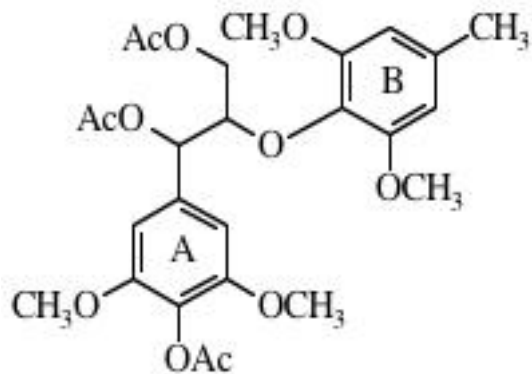
Notes:

S.Ralph SRIX-17D
18mg
gHSQC and gHMBC in acetone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.48	137	20.35	42	20.06	54
γ Ac Me	20.77	88	20.71	29	20.29	40
Bα Ac Me	21.06	92	20.93	20	20.64	52
α Ac Me	21.10	106	21.04	30	20.66	51
OMe	56.05	178	56.50	58	55.74	70
OMe	56.05	178	56.50	58	55.74	70
OMe	56.17	239	56.58	79	55.88	88
OMe	56.17	239	56.58	79	55.88	88
γ	62.73	71	63.42	23	62.09	18
Bα	66.45	67	66.71	22	65.58	27
α	74.19	75	75.41	23	73.88	24
β	80.79	65	81.55	25	79.96	22
A2	103.92	127	104.61	43	103.18	38
A6	103.92	127	104.61	43	103.18	38
B2	105.47	132	106.29	42	105.20	40
B6	105.47	132	106.29	42	105.20	40
A4	128.44	21	129.41	4	127.45	12
B1	132.02	49	133.40	11	131.90	19
B4	135.09	29	136.29	8	134.12	17
A1	135.59	48	136.76	13	135.26	18
A3	151.90	89	153.12	25	151.47	52
A5	151.90	89	153.12	25	151.47	52
B3	153.19	77	154.13	20	152.47	38
B5	153.19	77	154.13	20	152.47	38
A4 Ac C=O	168.64	44	168.64	13	168.10	26
α Ac C=O	169.54	43	170.09	13	169.35	28
γ Ac C=O	170.84	27	170.81	12	169.97	27
Bα Ac C=O	170.92	34	170.97	6	170.20	16

Compound Number 230

¹³C



erythro

S-b-S

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.43	29	20.24	41	20.04	79
γ Ac Me	20.76	23	20.62	28	20.30	63
αAc Me	21.06	21	20.93	27	20.61	61
Bα	21.82	21	21.76	28	21.32	56
OMe	55.90	45	56.25	63	55.57	117
OMe	55.91	45	56.25	63	55.57	117
OMe	56.12	49	56.46	82	55.84	126
OMe	56.12	49	56.46	82	55.84	126
γ	62.69	18	63.22	29	62.00	32
α	74.20	17	75.33	29	73.88	37
β	80.80	19	81.45	31	79.94	38
A2	103.81	36	104.43	54	103.08	70
A6	103.81	36	104.43	54	103.08	70
B2	105.95	34	106.85	60	105.77	82
B6	105.95	34	106.85	60	105.77	82
A4	128.33	5	129.25	6	127.39	20
B4	132.79	6	134.15	9	132.12	29
B1	134.13	13	134.52	16	133.35	37
A1	135.77	13	136.80	17	135.39	38
A3	151.86	21	153.01	27	151.45	73
A5	151.86	21	153.01	27	151.45	73
B3	152.87	22	153.84	29	152.27	71
B5	152.87	22	153.84	29	152.27	71
A4 Ac C=O	168.62	10	168.54	14	167.99	35
α Ac C=O	169.54	11	169.98	15	169.33	42
γ Ac C=O	170.94	9	170.72	13	169.95	41
threo isomer						
γ	63.53		64.13			
α	75.60		76.58			
β	80.87		81.65			

¹H (acetone)

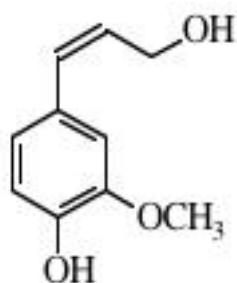
Atom	H Shifts	Mult	J
γ Ac Me	1.87	s	
αAc Me	2.14	s	
A4 Ac Me	2.22	s	
Bα	2.27	s	
OMe	3.78	s	
OMe	3.81	s	
γ1	4.18	dd	11.9, 4.4
γ2	4.40	dd	11.9, 6.2
β	4.66	dt	5.8, 4.4
α	6.06	d	4.4
B 2,6	6.49	s	
A 2,6	6.76	s	

Notes:

S.Ralph SRIX-17E
40mg threo isomer shifts from SRIX-104D
gHSQC and gHMBC in acetone

Compound Number 231

¹³C



cis

cis-coniferyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.97	23	56.13	91	55.47	96
γ	59.75	21	59.73	77	58.16	86
2	111.53	20	113.19	82	112.84	81
5	114.33	21	115.55	82	115.15	79
6	122.25	22	122.78	86	121.56	83
1	129.04	6	129.73	26	128.06	46
α	129.51	20	130.19	82	128.62	82
β	131.10	20	131.44	82	130.95	75
4	145.17	7	146.69	29	145.74	50
3	146.38	5	147.93	22	147.13	39

¹H (acetone)

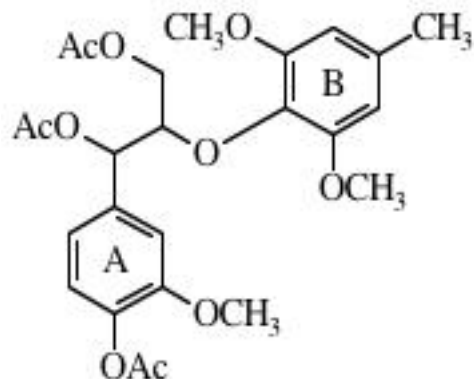
Atom	H Shifts	Mult	J
OMe	3.83	s	
γ	4.41	d	5.8
β	5.73	dt	11.9, 6.2
α	6.39	d	11.7
6	6.72	dd	8.2, 2.0
5	6.82	d	8.2
2	6.87	d	2.0
<u>CDCl₃</u>			
OMe	3.89	s	
γ	4.44	dd	6.4, 1.4
β	5.79	dt	11.5, 6.6
α	6.49	d	11.9
6	6.74	dd	8.2, 1.8
5	6.78	d	1.8
2	6.89	d	8.2

Notes:

J.Ralph
10mg
gHSQC and gHMBC in acetone
gHSQC in DMSO

Compound Number 232

¹³C



erythro

G-b-S

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.67	211	20.46	138	20.34	166
Ac Me	20.78	188	20.59	116	20.34	166
Ac Me	21.09	174	20.92	119	20.67	97
Bα	21.87	170	21.77	111	21.40	85
OMe	55.94	494	56.25	329	55.66	200
OMe	55.94	494	56.25	329	55.66	200
OMe	55.94	494	56.25	329	55.70	135
γ	62.64	157	63.10	122	61.98	59
α	74.02	160	75.04	125	73.72	66
β	80.92	173	81.40	126	80.03	68
B2	106.02	314	106.87	224	105.90	140
B6	106.02	314	106.87	224	105.90	140
A2	111.46	150	112.07	101	110.83	64
A6	119.10	157	119.81	115	118.66	65
A5	122.43	179	123.29	122	122.61	71
B4	132.81	59	134.03	33	132.13	47
B1	134.16	112	134.56	65	133.51	62
A1	136.35	118	137.26	75	135.87	63
A4	139.44	72	140.56	40	138.86	50
A3	150.84	88	152.02	53	150.63	60
B3	152.96	183	153.86	104	152.42	128
B5	152.96	183	153.86	104	152.42	128
A4 Ac C=O	168.91	75	168.94	50	168.51	56
α Ac C=O	169.56	85	169.93	56	169.39	57
γ Ac C=O	170.92	79	170.67	50	170.03	64

¹H (acetone)

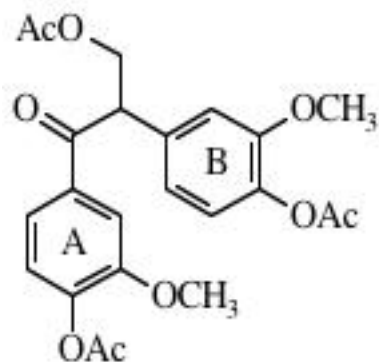
Atom	H Shifts	Mult	J
Ac Me	1.85	s	
Ac Me	2.12	s	
Ac Me	2.22	s	
Bα	2.27	s	
B OMe	3.76	s	
A OMe	3.82	s	
γ1	4.16	dd	11.8, 4.4
γ2	4.43	dd	11.7, 5.8
β	4.67	dt	5.8, 4.2
α	6.10	d	4.2
B 2,6	6.51	s	
A6	6.99	dd	8.3, 1.8
A5	7.06	d	8.2
A2	7.18	d	1.8

Notes:

S.Ralph SRIX-43G
55 mg
HSQC and HMBC in d6-DMSO

Compound Number 233

¹³C



G-b1-G

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.67	47	20.43	46	20.32	24
Ac Me	20.67	47	20.43	46	20.32	24
Ac Me	20.92	21	20.66	20	20.55	9
β	52.08	21	52.37	21	50.52	8
OMe	56.03	49	56.29	27	55.80	11
OMe	56.03	49	56.40	28	55.95	13
γ	65.58	19	65.94	21	64.74	6
A2	111.99	21	113.14	23	112.35	8
B2	112.32	22	113.66	23	112.95	8
A6	120.95	124	121.30	24	120.26	8
B6	122.22	23	122.88	23	122.14	8
A5	122.94	25	123.95	24	123.28	16
B5	123.54	22	124.21	24	123.28	16
B1	133.94	15	135.54	14	134.26	7
A1	135.02	13	135.77	11	134.42	8
B4	139.64	10	140.53	8	138.79	6
A4	144.13	11	145.10	8	143.59	6
B3	151.54	12	152.52	11	151.11	13
A3	151.72	11	152.70	10	151.11	13
A4 Ac C=O	168.46	11	168.58	9	138.10	7
B4 Ac C=O	168.83	10	168.87	10	168.41	7
γ Ac C=O	170.89	11	170.75	10	170.10	6
α	195.95	13	196.63	11	195.91	7

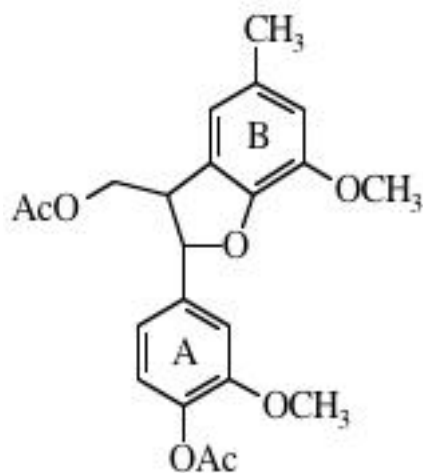
¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	1.93	s	
Ac Me	2.20	s	
Ac Me	2.24	s	
OMe	3.81	s	
OMe	3.96	s	
γ1	4.33	dd	10.5, 5.8
γ2	4.76	dd	10.5, 8.5
β	5.19	dd	8.5, 5.7
B6	6.98	dd	8.0, 2.0
B5	7.03	d	8.0
A5	7.16	d	8.2
B2	7.22	d	1.8
A6	7.73	d	6.2, 1.8
A2	7.77	d	1.8

Notes:

S.Lempke I-31
HSQC and HMBC in d6-acetone

Compound Number 234

¹³C

G-c-G

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	21.51	39	20.47	41	20.33	117
Ac Me	21.67	34	20.70	35	20.54	121
B α	22.13	31	21.18	32	20.80	111
β	51.63	37	51.65	42	49.82	89
OMe	56.77	45	56.23	41	55.66	118
OMe	56.77	46	56.41	40	55.73	129
γ	66.49	38	66.19	44	65.03	75
α	88.49	38	87.85	43	86.41	80
A2	110.89	34	111.02	40	110.39	85
B2	114.11	29	114.79	32	113.50	57
B6	117.76	38	117.92	40	116.90	84
A6	119.09	38	118.61	44	117.81	97
A5	123.68	39	123.72	43	122.87	89
B5	127.71	20	128.29	17	127.22	72
B1	132.29	21	131.92	20	130.68	78
A4	140.42	11	140.61	10	138.98	52
A1	140.73	22	141.40	22	139.88	77
B3	144.89	16	145.00	13	143.48	71
B4	146.62	9	146.96	10	145.26	44
A3	152.09	16	152.36	13	150.83	66
A4 Ac C=O	169.81	13	168.97	13	168.47	51
γ Ac C=O	171.66	15	170.96	14	170.29	66

¹H (acetone)

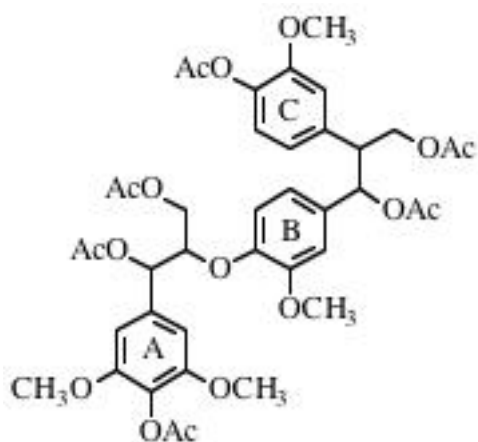
Atom	H Shifts	Mult	J
Ac Me	2.01	s	
Ac Me	2.22	s	
B α	2.26	s	
β	3.74	m	
A OMe	3.80	s	
B OMe	3.83	s	
γ 1	4.29	dd	11.1, 8.0
γ 2	4.42	dd	10.9, 5.6
α	5.55	d	6.6
B6	6.70	s	
B2	6.73	s	
A6	6.99	dd	8.2, 1.8
A5	7.05	d	8.2
A2	7.18	d	1.8

Notes:

S.Ralph
 SRIX-46E
 31mg
 HSQC and HMBC in d6-acetone

Compound Number 235

¹³C



S-b-G-b1-G

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	1.89	s	
Ac Me	1.90	s	
Ac Me	2.04	s	
Ac Me	2.17	s	
Ac Me	2.18	s	
Bβ	3.46	m	
OMe	3.69	s	
OMe	3.72	s	
OMe	3.75	s	
OMe	3.76	s	
Bγ1	4.22	m	
Aγ1	4.31	m	
Bγ2	4.36	m	
Aγ2	4.38	m	
Aβ	4.82	m	
Aα	5.99	d	5.8
Bα	6.08	d	7.2
A2,6	6.80	s	
C2	6.97	s	

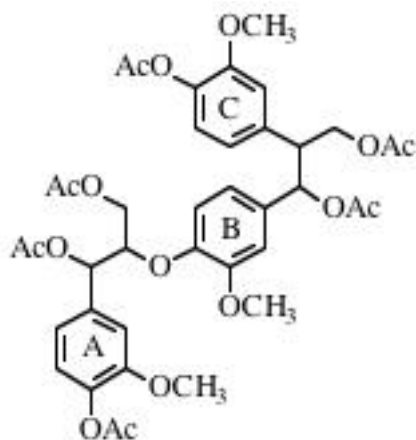
Notes:

S. Ralph SRIX-44D6
 70mg HSQC and HMBC in d6-acetone
 Bβ,Aβ,A2,A6,B5,B1,A1,and B4 appear as split signals
 The shift reported is the average.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γAc Me	20.19	26	20.25	39	19.99	106
γAc Me	20.39	24	20.49	37	20.24	118
α Ac Me	20.52	24	20.63	37	20.30	108
α Ac Me	20.56	25	20.68	37	20.38	99
4 Ac Me	20.73	27	20.87	51	20.50	133
4 Ac Me	20.76	27	20.87	51	20.50	133
Bβ	49.86	9	50.93	17	49.21	40
OMe	55.59	24	56.22	68	55.54	97
OMe	55.67	25	56.22	68	55.59	125
OMe	55.97	49	56.51	71	55.87	179
OMe	55.97	49	56.51	71	55.87	179
Aγ	62.37	10	63.07	20	61.95	41
Bγ	64.04	14	65.02	19	64.07	36
Aα	73.74	15	74.77	22	73.39	46
Bα	74.82	13	75.66	22	74.62	42
Aβ	79.64	8	79.97	19	78.10	25
A2	104.20	19	105.11	37	104.04	93
A6	104.20	19	105.11	37	104.04	93
B2	111.11	11	112.37	18	111.22	33
C2	112.95	16	114.30	22	113.27	57
B5	118.27	10	118.61	11	116.86	19
B6	119.26	12	120.13	19	119.06	40
C6	120.99	16	122.06	20	120.84	56
C5	122.25	20	123.12	25	122.10	59
A4	128.50	6	129.52	8	127.83	40
B1	133.19	10	134.59	9	133.00	25
A1	134.81	9	136.05	12	134.76	33
C1	136.11	10	137.79	13	136.85	47
C4	138.85	10	139.98	13	138.27	48
B4	146.81	5	147.93	7	146.40	37
B3	150.44	9	151.43	9	149.76	33
C3	150.59	12	151.80	17	150.26	65
A3	151.84	24	153.01	31	151.47	120
A5	151.84	24	153.01	31	151.47	120
A4 Ac C=O	168.23	8	168.49	16	167.81	59
C4 Ac C=O	168.61	10	168.98	15	168.27	53
α Ac C=O	169.27	12	169.93	29	169.07	57
α Ac C=O	169.50	8	169.93	29	169.12	68
γ Ac C=O	170.42	11	170.74	19	169.89	111
γ Ac C=O	170.50	12	170.77	21	169.89	111

Compound Number 236

¹³C



G-b-G-b1-G

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ Ac Me	20.69	44	20.49	90	20.35	99
γ Ac Me	20.69	44	20.49	90	20.35	99
α Ac Me	20.78	24	20.62	53	20.35	99
α Ac Me	20.85	25	20.69	55	20.50	53
4 Ac Me	21.03	33	20.87	84	20.61	88
4 Ac Me	21.03	33	20.87	84	20.61	88
Bβ	50.07	6	50.96	24	49.13	22
OMe	55.83	21	56.25	96	55.63	45
OMe	55.94	33	56.25	96	55.68	67
OMe	55.97	35	56.30	77	55.72	62
Aγ	62.52	12	63.04	29	61.94	20
Bγ	64.29	14	65.05	32	64.17	20
Aα	73.72	15	74.55	30	73.14	22
Bα	75.07	12	75.70	26	74.68	21
Aβ	80.01	7	80.16	34	78.15	17
B2	111.36	14	112.43	31	111.27	19
A2	111.98	8	112.78	22	111.68	20
C2	113.12	15	114.34	37	113.32	28
B5	118.74	11	118.93	17	116.97	11
B6	119.48	15	120.14	35	119.12	24
A6	119.73	11	120.46	34	119.40	26
C6	121.22	15	122.10	28	120.89	26
C5	122.50	19	123.13	41	122.19	28
A5	122.62	18	123.36	37	122.51	27
B1	133.41	7	134.76	13	133.13	15
A1	135.34	4	136.60	16	135.26	20
C1	136.29	5	137.84	16	137.02	25
C4	139.06	9	140.02	17	138.21	27
A4	139.82	9	140.80	15	139.10	25
B4	147.00	5	147.92	9	146.35	18
B3	150.75	11	151.55	15	149.81	21
C3	150.80	14	151.83	22	150.26	31
A3	151.02	10	152.11	17	150.57	24
4 Ac C=O	168.84	10	168.92	21	168.46	39
4 Ac C=O	168.90	12	168.98	24	168.46	39
α Ac C=O	169.55	10	169.93	29	169.23	33
α Ac C=O	169.78	10	169.93	29	169.28	32
γ Ac C=O	170.74	11	170.75	31	170.06	55
γ Ac C=O	170.80	11	170.75	31	170.06	55

¹H (acetone)

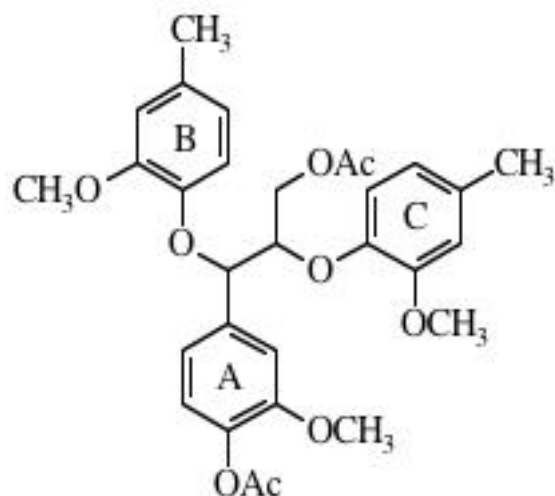
Atom	H Shifts	Mult	J
γ Ac Me	1.95	s	
α Ac Me	2.07	s	
4 Ac Me	2.15	s	
Bβ	3.50	m	
OMe	3.74	s	
OMe	3.78	s	
OMe	3.83	s	
Bγ 1	4.21	m	
Aγ 1	4.27	m	
Bγ 2	4.33	m	
Aγ 2	4.37	m	
Aβ	4.85	m	
Aα	6.06	d	5.0
Bα	6.13	d	7.0
B2	6.81	s	
B,C 6	6.82	m	
B,C 5	6.96	m	
C2	7.02	d	
A 5,6	7.05	m	
A2	7.25, 7.26		2 signals

Notes:

SRIX-47C2
 21 mg
 Bβ,Aβ,A2,B5,B1,B4 appear assplit signals, the shift reported is the average.
 HSQC and HMBC in d6-acetone

Compound Number 237

¹³C



G-a-G-b-G

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	1.90	s	
Ac Me	2.20	s	
B or C α	2.20	s	
B or C α	2.24	s	
OMe	3.75	s	
OMe	3.79	s	
OMe	3.83	s	
γ1	4.43	dd	11.7, 3.8
γ2	4.54	dd	11.7, 5.8
β	4.74	m	
α	5.55	d	5.4
C6	6.53	dd	8.2, 1.6
B6	6.61	dd	8.0, 1.4
C5	6.76	d	
B,C 2	6.78	s	
B5	6.83	d	8.0
A5	6.98	d	8.0
A6	7.05	dd	8.0, 1.8
A2	7.33	d	1.8

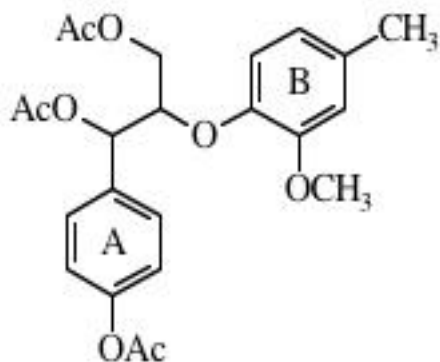
Notes:

SRIX-46DB
 33mg
 HSQC and HMBC in d₆-acetone
 Shifts for B and C α's, 2's and 6's were too close to assign with confidence

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.69	24	20.46	29	20.34	129
Ac Me	20.82	24	20.65	27	20.44	134
Cα	21.05	23	20.96	28	20.56	136
Bα	21.12	23	21.05	28	20.61	136
OMe	55.71	25	56.11	33	55.48	131
OMe	55.96	49	56.19	36	55.63	193
OMe	55.96	49	56.28	32	55.63	193
γ	63.56	21	65.62	30	62.46	86
α	80.41	21	81.09	24	79.08	93
β	82.44	21	82.14	32	80.19	98
A2	111.53	21	112.70	21	111.79	86
B2	113.37	28	114.51	34	113.58	190
C2	113.41	27	114.54	29	113.58	190
C5	116.77	21	117.73	24	116.22	109
B5	119.45	24	119.80	31	117.84	118
A6	119.72	23	120.54	29	119.51	88
B6	121.01	24	121.64	30	120.67	117
C6	121.21	25	121.80	30	120.77	125
A5	122.36	22	123.13	30	122.30	87
C1	131.97	15	132.54	14	131.23	93
B1	133.11	15	133.32	15	131.83	89
A1	138.62	16	138.11	17	136.70	93
A4	139.42	10	140.48	9	138.81	79
C4	145.22	12	146.01	10	144.25	89
B4	145.32	12	146.37	11	144.77	88
C3	149.95	12	151.12	11	149.52	85
B3	150.79	12	151.69	11	150.00	86
A3	151.02	13	152.03	14	150.45	89
A4 Ac C=O	168.85	11	168.89	10	168.39	65
γ Ac C=O	170.91	12	170.81	12	170.13	70

Compound Number 238

¹³C



erythro

H-b-G

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ Ac Me	20.82	21	20.59	46	20.34	66
α Ac Me	21.06	21	20.88	45	20.58	94
A4 Ac Me	21.18	47	20.95	88	20.58	94
Bα	21.18	47	21.07	48	20.73	78
OMe	55.79	28	56.13	57	55.46	58
γ	62.48	18	62.84	45	61.67	32
α	73.67	19	74.43	46	72.93	37
β	80.80	21	80.84	46	78.98	37
B2	113.60	20	114.65	47	113.64	42
B5	120.09	19	120.44	46	118.60	42
B6	121.27	25	121.85	60	120.77	51
A3	121.53	41	122.41	96	121.56	83
A5	121.53	41	122.41	96	121.56	83
A2	128.41	39	129.25	86	128.13	77
A6	128.41	39	129.25	86	128.13	77
B1	133.72	10	133.96	20	132.43	32
A1	134.44	12	135.53	23	134.05	34
B4	144.75	8	145.86	14	144.14	30
A4	150.59	9	151.71	20	150.11	28
B3	151.03	8	151.95	17	150.23	35
A4 Ac C=O	169.29	10	169.57	20	169.05	32
α Ac C=O	169.60	10	169.90	17	169.21	31
γ Ac C=O	170.87	9	170.73	16	169.97	30
minor isomer						
γ	63.10		63.56		62.38	
α	74.53		75.24		74.03	
β	80.73		81.06		79.39	

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.92	s	
α Ac Me	2.07	s	
A4 Ac Me	2.24	s	
Bα	2.25	s	
OMe	3.77	s	
γ1	4.17	dd	11.9, 4.4
γ2	4.37	dd	11.9, 5.6
β	4.69	m	
α	6.06	d	5.0
B6	6.64	m	
B 2,5	6.85	m	
A 3,5	7.12	m	
A 2,6	7.50	m	

Notes:

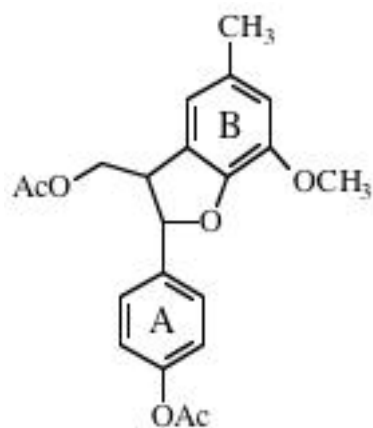
SRIX-51D-C

13mg HMBC,HSQC,selective INEPT in acetone

¹H in acetone (threo isomer) γ1 3.96, dd J = 11.8,5.6 γ2 4.24, dd J = 11.8,4.2 α 6.12,d J = 6.8

Compound Number 239

¹³C



H-c-G

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ Ac Me	20.89	25	20.68	53	20.48	26
A4 Ac Me	21.21	36	20.95	77	20.73	56
Bα	21.35	33	21.18	49	20.73	56
β	50.94	21	51.78	54	49.85	19
OMe	56.11	30	56.38	43	55.56	19
γ	65.83	22	66.29	57	65.02	20
α	87.46	21	87.57	53	85.95	20
B2	113.35	23	114.79	52	113.40	18
B6	117.04	23	118.02	51	116.88	21
A3	121.81	53	122.82	112	121.90	46
A5	121.81	53	122.82	112	121.90	46
A2	127.10	45	127.64	107	126.83	47
A6	127.10	45	127.64	107	126.83	47
B5	128.30	9	128.12	26	127.67	8
B1	131.59	12	131.95	21	130.59	14
A1	138.76	10	140.15	22	138.55	16
B3	144.09	7	145.03	14	143.38	11
B4	145.86	5	146.96	11	145.14	7
A4	150.54	9	151.66	16	150.07	11
A4 Ac C=O	169.44	10	169.62	19	169.08	17
γ Ac C=O	170.88	9	170.94	18	170.21	12

¹H (acetone)

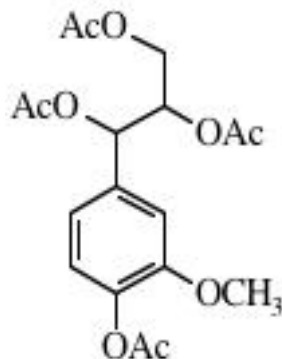
Atom	H Shifts	Mult	J
γ Ac Me	2.00	s	
A4 Ac Me	2.24	s	
Bα	2.26	s	
β	3.73	m	
OMe	3.83	s	
γ1	4.27	dd	10.9, 8.0
γ2	4.41	dd	10.9, 5.6
α	5.58	d	6.4
B2	6.70	bs	
B6	6.73	bs	
A3,5	7.11	d	8.5
A2,6	7.44	d	8.5

Notes:

SRIX-53E 2mg
HSQC and HMBC in acetone

Compound Number 240

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.67	167	20.44	216	20.36	57
Ac Me	20.67	167	20.52	182	20.41	54
Ac Me	20.80	126	20.66	173	20.46	47
Ac Me	20.96	111	20.79	172	20.66	41
OMe	56.02	134	56.34	192	55.84	41
γ	62.11	93	62.81	156	61.93	24
β	72.22	95	72.92	167	71.68	27
α	73.43	96	74.15	151	72.90	25
2	111.30	106	112.29	169	111.25	27
6	119.75	102	120.15	161	119.00	26
5	123.10	104	123.72	155	122.81	29
1	134.70	62	136.28	74	135.20	22
4	140.20	36	140.98	45	139.19	21
3	151.37	41	152.30	54	150.72	22
4 Ac C=O	168.77	40	168.95	61	168.40	22
α Ac C=O	169.65	39	170.08	70	169.44	39
β Ac C=O	170.04	44	170.30	63	169.44	39
γ Ac C=O	170.43	40	170.73	66	169.97	22
minor isomer						
γ			62.31			
β			72.92			
α			73.53			

¹H (acetone)

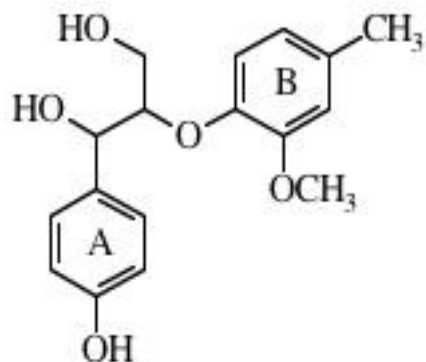
Atom	H Shifts	Mult	J
Ac Me	1.98	s	
Ac Me	1.99	s	
Ac Me	2.08	s	
Ac Me	2.22	s	
OMe	3.83	s	
γ1	3.90	dd	11.9, 6.2
γ2	4.24	dd	11.9, 4.0
β	5.42	m	
α	5.97	d	6.6
6	7.00	dd	8.2, 1.6
5	7.06	d	8.2
2	7.17	d	1.6

Notes:

SRIX-69E
7mg
gHSQCand gHMBC d6-acetone

Compound Number 241

¹³C



threo

H-b-G

¹H (acetone)

Atom	H Shifts	Mult	J
B α	2.27	s	
γ2	3.43	m	
γ1	3.64	m	
OMe	3.85	s	
β	4.03	m	
α	4.83	dd	6.9, 3.2
B6	6.66	m	
A3,5	6.79	d	8.7
B2	6.85	d	2.0
B5	7.07	d	8.0
A2,6	7.28	d	8.7
A4 OH	8.26	s	

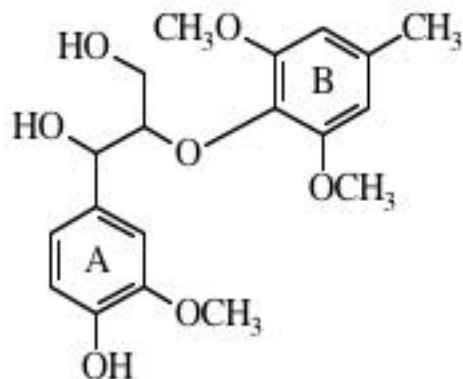
Notes:

SRIX-84
35mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	21.16	16	21.08	21	20.51	31
OMe	55.81	19	56.24	28	55.55	37
γ	60.79	11	61.73	22	60.00	17
α	73.72	13	73.84	21	70.94	19
β	89.12	14	89.41	22	85.34	20
B2	113.07	17	114.18	19	113.46	25
A3	115.53	31	115.62	46	114.35	44
A5	115.53	31	115.62	46	114.35	44
B5	120.78	19	120.73	23	116.69	24
B6	121.96	16	122.21	25	120.75	31
A2	128.42	28	129.10	45	127.75	47
A6	128.42	28	129.10	45	127.75	47
A1	131.29	6	133.16	10	130.38	20
B1	133.99	11	133.35	11	132.21	17
B4	145.21	7	147.33	7	146.17	17
B3	150.97	8	151.67	5	149.60	17
A4	156.37	9	157.63	11	156.19	20
erythro isomer						
γ	60.79		61.64		59.89	
α	72.72		73.55		71.41	
β	87.06		87.53		84.57	

Compound Number 242

¹³C



threo

G-b-S

¹H (acetone)

Atom	H Shifts	Mult	J
B α	2.29	s	
γ1	3.28	dd	12.5, 3.2
γ2	3.64	dd	12.6, 3.6
OMe	3.80	s	
β	3.88	m	
OMe	3.85	s	
α	5.00	d	7.6
B2,6	6.55	s	
A5	6.79	d	8.34
A6	6.92	dd	8.3, 1.8
A2	7.07	d	1.8

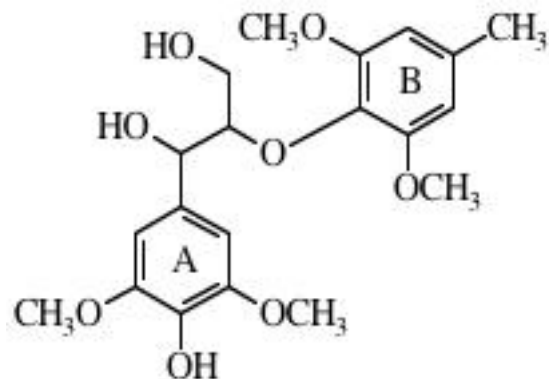
Notes:

SRIX-86B,C
40 mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	21.99	36	21.77	39	21.31	74
OMe	56.01	58	56.16	46	55.48	93
OMe	56.14	111	56.46	86	55.82	168
OMe	56.14	111	56.46	86	55.82	168
γ	60.51	30	61.19	35	60.11	29
α	74.20	32	74.08	38	71.53	37
β	89.20	33	89.83	37	87.29	41
B2	106.10	95	107.09	76	106.28	100
B6	106.10	95	107.09	76	106.28	100
A2	109.92	33	111.45	36	111.01	44
A5	114.36	37	115.22	43	114.62	43
A6	120.47	34	120.73	38	119.22	47
A1	132.06	18	133.60	22	132.79	44
B4	133.04	10	134.65	14	132.90	34
B1	134.67	23	134.82	22	133.80	27
A4	145.46	17	146.75	24	145.29	33
A3	146.58	16	147.90	19	146.83	32
B3	152.75	29	153.60	34	152.27	59
B5	152.75	29	153.60	34	152.27	59
erythro isomer						
γ	60.63		60.86		59.57	
α	72.49		73.26		71.93	
β	87.13		87.90		86.11	

Compound Number 243

¹³C



threo

S-b-S

¹H (acetone)

Atom	H Shifts	Mult	J
B α	2.29	s	
OMe	3.80	s	
OMe	3.86	s	
α	4.99	d	6.8
A2,6	6.54	s	
B2,6	6.77	s	
A4 OH	7.08	s	

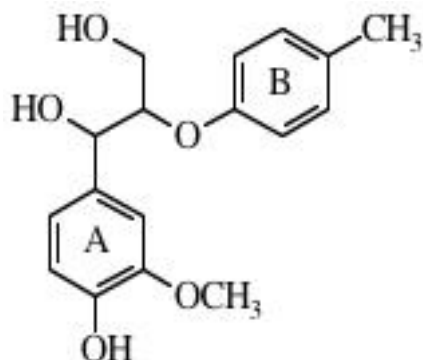
Notes:

SRIX-88SSB
54mg B1,B4,A4,A1
gHSQC, gHMBC in acetone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	21.85	42	21.78	78	21.31	91
OMe	56.02	94	56.48	173	55.88	252
OMe	56.02	94	56.48	173	55.88	252
OMe	56.25	94	56.56	175	55.90	266
OMe	56.25	94	56.56	175	55.90	266
γ	60.37	33	61.31	47	60.18	49
α	74.33	39	74.29	52	71.59	62
β	89.04	40	89.56	62	87.18	61
A2	104.04	77	105.39	150	104.30	124
A6	104.04	77	105.39	150	104.30	124
B2	105.99	87	107.05	169	106.34	155
B6	105.99	87	107.05	169	106.34	155
A1	131.04	27	132.54	37	132.13	59
B1	132.90	18	134.55	28	132.88	57
B4	134.43	26	134.78	47	133.92	46
A4	134.58	28	136.00	35	134.32	43
A3	146.99	54	148.23	68	147.37	112
A5	146.99	54	148.23	68	147.37	112
B3	152.63	46	153.52	74	152.34	113
B5	152.63	46	153.52	74	152.34	113
erythro isomer						
γ	60.50		61.23			
a	72.50		73.43			
β	87.03		86.32			

Compound Number 244

¹³C



threo

G-b-H

¹H (acetone)

Atom	H Shifts	Mult	J
B α	2.22	s	
OMe	3.79	s	
γ 1	3.54	m	
γ 2	3.78	m	
β	4.39	m	
α	4.94	m	
A5	6.77	d	8.2
A2	7.08	bs	
A4 OH	7.44	s	

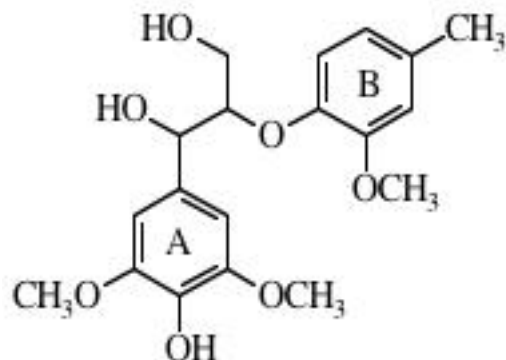
Notes:

SRIX-88GHB
36mg A1 and B1 may be interchanged
gHSQC, gHMBC in acetone and CDCl₃

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	20.53	27	20.46	42	20.05	125
OMe	55.98	34	56.20	49	55.49	119
γ	61.11	18	61.67	36	60.04	63
α	73.81	20	73.36	36	70.92	75
β	83.38	21	84.30	36	83.25	74
A2	109.56	21	111.36	48	110.95	79
A5	114.43	24	115.17	43	114.73	83
B3	116.57	47	117.08	79	115.88	199
B5	116.57	47	117.08	79	115.88	199
A6	120.00	21	120.36	40	119.01	80
B2	130.18	49	130.47	89	129.55	210
B6	130.18	49	130.47	89	129.55	210
B1	131.43	13	130.55	30	128.97	83
A1	131.76	14	134.24	20	133.25	66
A4	145.59	14	146.66	19	145.41	67
A3	146.75	13	147.93	17	146.99	68
B4	155.98	11	157.98	15	156.93	67
erythro isomer						
γ	61.44		62.03		60.17	
α	73.94		74.03		71.55	
b	81.22		83.98		83.37	

Compound Number 245

¹³C



threo

S-b-G

¹H (acetone)

Atom	H Shifts	Mult	J
B α	2.25	s	
γ 1	3.48	m	
A OMe	3.78	s	
B OMe	3.84	s	
γ 2	4.10	m	
β	4.48	d	3.8
α	4.85	dd	3.6, 6.4
B6	6.65	m	
A2,6	6.76	s	
B2	6.83	d	1.8
B5	7.04	d	8.2

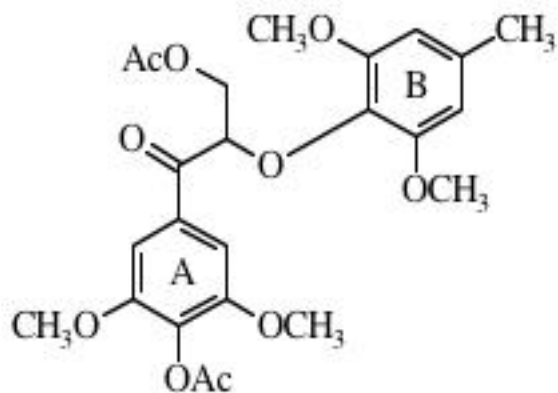
Notes:

SRIX-95BR
HSQC and HMBC in CDCl₃

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	21.73	21	21.06	41	20.57	38
B OMe	55.85	24	56.26	49	55.50	46
A OMe	56.34	48	56.60	97	55.80	77
A OMe	56.34	48	56.60	97	55.80	77
γ	60.99	15	61.89	40	60.05	27
α	74.18	19	74.05	42	70.90	28
β	89.51	21	88.73	45	84.58	27
A2	103.86	39	105.41	95	104.15	56
A6	103.86	39	105.41	95	104.15	56
B2	113.06	23	114.20	45	113.34	33
B5	120.90	22	120.10	45	115.95	31
B6	121.96	22	122.19	48	120.76	34
A1	130.82	12	132.84	23	130.21	25
B1	134.17	14	133.10	22	132.00	27
A4	134.58	10	136.15	18	134.33	25
B4	145.25	10	147.36	18	145.98	25
A3	147.12	23	148.40	38	147.39	52
A5	147.12	23	148.40	38	147.39	52
B3	150.93	11	151.50	18	149.46	25
erythro shifts						
γ	60.76		61.75		59.94	
α	72.87		73.98		71.90	
β	87.70		87.09		83.97	

Compound Number 246

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.43	25	20.22	129	20.08	149
γ Ac Me	20.75	21	20.60	113	20.42	139
Bα	21.82	20	21.73	109	21.32	130
B OMe	55.86	49	56.19	268	55.65	293
B OMe	55.86	49	56.19	268	55.65	293
A OMe	56.29	48	56.60	249	56.12	272
A OMe	56.29	48	56.60	249	56.12	272
γ	64.15	22	64.34	117	63.26	88
β	81.65	24	81.24	119	79.70	97
B2	105.93	48	106.75	280	105.93	196
B6	105.93	48	106.75	280	105.93	196
A2	106.25	46	106.80	283	105.58	191
A6	106.25	46	106.80	283	105.58	191
A4	133.03	6	133.82	33	132.20	40
B4	133.50	15	134.25	35	132.74	68
A1	133.57	14	134.72	63	133.61	100
B1	134.31	14	134.88	67	133.33	102
A3	152.09	25	153.11	110	151.75	193
A5	152.09	25	153.11	110	151.75	193
B3	152.49	24	153.51	107	152.05	180
B5	152.49	24	153.51	107	152.05	180
A4 Ac C=O	168.14	11	168.20	55	167.79	81
γ Ac C=O	170.75	11	170.73	52	170.03	99
α	194.84	13	195.23	57	194.40	87

¹H (acetone)

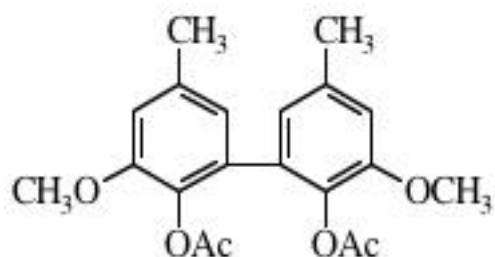
Atom	H Shifts	Mult	J
A4 Ac Me	1.90	s	
Bα	2.08	s	
γ Ac Me	2.26	s	
B OMe	3.70	s	
A OMe	3.85	s	
γ	4.49	m	
β	5.50	t	5.4
B2,6	6.47	s	
A2,6	7.49	s	

Notes:

SRTSII-131-Ac 12mg
A2,6 and B2,6 ; A1 and B1 switch in DMSO
HSQC and HMBC in Acetone, CDCl₃ and DMSO

Compound Number 247

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me α	20.54	24	20.36	84	20.10	63
	21.51	24	21.32	82	20.87	64
OMe	56.08	36	56.28	114	55.83	67
2	112.75	23	113.52	98	112.90	55
6	123.17	27	123.44	95	122.22	48
5	131.30	9	132.13	29	130.49	34
4	135.39	4	136.48	58	134.74	21
1	136.02	14	136.48	58	135.52	46
3	150.95	12	152.17	31	150.64	38
Ac C=O	168.96	9	168.67	21	168.00	26

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me α	2.00	s	
	2.33	s	
OMe	3.81	s	
6	6.60	bdd	2.0, 0.8
2	6.92	bd	1.6

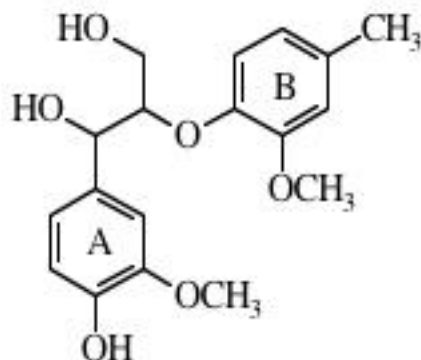
Notes:

LLL-XXIII-76DA

37mg

As this dimer contains a plane of symmetry the CSs are reported for one unit.

Compound Number 248

¹³C*threo*

G-b-G

¹H (acetone)

Atom	H Shifts	Mult	J
B α	2.27	s	
γ 1	3.51	m	
γ 2	3.68	m	
OMe	3.81	s	
OMe	3.85	s	
β	4.07	m	
α	4.88	d	6.0
B6	6.66	bd	7.3
B5	6.87	bd	8.0
A4 OH	7.37	s	

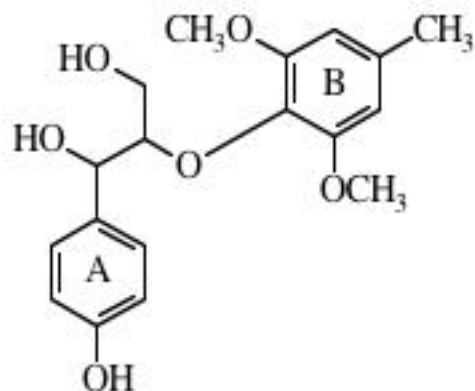
Notes:

SRIX-98 27mg
 B5 and A6 may be switched
 HSQC and HMBC in CDCl₃

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	21.21	31	21.06	36	20.63	80
OMe	55.85	39	56.19	44	55.45	79
OMe	55.93	41	56.26	54	55.58	93
γ	60.96	17	61.82	26	60.10	47
α	73.96	24	73.95	28	70.96	52
β	89.52	23	88.90	33	84.95	44
A2	109.59	28	111.40	34	111.05	54
B2	113.05	32	114.17	36	113.43	52
A5	114.39	28	115.23	37	114.69	56
B5	120.22	30	120.23	37	116.28	48
A6	120.87	28	120.57	38	119.04	56
B6	121.94	33	122.19	41	120.84	71
A1	131.64	15	133.16	19	130.36	49
B1	134.08	18	133.82	16	133.01	52
B4	145.31	14	146.80	16	145.44	57
A4	145.58	15	147.82	14	146.13	44
A3	146.75	15	148.02	16	147.00	53
B3	150.86	13	151.47	12	149.57	45
erythro isomer						
γ	60.69		61.69		59.97	
α	72.71		73.78		71.72	
β	87.33		87.08		84.21	

Compound Number 249

¹³C



threo

H-b-S

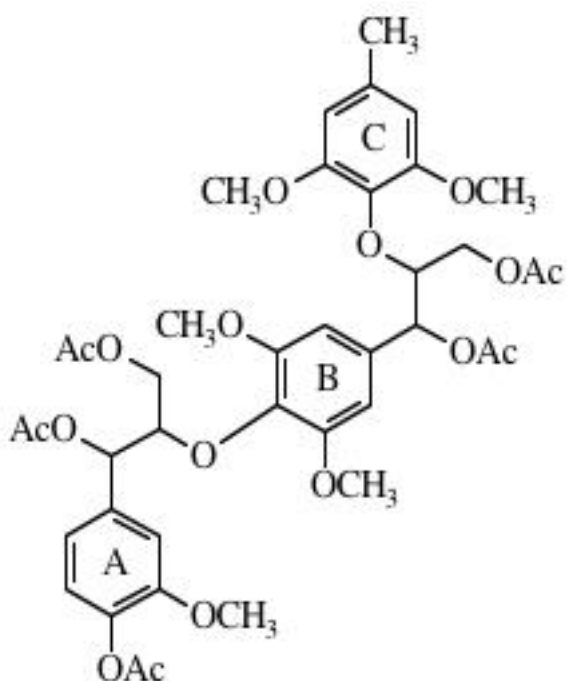
¹H (acetone)

Atom	H Shifts	Mult	J
B α	2.28	s	
γ 1	3.21	dd	12.3, 3.2
γ 2	3.60	dd	12.3, 3.2
β	3.82	m	
OMe	3.85	s	
α	4.98	d	7.8
B2,6	6.55	s	
A3,5	6.78	d	8.5
A2,6	7.27	d	8.5
<u>CDCI3</u>			
B α	2.36		
γ 1	3.32		
γ 2	3.57		
β	3.87		
OMe	3.90		
α	5.03		
B2,6	6.47		
A3,5	6.72		
A2,6	7.26		

Notes:

SRIX-101B 21mg
 HSQC acetone
 HSQC & HMBC CDCl₃

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	22.01	25	21.78	21	21.34	35
OMe	56.19	58	56.48	50	55.86	77
OMe	56.19	58	56.48	50	55.86	77
γ	60.50	18	61.06	21	60.08	23
α	74.10	23	73.95	22	71.53	27
β	89.14	23	89.98	23	87.36	28
B2	106.16	48	107.12	42	106.33	57
B6	106.16	48	107.12	42	106.33	57
A3	115.56	48	115.58	48	114.37	59
A5	115.56	48	115.58	48	114.37	59
A2	128.75	45	129.22	46	127.88	61
A6	128.75	45	129.22	46	127.88	61
A1	131.26	17	133.06	10	132.21	23
B4	133.02	11	134.67	7	132.86	24
B1	134.77	15	134.84	10	133.93	17
B3	152.69	27	153.67	15	152.32	42
B5	152.69	27	153.67	15	152.32	42
A4	156.28	18	157.68	12	156.23	26
erythro isomer						
γ	60.6		60.8			
α	72.4		73.1			
β	87.0		87.8			

Compound Number 250
¹³C

G-b-S-b-S
¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.84	d	1.6
α Ac Me	1.93	d	1.4
γ Ac Me	2.00	d	3.0
α Ac Me	2.11	d	1.0
A4 Ac Me	2.21	s	
Cα	2.28	s	
OMe	3.77	s	
OMe	3.79	s	
OMe	3.81	s	
Bγ 1	3.83	m	
Aγ 1	4.16	dd	11.7, 4.2
Bγ 2	4.22	ddd	11.7, 3.8, 1.8
Aγ 2	4.40	dd	11.7, 6.0
Bβ	4.52	m	
Aβ	4.70	m	
Aα	6.06	d	overlapping
Bα	6.06	d	overlapping
C2,6	6.49	s	
B2,6	6.74	d	
A5,6	7.00	m	1.6
A2	7.16	d	1.4

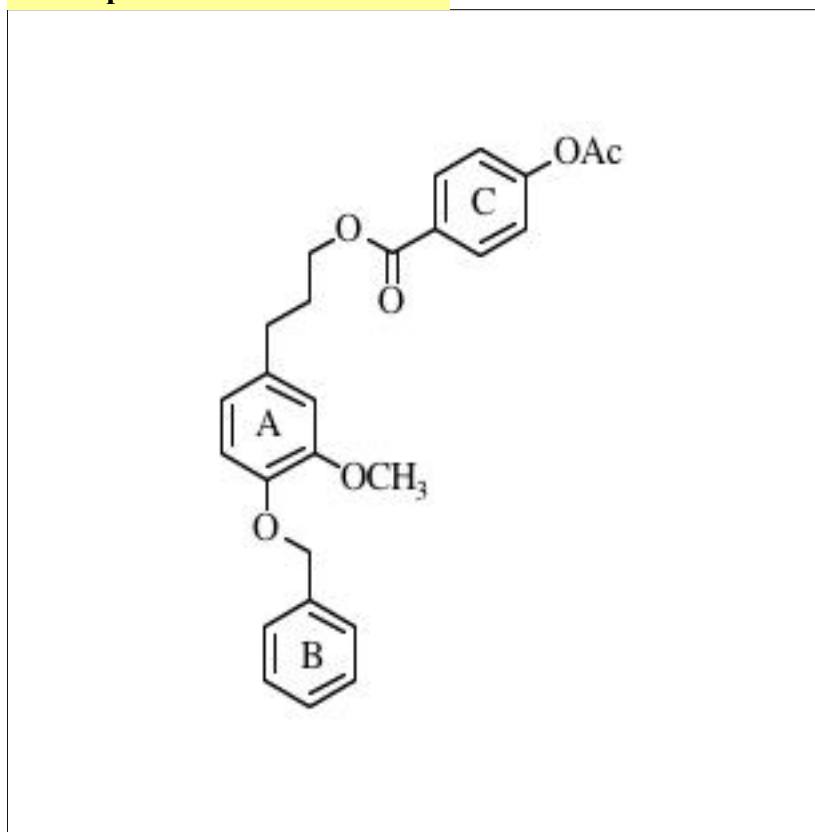
Notes:

SRIX-105 30mg
 Order of Ac Me changes in CDCl₃
 HSQC and HMBC in CDCl₃ and d₆-acetone The first β-O-4 linkage appears to be erythro and the second linkage appears to be threo.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.85	47	20.48	55	20.27	35
γ Ac Me	20.67	46	20.59	48	20.35	47
γ Ac Me	20.73	41	20.74	41	20.48	36
α Ac Me	21.08	75	20.93	53	20.67	41
α Ac Me	21.08	75	21.02	48	20.73	40
Cα	21.85	39	21.74	47	21.37	35
B OMe	55.99	109	56.32	91	55.71	115
B OMe	55.99	109	56.32	91	55.71	115
C OMe	55.99	109	56.45	123	55.71	115
C OMe	55.99	109	56.45	123	55.71	115
A OMe	56.07	84	56.86	104	55.85	72
Aγ	62.76	21	63.39	39	62.25	19
Bγ	63.74	25	64.30	36	63.20	15
Aα	74.06	23	75.15	44	73.83	22
Bα	75.99	29	76.75	28	75.77	13
Aβ	80.89	57	81.45	34	80.00	17
Bβ	80.89	57	81.76	28	80.50	15
B2	104.44	53	105.27	79	104.01	36
B6	104.44	53	105.27	79	104.01	36
C2	106.05	70	106.99	89	105.89	53
C6	106.05	70	106.99	89	105.89	53
A2	111.60	17	112.30	33	111.04	21
A6	119.23	24	120.02	25	118.85	13
A5	122.42	33	123.30	41	122.57	21
C1	133.37	20	134.17	27	133.02	39
B1	133.74	25	134.36	27	133.02	39
C4	134.40	18	135.56	14	133.79	13
B4	135.22	11	136.33	18	134.35	20
A1	136.15	25	137.10	24	135.67	19
A4	139.50	19	140.57	20	138.92	23
A3	150.85	23	152.05	25	150.59	27
C3	152.65	41	153.67	49	152.13	48
C5	152.65	41	153.67	49	152.13	48
B3	153.06	41	153.91	53	152.43	42
B5	153.06	41	153.91	53	152.43	42
A4 Ac C=O	168.89	20	168.96	23	168.49	26
α Ac C=O	169.55	23	169.90	29	169.29	28
α Ac C=O	169.85	21	169.95	34	169.38	29
γ Ac C=O	170.54	21	170.69	45	169.99	34
γ Ac C=O	170.88	21	170.69	45	169.99	34

Compound Number 251

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			21.00	21		
β			31.15	12		
α			32.42	15		
OMe			56.13	18		
γ			64.98	14		
Bα			71.56	11		
A2			113.72	12		
A5			115.39	11		
A6			121.14	12		
C3			122.79	36		
C5			122.79	36		
B2			128.40	33		
B6			128.40	33		
B4			128.40	33		
C1			128.72	6		
B3			129.11	23		
B5			129.11	23		
C2			131.62	29		
C6			131.62	29		
A1			135.56	6		
B1			138.76	4		
A4			147.68	4		
A3			150.88	4		
C4			155.53	7		
Cα			166.03	4		
Ac C=O			169.26	8		

¹H (acetone)

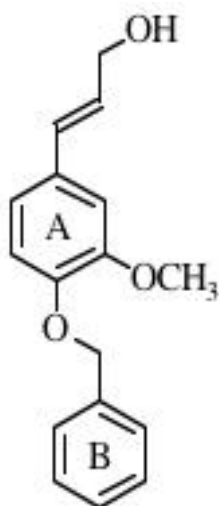
Atom	H Shifts	Mult	J
β	2.08	s	
Ac Me	2.28	d	< 1.0
α	2.74	bt	8.0
OMe	3.79	s	
γ	4.31	bt	6.4
Bα	5.05	s	
A6	6.75	m	
A2,5	6.91	m	
C3,5	7.25	d	8.5
B3,4,5	7.35	m	
B2,6	7.47	bd	7.4
C2,6	8.05	d	8.5

Notes:

L.Landucci XXIII-143 39mg.
HSQC and HMBC in acetone d-6

Compound Number 252

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.16	34		
γ			63.26	17		
Bα			71.47	30		
A2			110.73	29		
A5			115.12	28		
A6			120.11	32		
B2			128.46	61		
B6			128.46	61		
B4			128.54	38		
B3			129.19	77		
B5			129.19	77		
β			129.19	77		
α			130.01	31		
A1			131.94	13		
B1			138.60	13		
A4			148.98	7		
A3			151.02	10		

¹H (acetone)

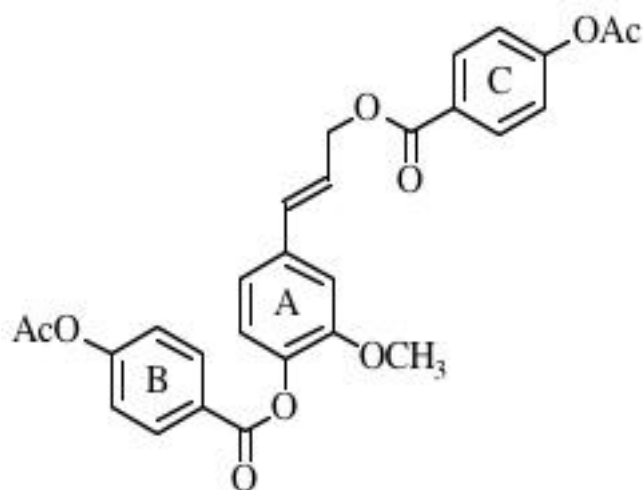
Atom	H Shifts	Mult	J
OMe	3.84	s	
γ	4.19	dd	5.4, 1.4
Bα	5.09	s	
β	6.26	dt	16.1, 5.4
α	6.52	dt	9.9, 1.7
A6	6.88	dd	8.3, 2.0
A5	6.96	d	8.3
A2	7.08	d	2.0
B2-6	7.3-7.5	m	

Notes:

L.Landucci XXIII-127G 48 mg
HSQC and HMBC in acetone d-6

Compound Number 253

¹³C



¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.29	s	
Ac Me	2.31	s	
OMe	3.84	s	
γ	5.00	bd	6.0
β	6.55	dt	16.0, 6.0
α	6.85	bd	16.0
A6	7.13	dd	8.3, 1.8
A5	7.20	d	8.3
C3,5	7.28	d	8.7
A2	7.33	bs	
B3,5	7.35	d	8.7
C2,6	8.11	d	8.7
B2,6	8.21	d	8.7

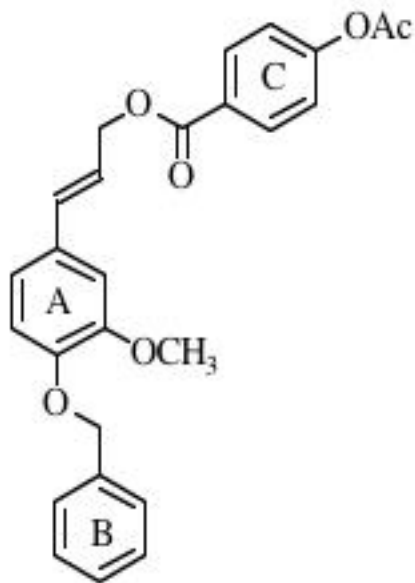
Notes:

L.Landucci XXIII-114B 16 mg
HSQC and HMBC in acetone d-6

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.98	39		
Ac Me			20.98	39		
OMe			56.30	32		
γ			66.01	22		
A2			111.31	21		
A6			120.16	17		
C3			122.93	45		
C5			122.93	45		
B3			123.16	48		
B5			123.16	48		
A5			123.95	23		
β			124.89	21		
B1			127.72	8		
C1			128.57	7		
C2			131.77	48		
C6			131.77	48		
B2			132.34	46		
B6			132.34	46		
α			134.01	23		
A1			136.55	15		
A4			140.81	14		
A3			152.54	16		
C4			155.72	11		
B4			156.13	15		
Bα			164.23	4		
Cα			165.84	6		
Ac C=O			169.29	19		
Ac C=O			169.29	19		

Compound Number 254

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			21.00	39		
OMe			56.31	30		
γ			66.34	34		
Bα			71.53	26		
A2			111.16	18		
A5			115.17	18		
A6			120.82	37		
β			122.39	34		
C3			122.83	78		
C5			122.83	78		
B2			128.45	78		
B6			128.45	78		
B4			128.57	38		
C1			128.69	14		
B3			129.20	68		
B5			129.20	68		
A1			131.00	14		
C2			131.74	73		
C6			131.74	73		
α			134.95	36		
B1			138.49	15		
A4			149.70	13		
A3			151.13	12		
C4			155.68	13		
Cα			165.93	13		
Ac C=O			169.25	13		

¹H (acetone)

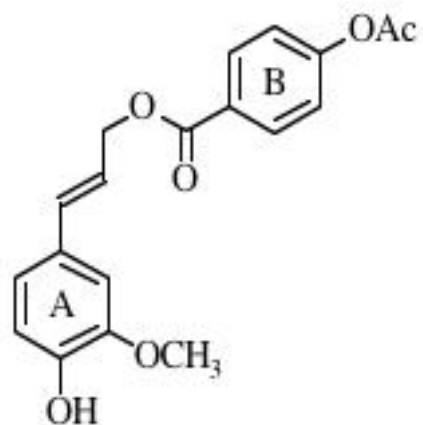
Atom	H Shifts	Mult	J
Ac Me	2.28	s	
OMe	3.85	s	
γ	4.95	dd	6.4, 1.3
Bα	5.10	s	
β	6.38	dt	15.9, 6.4
α	6.74	d	15.9
A5,6	6.97	m	
A2	7.16	bs	
C3,5	7.26	d	8.7
B3,4,5	7.31-7.41	m	
B2,6	7.47	bd	7.4
C2,6	8.09	d	8.7

Notes:

L.Landucci XXIII-129B 57mg
HSQC and HMBC in acetone d-6

Compound Number 255

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.98	32		
OMe			56.24	28		
γ			66.47	28		
A2			110.24	23		
A5			115.83	22		
A6			121.33	47		
β			121.33	47		
B3			122.90	62		
B5			122.90	62		
B1			128.70	9		
A1			129.35	10		
B2			131.73	62		
B6			131.73	62		
α			135.40	26		
A4			147.91	11		
A3			148.55	6		
B4			155.68	9		
Bα			165.90	8		
Ac C=O			169.29	11		

¹H (acetone)

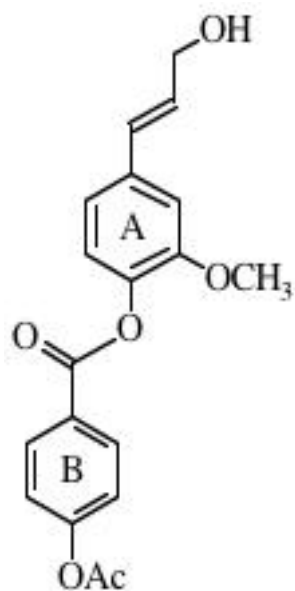
Atom	H Shifts	Mult	J
Ac Me	2.28	s	
OMe	3.86	s	
γ	4.94	dd	6.6, 1.2
β	6.33	dt	16.0, 6.6
α	6.72	d	16.0
A5	6.79	d	8.3
A6	6.93	dd	8.3, 2.1
A2	7.14	d	2.1
B3,5	7.27	d	8.9
B2,6	8.09	d	8.9

Notes:

L.Landucci XXIII-114D2 8mg
HSQC and HMBC in acetone d-6

Compound Number 256

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.99	35		
OMe			56.22	39		
γ			63.10	29		
A2			111.04	37		
A6			119.58	36		
B3			123.15	76		
B5			123.15	76		
A5			123.81	38		
B1			127.80	16		
α			129.30	36		
β			131.61	37		
B2			132.32	73		
B6			132.32	73		
A1			137.50	17		
A4			140.16	11		
A3			152.44	16		
B4			156.10	13		
Bα			164.29	8		
Ac C=O			169.30	13		

¹H (acetone)

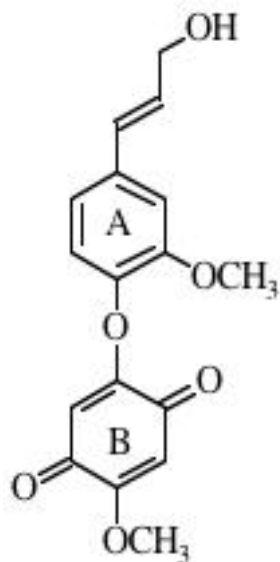
Atom	H Shifts	Mult	J
Ac Me	2.31	s	
OMe	3.84	s	
OH	3.90	t	
γ	4.25	dt	5.2, 1.4
β	6.43	dt	15.9, 5.2
α	6.64	d	15.9
A6	7.05	dd	8.3, 1.9
A5	7.15	d	8.3
A2	7.23	d	1.9
B3,5	7.34	d	8.9
B2,6	8.20	d	8.9

Notes:

L.Landucci XXIII-114D1 4mg
HSQC and HMBC in acetone d-6

Compound Number 257

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A OMe			56.27	26		
B OMe			57.07	27		
γ			62.98	26		
B2			106.32	28		
B5			108.77	26		
A2			111.75	24		
A6			120.19	27		
A5			122.94	27		
α			128.91	24		
β			132.31	26		
A1			138.15	13		
A4			140.96	6		
A3			151.65	9		
B6			159.23	6		
B3			160.39	9		
B4			181.63	9		
B1			182.05	7		

¹H (acetone)

Atom	H Shifts	Mult	J
A OMe	3.85	s	
B OMe	3.86	s	
γ	4.24	bs	
B2	5.40	s	
B5	6.02	s	
β	6.44	dt	15.9, 5.0
α	6.63	dt	16.1, 1.7
A5,6	7.09	m	
A2	7.27	bs	

Notes:

L.Landucci XXIII-93CC 17mg
HSQC and HMBC in acetone d-6

Compound Number 258

¹³C

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Vanillin-a-G-b-CA

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.74	32	20.46	29		
γAc Me	20.82	31	20.62	27		
BγAc Me	21.10	19	20.80	22		
OMe	55.84	28	56.24	36		
OMe	56.09	38	56.29	31		
OMe	56.13	42	56.51	31		
γ	63.12	23	63.32	26		
Bγ	65.17	25	65.38	29		
α	79.98	23	80.55	26		
β	82.11	23	81.82	27		
B2	109.93	24	111.36	51		
C2	110.29	24	111.36	51		
A2	111.14	23	112.68	26		
C5	114.77	21	115.94	27		
B5	119.31	22	119.62	26		
A6	119.46	26	120.33	27		
B6	119.93	24	120.53	28		
Bβ	122.39	22	123.35	27		
A5	122.94	25	123.53	27		
C6	126.32	22	126.04	26		
C1	130.99	14	132.08	14		
B1	132.03	13	132.61	14		
Bα	133.93	21	134.20	25		
A1	136.05	16	136.78	17		
A4	139.89	12	140.85	11		
B4	147.31	12	148.54	12		
C3	150.68	13	151.58	12		
A3	151.13	11	152.02	12		
B3	151.43	12	152.28	12		
C4	152.81	11	153.36	12		
A4 Ac C=O	168.86	11	168.87	11		
γAc C=O	170.82	12	170.77	18		
γAc C=O	170.95	10	170.77	18		
Cα	190.96	25	191.26	30		

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me's	1.91, 2.03, 2.07	s's	
OMe	3.81	s	
OMe	3.83	s	
OMe	3.97	s	
γ1	4.45	dd	11.9, 4.0
γ2	4.56	dd	11.9, 5.8
Bγ	4.67	dd	6.4, 1.2
β	4.91	m	
α	5.84	d	5.2
Bβ	6.27	dt	15.9, 6.4
Bα	6.63	d	15.9
B6	6.93	dd	8.2, 1.6
B5	7.01	d	8.3
A5	7.03	d	8.2
A6	7.14	dd	8.2, 1.8
B2	7.15	d	2.0
C5	7.15	d	8.3
A2	7.36	d	2.4
C6	7.39	dd	8.2, 1.8
C2	7.46	d	1.8
Cα	9.81	s	

Notes:

SRIX-116E 3mg
gHSQC and gHMBC in acetone
proton CS's for A6,C5 and A2 determined by simulation (Acorn MacNuts)

Compound Number 259

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α	31.94	37	32.53	33	31.34	34
β	34.45	35	35.75	31	34.59	39
OMe	56.20	52	56.42	45	55.85	63
γ	62.38	34	61.85	22	60.24	48
2	110.71	32	111.75	31	110.77	28
6	123.04	40	123.94	32	122.73	32
5	124.52	13	126.47	11	125.89	18
1	133.76	16	134.15	19	132.26	30
4	140.83	17	142.49	13	141.36	24
3	147.33	18	148.64	14	147.61	20

dihydrodiconiferyl alcohol

¹H (acetone)

Atom	H Shifts	Mult	J
β	1.81	m	
α	2.64	m	
γ	3.58	t	6.6
OMe	3.85	s	
6	6.72	d	2.1
2	6.82	d	2.0

Notes:

L.Landucci
 XXIII-52H 25 mg
 As this dimer contains a plane of symmetry the CSs are reported for one unit.

Compound Number 260

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.39	32	20.46	44	19.99	11
Ac Me	20.91	27	20.78	37	20.56	12
α	30.30	19	30.99	28	29.58	8
β	32.15	19	32.61	33	31.32	7
OMe	56.02	34	56.34	44	55.79	10
γ	63.72	21	64.04	30	63.10	9
2	111.95	13	112.93	21	112.16	4
6	122.27	15	122.80	19	121.46	4
5	131.36	8	132.20	9	130.51	4
4	135.76	7	136.81	8	135.09	4
1	139.28	10	140.33	12	139.20	4
3	151.13	11	152.37	14	150.82	5
4 Ac C=O	168.76	8	168.76	12	167.98	4
γ Ac C=O	171.08	9	171.00	11	170.25	5

¹H (acetone)

Atom	H Shifts	Mult	J
β	1.97	m	
Ac Me	1.98	s	
Ac Me	2.01	s	
α	2.70	bt	8.0
OMe	3.83	s	
γ	4.07	t	6.4
6	6.66	d	1.8
2	6.99	d	1.8

Notes:

L.Landucci
 XXIII-146ACH
 As this dimer contains a plane of symmetry the CS's are reported for one unit.

Compound Number 261

¹³C

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S-b(t)-G-b(e)-S5

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.88	s	
γ Ac Me	1.97	s	
α Ac Me	2.01	d	
αAc Me	2.12	d	
A4 Ac Me	2.21	s	
Cα	2.27	s	
OMe's	3.77, 3.80, 3.84	s's	
Aγ 1	4.05	dd	11.9, 5.4
Bγ 1	4.13	dd	11.5, 3.2
Aγ 2	4.26	m	
Bγ 2	4.39	m	
Bβ	4.65	m	
Aβ	4.81	m	
Bα	6.01	d	4.2
Aα	6.08	d	6.6
C 2,6	6.48	s	
A 2,6	6.85	s	
B6	6.90	m	
B5	7.02	d	8.3
B2	7.06	m	

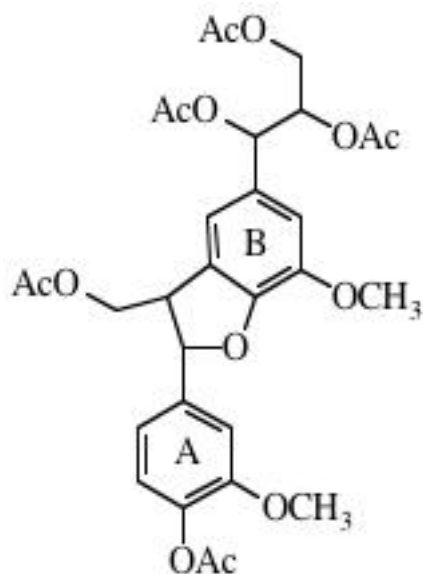
Notes:

S.Ralph
 SRIX-115BAc 30 mg CS's indicate A-threo-B-erythro-C
 gHSQC and gHMBC in acetone, some signals split due to isomers

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.48	32	20.24	46	20.05	27
γ Ac Me	20.75	26	20.64	81	20.35	38
γ Ac Me	20.84	35	20.64	81	20.35	38
α Ac Me	21.08	26	20.96	68	20.62	37
αAc Me	21.14	29	20.96	68	20.62	37
Cα	21.90	31	21.77	51	21.35	24
OMe	55.97	70	56.28	125	55.61	66
OMe	55.97	70	56.28	125	55.61	66
OMe	55.97	70	56.28	125	55.61	66
OMe	56.28	61	56.28	125	55.98	38
OMe	56.28	61	56.55	84	55.98	38
Bγ	62.82	15	63.35	26	62.12	15
Aγ	63.09	15	63.63	19	62.46	12
Bα	74.33	19	75.22	27	73.76	14
Aα	74.48	18	75.68	27	74.59	10
Aβ	80.20	18	80.65	15	78.96	10
Bβ	80.84	21	81.16	33	79.94	16
A2	104.16	30	104.97	46	103.97	23
A6	104.16	30	104.97	46	103.97	23
C2	106.09	50	106.92	88	105.87	41
C6	106.09	50	106.92	88	105.87	41
B2	111.59	10	112.49	16	110.87	9
B5	118.00	16	118.39	13	116.75	7
B6	119.52	18	120.29	16	118.89	10
A4	128.90	9	129.69	12	127.84	9
B1	132.33	8	132.98	10	131.07	6
C4	132.90	10	134.16	13	132.16	8
C1	134.14	15	134.48	20	133.32	14
A1	134.78	15	136.15	19	134.92	12
B4	147.69	8	148.70	14	147.19	8
B3	150.46	8	151.38	14	149.68	8
A3	152.26	28	153.20	35	151.58	22
A5	152.26	28	153.20	35	151.58	22
C3	152.98	35	153.88	48	152.34	29
C5	152.98	35	153.88	48	152.34	29
A4 Ac C=O	168.52	14	168.45	18	167.91	11
α Ac C=O	169.75	16	169.96	27	169.26	17
αAc C=O	169.79	12	170.01	27	169.33	17
γ Ac C=O	170.62	14	170.70	32	169.94	25
γ Ac C=O	170.91	14	170.70	32	169.94	25

Compound Number 262

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.76	82	20.47	67		
Ac Me	20.76	82	20.56	56		
Ac Me	20.76	82	20.73	60		
Ac Me	20.85	68	20.73	64		
A4 Ac Me	21.07	46	20.89	49		
Aβ	50.64	23	51.45	43		
A OMe	56.02	42	56.29	62		
B OMe	56.26	38	56.59	52		
Bγ	62.36	23	63.00	38		
Aγ	64.98	13	65.79	19		
Bβ	72.47	22	73.27	36		
Bα	73.95	17	74.55	17		
Aα	88.20	22	88.40	27		
A2	110.13	21	111.11	28		
B2	111.74	13	113.19	20		
B6	115.87	13	116.84	20		
A6	118.40	19	118.78	27		
A5	122.97	31	123.80	54		
B5	127.58	14	128.83	13		
B1	129.80	14	131.06	14		
A1	139.29	11	140.82	14		
A4	139.84	10	140.92	15		
B3	144.61	10	145.31	9		
B4	148.54	7	149.38	7		
A3	151.39	15	152.46	21		
A4 Ac C=O	168.96	15	168.96	24		
Bα Ac C=O	169.87	14	170.01	17		
Bβ Ac C=O	170.10	15	170.26	17		
Bγ Ac C=O	170.45	15	170.63	20		
Aγ Ac C=O	170.75	18	170.95	23		

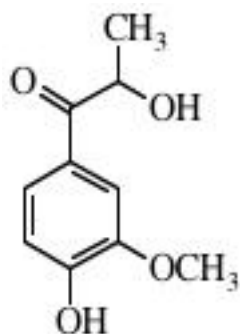
¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	1.98	m	
Ac Me	2.00	m	
Ac Me	2.03	s	
Ac Me	2.04	s	
A4 Ac Me	2.21	s	
Aβ	3.78	m	
A OMe	3.79	s	
B γ1	3.82	m	
B OMe	3.87	s	
B γ2	4.17	m	
Aγ	4.38	m	
Bβ	5.38	m	
Aα	5.61	d	6.8
Bα	5.92	dd	7.2, 2.8
B2,6,A6	6.99	m	
A5	7.04	d	8.2
A2	7.18	bs	

Notes:

SRVII-91D 8mg HSQC and HMBC in acetone and CDCl₃
 A1 and A4 tentative assignments, some signals split due to isomers

Compound Number 264

¹³C

alpha,4-dihydroxy-3-methoxypropiophenone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	22.91	48	22.69	58	21.17	37
OMe	56.19	50	56.33	68	55.57	36
β	68.89	46	69.42	50	68.10	30
2	110.64	47	112.20	56	111.74	23
5	114.30	48	115.60	68	114.89	34
6	124.08	49	124.65	75	123.51	35
1	125.91	15	127.08	17	126.15	20
3	147.10	15	148.48	18	147.48	21
4	151.41	19	152.84	24	151.73	25
α	200.75	16	201.10	18	199.72	20

¹H (acetone)

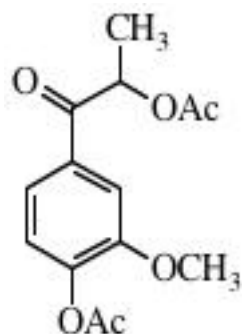
Atom	H Shifts	Mult	J
γ	1.35	d	6.8
OMe	3.91	s	
β-OH	4.10	d	6.4
β	5.13	m	
5	6.94	d	8.2
2	7.57	d	2.0
6	7.60	dd	8.2, 2.0
4-OH	8.61	bs	
<u>CDCl₃</u>			
γ	1.46	d	6.6
OMe	3.96	s	
β	5.13	m	
4-OH	6.61	bs	
5	6.98	d	8.2
6	7.48	dd	8.2, 2.0
2	7.54	d	2.0

Notes:

FPL - Pearl collection
 25 mg
 HSQC and HMBC in acetone

Compound Number 265

¹³C



alpha,4-diacetoxy-3-methoxypropiophenone

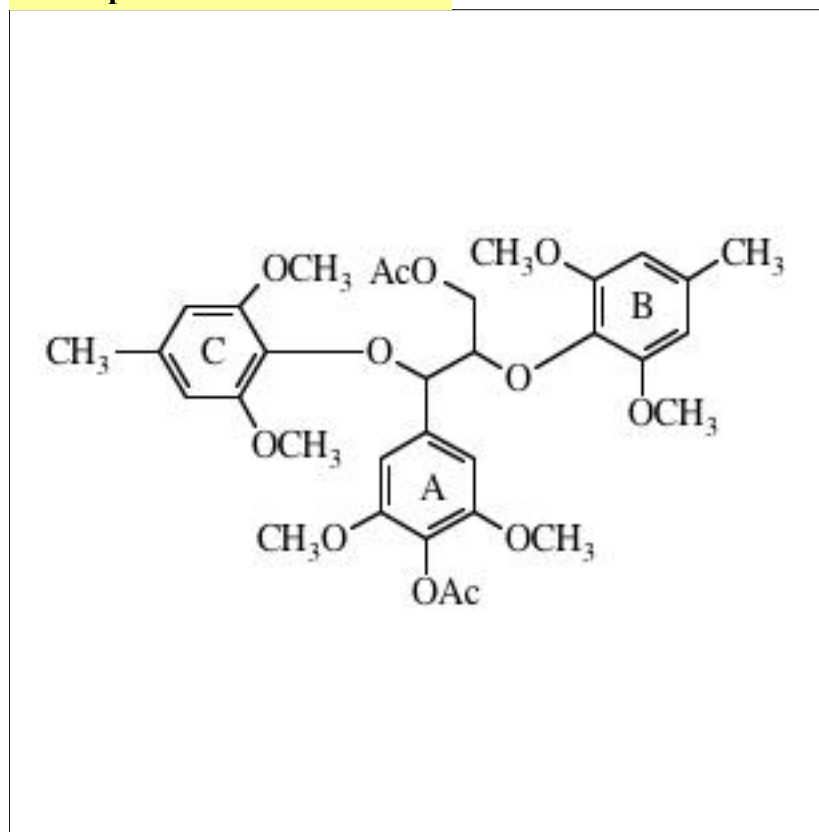
Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	17.16	63	17.41	76	16.90	26
β Ac Me	20.56	55	20.47	61	20.26	49
4 Ac Me	20.66	57	20.54	62	20.26	49
OMe	56.02	67	56.46	82	55.94	27
β	71.23	61	72.21	69	71.26	23
2	112.09	62	112.79	71	111.85	21
6	121.55	66	122.34	73	121.56	22
5	122.97	66	124.10	76	123.32	23
1	133.03	25	134.07	23	132.46	14
4	144.22	19	145.25	17	143.69	12
3	151.66	24	152.72	21	151.23	14
4 Ac C=O	168.31	22	168.62	22	168.02	11
β Ac C=O	170.32	23	170.54	22	169.74	13
α	195.65	23	196.21	24	195.52	13

¹H (acetone)

Atom	H Shifts	Mult	J
γ	1.48	d	7.0
β Ac Me	2.06	s	
4 Ac Me	2.27	s	
OMe	3.90	s	
β	6.00	q	7.0
5	7.23	d	8.0
2	7.64	O/Lap	
6	7.66	O/Lap	
<u>CDCl₃</u>			
γ	1.53	d	7.0
β Ac Me	2.14	s	
4 Ac Me	2.33	s	
OMe	3.89	s	
β	3.93	q	7.0
5	7.14	dd	8.1
6	7.55	dd	8.1, 2.0
2	7.59	d	2.0

Notes:

FPL - Pearl Collection
25 mg
HSQC and HMBC in acetone

Compound Number 266
¹³C

S-a-S-b-S
¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.83 (1.95)	s	
A4 Ac Me	2.17 (2.30)	s	
C α	2.18 (2.24)	s	
B α	2.22 (2.23)	s	
B OMe	3.69 (3.58)	s	
A/C OMe	3.73 (3.67)	s	
C/A OMe	3.74 (3.71)	s	
γ1	4.53 (4.64)	dd	11.7, 2.8
γ2	4.63 (4.72)	m	
β	4.73 (4.72)	m	
α	5.72 (5.60)	d	6.2
C 2,6	6.37 (6.26)	s	
B 2,6	6.40 (6.25)	s	
A 2,6	6.81 (6.76)	s	

Notes:

SRIX-138A2

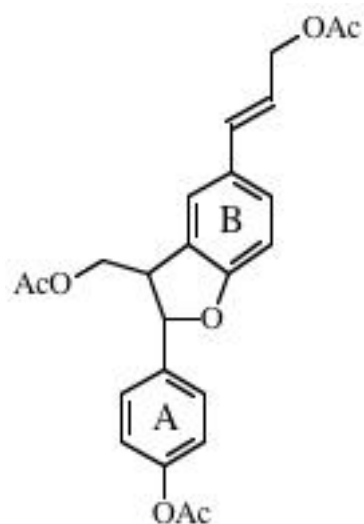
3mg 1H CDCl3 shifts in ()s

HSQC and HMBC in acetone. A and C OMe shifts may be switched, B and C CH3's may be switchd

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.56	34	20.27	37	20.05	13
γ Ac Me	20.87	36	20.69	29	20.30	13
B α	21.76	35	21.61	31	21.18	12
C α	21.82	42	21.68	30	21.25	13
B OMe	55.87	79	56.27	86	55.46	25
B OMe	55.87	79	56.27	86	55.46	25
A OMe	55.96	93	56.35	94	55.62	32
A OMe	55.96	93	56.35	94	55.62	32
C OMe	56.12	86	56.39	90	55.67	29
C OMe	56.12	86	56.39	90	55.67	29
γ	64.44	30	64.64	33	62.98	8
β	81.52	31	82.68	36	80.92	9
α	81.89	34	83.16	37	81.36	8
A2	105.52	65	105.94	69	104.49	17
A6	105.52	65	105.94	69	104.49	17
B2	105.81	69	107.01	72	105.74	20
B6	105.81	69	107.01	72	105.74	20
C2	106.22	67	107.26	69	106.08	18
C6	106.22	67	107.26	69	106.08	18
A4	128.10	8	129.11	7	127.23	5
C1	133.01	20	133.61	19	132.21	6
B1	133.48	27	133.87	15	132.47	8
C4	133.48	27	134.38	10	132.72	10
B4	133.62	18	135.03	8	132.75	10
A1	138.02	20	138.47	20	136.90	7
A3	150.94	35	152.21	27	150.59	15
A5	150.94	35	152.21	27	150.59	15
C3	152.47	33	153.62	30	151.95	16
C5	152.47	33	153.62	30	151.95	16
B3	152.87	34	153.87	30	152.22	16
B5	152.87	34	153.87	30	152.22	16
A4 Ac C=O	168.75	18	168.52	13	167.91	7
γ Ac C=O	168.75	16	170.78	16	167.91	8

Compound Number 267

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.89	40	20.67	29		
Ac Me	21.11	34	20.81	23		
Ac Me	21.19	58	20.94	41		
β	50.26	40	51.06	30		
B _γ	65.35	42	65.51	33		
A _γ	65.68	40	66.10	31		
α	87.22	40	87.85	32		
B3	109.86	40	110.20	29		
Bβ	121.03	41	122.13	33		
A3	121.98	94	122.88	58		
A5	121.98	94	122.88	58		
B6	122.89	38	123.88	30		
A2	126.89	88	127.70	55		
A6	126.89	88	127.70	55		
B5	126.49	23	127.98	14		
B2	128.55	42	129.19	29		
B1	129.87	21	130.82	14		
Bα	134.16	38	134.43	30		
A1	138.63	19	139.84	12		
A4	150.64	15	151.77	12		
B4	159.85	14	160.77	10		
A4 C=O	169.44	17	169.62	13		
B _γ C=O	170.96	12	170.77	8		
A _γ C=O	170.84	20	170.94	13		

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.00 (2.07)	s	
Ac Me	2.01 (2.10)	s	
Ac Me	2.24(2.30)	s	
β	3.74 (3.70)	m	
γ1	4.34 (4.29)	dd	11.1, 7.8
γ2	4.46 (4.46)	dd	11.1, 5.4
B _γ	4.66 (4.71)	dd	6.4, 1.4
α	5.64 (5.54)	d	6.4
Bβ	6.23 (6.14)	dt	15.9, 6.4
Bα	6.66 (6.61)	d	15.9
B3	6.85 (6.85)	d	8.3
A 3,5	7.13 (7.09)	d	8.5
B2	7.33 (7.27)	dd	8.3, 2.0
A 2,6	7.45 (7.27)	d	8.5
B6	7.45 (7.37)		

Notes:

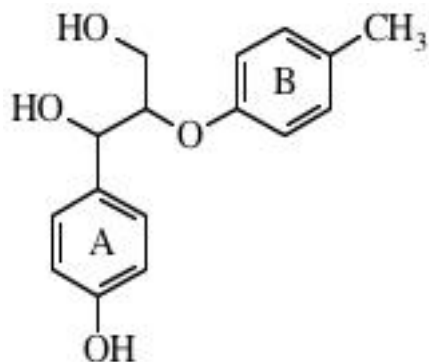
LLL XXV-17A-E 11mg

¹H CDCl₃ shifts in ()s

Note: B5 and B_γ C=O move in CDCl₃ to lower ppm relative to acetone shifts

HSQC and HMBC run in Acetone

Compound Number 268

¹³C*erythro*

H-b-H5c

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Bα	20.58	58	20.45	28	20.07	43
γ	61.32	34	61.90	22	60.07	26
α	73.89	35	73.81	20	71.36	26
β	82.25	40	84.15	27	83.58	27
A3	115.52	83	115.50	64	114.46	64
A5	115.52	83	115.50	64	114.46	64
B3	116.79	90	117.33	49	116.22	64
B5	116.79	90	117.33	49	116.22	64
A2	127.71	81	128.89	80	128.01	58
A6	127.71	81	128.89	80	128.01	58
B2	130.18	98	130.44	60	129.52	68
B6	130.18	98	130.44	60	129.52	68
B1	131.41	27	130.61	14	129.03	26
A1	132.13	27	133.98	11	132.76	22
A4	155.78	28	157.43	13	156.25	30
B4	155.53	23	157.65	8	156.67	20

¹H (acetone)

Atom	H Shifts	Mult	J
Bα	2.19	s	
γ1	3.77	dd	11.7, 4.4
γ2	3.85	dd	11.7, 5.2
β	4.34	m	
α	4.89	d	5.6
A,B 3,5	6.78		
B 2,6	6.99		8.5
A 2,6	7.28		8.5
CDCl ₃			
Bα	2.25	s	
γ1	3.80	dd	11.9, 4.0
γ2	3.90	dd	11.9, 4.4
β	4.28	m	
α	4.98	d	5.2
A,B 3,5	6.74		
A 2,6	7.02	d	8.3
B 2,6	7.20	d	8.3

Notes:

S. Ralph SRIX-62

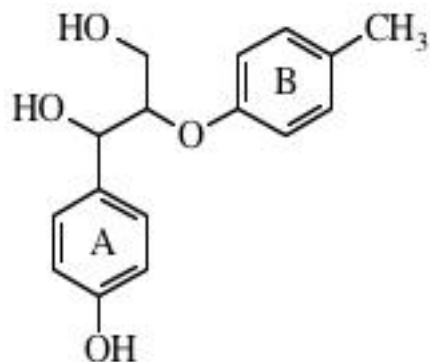
24mg, 70% erythro

A4 and B4 switch in CDCl₃, B1 falls between A and B 2,6 in DMSO

HSQC and HMBC in all solvents

Compound Number 269

¹³C



threo

H-b-H5t

¹H (acetone)

Atom	H Shifts	Mult	J
B α	2.21	s	
γ 1	3.48	dd	11.5, 5.4
γ 2	3.78	dd	11.5, 4.2
β	4.35	m	
α	4.94	d	5.2
A 3,5	6.78		
B 3,5	6.87		
B 2,6	7.02		
A 2,6	7.27		
<u>CDCI3</u>			
B α	2.25	s	
γ 1	3.46	dd	12.1, 3.8
γ 2	3.73	dd	12.1, 4.0
β	4.28	m	
α	4.91	d	6.8
A 3,5	6.72		
B 3,5	6.84		
A 2,6	7.01		
B 2,6	7.18		

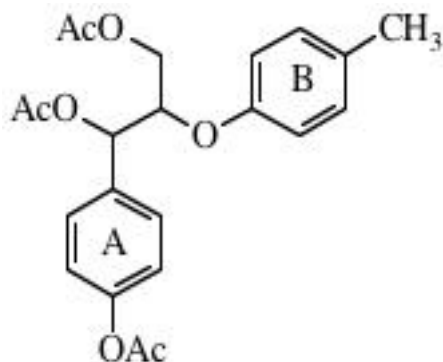
Notes:

SRIX-62 20mg
 75% threo, HSQC and HMBC in DMSO
 B1 falls between A and B 2,6 in DMSO
 A4 and B4 may be switched in CDCl3

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	20.53	44	20.46	28	20.05	45
γ	60.95	27	61.54	24	59.99	18
α	73.64	26	73.15	19	70.79	25
β	83.32	28	84.43	25	83.41	27
A3	115.61	68	115.52	63	114.45	62
A5	115.61	68	115.52	63	114.45	62
B3	116.64	79	117.15	47	115.96	71
B5	116.64	79	117.15	47	115.96	71
A2	128.38	66	128.87	75	127.68	63
A6	128.38	66	128.87	75	127.68	63
B2	130.19	87	130.47	61	129.55	74
B6	130.19	87	130.47	61	129.55	74
B1	131.17	20	130.56	16	128.99	28
A1	131.42	25	133.58	13	132.50	19
A4	155.95	20	157.51	15	156.22	24
B4	156.21	26	159.00	10	156.95	20

Compound Number 270

¹³C



erythro

H-b-H5c

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	20.31	64	20.49	46	20.04	42
A γ Ac Me	20.50	52	20.58	41	20.40	42
A α Ac Me	20.77	67	20.86	41	20.63	42
A4 Ac Me	20.88	74	20.94	52	20.77	48
γ	62.15	49	62.86	36	61.77	21
α	73.33	50	74.12	34	72.74	24
β	78.69	53	79.27	52	77.41	23
B3	116.76	103	117.56	68	116.37	61
B5	116.76	103	117.56	68	116.37	61
A3	121.44	110	122.49	74	121.66	52
A5	121.44	110	122.49	74	121.66	52
A2	128.30	133	129.31	92	128.31	54
A6	128.30	133	129.31	92	128.31	54
B2	129.88	148	130.74	107	130.33	71
B6	129.88	148	130.74	107	130.33	71
B1	131.39	25	131.85	12	130.51	21
A1	133.83	30	135.33	18	134.09	24
A4	150.54	23	151.79	12	150.23	19
B4	155.77	22	157.04	12	155.46	19
A4 Ac C=O	168.99	22	169.53	16	169.05	19
α Ac C=O	169.31	22	169.86	11	169.21	19
γ Ac C=O	170.48	20	170.76	11	170.04	18

¹H (acetone)

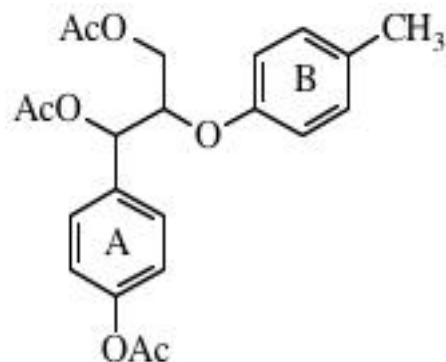
Atom	H Shifts	Mult	J
A γ Ac Me	1.94 (2.02)	s	
A α Ac Me	2.06 (2.09)	s	
B α	2.23 (2.28)	s	
A4 Ac Me	2.23 (2.28)	s	
γ 1	4.23 (4.20)	dd	11.9, 4.2
γ 2	4.34 (4.37)	dd	11.9, 6.0
β	4.83 (4.66)	m	
α	6.04 (6.04)	d	5.4
B 3,5	6.85 (6.77)	m	
B 2,6	7.08 (7.07)	m	
A 3,5	7.08 (7.07)	m	
A 2,6	7.51 (7.42)	d	8.7

Notes:

SRIX-62 25mg
¹H CDCl₃ shifts in ()s
 70% erythro
 HSQC and HMBC in acetone

Compound Number 271

¹³C



threo

H-b-H5t

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	20.49	65	20.49	59	20.03	
A γ Ac Me	20.64	54	20.55	54	20.39	
A α Ac Me	20.97	65	20.88	57	20.64	
A4 Ac Me	21.08	75	20.94	72	20.77	
γ	62.68	56	63.27	53	62.23	
α	73.94	55	74.88	55	73.77	
β	78.49	64	79.27	76	77.74	
B3	116.48	124	117.24	104	116.09	
B5	116.48	124	117.24	104	116.09	
A3	121.78	118	122.67	109	121.81	
A5	121.78	118	122.67	109	121.81	
A2	128.47	141	129.33	124	128.37	
A6	128.47	141	129.33	124	128.37	
B2	130.04	154	130.74	137	129.81	
B6	130.04	154	130.74	137	129.81	
B1	131.37	29	131.66	22	130.33	
A1	133.81	33	135.22	25	134.04	
A4	150.84	28	151.94	21	150.36	
B4	156.33	24	157.59	20	156.12	
A4 Ac C=O	169.15	21	169.52	21	169.04	
α Ac C=O	169.73	24	170.04	19	169.41	
γ Ac C=O	170.57	24	170.68	17	169.98	

¹H (acetone)

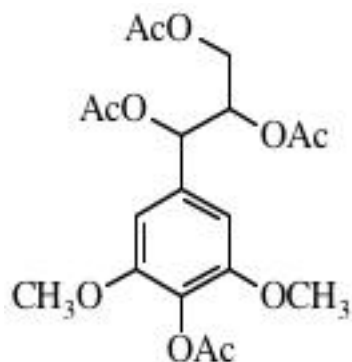
Atom	H Shifts	Mult	J
A γ Ac Me	1.94 (1.98)	s	
A α Ac Me	2.01 (2.05)	s	
B α	2.24 (2.28)	s	
A4 Ac Me	2.24 (2.28)	s	
γ 1	4.01 (4.00)	dd	11.9, 5.8
γ 2	4.23 (4.26)	dd	11.9, 4.2
β	4.83 (4.64)	m	
α	6.10 (6.09)	d	6.4
B 3,5	6.90 (6.85)		
B 2,6	7.10 (7.07)		
A 3,5	7.10 (7.07)		
A 2,6	7.51 (7.42)	d	8.5

Notes:

SRIX-62 25mg
75% threo
1H CDCl₃ shifts in ()s

Compound Number 272

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.48	82	20.23	94	20.08	33
γ Ac Me	20.72	56	20.55	73	20.39	31
β Ac Me	20.85	74	20.71	80	20.46	29
α Ac Me	21.01	71	20.83	81	20.65	33
OMe	56.31	166	56.58	179	56.03	62
OMe	56.31	166	56.58	179	56.03	62
γ	62.17	45	62.85	65	61.92	14
β	72.24	46	72.99	73	71.73	16
α	73.78	47	74.45	60	73.17	16
2	104.05	97	104.76	125	103.59	33
6	104.05	97	104.76	125	103.59	33
4	129.13	9	129.79	8	127.83	8
1	134.19	30	135.85	28	134.79	15
3	152.45	45	153.30	48	151.64	29
5	152.45	45	153.30	48	151.64	29
A4 Ac C=O	168.51	20	168.42	22	167.93	13
α Ac C=O	169.67	22	170.00	23	169.43	23
β Ac C=O	170.09	24	170.21	22	169.43	23
γ Ac C=O	170.43	19	170.65	21	169.95	11
minor isomer						
γ	61.42		62.34			
β	72.48		72.99			
α	73.03		73.76			
2, 6	103.75		104.67			
1	134.19		135.63			
3, 5	152.27		153.19			

¹H (acetone)

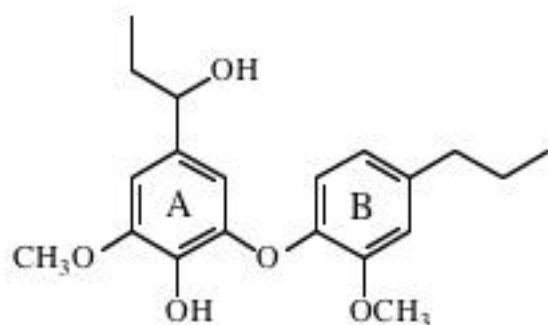
Atom	H Shifts	Mult	J
γ Ac Me	1.99	s	
β Ac Me	2.01	s	
α Ac Me	2.08	s	
A4 Ac Me	2.21	s	
OMe	3.81	s	
γ1	3.91	dd	12.1, 6.2
γ2	4.23	dd	12.1, 3.8
β	5.41	m	
α	5.95	d	6.8
2,6	6.80	s	
<u>CDCl₃</u>			
γ Ac Me	2.06	s	
β Ac Me	2.08	s	
α Ac Me	2.10	s	
A4 Ac Me	2.33	s	
OMe	3.83	s	
γ1	3.83		hidden
γ2	4.26	dd	12.1, 3.6
β	5.42	m	
α	5.92	d	7.6
2,6	6.61	s	

Notes:

L. Landucci XXII-138D7 19mg
2:1 mix of isomers

Compound Number 273

¹³C



G-5-O-4-G

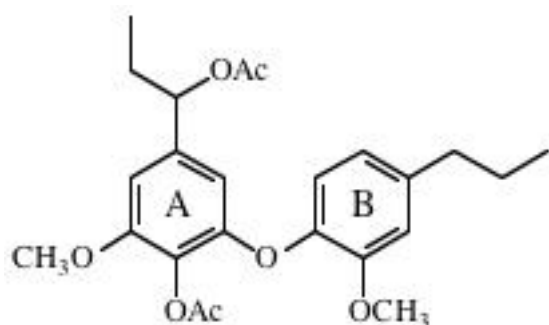
¹H (acetone)

Atom	H Shifts	Mult	J
A γ	0.83	t	J = 7.3
B γ	0.93	t	J = 7.3
A β ,B β	1.62	m	
B α	2.56	bt	J = 7.6
OMe	3.81	s	
OMe	3.86	s	
A α	4.39	bt	J = 6.1
A6	6.45	d	J = 1.5
B6	6.70	dd	J = 8.1, 1.5
B5	6.75	d	J = 8.1
A2	6.76	d	J = 1.5
B2	6.94	d	J = 1.5
A4-OH	7.39	s	

Notes:

FPL Collection 11mg
 Both A5 and A1 change order in CDCl₃ compared to acetone-d₆
 B4 and A4 assignments taken from 2D in CDCl₃
 gHSQC and gHMBC in all solvents

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A γ	10.16	38	10.48	51	10.06	40
B γ	13.85	47	14.05	49	13.68	40
B β	24.61	37	25.41	47	24.15	39
A β	31.83	34	33.20	43	32.05	30
B α	37.87	37	38.33	50	38.50	34
B OMe	55.95	36	56.27	49	55.57	37
A OMe	56.29	34	56.56	49	55.91	37
A α	75.94	30	75.40	27	73.36	30
A2	104.43	33	105.66	47	104.81	27
A6	109.38	34	109.81	49	108.57	28
B2	112.88	34	114.27	49	113.19	28
B5	119.57	33	119.64	48	118.00	29
B6	120.77	35	121.35	50	120.25	31
A4	136.18	12	137.28	9	135.77	23
A1	135.83	18	137.69	23	136.52	24
B1	139.42	17	139.25	21	137.60	24
B4	143.63	10	145.23	18	143.69	20
A5	144.59	11	145.44	18	144.24	20
A3	148.01	13	149.29	18	148.46	22
B3	150.27	13	151.45	20	149.79	21
Proton shifts in CDCl ₃	CDCl ₃ ppm	mult	CDCl ₃ J =			
A γ	0.86	t	7.6			
B γ	0.95	t	7.6			
A β ,B β	1.67	m				
B α	2.56	bt	7.6			
OMe	3.85	s				
OMe	3.91	s				
A α	4.43	bt	6.6			
A6	6.53	d	1.8			
A2,B6	6.69	m				
B2	6.79	d	2.0			
B5	6.88	d	8.1			



G-5-O-4-G diacetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A γ	9.90	37	10.12	63	9.75	35
B γ	13.81	36	14.00	64	13.63	32
A4 Ac Me	20.42	33	20.22	54	20.09	32
A α Ac Me	21.19	31	20.94	50	20.78	31
B β	24.62	37	25.36	64	24.14	34
A β	29.31	36	30.11	60	28.91	27
B α	37.87	36	38.36	64	37.05	31
B OMe	55.98	36	56.18	61	55.64	36
A OMe	56.22	36	56.56	63	56.17	30
A α	76.92	35	77.23	60	76.07	22
A2	104.58	33	104.97	58	104.20	19
A6	108.53	33	107.93	58	106.52	25
B2	113.11	34	114.36	59	113.48	23
B6	120.49	34	121.58	64	120.55	25
B5	120.86	37	121.73	67	120.68	26
A4	129.59	8	129.57	8	128.30	11
A1	138.79	20	140.24	30	139.23	22
B1	139.73	18	141.00	28	139.90	22
B4	142.84	13	143.37	17	141.62	20
A5	150.39	14	151.63	19	150.02	16
B3	150.72	14	152.15	21	150.66	11
A3	152.46	15	153.60	20	152.18	17
A4 Ac C=O	168.48	12	168.46	19	168.05	19
A α Ac C=O	170.26	15	170.25	19	169.76	17

¹H (acetone)

Atom	H Shifts	Mult	J
A γ	0.82	t	J = 7.3
B γ	0.93	t	J = 7.3
B β	1.64	m	
A β	1.73	m	
A α Ac Me	1.96	s	
A4 Ac Me	2.18	s	
B α	2.58	bt	J = 7.3
B OMe	3.76	s	
A OMe	3.84	s	
A α	5.48	m	
A6	6.32	m	overlapped
B6	6.75	m	overlapped
A2	6.77	m	overlapped
B5	6.84	d	J = 8.1
B2	6.96	d	J = 1.7

Proton shifts in CDCl₃

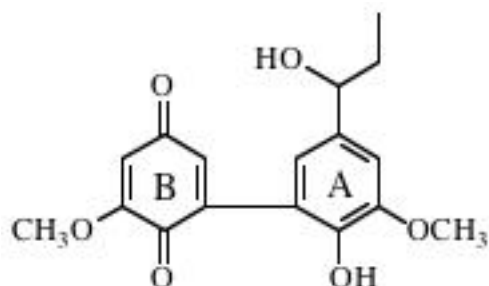
Atom	CDCl ₃	Mult	J
A γ	0.84	t	J = 7.6
B γ	0.95	t	J = 7.6
B β	1.65	m	
A β	1.76	m	
A α Ac Me	2.03	s	
A4 Ac Me	2.24	s	
B α	2.57	bt	J = 7.6
B OMe	3.80	s	
A OMe	3.85	s	
A α	5.52	bt	J = 6.8
A6	6.38	d	J = 1.7
A2	6.63	d	J = 2.0
B6	6.69	dd	2.0, 8.1
B2	6.78	d	J = 1.7
B5	6.84	d	J = 8.1

Notes:

FPL Collection 6 mg
 gHSQC and gHMBC in CDCl₃ and acetone-d₆
 A4 upon acetylation appears as cluster of signals
 in acetone-d₆ B5 and B6 too close to assign definitively

Compound Number 275

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	10.21	28	10.64	45	10.30	29
β	31.90	24	33.21	38	32.03	24
B OMe	56.19	24	56.46	45	55.87	28
A OMe	56.39	28	56.84	44	56.57	27
α	75.72	22	75.40	30	73.45	26
B2	107.16	26	107.77	42	107.06	23
A2	109.43	25	110.91	43	110.48	20
A5	118.56	14	120.61	63	120.06	22
A6	120.19	26	120.61	63	119.35	22
B6	135.42	26	135.34	38	134.11	20
A1	136.30	19	138.14	32	136.85	23
A4	143.07	16	144.12	24	144.04	14
B5	142.53	14	144.79	24	142.84	19
A3	146.78	17	148.08	25	147.29	18
B3	159.02	15	160.27	26	159.09	18
B4	180.27	12	180.63	19	179.87	3
B1	187.51	17	188.03	25	187.39	16

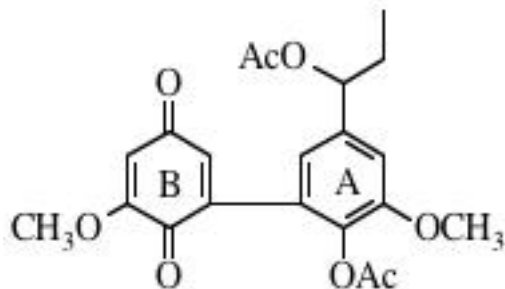
¹ H (acetone)				Proton shifts in DMSO
Atom	H Shifts	Mult	J	
γ	0.91	t	J = 7.4	γ 0.82 t J = 7.1 β 1.58 m OMe 3.80 s α 4.33 m α OH 5.06 d J = 3.9 B2 6.14 d J = 1.7 B6 6.61 d J = 1.7 A6 6.64 s A2 6.96 s A4-OH 8.81 s
β	1.70	m		
A OMe	3.88	s		
B OMe	3.89	s		
α	4.50	bt	J = 6.4	
B2	6.07	d	J = 2.2	
B6	6.69	d	J = 2.2	
A6	6.77	d	J = 1.7	
A2	7.07	d	J = 1.7	
A4-OH	7.76	s		
<u>CDCl₃</u>				
γ	0.93	t	J = 7.6	
β	1.76	m		
B OMe	3.86	s		
A OMe	3.93	s		
α	4.54	bt	J = 6.9	
α OH	5.93			
B2	5.98	d	J = 2.2	
A6	6.74	bd	J = 1.2	
B6	6.83	d	J = 2.2	
A2	6.98	bd	J = 1.2	

Notes:

FPL Collection SRX-84 5 mg
 gHSQC and gHMBC in all solvents, A5 is coincident with A6 in acetone-d6
 B5 and A4 change order in CDCl₃, A6 and A5 change order in DMSO
 A and B OMe not definitively assigned in ¹³C DMSO-d6

Compound Number 276

¹³C



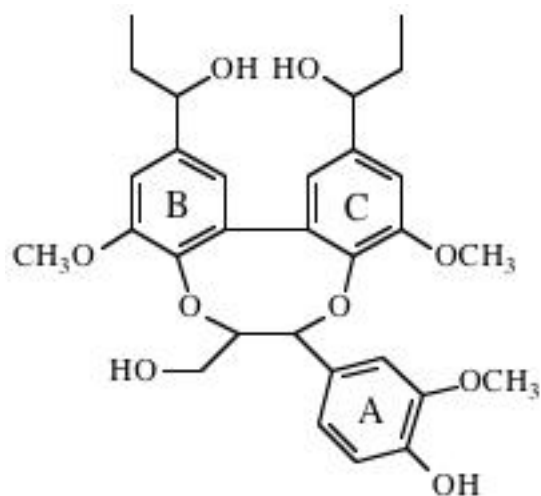
Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	10.06	60	10.22	29	9.84	13
A4 Ac Me	20.56	55	20.31	27	20.13	13
Aα Ac Me	21.28	55	21.02	26	20.88	15
β	29.33	61	30.13	01	28.85	9
A OMe	56.26	61	56.55	39	56.15	9
B OMe	56.53	59	56.91	28	56.60	9
α	77.29	60	77.01	27	75.82	6
B2	107.40	54	108.00	27	107.33	7
A2	112.23	50	112.42	26	111.63	6
A6	120.36	51	120.65	27	119.58	7
A5	126.86	46	128.45	9	127.00	5
B6	135.67	51	135.94	28	134.85	7
A4	137.30	27	138.05	5	136.35	3
A1	139.15	54	140.40	16	139.08	7
B5	141.95	39	142.79	9	141.15	5
A3	151.44	49	152.38	13	150.83	5
B3	158.88	47	159.98	10	158.74	4
A4 Ac C=O	168.19	46	168.42	10	167.88	6
Aα Ac C=O	170.44	46	170.38	10	169.95	8
B4	179.90	41	180.40	7	179.51	3
B1	186.98	45	187.46	11	186.80	5

¹H (acetone)

Atom	H Shifts	Mult	J
γ	0.91	t	J = 7.3
β	1.88	m	
Aα Ac Me	2.06	s	
A4 Ac Me	2.11	s	
A OMe	3.87	s	
B OMe	3.89	s	
α	5.68	t	J = 6.9
B2	6.10	d	J = 2.2
B6	6.59	d	J = 2.2
A6	6.94	d	J = 1.7
A2	7.19	d	J = 1.7
<u>CDCl₃</u>			
γ	0.93		
β	1.86		
Aα Ac Me	2.10		
A4 Ac Me	2.18		
A OMe	3.86		
α	5.66	t	J = 6.9
B2	5.99	d	J = 2.5
B6	6.70	d	J = 2.5
A6	6.81	d	J = 2.2
A2	7.00	d	J = 2.0

Notes:

FPL Collection SRX-84 5 mg
 beta carbon shift taken from DEPT-135, obscured by solvent in ¹³C acetone-d₆
 Compound began to degrade after being taken up in CDCl₃, shifts taken from
 mixture with unknown for CDCl₃ and DMSO-d₆



dibenzodioxicin

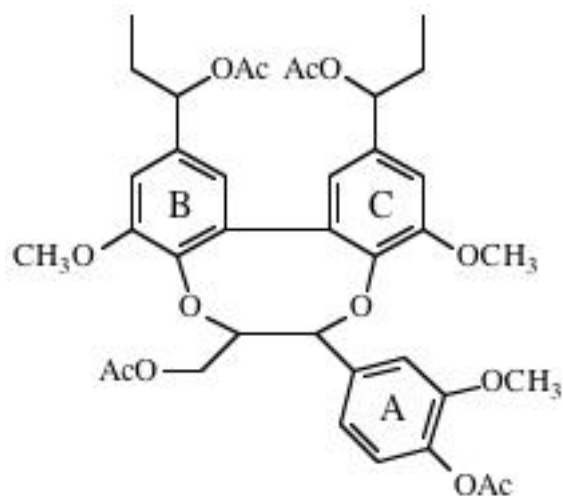
¹H (acetone)

Atom	H Shifts	Mult	J
B,C γ	0.96	m	
B,C β	1.75	m	
Aγ1	3.48	m	
Aγ2	3.70	m	
OMe	3.77	s	
OMe	3.83	s	
OMe	3.92	s	
A β	4.03	m	
B,C α	4.60	m	
Aα	4.77	d	J = 10.0
A5	6.84	d	J = 8.1
A6	6.89	dd	J = 8.1, 1.7
C6	6.96	m	
A2	7.01	d	J = 1.7
B6	7.05	m	
C2	7.06, 7.08	d's	J = 2.0
B2	7.14, 7.16	d's	J = 2.0

Notes:

SRVII-81 16mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B or C γ	10.34	97	10.71	60	10.39	32
B or C γ	10.38	97	10.77	60	10.49	31
B or C β	31.88	41	33.23	45	32.11	34
B or C β	32.08	48	33.30	45	32.11	34
OMe	55.78	108	56.06	50	55.54	31
A OMe	55.85	105	56.29	75	55.69	39
OMe	56.00	105	56.33	90	55.80	35
Aγ	62.97	47	62.97	32	60.66	16
B or C α	75.84	63	75.52	51	73.63	32
B or C α	75.84	63	75.52	51	73.63	32
Aα	84.82	38	85.18	29	83.34	13
A β	86.93	39	87.71	27	85.57	13
B2	108.86	23	110.17	19	109.45	16
C2	109.47	54	110.55	22	109.57	15
A2	109.47	54	111.94	38	111.82	18
A5	114.41	52	115.56	42	115.14	22
C6	118.92	41	119.26	31	117.93	21
B6	119.35	22	119.57	20	117.93	21
A6	120.90	52	121.33	41	120.11	17
A1	130.01	45	131.38	30	129.59	13
C5	133.19	15	133.24	14	131.87	10
B5	132.12	23	133.91	11	132.08	7
C1	141.36	21	143.38	18	142.41	12
B1	141.74	20	143.72	16	142.41	12
B4	144.75	22	145.95	16	144.87	9
C4	145.98	56	146.73	21	145.04	9
A4	145.98	56	147.43	35	146.31	20
A3	146.80	45	148.16	34	147.18	19
B3	151.72	22	152.75	15	151.68	21
C3	152.24	38	153.15	30	151.68	21
Proton shifts in CDCl ₃						
B,C γ	0.97					
B,C β	1.81					
Aγ	3.55					
OMe	3.76					
OMe	3.84					
OMe	3.92					
A β	4.14					
A,B,C α	4.59					
DMSO						
B,C γ	0.90					
B,C β	1.66					
Aγ1	3.22					
Aγ2	3.86					
A β	3.84					
B,C α	4.47					
Aα	4.81					



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B _γ	10.19	90	10.43	66	10.02	40
C _γ	10.19	90	10.43	66	10.02	40
A4 Ac Me	20.74	98	20.50	71	20.36	42
A _α Ac Me	20.84	75	20.58	61	20.42	37
B Ac Me	21.40	85	21.10	63	20.90	34
C Ac Me	21.40	85	21.10	63	20.90	34
B or C β	29.28	31	30.08	20	28.75	26
B or C β	29.38	33	30.43	18	29.22	23
OMe	56.10	84	56.19	53	55.74	55
OMe	56.17	70	56.32	77	55.94	61
OMe	56.22	84	56.38	62	56.02	47
A _γ	63.93	41	64.33	33	63.14	28
B or C _α	77.26	24	77.49	31	76.34	32
B or C _α	77.51	24	77.62	30	76.39	32
A β	82.76	24	83.41	25	81.80	17
A _α	84.45	25	85.33	27	84.06	21
B or C2	110.27	20	110.79	15	109.96	18
B or C2	111.03	20	111.19	14	110.43	16
A2	111.51	32	112.78	34	112.08	26
B or C6	119.26	14	119.35	12	118.00	10
B or C6	119.74	14	120.00	16	118.71	12
A6	119.91	49	120.74	33	119.98	26
A5	122.76	43	123.46	39	122.61	35
B or C5	132.63	23	133.22	13	131.58	10
B or C5	132.63	23	133.42	13	131.77	14
A1	137.13	45	138.06	20	136.45	29
B or C1	137.28	26	138.57	14	137.33	15
B or C1	137.28	26	138.75	14	137.60	12
A4	139.95	39	140.80	22	139.23	34
B4	146.17	18	146.86	14	145.13	17
C4	146.57	16	147.24	13	145.55	22
A3	151.32	33	152.14	27	150.63	39
B or C3	152.32	27	153.35	22	151.98	19
B or C3	152.52	36	153.53	19	152.16	20
A4 Ac C=O	168.84	46	168.94	33	168.47	43
BorC _α C=O	170.48	27	170.45	28	169.89	44
BorC _α C=O	170.58	26	170.45	28	169.92	44
A _γ Ac C=O	170.76	44	170.74	30	170.07	50
Proton shifts in CDCl ₃						
B _γ C _γ	0.94					
B _γ C _β	1.88					
Ac Me	1.97					
Ac Me	2.08					
Ac Me	2.12					
Ac Me	2.30					
OMe	3.74					
OMe	3.82					
OMe	3.90					
γ1	4.08					
β	4.14					
γ2	4.49					
α	4.85					
B _γ C _α	5.70					
aromatic H	6.87-7.05					

¹H (acetone)

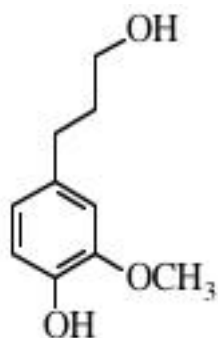
Atom	H Shifts	Mult	J
B _γ C _γ	0.93	m	
B _γ C _β	1.91	m	
γAc Me	1.91	s	
B _γ C _α AcMe	2.07	s	
A4 Ac Me	2.24	s	
OMe	3.79	s	
OMe	3.94	s	
γ1	4.05	dd	J = 12.0, 3.4
β	4.30	m	
γ2	4.43	dd	J = 12.0, 3.4
α	4.93	d	J = 10.0
B _γ C _α	5.71	m	
A5, A, B, C6	7.00-7.06	m	from HSQC
B or C 2	7.09	m	from HSQC
B or C 2	7.13	m	from HSQC
A2	7.17	m	from HSQC

Notes:

SRVII-81Ac
gHSQC and gHMBC in d₆-acetone and CDCl₃

Compound Number 279

¹³C



dihydro-coniferyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α	31.72	24	32.44	33	32.62	26
β	34.43	24	35.85	27	35.99	26
OMe	55.84	25	56.21	31	56.95	30
γ	62.22	25	61.83	28	61.58	28
2	111.03	22	112.87	28	113.96	24
5	114.27	25	115.59	30	116.67	26
6	120.90	24	121.55	32	121.71	26
1	133.70	11	134.61	14	134.38	19
4	143.72	12	145.47	14	145.77	20
3	146.43	10	148.17	10	148.77	17

¹H (acetone)

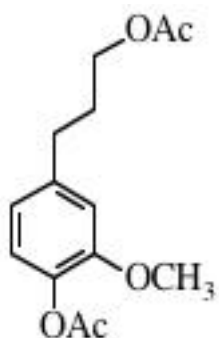
Atom	H Shifts	Mult	J
β	1.78 (1.86)	m	
α	2.60 (2.63)	bt	J = 8.0
γ	3.55 (3.67)	bt	J = 5.4
OMe	3.82 (3.86)	s	
6	6.64 (6.68)	dd	J = 8.1, 1.7
5	6.73 (6.70)	d	J = 8.1
2	6.81 (6.81)	d	J = 1.7
<u>DMSO</u>			
β	1.66		
α	2.48		
γ	3.40		
OMe	3.73		
γ OH	4.40		
6	6.55		
5	6.65		
2	6.72		
phenolic OH	8.60		

Notes:

J. Ralph 16 mg
gHSQC, gHMBC in d6-acetone

Compound Number 280

¹³C



dihydro-coniferyl alcohol diacetate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.49	65	20.79	36	20.31	46
γ Ac Me	20.78	52	20.50	44	20.61	47
β	30.02	80	31.08	50	29.67	45
α	32.03	79	32.63	54	31.34	41
OMe	55.68	81	56.14	52	55.59	48
γ	63.63	79	64.10	54	63.21	48
2	112.45	61	113.63	46	112.76	42
6	120.30	83	121.05	54	120.06	44
5	122.43	79	123.39	52	122.41	46
4	137.84	25	139.17	14	137.45	25
1	140.06	47	141.27	27	140.14	33
3	150.77	36	152.14	18	150.60	32
A4 Ac C=O	169.01	27	169.07	18	168.56	29
γAc C=O	170.94	23	171.00	15	170.38	25

¹H (acetone)

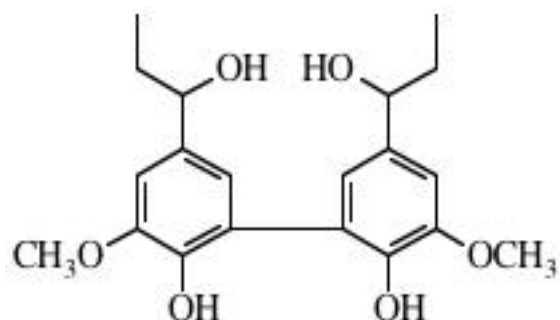
Atom	H Shifts	Mult	J
β	1.94	m	
γ Ac Me	1.99	s	
A4 Ac Me	2.21	s	
α	2.68	bt	J = 7.8
OMe	3.79	s	
γ	4.05	t	J = 6.6
6	6.78	dd	J = 8.1, 1.7
5	6.94	d	J = 8.1
2	6.97	d	J = 1.7
<u>CDCl₃</u>			
β	1.95	m	
γ Ac Me	2.05	s	
A4 Ac Me	2.29	s	
α	2.67	bt	J = 7.8
OMe	3.81	s	
γ	4.10	t	J = 6.6
6	6.75	bdd	8.1, 1.5
2	6.78	bs	
5	6.93	d	J = 8.1

Notes:

JRalph 25mg
gHSQC, gHMBC in d₆-acetone

Compound Number 281

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	10.40	45	10.70	52	10.33	36
β	31.89	39	33.21	44	32.06	25
OMe	56.22	49	56.43	60	55.81	37
α	76.08	39	75.70	30	73.71	21
2	108.03	35	109.18	39	108.28	17
6	121.13	36	121.81	43	120.58	19
5	124.15	20	126.11	15	125.54	16
1	136.76	32	138.09	31	136.43	22
4	142.08	22	143.38	16	142.10	18
3	147.47	25	148.56	22	147.36	21

¹H (acetone)

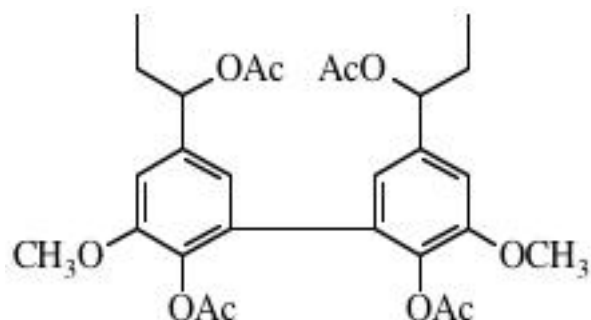
Atom	H Shifts	Mult	J
γ	0.91	t	J = 7.3
β	1.71	m	
OMe	3.88	s	
α	4.50	t	J = 6.36
6	6.85	d	J = 2.0
2	6.99	d	J = 2.0
<u>CDCl₃</u>			
γ	0.93	t	J = 7.3
β	1.79	m	
OMe	3.92	s	
α	4.54	t	J = 6.36
6	6.87	d	J = 2.0
2	6.93	d	J = 2.0
<u>DMSO</u>			
γ	0.84	t	J = 7.34
β	1.60	m	
OMe	3.81	s	
α	4.34	bs	
α OH	4.98	s	
6	6.66	d	J = 1.71
2	6.87	d	J = 1.71
4-OH	8.20	s	

Notes:

FPL Collection 10 mg
Compound has plane of symmetry

Compound Number 282

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	10.01	46	10.27	61	9.81	41
4 Ac Me	20.37	55	20.33	71	19.99	52
α Ac Me	21.23	43	21.04	63	20.82	42
β	29.46	34	30.20	70	28.90	30
OMe	56.10	48	56.46	66	56.04	40
α	76.86	49	77.29	56	76.03	30
2	110.14	29	110.87	44	110.20	19
6	120.24	19	120.41	24	118.88	13
5	131.15	20	131.87	26	130.12	22
4	137.00	14	137.91	17	136.15	18
1	138.66	21	140.04	31	138.82	23
3	151.37	24	152.64	38	151.14	27
Ac C=O	168.76	15	168.99	18	168.33	14
α Ac C=O	170.36	25	170.46	35	169.84	30

¹H (acetone)

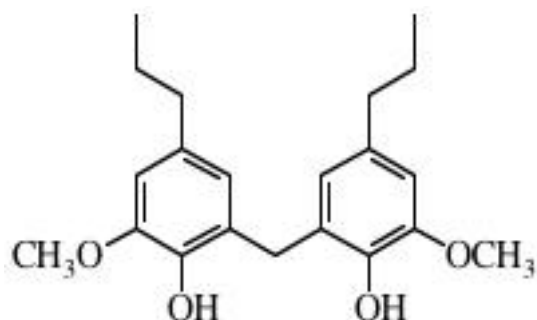
Atom	H Shifts	Mult	J
γ	0.91 (0.86)	t	J = 7.34
β	1.87 (1.81)	m	
4 Ac Me	2.03 (2.02)	s	
α Ac Me	2.07 (2.07)	s	
OMe	3.87 (3.81)	s	
α	5.63 (5.58)	t	J = 6.6
6	6.79 (6.67)	bs	
2	7.11 (7.11)	bs	
CDCl₃			
γ	0.90	t	J = 7.34
β	1.85	m	
4 Ac Me	2.08	s	
α Ac Me	2.09	s	
OMe	3.86	s	
α	5.63	t	J = 6.7
6	6.81	d	J = 1.7
2	6.90	d	J = 1.7

Notes:

FPL Collection 8mg
¹H DMSO shifts in ()s. Compound has plane of symmetry
 beta shifts in acetone taken from DEPT 135 spectrum
 g-HSQC, g-HMBC all solvents

Compound Number 283

¹³C



biphenyl methane

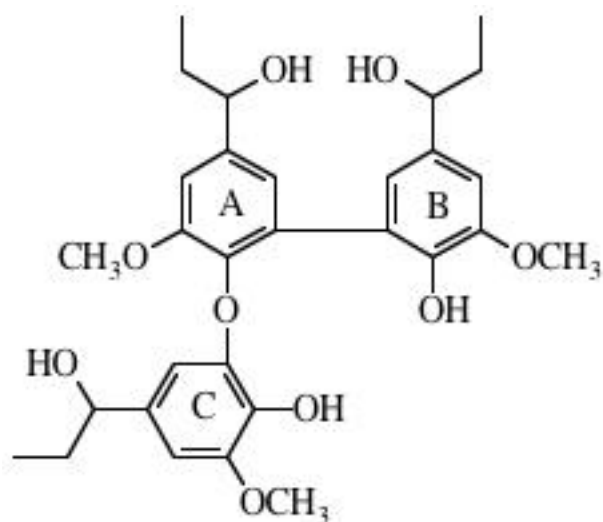
Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	13.78	39	14.04	47	13.59	23
β	24.79	32	25.57	45	24.34	20
CH ₂	29.39	20	29.56	34	28.74	10
α	27.80	38	38.42	49	37.10	21
OMe	55.93	43	56.27	49	55.73	23
2	109.14	39	110.18	37	109.62	17
6	122.36	33	123.13	45	121.77	18
5	126.13	22	127.59	31	127.08	17
1	134.02	18	133.74	31	132.02	18
4	141.01	13	142.84	30	141.72	14
3	146.41	21	147.75	29	147.05	15

¹H (acetone)

Atom	H Shifts	Mult	J
γ	0.87 (0.91)	t	J = 7.34
β	1.53 (1.57)	m	J = 7.34
α	2.41 (2.46)	dd	J = 7.34
OMe	3.79 (3.85)	s	
CH ₂	3.94 (3.93)	bs	
6	6.57 (6.55)	bd	J = 1.71
2	6.63 (6.61)	bd	J = 1.71
OH	7.23 (6.00)	bs	
<u>DMSO</u>			
γ	0.82	t	J = 7.34
β	1.47	m	J = 7.34
α	2.35	bt	
OMe	3.75	s	
CH ₂	3.74	s	
6	6.37	bd	J = 1.71
2	6.59	bd	J = 1.71
OH	8.22	s	

Notes:

FPL Collection 20 mg
¹H CDCl₃ shifts in ()s. Plane of symmetry runs through molecule
 CH₂ shift obscured by solvent in acetone, taken from Dept 135
 2 and 6 switch places in ¹H in CDCl₃



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	10.15	84	10.51	64	9.95	46
γ	10.25	100	10.59	74	10.06	39
γ	10.30	88	10.59	74	10.26	43
B β	31.42	59	32.97	45	32.06	61
C β	31.48	69	33.11	44	32.06	61
A β	32.00	66	33.27	56	32.06	61
OMe	56.15	108	55.34	81	55.68	60
OMe	56.15	108	55.34	81	55.74	51
OMe	56.30	75	56.52	43	55.83	65
A α	75.80	74	75.42	46	73.51	40
B α	75.80	74	75.57	45	73.60	39
C α	76.02	56	75.66	40	73.66	35
C2	103.82	17	104.50	32	103.06	16
C6	106.66	17	106.31	30	104.51	20
B2	108.03	27	109.13	31	108.35	17
A2	109.45	47	110.37	36	109.50	20
B6	120.98	35	121.58	36	120.18	19
A6	121.20	35	122.17	46	121.16	17
B5	123.38	11	124.87	13	124.13	18
A5	132.06	14	133.71	16	132.72	16
C4	134.74	16	135.37	14	133.50	24
C1	135.22	20	136.74	19	135.41	18
B1	136.04	15	137.33	26	135.91	21
A4	141.12	6	141.12	9	139.14	14
B4	142.24	22	143.44	17	142.18	17
A1	142.01	20	143.71	19	142.47	23
C5	145.59	13	147.29	19	146.54	19
B3	146.79	22	148.14	23	147.28	19
C3	147.44	21	148.53	16	147.59	23
A3	152.39	19	153.21	17	151.70	18
1H--DMSO						
B,C γ	0.66					
A γ	0.88					
B,C β	1.40					
A β	1.65					
B,C α	4.13					
A α	4.45					
C6	6.02					
C2	6.45					
B6	6.59					
B2	6.82					
A6	6.88					
A2	7.04					
C4 OH	7.93					
B4 OH	8.14					

¹H (acetone)

Atom	H Shifts	Mult	J
B,C γ	0.76	m	
A γ	0.96	t	
B,C β	1.53	m	
A β	1.74	m	
OMe	3.75	s	
OMe	3.81	s	
C α	4.23 (4.25)	t	J = 6.36
B α	4.35 (4.40)	t	J = 6.36
A α	4.60 (4.63)	t	J = 6.36
C6	6.18 (6.14)	d	J = 1.7
C2	6.52 (6.41)	bd	J = 1.7
B6	6.75 (6.76)	d	J = 1.7
B2	6.86 (6.78)	d	J = 1.7
A6	6.98 (6.97)	d	J = 1.7
A2	7.11 (7.04)	d	J = 1.7

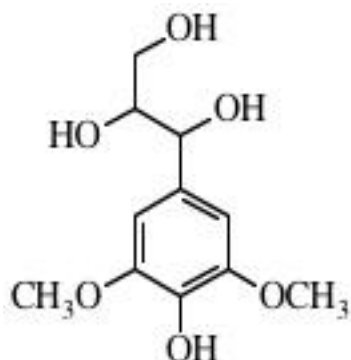
Notes:

FPL Collection 5 mg

1H--CDCl₃ shifts in ()s. g-HSQC and g-HMBC all solventsObscured 1H shifts taken from g-HSQC in CDCl₃A1 and B4 may switch order in CDCl₃

Compound Number 285

¹³C



α -(4-hydroxy-3,5-dimethoxyphenyl)-glycerol

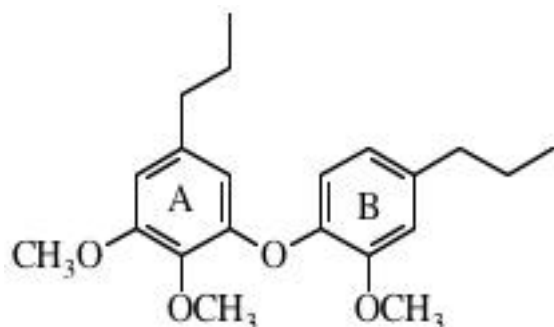
Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.40	47	56.60	13	55.99	49
OMe	56.40	47	56.60	13	55.99	49
γ	63.24	19	64.24	6	63.10	20
β	74.69	20	76.26	9	75.49	20
α	75.99	22	76.26	9	74.24	20
2	103.03	42	105.32	12	104.72	39
6	103.03	42	105.32	12	104.72	39
1	131.60	10	133.98	4	133.58	18
4	134.57	10	135.90	3	134.31	19
3	147.28	20	148.32	7	147.42	34
5	147.28	20	148.32	7	147.42	34

¹H (acetone)

Atom	H Shifts	Mult	J
γ	3.63	d	J = 6.11
β	3.72	m	
OMe	3.81	s	
α	4.60	d	J = 6.11
2,6	6.71	s	
4 OH	7.09	bs	
<u>CDCl₃</u>			
γ	3.77		
β	3.81		
OMe	3.91		
α	4.77		
2,6	6.64		
<u>DMSO</u>			
γ	3.42		
β	3.49		
OMe	3.72		
α	4.34		
2,6	6.58		

Notes:

FPL Collection 20 mg
 Marginally soluble in CDCl₃ and acetone-d₆, g-HSQC and g-HMBC in all solvents
 1H shifts for β and γ taken from HSQC in DMSO
 β and α 13C shifts change order in DMSO (HSQC data)



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Aγ	13.67	29	13.93	10	13.54	38
Bγ	13.78	32	14.04	11	13.70	36
Aβ	24.42	28	25.26	10	24.08	33
Bβ	24.57	32	25.39	11	24.18	34
Bα	37.80	35	38.36	12	37.08	33
Aα	37.99	29	38.58	10	37.28	30
OMe	55.95	33	56.24	10	55.70	31
OMe	56.04	30	56.38	10	55.88	31
A4 OMe	60.94	22	60.67	7	60.21	26
A2	107.18	27	108.19	10	107.36	25
A6	111.16	27	111.12	10	109.83	26
B2	113.01	23	114.37	9	113.43	27
B5	119.20	27	120.54	10	119.39	28
B6	120.55	28	121.41	10	120.50	28
A4	137.70	5	138.59	2	136.89	11
A1	138.19	15	138.86	4	137.90	20
B1	138.63	14	139.80	4	138.71	20
B4	143.82	9	144.64	3	142.89	17
B3	150.37	9	151.82	3	150.31	34
A5	150.48	10	151.94	3	150.31	34
A3	153.27	10	154.67	3	153.26	18
1H-CDCl ₃						
γ	0.88					
γ	0.95					
Aβ	1.55					
Bβ	1.65					
Aα	2.43					
Bα	2.56					
B3 OMe	3.83					
A 3,4 OMe	3.87					
A6	6.26					
A2	6.47					
B6	6.68					
B 2,5	6.79					
1H-DMSO						
γ	0.82					
γ	0.90					
β	1.47					
β	1.60					
Aα	2.37					
Bα	2.53					
A4 OMe	3.67					
B3 OMe	3.73					
A3 OMe	3.79					
A6	6.09					
A2	6.58					
B6	6.70					
B5	6.75					
B2	6.94					

¹H (acetone)

Atom	H Shifts	Mult	J
Aγ	0.85	t	7.3
Bγ	0.93	t	7.3
Aβ	1.52	m	7.3
Bβ	1.64	m	7.3
Aα	2.41	bt	7.3
Bα	2.57	bt	7.3
A4 OMe	3.74	s	
B3 OMe	3.78	s	
A3 OMe	3.83	s	
A6	6.17	d	2.0
A2	6.58	d	2.0
B6	6.72	dd	1.7, 8.1
B5	6.78	d	8.1
B2	6.95	d	1.7

Notes:

SRX-110

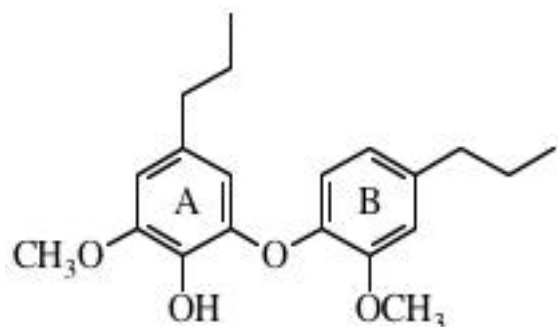
12 mg

α,β,γ and B3, A5 are too close to assign with certainty

HSCQ and HMBC all solvents

Compound Number 287

¹³C



4-O-5

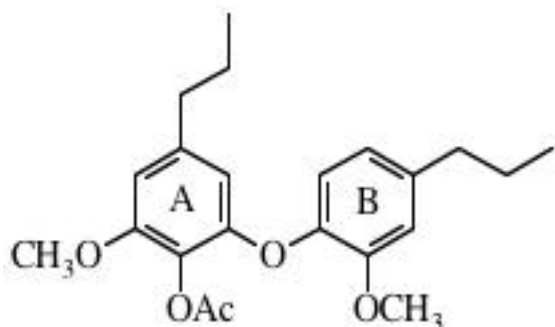
¹H (acetone)

Atom	H Shifts	Mult	J
γ	0.85	t	7.3
γ	0.98	t	7.3
A β	1.52	m	7.3
B β	1.62	m	7.3
A α	2.41	bt	7.3
B α	2.55	bt	7.3
B OMe	3.80	s	
A OMe	3.83	s	
A6	6.25	d	2.0
A2	6.58	d	2.0
B6	6.69	dd	1.7, 8.3
B5	6.74	d	8.3
B2	6.92	d	1.7

Notes:

FPL Collection
 12 mg
 A5 and B4 may be switched in acetone but confirmed in CDCl₃ by 4-OH correlation to A5

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	13.49	63	13.91	38	13.48	31
γ	13.63	61	14.04	39	13.67	32
β	24.44	72	25.42	53	24.17	59
β	24.47	73	25.42	53	24.17	59
α	37.67	120	38.34	60	36.96	37
α	37.67	120	38.34	60	36.98	39
OMe	55.81	63	56.28	37	55.57	28
OMe	56.04	59	56.57	36	55.90	29
A2	107.05	57	108.23	36	107.39	23
A6	111.46	58	112.07	37	110.95	23
B2	112.75	60	114.27	34	113.17	24
B5	119.17	30	119.60	34	117.84	24
B6	120.53	61	121.37	33	120.27	25
A1	133.56	24	133.80	21	132.29	20
A4	134.79	20	136.58	10	135.22	19
B1	138.87	29	139.23	18	137.53	19
B4	143.84	19	145.27	14	143.77	16
A5	144.28	18	145.58	12	144.34	18
A3	147.59	20	149.43	13	148.71	19
B3	150.10	22	151.43	16	149.71	18
¹ H CDCl ₃						
γ	0.80					
γ	0.86					
A β	1.47					
B β	1.56					
A α	2.35					
B α	2.47					
B OMe	3.78					
A OMe	3.80					
4 OH	5.94					
A6	6.30					
A2	6.41					
B6	6.60					
B5	6.71					
B2	6.78					
¹ H DMSO						
γ	0.80					
γ	0.87					
A β	1.45					
B β	1.57					
A α	2.34					
B α	2.49					
B OMe	3.74					
A OMe	3.76					
A6	6.11					
A2	6.53					
B6	6.57					
B5	6.64					
B2	6.89					
4 OH	8.39					



4-O-5

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A γ	13.73	43	13.94	34	13.52	40
B γ	13.78	38	14.02	32	13.61	40
Ac Me	20.39	32	20.25	27	20.05	36
A β	24.33	38	25.22	31	24.00	36
B β	24.57	37	25.37	33	24.09	38
B α	37.83	36	38.37	32	37.03	32
A α	38.23	37	38.73	32	37.36	32
B OMe	56.08	62	56.24	30	55.63	37
A OMe	56.08	62	56.44	32	55.96	36
A2	106.59	36	107.26	31	106.58	26
A6	110.36	36	110.24	30	108.99	26
B2	113.16	35	114.39	28	113.39	28
B5	120.40	36	121.55	63	120.23	30
B6	120.82	36	121.55	63	120.53	21
A4	128.18	9	129.04	5	127.29	15
B1	139.36	20	140.62	14	139.39	16
A1	141.02	21	141.66	15	140.63	28
B4	143.25	15	143.86	9	142.07	22
A5	150.12	16	151.45	9	149.76	23
B3	150.73	17	152.14	11	150.53	25
A3	152.11	17	153.44	10	151.94	25
OAc C=O	168.70	14	168.57	9	168.04	19
1H--CDCl ₃						
γ	0.89					
γ	0.95					
A β	1.55					
B β	1.65					
Ac Me	2.24					
A α	2.45					
B α	2.56					
B OMe	3.82					
A OMe	3.82					
A6	6.25					
A2	6.49					
B6	6.68					
B2	6.78					
B5	6.85					
1H--DMSO						
γ	0.81					
γ	0.88					
A β	1.47					
B β	1.58					
Ac Me	2.15					
A α	2.39					
B α	2.51					
B OMe	3.70					
A OMe	3.74					
A6	6.09					
A2	6.62					
B6	6.69					
B5	6.74					
B2	6.92					

¹H (acetone)

Atom	H Shifts	Mult	J
γ	0.86	t	7.3
Bγ	0.93	t	7.3
A β	1.53	m	7.3
B β	1.64	m	7.3
Ac Me	2.20	s	
A α	2.45	bt	7.3
B α	2.57	bt	7.3
B OMe	3.77	s	
A OMe	3.81	s	
A6	6.18	d	1.7
A2	6.63	d	1.7
B6	6.73	dd	2.0, 8.3
B5	6.82	d	8.3
B2	6.96	d	2.0

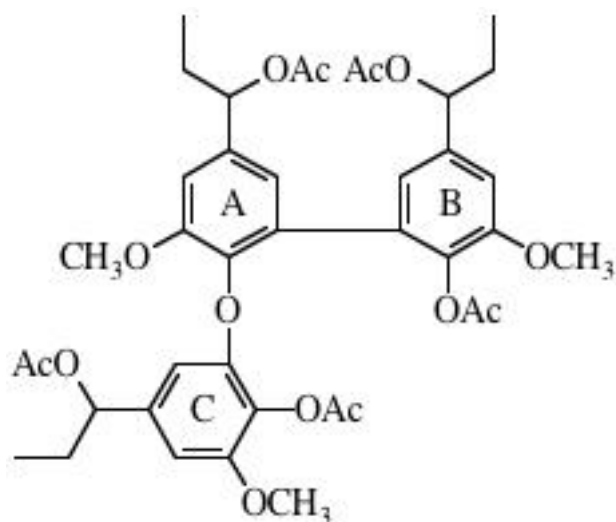
Notes:

SRX-110Bac

12 mg

α, β, γ shifts are too close to assign with absolute certainty

B2 and B5 change order in CDCl₃ 1H

¹H (acetone)

Atom	H Shifts	Mult	J
γ	0.78		
γ	0.82		
B γ	0.91		
A, C β	1.73		
B β	1.88		
AcMe Cα	1.95		
AcMe Aα	2.04		
AcMe Bα	2.05		
AcMe B4	2.10		
AcMe C4	2.16		
OMe	3.73		
OMe	3.76		
OMe	3.81		
Cα	5.46		
Aα	5.55		
Bα	5.65		
C6	6.20		
C2	6.64		
B6	6.81		
A6	6.83		
A2	6.99		
B2	7.13		

Notes:

FPL Collection 2 mg

COSY, HSQC and HMBC in acetone at 600MHz

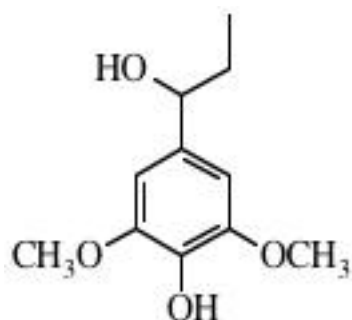
¹H in CDCl₃ some shifts taken from HSQC and HMBC

Aromatic carbon shifts in DMSO are weak, no 2D spectra in DMSO

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	9.79	39	10.19	65	9.57	63
γ	9.85	35	10.19	65	9.57	63
γ	9.90	40	10.19	65	9.57	63
C4AcMe	20.21	32	20.18	27	19.77	27
B4AcMe	20.32	26	20.18	27	19.88	23
AαAcMe	21.12	25	20.46	20	20.59	18
CαAcMe	21.16	36	21.25	40	20.68	27
BαAcMe	21.22	29	21.36	27	20.80	29
β	28.94	17	29.77	20	28.50	22
β	29.21	12	29.97	20	28.68	15
B β	29.46	25	30.18	20	28.84	24
OMe	56.00	46	56.38	46	55.89	34
OMe	56.00	46	56.38	46	55.89	34
OMe	56.07	32	56.65	32	55.89	34
α	76.83	27	77.28	35	75.94	37
α	76.88	27	77.28	35	75.94	37
α	76.88	27	77.28	35	75.94	37
C2	103.60	8	104.30	12	103.38	8
C6	105.82	11	106.11	10	106.53	8
A2	110.40	16	110.99	14	110.12	8
B2	110.70	15	111.63	12	110.88	11
B6	120.30	12	119.42	12	119.39	6
A6	120.78	14	120.81	15	119.64	15
C4	128.02	3	128.90	7	127.11	7
A5	130.86	8	131.83	8	130.23	8
B5	131.77	12	133.47	6	130.83	6
A4	136.95	6	137.91	7	136.20	10
B1	137.84	7	139.40	10	138.03	10
A1	138.16	16	139.65	13	138.31	15
C1	138.16	16	139.65	13	138.50	10
B4	140.05	6	140.78	8	138.96	9
C5	150.42	8	151.59	10	149.99	4
A3	151.11	9	152.36	9	150.84	13
B3	152.20	20	153.33	14	151.80	14
C3	152.20	20	153.33	14	151.80	14
C4AcC=O	167.92	8	167.62	7	167.29	8
B4AcC=O	168.77	9	169.09	8	168.23	9
AαAcC=O	170.30	12	169.09	9	169.71	18
CαAcC=O	170.40	17	170.37	12	169.71	18
BαAcC=O	170.40	17	170.50	15	169.71	18
<u>¹H CDCl₃</u>		<u>¹H</u>		<u>¹H</u>		
γ		0.72		0.71		
γ		0.79		0.78		
B γ		0.89		0.86		
β		1.72		1.67		
β		1.72		1.67		
B β		1.86		1.84		
AcMe Cα		1.99		1.92		
AcMe Aα		2.07				
AcMe Bα		2.10				
AcMe B4		2.16				
AcMe C4		2.21		2.15		
OMe		3.71		3.67		
OMe		3.74		3.72		
OMe		3.79		3.76		
Cα		5.45		5.42		
Aα		5.54		5.49		
Bα		5.63		5.61		
C6		6.13		6.03		
C2		6.46		6.62		
B6		6.82		6.70		
A6		6.76		6.70		
A2		6.81		6.99		
B2		6.87		7.13		

Compound Number 290

¹³C



1-(3,5-dimethoxy-4-hydroxy)-propanol

¹H (acetone)

Atom	H Shifts	Mult	J
γ	0.87	t	7.3
β	1.66	m	
OMe	3.79	s	
α	4.44	bt	6.4
2,6	6.63	s	
4 OH	6.99	s	
<u>CDCl₃</u>			
γ	0.91		
β	1.75		
OMe	3.88		
α	4.50		
2,6	6.57		
<u>DMSO</u>			
γ	0.79		
β	1.56		
OMe	3.72		
α	4.30		
2,6	6.54		
4 OH	8.08		

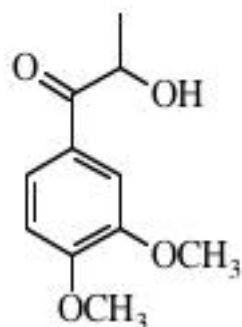
Notes:

FPL Collection
22 mg
HSQC and HMBC in acetone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	10.19	27	10.61	47	10.32	25
β	31.87	27	33.24	36	32.16	21
OMe	56.23	57	56.59	93	55.95	48
OMe	56.23	57	56.59	93	55.95	48
α	76.20	24	75.81	29	73.92	20
2	102.60	45	104.32	87	103.33	35
6	102.60	45	104.32	87	103.33	35
4	133.91	11	135.66	11	134.10	14
1	135.87	16	137.56	22	136.44	17
3	146.91	23	148.41	25	147.65	31
5	146.91	23	148.41	25	147.65	31

Compound Number 291

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	22.77	60	22.59	67	21.09	67
OMe	55.97	68	56.14	89	55.54	63
OMe	56.06	60	56.24	81	55.75	62
β	68.78	57	69.53	46	68.31	62
5	110.13	59	111.62	80	110.89	105
2	110.68	52	111.95	77	110.89	105
6	123.32	62	124.22	81	123.31	68
1	126.16	8	127.80	9	127.38	15
3	149.25	8	150.30	9	148.61	12
4	153.96	7	155.01	7	153.11	10
α	200.73	10	201.30	8	200.09	15

Atom	H Shifts	Mult	J
γ	1.35	d	6.85
OMe	3.87	s	
OMe	3.90	s	
β	5.14	q	6.85
5	7.06	d	8.6
2	7.54	d	2.0
6	7.68	dd	8.6, 2.0

Atom	H Shifts	Mult	J
γ	1.43		
OMe	3.92		
OMe	3.93		
β	5.10		
5	6.89		
2	7.49		
6	7.49		

Atom	H Shifts	Mult	J
γ	1.27		
OMe	3.81		
OMe	3.84		
β	5.05		
β OH	5.21		
5	7.06		
2	7.48		
6	7.69		

¹H (acetone)

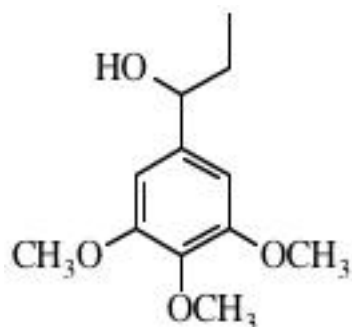
Atom	H Shifts	Mult	J
γ	1.35	d	6.85
OMe	3.87	s	
OMe	3.90	s	
β	5.14	q	6.85
5	7.06	d	8.6
2	7.54	d	2.0
6	7.68	dd	8.6, 2.0

Atom	H Shifts	Mult	J
γ	1.43		
OMe	3.92		
OMe	3.93		
β	5.10		
5	6.89		
2	7.49		
6	7.49		

Notes:

SRX-115G 26 mg
 HSQC in acetone and CDCl₃, HMBC in acetone
 HSQC shows that C2 is downfield of C5 for acetone and CDCl₃
 C2 = C5 in DMSO

Compound Number 292

¹³C

1-(3,4,5-trimethoxyphenyl)-1-propanol

¹H (acetone)

Atom	H Shifts	Mult	J
γ	0.89	t	7.3
β	1.67	m	
4 OMe	3.68	s	
OMe	3.79	s	
α	4.12	d	4.0
α OH	4.48	bt	6.4
2,6	6.65	s	
<u>CDCl₃</u>			
γ	0.93		
β	1.76		
4 OMe	3.82		
OMe	3.86		
α	4.52		
2,6	6.58		
<u>DMSO</u>			
γ	0.81		
β	1.56		
4 OMe	3.60		
OMe	3.73		
α	4.35		
αOH	5.08		
2,6	6.59		

Notes:

SRX-115S

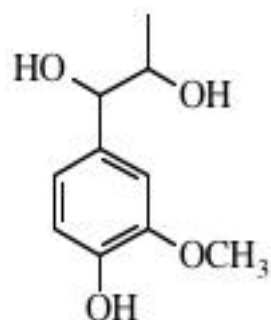
39 mg

HSQC and HMBC in acetone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	10.06	46	10.58	79	10.29	90
β	31.84	66	33.20	83	32.08	91
OMe	55.86	97	56.32	142	55.78	183
OMe	55.86	97	56.32	142	55.78	183
4 OMe	60.57	24	60.44	38	59.98	60
α	75.80	34	75.69	55	73.81	92
2	102.68	113	104.06	144	103.00	179
6	102.68	113	104.06	144	103.00	179
4	136.84	3	137.95	3	136.05	9
1	140.60	9	142.75	12	142.09	30
3	152.96	16	154.08	14	152.55	38
5	152.96	16	154.08	14	152.55	38

Compound Number 293

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
major						
γ	18.34	55	18.08	82	18.42	41
OMe	56.83	67	56.20	74	55.56	52
β	72.25	46	72.03	65	70.67	38
α	78.37	49	78.15	66	76.83	40
2	110.18	52	111.20	70	111.04	30
5	115.09	53	115.09	70	114.65	34
6	120.61	54	120.32	74	119.26	36
1	133.49	10	134.95	14	134.56	22
4	146.17	10	146.39	11	145.16	20
3	147.55	7	147.81	8	146.97	16
minor isomer						
γ	19.67	19	19.30	33	19.00	16
OMe	56.83	67	56.20	74	55.56	52
β	73.15	19	72.68	25	70.89	16
α	80.27	17	79.80	26	77.79	14
2	110.12	25	111.27	34	111.12	15
5	115.16	26	115.21	31	114.76	17
6	120.90	22	120.66	29	119.50	14
1	134.08	4	134.90	9	133.98	10
4	146.40	4	146.77	4	145.46	9
3	147.61	4	148.02	4	147.04	9

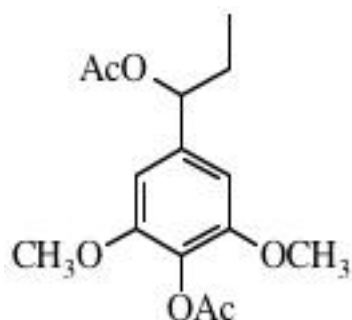
¹H (acetone)

Atom	H Shifts	Mult	J
γ	1.02 (0.92)	d	6.4
β	3.81 (3.69)	m	
OMe	3.80 (3.80)	s	
α	4.45 (4.20)	d	5.1 (7.3)
5	6.73 (6.73)	d	8.1
6	6.77 (6.77)	dd	8.1, 1.7
2	6.98 (6.95)	d	1.7
<u>CDCl₃</u>			
γ	1.03 (0.96)		
β	3.87 (3.74)		
OMe	3.81 (3.81)		
α	4.49 (4.20)		
<u>DMSO</u>			
γ	0.93 (0.77)		
β	3.56 (3.56)		
OMe	3.69 (3.69)		
α	4.20 (4.09)		
5,6	6.64 (6.64)		
2	6.83 (6.81)		

Notes:

FPL Collection 20 mg
g-HSQC and g-HMBC in d6-acetone
2 isomers ¹H minor shifts and j's in ()

Compound Number 294

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	10.01	40	10.29	66	9.93	59
4 Ac Me	20.41	32	20.26	47	20.14	57
α Ac Me	21.20	26	21.04	37	20.90	54
β	29.30	50	30.13	112	28.96	50
OMe	56.10	88	56.45	135	55.98	116
OMe	56.10	88	56.45	135	55.98	116
α	77.26	49	77.61	71	76.49	52
2	103.29	97	103.86	121	102.85	93
6	103.29	97	103.86	121	102.85	93
4	128.18	3	129.21	3	127.27	11
1	138.92	11	140.45	14	139.33	38
3	152.01	17	153.13	14	151.60	55
5	152.01	17	153.13	14	151.60	55
4 Ac C=O	168.65	6	168.55	10	168.14	27
α Ac C=O	170.25	5	170.39	8	169.89	24

¹H (acetone)

Atom	H Shifts	Mult	J
γ	0.88	t	7.3
β	1.83	m	
α Ac Me	2.05	s	
4 Ac Me	2.21	s	
OMe	3.80	s	
α	5.61	dd	7.3
2,6	6.71	s	
<u>CDCl₃</u>			
γ	0.91		
β	1.85		
Ac Me	2.09		
Ac Me	2.33		
OMe	3.82		
α	5.62		
2,6	6.58		
<u>DMSO</u>			
γ	0.85		
β	1.80		
Ac Me	2.07		
Ac Me	2.22		
OMe	3.74		
α	5.56		
2,6	6.68		

Notes:

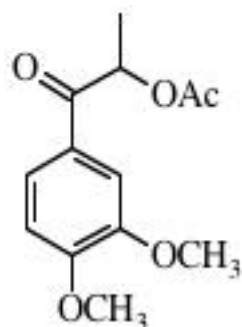
SRX-115SSMAc

19 mg

C4 has very long T1, D1 set to 6 sec.

Compound Number 295

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	17.40	60	17.70	61	17.32	48
AcMe	20.69	42	20.60	38	20.42	38
OMe	55.92	68	56.12	65	55.55	46
OMe	56.03	59	56.25	58	55.80	43
β	70.95	57	71.98	53	71.13	45
5	110.10	58	111.66	75	110.45	37
2	110.66	56	111.69	75	111.05	44
6	122.92	61	123.75	61	123.08	44
1	127.29	14	128.23	10	126.48	11
3	149.23	10	150.39	8	148.83	10
4	153.70	10	154.98	8	153.57	10
Ac C=O	170.35	11	170.47	7	169.78	10
α	195.21	12	195.54	7	194.95	11

¹H (acetone)

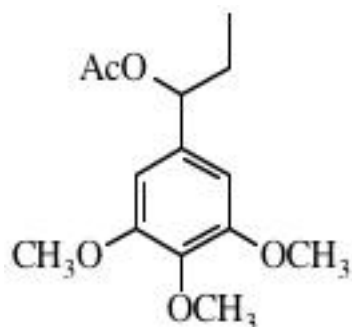
Atom	H Shifts	Mult	J
γ	1.46	d	6.85
AcMe	2.05	s	
3 OMe	3.86	s	
4 OMe	3.90	s	
β	5.97	q	6.85
5	7.06	d	8.6
2	7.50	d	2.0
6	7.67	dd	8.6, 2.0
<u>CDCl₃</u>			
γ	1.53		
AcMe	2.15		
OMe	3.93, 3.96		
β	5.96		
5	6.91		
2	7.52		
6	7.59		
<u>DMSO</u>			
γ	1.40		
AcMe	2.06		
OMe	3.81, 3.85		
β	5.99		
5	7.08		
2	7.43		
6	7.68		

Notes:

SRX-115GAc
12 mg
g-HSQC and g-HMBC in d₆-acetone

Compound Number 296

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	9.92	60	10.30	53	9.90	46
α Ac Me	21.13	38	21.05	29	20.89	32
β	29.20	59	30.13	53	28.90	42
3 OMe	55.98	120	56.43	96	55.86	83
5 OMe	55.98	120	56.43	96	55.86	83
4 OMe	60.63	38	60.45	31	59.91	29
α	77.41	63	77.75	49	76.60	44
2	103.58	117	104.71	76	103.49	77
6	103.58	117	104.71	76	103.49	77
1	136.12	18	137.56	11	136.39	16
4	137.45	5	138.71	4	136.85	4
3	153.08	24	154.32	14	152.80	20
5	153.08	24	154.32	14	152.80	20
α Ac C=O	170.26	10	170.37	6	169.83	9

¹H (acetone)

Atom	H Shifts	Mult	J
γ	0.86	t	7.3
β	1.82	m	
α Ac Me	2.03	s	
4 OMe	3.69	s	
3,5 OMe	3.81	s	
α	5.56	bt	6.6
2,6	6.64	s	
<u>CDCl₃</u>			
γ	0.90		
β	1.85		
α Ac Me	2.09		
4 OMe	3.83		
3,5 OMe	3.87		
α	5.59		
2,6	6.55		
<u>DMSO</u>			
γ	0.82		
β	1.77		
α Ac Me	2.05		
4 OMe	3.63		
3,5 OMe	3.76		
α	5.52		
2,6	6.60		

Notes:

SRX-115SAc
29mg
g-HMBC in d6-acetone

Compound Number 297

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.80	61	56.03	58	55.37	126
OMe	55.89	57	56.12	56	55.46	117
α OMe	57.86	27	57.74	28	57.15	60
α	74.61	44	74.86	45	73.55	106
2 or 5	110.84	49	112.49	47	111.45	141
5 or 2	110.99	49	112.60	46	111.50	146
6	120.29	51	120.95	48	120.03	128
1	130.73	7	132.16	8	130.65	19
3 or 4	148.58	4	149.89	5	148.23	12
4 or 3	149.02	4	150.34	5	148.64	13

Veratryl alcohol methyl ether

¹H (acetone)

Atom	H Shifts	Mult	J
α OMe	3.27	s	
OMe	3.78	s	
OMe	3.79	s	
α-CH ₂	4.33	s	
6	6.83	dd	8.1, 2.0
5	6.89	d	8.1
2	6.91	d	2.0
<u>CDCl₃</u>			
α-CH ₂	4.37		
5	6.81		
6	6.85		
2	6.87		
<u>DMSO</u>			
α-CH ₂	4.31		
6	6.83		
2	6.89		
5	6.90		

Notes:

S. Ralph
Carbon pairs 2 & 5 and 3 & 4 are to close for definitive assignment

Compound Number 298

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.25	29	55.42	31	54.61	36
A2	112.07	36	113.60	30	113.05	29
A5	114.19	37	115.58	34	115.11	29
A6	126.78	41	126.69	34	125.35	30
A1	126.73	14	127.30	7	125.35	20
B4	127.90	39	128.25	34	127.28	30
B3	128.91	75	129.48	64	128.59	63
B5	128.91	75	129.48	64	128.59	63
β	128.91	75	130.55	7	129.64	9
B2	130.03	73	130.81	65	129.66	76
B6	130.03	73	130.81	65	129.66	76
B1	136.18	8	138.15	5	137.15	15
α	142.49	30	141.18	30	139.52	25
A3	145.76	7	147.68	5	146.88	14
A4	147.37	11	148.91	8	148.05	18
γ	172.08	6	169.12	7	168.58	16

3-Methoxy-4-hydroxy stilbene carboxylic acid

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.38	s	
A2	6.50	d	2.0
A5	6.71	d	8.1
A6	6.80	dd	8.1, 2.0
B 2,6	7.27	m	
B4	7.36	m	
B 3,5	7.43	m	
α	7.80	s	
<u>CDCl₃</u>			
A2	6.41		
A5	6.77		
A6	6.83		
B 2,6	7.29		
B4, B 3,5	7.37, 7.41		
α	7.87		
<u>DMSO</u>			
A2	6.41		
A5	6.64		
A6	6.66		
B 2,6	7.19		
B4, B 3,5	7.35, 7.41		
α	7.66		

Notes:

FPL - Pearl Collection
 30 mg, beta under B3,5 shift from APT experiment, HSQC and HMBC all solvents
 Some 1H shifts taken from HSBC expt.s

Compound Number 299

¹³C

--

beta-O-4, 5-O-4 trimer

¹H (acetone)

Atom	H Shifts	Mult	J
A γ	0.79 (0.79)	t	7.3
B γ	0.94 (0.97)	t	7.3
B β --A β	1.6-1.75 (1.66-1.76)	m	
C γ Ac Me	1.78 (1.86)	d	1.0
A α Ac Me	1.93 (2.01)	s	
C α Ac Me	2.08 (2.10)	s	
C4 Ac Me	2.20 (2.28)	s	
B α	2.60 (2.59)	m	
C OMe	3.70 (3.69)	d	2.2
B OMe	3.74 (3.72)	s	
A OMe	3.82 (3.76)	s	
C γ 1	4.21 (4.26)	dd	4.2, 11.7
C γ 2	4.41 (4.47)	dd	5.9, 11.7
C β	4.98 (4.90)	m	
A α	5.44 (5.44)	t	7.3
C α	6.13 (6.14)	d	4.4
A6	6.24 (6.27)	bs	
A2	6.69 (6.52)	bs	
B6	6.80 (6.70)	dd	2.0, 8.1
B5	6.90 (6.80)	d	8.1
C6	6.97 (6.92)		
C5	6.98 (6.91)		
B2	6.99 (6.77)		
C2	7.15 (7.02)	bs	

Notes:

SR X 125D1-2
 B5 and B6 change order in CDCl₃
 1H shifts in CDCl₃ in ()s after acetone shift
 C6, C5 and B2 shifts from HSQC

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A γ	9.83	64	10.08	43		
B γ	13.85	53	14.04	38		
C4 Ac Me	20.68	89	20.46	55		
C γ Ac Me	20.68	89	20.53	32		
α Ac Me	21.03	55	20.89	44		
α Ac Me	21.19	51	20.95	41		
B β	24.63	79	25.38	55		
A β	29.27	76	30.02	98		
B α	37.89	87	38.39	62		
OMe	55.63	70	56.11	62		
OMe	55.75	82	56.11	62		
A OMe	56.01	83	56.42	49		
C γ	62.77	56	63.39	55		
C α	74.22	75	75.20	37		
A α	77.03	68	77.30	51		
C β	80.66	55	81.27	41		
A2	104.53	55	105.23	39		
A6	108.03	39	107.60	26		
C2	111.51	44	112.18	46		
B2	112.97	58	114.27	62		
C6	119.46	62	120.06	55		
B6	120.75	57	121.57	57		
B5	120.43	81	121.75	31		
C5	122.30	75	123.25	58		
A4	135.88	39	136.38	6		
C1	136.35	38	136.94	12		
A1	136.35	38	137.60	8		
C4	139.38	28	140.66	4		
B1	139.64	31	140.90	10		
B4	142.32	24	143.02	5		
B3	150.58	27	152.04	17		
C3	150.78	31	152.04	17		
A5	150.98	32	152.12	8		
A3	153.40	32	154.40	10		
C4 Ac C=O	168.98	29	168.91	9		
C α Ac C=O	169.67	32	169.96	8		
A α Ac C=O	170.28	32	170.17	7		
C γ Ac C=O	170.93	30	170.66	7		

Compound Number 300

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Aβ	25.92	49	26.33	44	26.32	55
Bβ	26.09	46	26.47	43	26.51	44
B OMe	56.17	68	56.36	49	55.79	49
A OMe	56.50	66	56.76	49	56.23	47
A2	107.30	65	108.56	45	108.09	35
B2	112.30	47	112.68	44	111.65	34
A6	114.80	61	115.45	47	114.62	34
B5	116.82	47	116.80	44	115.44	34
B6	122.48	75	123.22	47	122.51	38
A1	129.24	16	129.73	13	127.91	26
B1	133.33	9	133.65	12	132.01	18
A5	142.21	6	143.16	8	141.97	15
A4	142.41	10	144.09	7	143.37	19
A3	148.16	10	149.67	9	148.83	17
B3	150.08	9	150.73	9	149.09	20
B4	150.43	10	151.69	8	150.44	14
Aα	195.70	10	195.93	11	195.87	18
Bα	196.37	9	196.55	10	196.50	17

5-O-4 diacetovanillone

¹H (acetone)

Atom	H Shifts	Mult	J
Aβ	2.49 (2.48)	s	
Bβ	2.53 (2.56)	s	
OMe	3.93 (3.95)	s	
OMe	3.95 (3.99)	s	
B5	6.78 (6.85)	d	8.3
A6	7.30 (7.28)	d	2.0
A2	7.47 (7.41)	d	2.0
B6	7.56 (7.49)	dd	8.3, 2.0
B2	7.64 (7.63)	d	2.0
<u>DMSO</u>			
Aβ	2.49		
Bβ	2.55		
OMe	3.90		
OMe	3.92		
B5	6.67		
A6	7.25		
A2	7.42		
B6	7.54		
B2	7.59		
A4-OH	10.00		

Notes:

SRX-146C

A4-OH has strong HMBC correlations in DMSO to A3,4,5

Compound Number 301

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.99	108	56.34	45	55.70	45
OMe	56.09	122	56.40	42	55.84	45
B2	110.07	126	111.95	50	111.79	26
A2	110.50	125	112.05	49	111.57	25
A5	113.71	121	115.36	35	114.92	31
B5	114.85	126	116.14	33	115.60	33
β	119.25	122	119.87	47	118.71	33
6	123.13	130	124.15	56	123.55	32
6	123.49	146	124.21	54	123.70	35
B1	127.62	18	128.33	7	126.51	25
A1	131.22	12	131.84	7	129.85	21
γ	144.33	122	144.36	47	143.60	36
A3	146.79	15	148.54	5	147.78	17
B3	146.85	15	148.74	4	147.96	17
B4	148.12	20	150.10	5	149.41	23
A4	150.21	22	152.17	4	151.66	22
α	188.62	13	187.90	7	187.02	19

guaiacyl chalcone

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.93 (3.87)	bs	
B5	6.83 (6.83)	d	8.3
A5	6.93 (6.97)	d	8.3
B6	7.29 (7.28)	dd	1.7, 8.3
B2	7.49 (7.49)	d	1.7
A2	7.61 (7.61)	d	1.7
γ	7.63 (7.63)	d	15.4
β	7.76 (7.76)	d	15.4
A6	7.80 (7.80)	dd	1.7, 8.3
<u>CDCl₃</u>			
OMe	3.93	s	
OMe	3.95	s	
5	6.93	d	8.3
5	6.97	d	8.3
B2	7.10	d	1.96
B6	7.20	dd	1.96, 8.3
β	7.37	d	15.4
A2	7.61	d	obscured
A6	7.62	dd	obscured
γ	7.73	d	15.4

Notes:

FPL collection
 A2 and B2 change order in DMSO
¹H DMSO chemical shifts in ()'s
¹³C C6 shift assignments not confirmed, also C5s in CDCl₃

Compound Number 302

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
3 OMe	55.99	145	56.33	140	55.78	70
5 OMe	55.99	145	56.33	140	55.78	70
4 OMe	60.85	45	60.53	37	59.99	28
γ	63.47	70	63.17	67	61.43	31
2	103.47	109	104.55	146	103.43	60
6	103.47	109	104.55	146	103.43	60
α	128.04	70	130.11	71	128.55	31
β	130.92	66	130.32	66	130.16	31
1	132.40	16	133.87	11	132.65	17
4	137.78	4	138.76	3	136.83	6
3	153.22	26	154.41	22	152.94	26
5	153.22	26	154.41	22	152.94	26

3,4,5-trimethoxy cinnamyl alcohol

¹H (acetone)

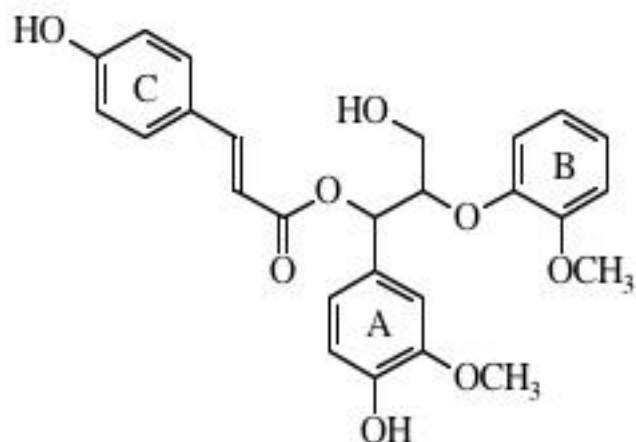
Atom	H Shifts	Mult	J
4 OMe	3.69 (3.81)	s	
3,5 OMe	3.82 (3.83)	s	
OH	3.89	t	5.4
γ	4.21 (4.28)	dt	1.5, 5.4
β	6.32 (6.24)	dt	15.9, 5.2
α	6.53 (6.50)	bt	15.9, 1.5
2,6	6.72 (6.57)	s	
<u>DMSO</u>			
4 OMe	3.64		
3,5 OMe	3.78		
γ	4.10		
β	6.33		
α	6.47		
2,6	6.72		

Notes:

S. Ralph

Compound Number 1001

¹³C



threo

3-(4-Hydroxyphenyl)acrylic acid 3-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	3.51	dd	7.2, 5.3
γ2	3.68	dd	7.2, 3.7
β	4.58	m	
α	6.16	d	7.3
C β	6.30	d	16.0
C α	7.51	d	15.6

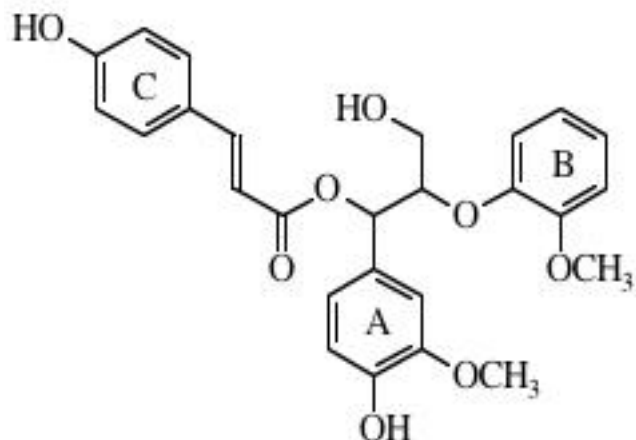
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.25			
OMe			56.31			
γ			61.76			
α			75.88			
β			85.20			
A2			112.04			
B2			113.58			
A5			115.58			
C β			115.81			
C3			116.64			
C5			116.64			
B5			119.36			
A6			121.23			
B6			121.78			
B1			123.24			
C1			127.04			
A1			130.16			
C2			130.91			
C6			130.91			
C α			145.39			
A4			147.48			
A3			148.18			
B4			149.82			
B3			151.87			
C4			160.48			
C γ			166.51			

Compound Number 1002

¹³C



erythro

3-(4-Hydroxyphenyl)acrylic acid 3-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	3.68	dd	11.7, 4.8
γ2	3.79	dd	11.8, 5.7
β	4.66	m	
α	6.12	d	4.8
C β	6.35	d	16.0
C α	7.56	d	16.0

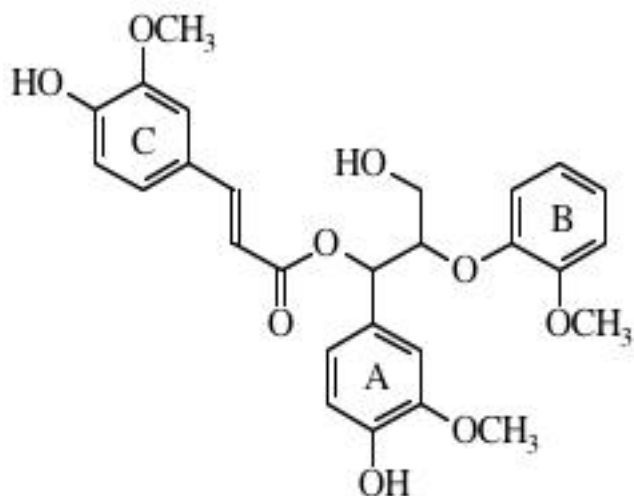
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.29			
OMe			56.29			
γ			61.49			
α			75.08			
β			84.09			
A2			112.57			
B2			113.67			
A5			115.21			
C β			115.62			
C3			116.67			
C5			116.67			
B5			119.18			
B6			121.75			
A6			121.79			
B1			123.31			
C1			126.97			
A1			129.64			
C2			130.96			
C6			130.96			
C α			145.65			
A4			147.35			
A3			147.99			
B4			149.22			
B3			151.86			
C4			160.59			
C γ			166.32			

Compound Number 1003

¹³C



threo

3-(4-Hydroxy-3-methoxyphenyl)acrylic acid 3-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	3.52	dd	11.9, 5.3
γ2	3.69	dd	11.9, 3.8
β	4.58	m	
α	6.16	d	2.3
C β	6.34	d	15.9
C α	7.49	d	15.9

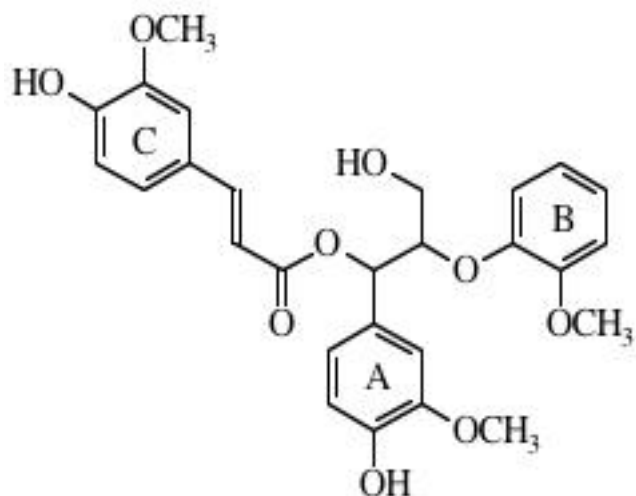
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.22			
OMe			56.31			
OMe			56.31			
γ			61.74			
α			75.87			
β			85.13			
C2			111.26			
A2			112.04			
B2			113.54			
A5			115.59			
C β			115.99			
C5			116.03			
B5			119.25			
A6			121.20			
B6			121.76			
B1			123.21			
C6			123.91			
C1			127.44			
A1			130.15			
C α			145.77			
A4			147.50			
A3			148.19			
C3			148.70			
B4			149.78			
C4			150.02			
B3			151.82			
C γ			166.55			

Compound Number 1004

¹³C



erythro

3-(4-Hydroxy-3-methoxyphenyl)acrylic acid 3-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ 1	3.60	dd	11.7, 4.8
γ 2	3.79	dd	11.5, 5.8
β	4.67	m	
α	6.13	d	4.8
C β	6.39	d	15.9
C α	7.55	d	15.9

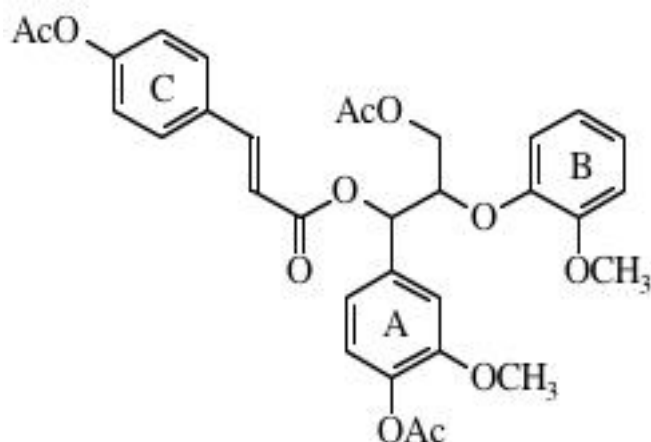
Notes:

R. Helm
CDCl₃ column is D₂O/Acetone-d₆

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
	Acet /D₂O					
OMe	56.30		56.28			
OMe	56.31		56.30			
OMe	56.33		56.32			
γ	61.38		61.48			
α	75.10		75.09			
β	84.00		84.02			
C2	111.32		111.29			
A2	112.64		112.60			
B2	113.68		113.66			
A5	115.17		115.22			
Cβ	115.84		115.83			
C5	116.01		116.04			
B5	119.07		119.10			
B6	121.77		121.96			
A6	121.82		121.80			
B1	123.28		123.30			
C6	124.00		123.99			
C1	127.40		127.40			
A1	129.62		129.63			
C α	146.02		146.02			
A4	147.32		147.36			
A3	147.97		147.98			
C3	148.72		148.71			
B4	149.23		149.19			
C4	150.08		150.09			
B3	151.85		151.84			
C γ	166.35		166.34			

Compound Number 1005

¹³C



threo

3-(4-Acetoxyphenyl)acrylic acid 3-acetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.08	dd	11.9, 5.6
γ2	4.31	dd	11.9, 4.1
β	4.89	m	
α	6.24	d	6.6
C β	6.52	d	16.0
C α	7.63	d	16.0

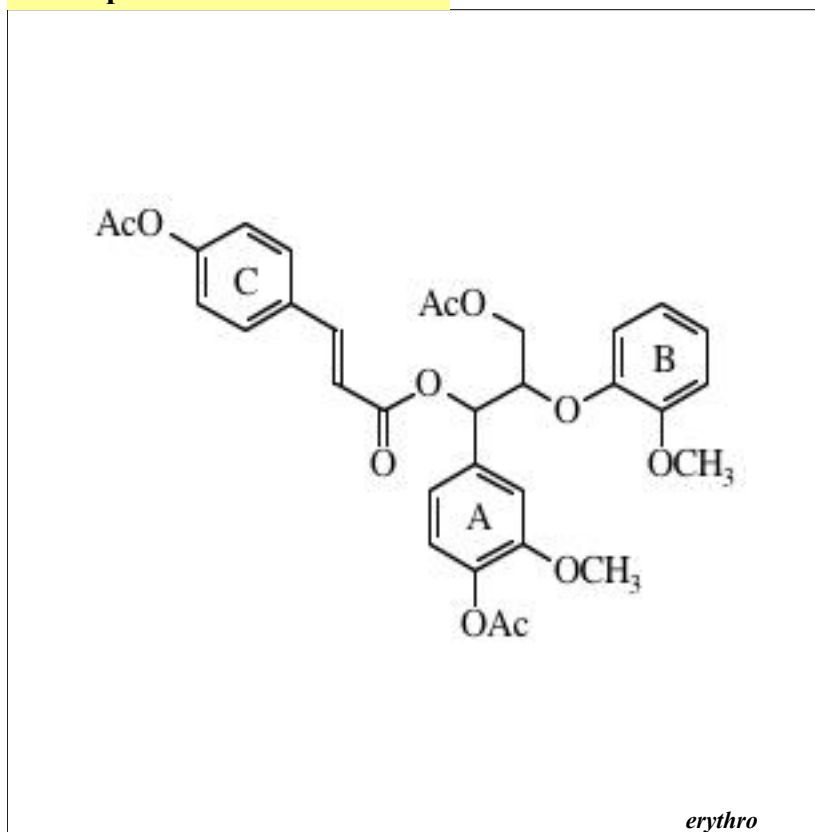
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.44			
Ac Me			20.60			
Ac Me			20.94			
OMe			56.16			
OMe			56.32			
γ			63.70			
α			75.81			
β			80.87			
A2			112.71			
B2			113.66			
Cβ			118.76			
B5			119.33			
A6			120.31			
B6			121.65			
C3			123.21			
C5			123.21			
A5			123.61			
B1			123.78			
C2			130.22			
C6			130.22			
C1			132.82			
A1			136.74			
A4			140.95			
C α			144.91			
B4			149.12			
B3			151.89			
A3			152.24			
C4			153.52			
C γ			165.90			
Ac C=O			168.86			
Ac C=O			169.42			
Ac C=O			170.69			

Compound Number 1006

¹³C



3-(4-Acetoxyphenyl) acrylic acid 3-acetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ 1	4.29	dd	11.9, 4.4
γ2	4.41	dd	11.9, 6.1
β	4.93	m	
α	6.22	d	4.7
C β	6.61	d	16.1
C α	7.71	d	16.1

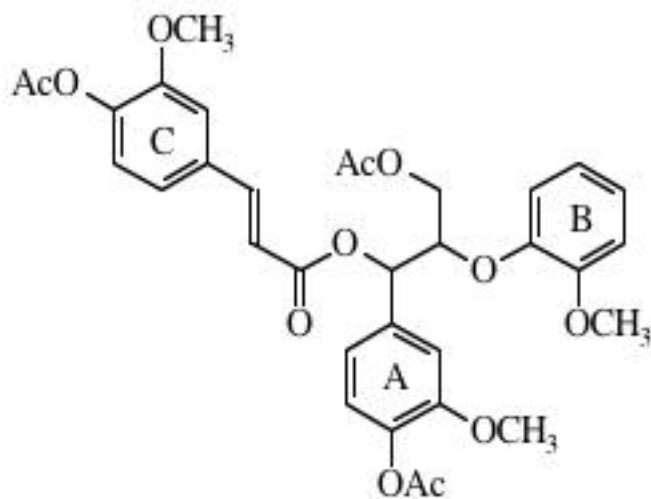
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.45			
Ac Me			20.61			
Ac Me			20.94			
OMe			56.22			
OMe			56.30			
γ			63.16			
α			74.96			
β			80.44			
A2			112.79			
B2			113.80			
C β			118.67			
B5			119.89			
A6			120.45			
B6			121.68			
C3			123.24			
C5			123.24			
A5			123.40			
B1			124.08			
C2			130.28			
C6			130.28			
C1			132.82			
A1			136.63			
A4			140.83			
C α			145.12			
B4			148.39			
B3			152.06			
A3			152.14			
C4			153.58			
C γ			165.79			
Ac C=O			168.89			
Ac C=O			169.42			
Ac C=O			170.75			

Compound Number 1007

¹³C



threo

3-(4-Acetoxy-3-methoxyphenyl) acrylic acid 3-acetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.09	dd	11.9, 5.6
γ2	4.30	dd	11.9, 4.1
β	4.89	m	
α	6.24	d	6.5
C β	6.56	d	
C α	7.60	d	15.8

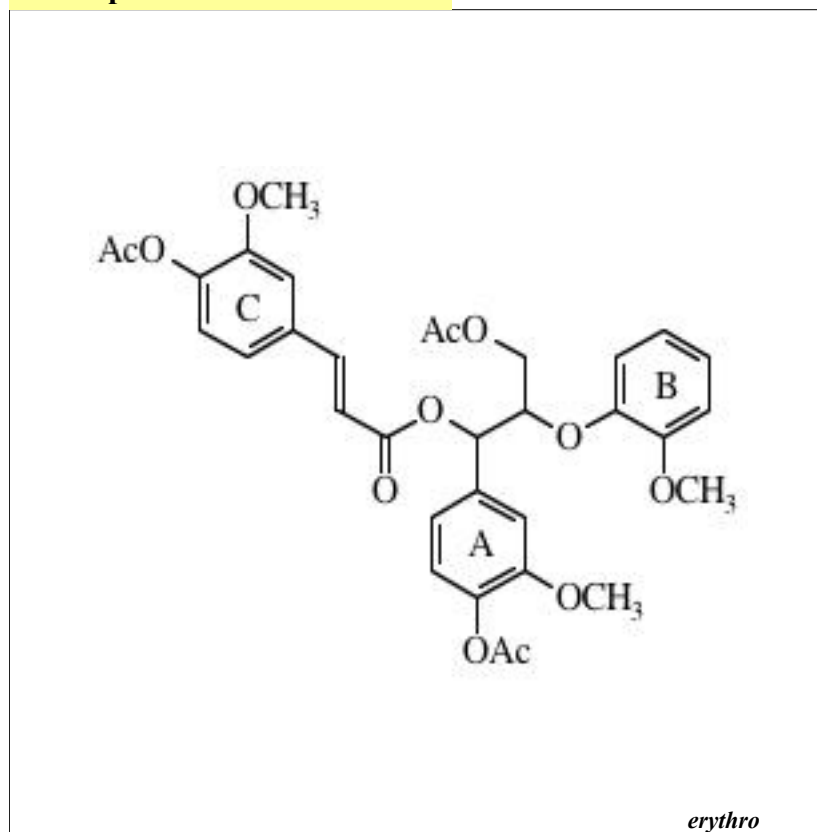
Notes:

R. Helm
16mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.44			
Ac Me			20.44			
Ac Me			20.60			
OMe			56.16			
OMe			56.32			
OMe			56.40			
γ			63.70			
α			75.82			
β			80.88			
C2			112.42			
A2			112.72			
B2			113.65			
C β			118.85			
B5			119.30			
A6			120.30			
B6			121.65			
C6			122.27			
A5			123.61			
B1			123.77			
C5			124.12			
C1			134.15			
A1			136.77			
A4			140.95			
C4			142.76			
C α			145.36			
B4			149.13			
B3			151.88			
A3			152.24			
C3			152.67			
C γ			165.96			
Ac C=O			168.79			
Ac C=O			168.86			
Ac C=O			170.69			

Compound Number 1008

¹³C



3-(4-Acetoxy-3-methoxyphenyl) acrylic acid 3-acetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.28	dd	11.8, 4.4
γ2	4.40	dd	11.8, 6.1
β	4.96	m	
α	6.22	d	4.7
C α	6.65	d	16.0
C β	7.68	d	16.0

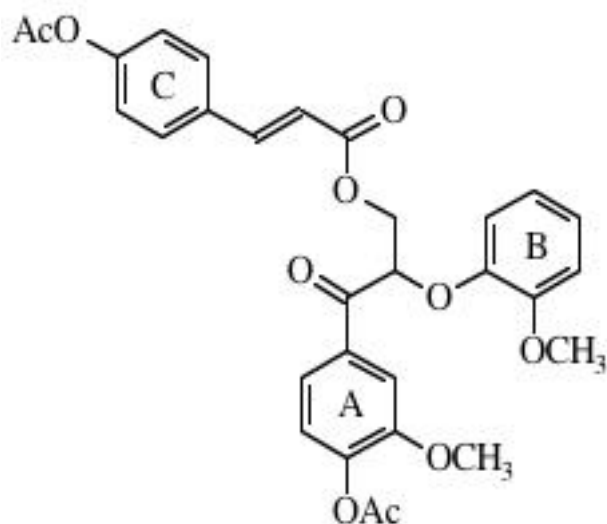
Notes:

R. Helm
19mg
Acetone run at 300 K

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.44			
Ac Me			20.44			
Ac Me			20.61			
OMe			56.22			
OMe			56.30			
OMe			56.41			
γ			63.16			
α			74.97			
β			80.39			
C2			112.46			
A2			112.79			
B2			113.79			
C β			118.75			
B5			119.85			
A6			120.43			
B6			121.68			
C6			122.35			
A5			123.41			
B1			124.08			
C5			124.14			
C1			134.13			
A1			136.61			
A4			140.83			
C4			142.82			
C α			145.57			
B4			148.37			
B3			152.05			
A3			152.14			
C3			152.69			
C γ			165.89			
Ac C=O			168.79			
Ac C=O			168.90			
Ac C=O			170.76			

Compound Number 1009

¹³C



3-(4-Acetoxyphenyl) acrylic acid 3-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)-3-oxopropyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.62	dd	12.0, 6.5
γ2	4.81	dd	12.0, 3.8
β	5.91	dd	6.5, 3.8
C β	6.48	d	16.0
C α	7.60	d	16.0

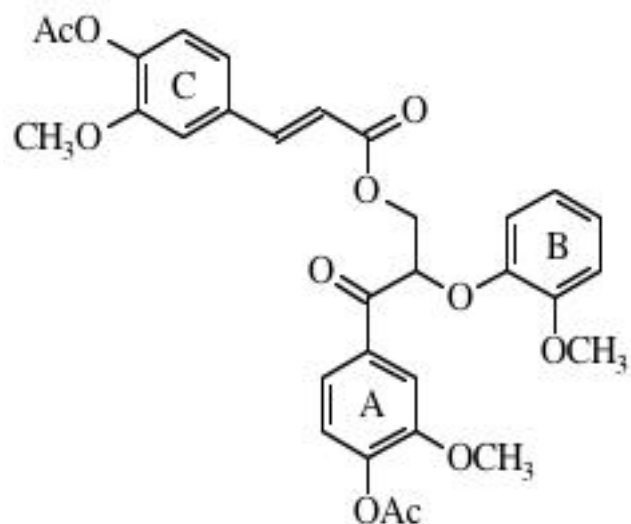
Notes:

R. Helm
25.5mg
acetone-d6 at 300 K

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.45			
Ac Me			20.94			
OMe			56.10			
OMe			56.42			
γ			64.97			
β			80.56			
A2			113.46			
B2			113.84			
C β			118.32			
B5			118.69			
B6			121.64			
A6			122.88			
C3			123.24			
C5			123.24			
A5			124.02			
B1			124.07			
C2			130.27			
C6			130.27			
C1			132.68			
A1			134.86			
C α			145.09			
A4			145.34			
B4			147.84			
B3			151.42			
A3			152.49			
C4			153.58			
C γ			166.76			
Ac C=O			168.58			
Ac C=O			169.42			
α			195.13			

Compound Number 1010

¹³C



3-(4-Acetoxy-3-methoxyphenyl) acrylic acid 3-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy)-3-oxopropyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.61	dd	12.0, 6.5
γ2	4.81	dd	12.0, 3.8
β	5.91	dd	6.5, 3.8
Cβ	6.52	d	16.0
C α	7.58	d	16.0

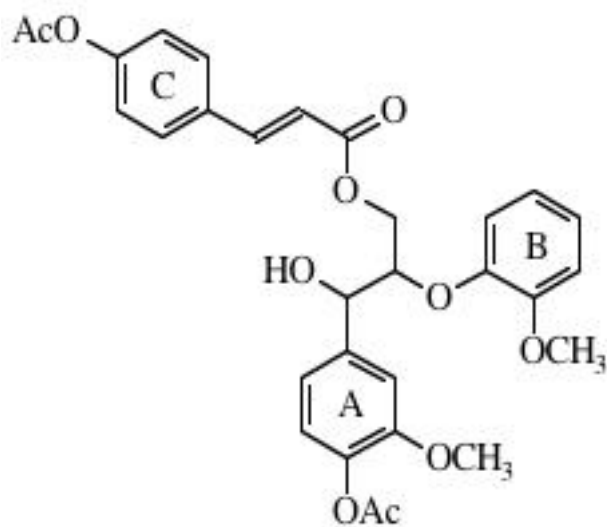
Notes:

R. Helm
25mg
300k, acetone-d6

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.44			
Ac Me			20.44			
OMe			56.10			
OMe			56.40			
OMe			56.43			
γ			64.93			
β			80.54			
C2			112.41			
A2			113.48			
B2			113.83			
C β			118.44			
B5			118.62			
B6			121.64			
C6			122.35			
A6			122.87			
A5			124.03			
B1			124.06			
C5			124.15			
C1			134.01			
A1			134.85			
C4			142.83			
A4			145.35			
C α			145.50			
B4			147.82			
B3			151.40			
A3			152.50			
C3			152.69			
C γ			166.81			
Ac C=O			168.58			
Ac C=O			168.80			
α			195.11			

Compound Number 1011

¹³C



threo

3-(4-Acetoxyphenyl) acrylic acid 3-(4-acetoxy-3-methoxyphenyl)-3-hydroxy-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
α	5.08	d	4.3
α OH	4.75		
β	4.64	m	
γ1	4.17	dd	11.9, 6.3
γ2	4.44	dd	11.9, 3.7
C β	6.46	d	16.1
C α	7.54	d	16.0

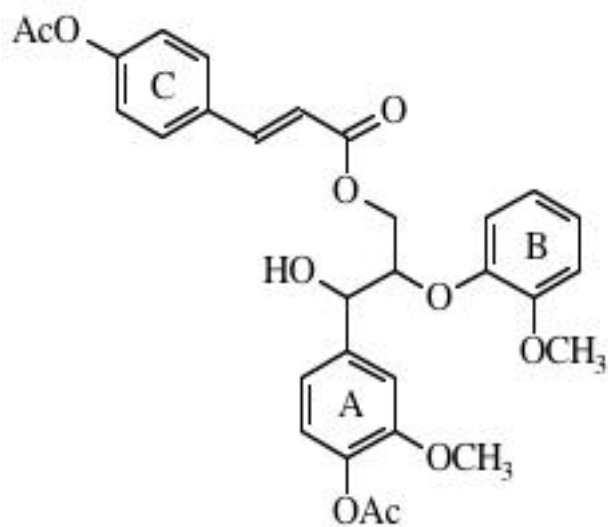
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ			64.28			
α			73.58			
β			83.80			
C β			118.73			
C α			144.57			
C γ			166.68			

Compound Number 1012

¹³C



erythro

3-(4-Acetoxyphenyl) acrylic acid 3-(4-acetoxy-3-methoxyphenyl)-3-hydroxy-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
α	5.09	d	4.4
α OH	4.80		
β	4.70	m	
γ1	4.45	dd	11.8, 3.7
γ2	4.52	dd	11.8, 6.3
C β	6.41	d	16.1
C α	7.50	d	16.1

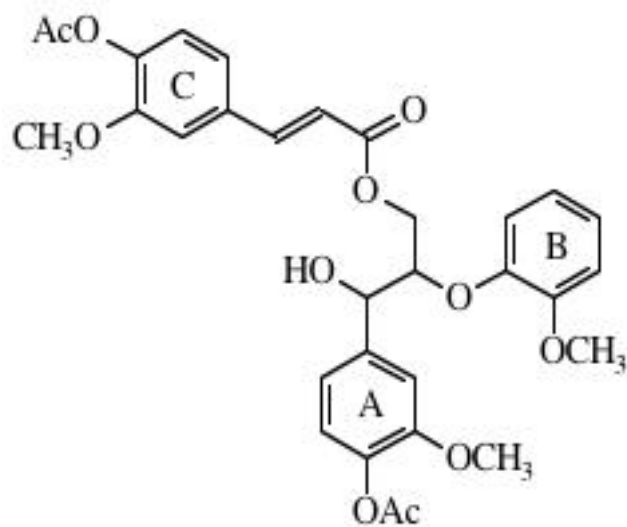
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ			63.95			
α			73.16			
β			83.22			
C β			118.83			
C α			144.36			
C γ			166.79			

Compound Number 1013

¹³C



threo

3-(4-Acetoxy-3-methoxyphenyl) acrylic acid 3-(4-acetoxy-3-methoxyphenyl)-3-hydroxy-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
α	5.08	d	4.2
α OH	4.75		
β	4.64	m	
γ1	4.17	dd	11.9, 6.2
γ2	4.44	dd	11.9, 3.7
Cβ	6.49	d	16.0
C α	7.51	d	16.0

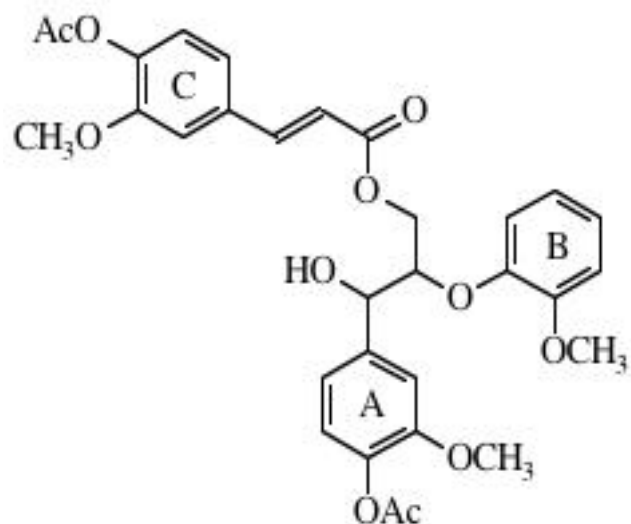
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ			64.27			
α			73.56			
β			83.73			
C β			118.81			
C α			144.94			
C γ			166.72			

Compound Number 1014

¹³C



erythro

3-(4-Acetoxy-3-methoxyphenyl) acrylic acid 3-(4-acetoxy-3-methoxyphenyl)-3-hydroxy-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
α	5.08	d	4.4
α OH	4.79		
β	4.70	m	
γ1	4.45	dd	11.8, 3.7
γ2	4.58	dd	11.8, 6.2
C β	6.44	d	16.0
C α	7.47	d	16.0

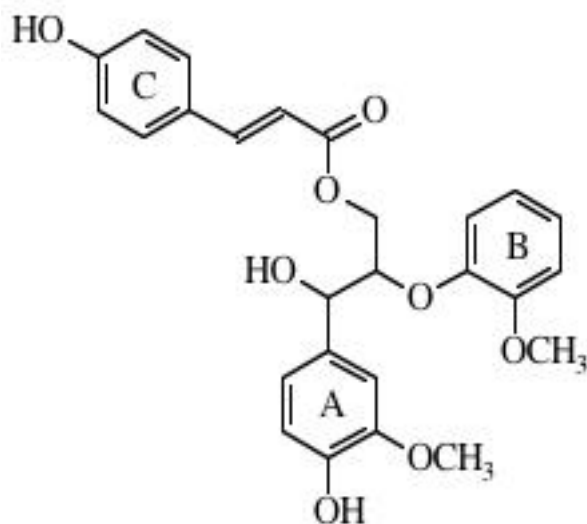
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ			63.93			
α			73.14			
β			83.18			
C β			118.91			
C α			144.79			
C γ			166.83			

Compound Number 1015

¹³C



threo

3-(4-Hydroxyphenyl) acrylic acid 3-hydroxy-3-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.10	dd	12.0, 6.2
γ2	4.36	dd	12.0, 3.5
β	4.56	m	
α OH	4.59	d	3.9
α	4.97	dd	6.2, 3.9
C β	6.29	d	16.0
C α	7.47	d	16.0

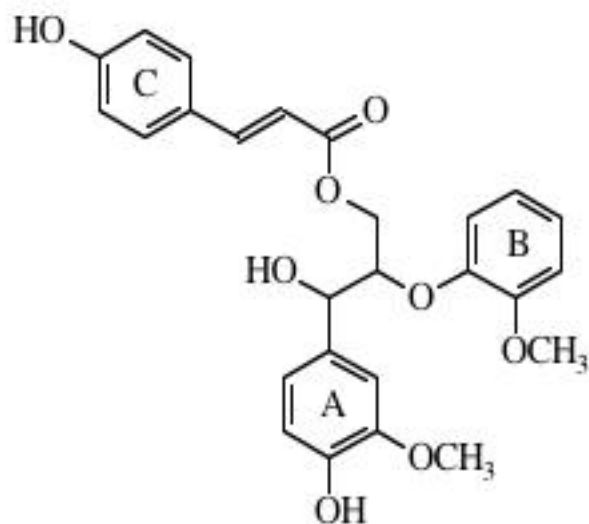
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.19			
OMe			56.25			
γ			64.18			
α			73.95			
β			84.52			
A2			111.46			
B2			113.59			
C β			115.22			
A5			115.34			
C3			116.66			
C5			116.66			
B5			119.42			
A6			120.56			
B6			121.81			
B1			123.55			
C1			126.89			
C2			130.94			
C6			130.94			
A1			133.16			
C α			145.57			
A4			147.02			
A3			148.09			
B4			149.36			
B3			151.79			
C4			160.63			
C γ			167.15			

Compound Number 1016

¹³C



erythro

3-(4-Hydroxyphenyl) acrylic acid 3-hydroxy-3-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.39	dd	11.8, 3.6
γ2	4.46	dd	11.8, 6.6
β	4.66	m	
α	4.91	d	4.9
C β	6.24	d	16.0
C α	7.42	d	16.0

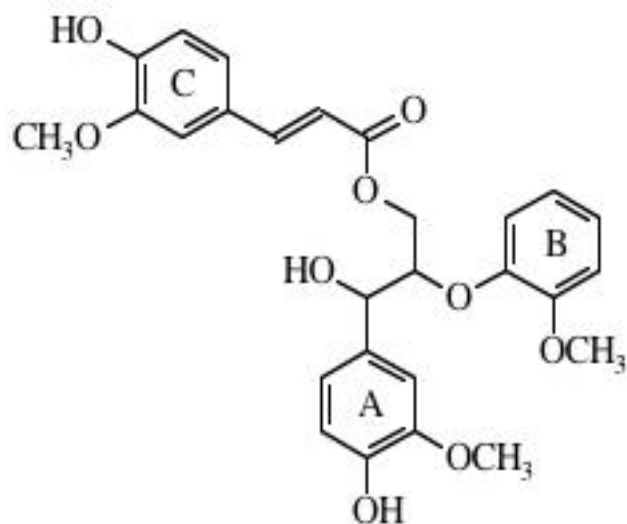
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.20			
OMe			56.22			
γ			63.98			
α			73.28			
β			83.54			
A2			111.20			
B2			113.64			
C β			115.24			
A5			115.34			
C3			116.64			
C5			116.64			
B5			119.67			
A6			120.32			
B6			121.71			
B1			123.51			
C1			126.91			
C2			130.88			
C6			130.88			
A1			133.59			
C α			145.39			
A4			146.72			
A3			148.02			
B4			148.86			
B3			152.02			
C4			160.52			
C γ			167.28			

Compound Number 1017

¹³C



threo

3-(4-Hydroxy-3-methoxyphenyl) acrylic acid 3-hydroxy-3-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
α	4.96	d	6.3
β	4.56	m	
γ2	4.36	dd	12.0, 3.5
γ1	4.10	dd	12.0, 6.2
C β	6.33	d	16.0
C α	7.45	d	16.0

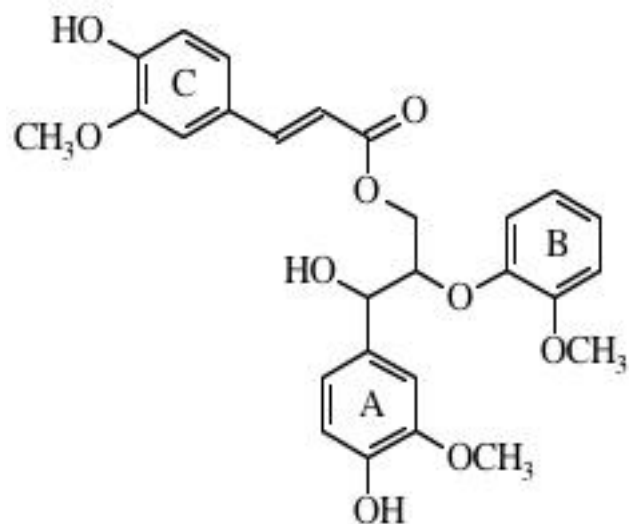
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.20			
OMe			56.26			
OMe			56.32			
γ			64.16			
α			73.94			
β			84.48			
C2			111.37			
A2			111.46			
B2			113.60			
A5			115.33			
C β			115.47			
C5			116.05			
B5			119.39			
A6			120.56			
B6			121.81			
B1			123.54			
C6			123.90			
C1			127.35			
A1			133.16			
C α			145.91			
A4			147.01			
A3			148.08			
C3			148.71			
B4			149.36			
C4			150.09			
B3			151.80			
C γ			167.14			

Compound Number 1018

¹³C



erythro

3-(4-Hydroxy-3-methoxyphenyl) acrylic acid 3-hydroxy-3-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.40	dd	3.7,
γ2	4.46	dd	6.7,
β	4.66	m	
α	4.97	d	4.9
C α	6.28	d	15.9
C β	7.40	d	15.9

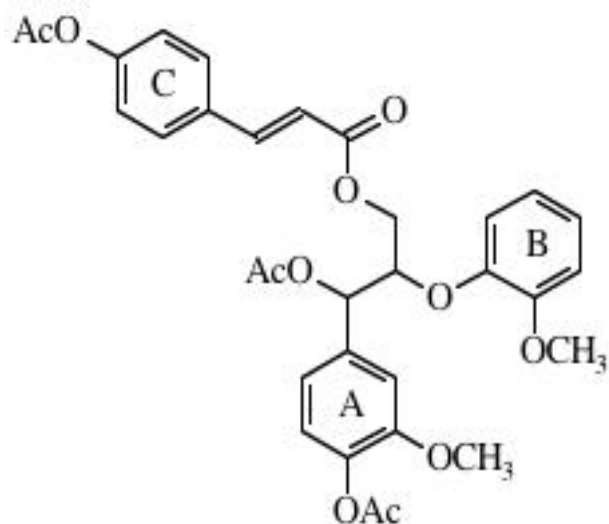
Notes:

R. Helm
27mg
300K, acetone-d6

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.23			
OMe			56.23			
OMe			56.31			
γ			63.94			
α			73.26			
β			83.57			
A2			111.21			
C2			111.29			
B2			113.66			
A5			115.25			
C β			115.59			
C5			116.03			
B5			119.63			
A6			120.31			
B6			121.73			
B1			123.49			
C6			123.86			
C1			127.37			
A1			133.63			
C α			145.74			
A4			146.74			
A3			148.05			
C3			148.70			
B4			148.86			
C4			150.04			
B3			152.04			
C γ			167.28			

Compound Number 1019

¹³C



threo

3-(4-acetoxyphenyl) acrylic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.17	dd	5.6,
γ2	4.40	dd	4.0,
β	4.88	m	
α	6.18	d	6.5
C β	6.51	d	16.0
C α	7.57	d	16.1

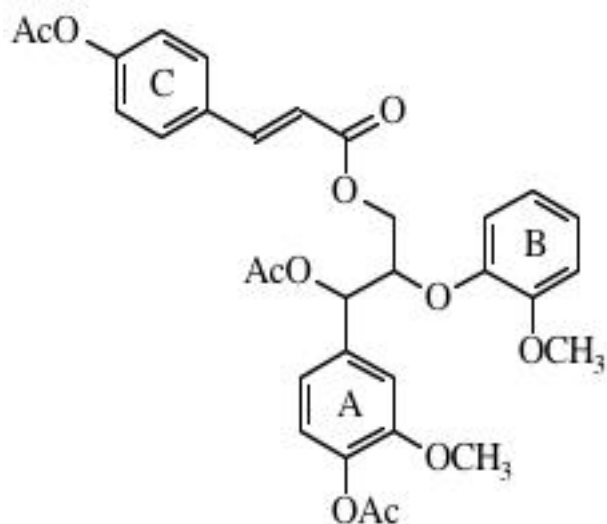
Notes:

R. Helm
18mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.45			
Ac Me			20.94			
Ac Me			20.94			
OMe			56.20			
OMe			56.28			
γ			63.94			
α			75.54			
β			80.89			
A2			112.70			
B2			113.73			
C β			118.57			
B5			119.36			
A6			120.32			
B6			121.69			
C3			123.21			
C5			123.21			
A5			123.59			
B1			123.81			
C2			130.25			
C6			130.25			
C1			132.81			
A1			136.71			
A4			140.91			
C α			144.75			
B4			149.12			
B3			151.90			
A3			152.22			
C4			153.52			
C γ			166.61			
Ac C=O			168.87			
Ac C=O			169.43			
Ac C=O			170.02			

Compound Number 1020

¹³C



erythro

3-(4-acetoxyphenyl) acrylic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.40	dd	11.9, 4.2
γ2	4.48	dd	11.9, 5.9
β	4.92	m	
α	6.13	d	5.1
C β	6.45	d	16.0
C α	7.56	d	16.1

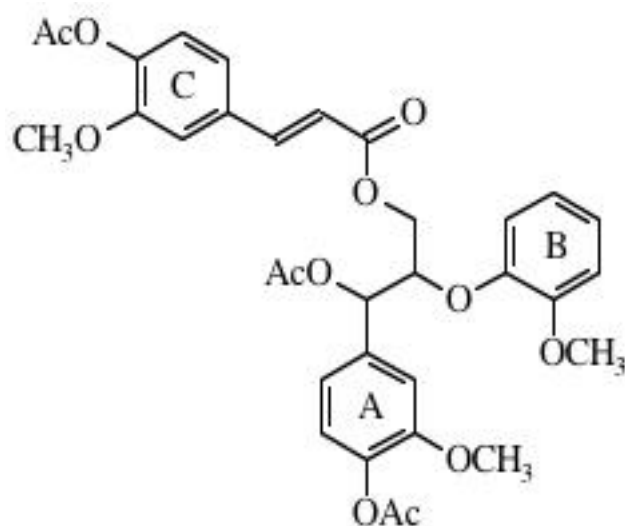
Notes:

R. Helm

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.46			
Ac Me			20.89			
Ac Me			20.94			
OMe			56.19			
OMe			56.26			
γ			63.33			
α			74.71			
β			80.52			
A2			112.74			
B2			113.76			
C β			118.54			
B5			119.99			
A6			120.44			
B6			121.64			
C3			123.20			
C5			123.20			
A5			123.37			
B1			124.10			
C2			130.21			
C6			130.21			
C1			132.78			
A1			136.73			
A4			140.77			
C α			144.71			
B4			148.30			
B3			152.09			
A3			152.11			
C4			153.49			
C γ			166.60			
Ac C=O			168.89			
Ac C=O			169.41			
Ac C=O			169.92			

Compound Number 1021

¹³C



threo

3-(4-acetoxyphenyl) acrylic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.16	dd	12.0, 5.6
γ2	4.40	dd	12.0, 3.9
β	4.88	m	
α	6.18	d	6.6
C β	6.55	d	16.0
C α	7.54	d	16.0

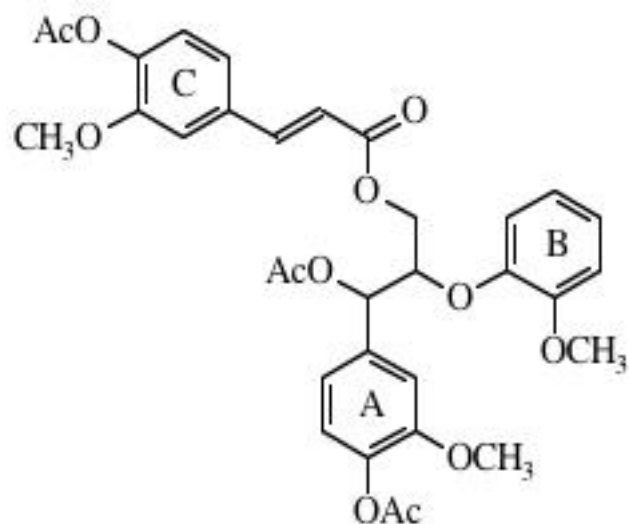
Notes:

R. Helm
18.5mg
300K

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.45			
Ac Me			20.45			
Ac Me			20.95			
OMe			56.20			
OMe			56.29			
OMe			56.42			
γ			63.96			
α			75.57			
β			80.88			
C2			112.45			
A2			112.69			
B2			113.73			
C β			118.64			
B5			119.33			
A6			120.32			
B6			121.69			
C6			122.30			
A5			123.60			
B1			123.80			
C5			124.12			
C1			134.13			
A1			136.69			
A4			140.92			
C4			142.76			
C α			145.20			
B4			149.10			
B3			151.89			
A3			152.23			
C3			152.68			
C γ			166.68			
Ac C=O			168.82			
Ac C=O			168.89			
Ac C=O			170.05			

Compound Number 1022

¹³C



erythro

3-(4-acetoxyphenyl) acrylic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.40	dd	11.9, 4.2
γ2	4.49	dd	11.9, 5.9
β	4.92	m	
α	6.13	d	5.1
C β	6.48	d	16.0
C α	7.53	d	16.0

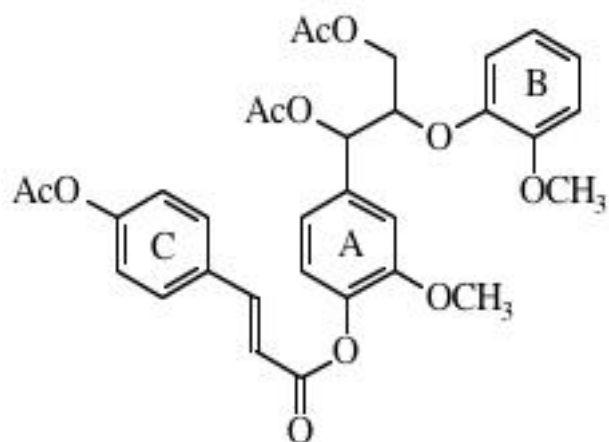
Notes:

R. Helm
18.5mg
300K

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.45			
Ac Me			20.45			
Ac Me			20.89			
OMe			56.19			
OMe			56.28			
OMe			56.40			
γ			63.33			
α			74.70			
β			80.50			
C2			112.44			
A2			112.74			
B2			113.77			
C β			118.63			
B5			119.97			
A6			120.44			
B6			121.65			
C6			122.25			
A5			123.38			
B1			124.41			
C5			124.41			
C1			134.11			
A1			136.73			
A4			140.79			
C4			142.74			
C α			145.16			
B4			148.30			
B3			152.10			
A3			152.12			
C3			152.67			
C γ			166.67			
Ac C=O			168.80			
Ac C=O			168.90			
Ac C=O			169.94			

Compound Number 1023

¹³C



threo

3-(4-acetoxyphenyl) acrylic acid 4-[1,3-diacetoxy-2-(2-methoxyphenoxy) propyl] phenyl ester □

¹H (acetone)

Atom	H Shifts	Mult	J
C α	7.84	d	16.1
C β	6.74	d	16.1
α	6.14	d	6.5
β	4.81	m	
γ1	4.28	dd	11.9, 4.2
γ2	4.04	dd	11.9, 5.6

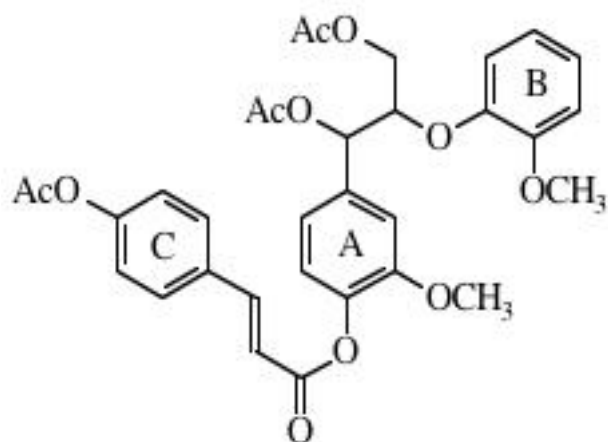
Notes:

R. Helm
20.6mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.59			
Ac Me			20.92			
Ac Me			20.96			
OMe			56.30			
OMe			56.20			
γ			63.60			
α			75.40			
β			80.70			
A2			112.70			
B2			113.74			
C β			117.92			
B5			119.23			
A6			120.34			
B6			121.68			
C3			123.31			
C5			123.31			
A5			123.64			
B1			123.72			
C2			130.44			
C6			130.44			
C1			132.72			
A1			136.78			
A4			140.83			
C α			146.05			
B4			149.08			
B3			151.84			
A3			152.30			
C4			153.74			
C γ			164.91			
Ac C=O			169.42			
Ac C=O			170.01			
Ac C=O			170.68			

Compound Number 1024

¹³C



erythro

3-(4-acetoxyphenyl) acrylic acid 4-[1,3-diacetoxy-2-(2-methoxyphenoxy) propyl] phenyl ester □

¹H (acetone)

Atom	H Shifts	Mult	J
C α	7.84	d	15.7
C β	6.74	d	16.1
α	6.10	d	5.1
β	4.85	m	
γ1	4.39	dd	11.9, 5.9
γ2	4.24	dd	11.9, 4.2

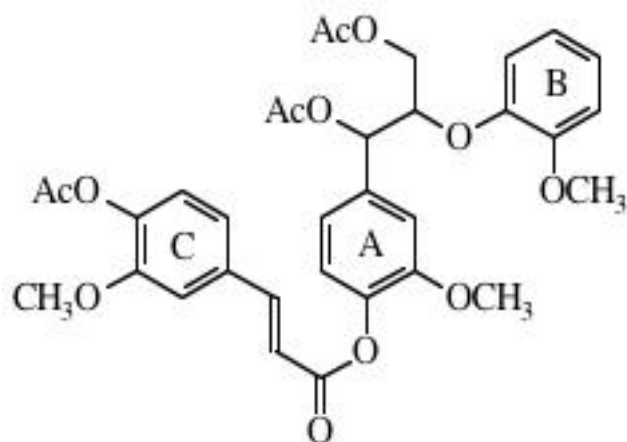
Notes:

R. Helm
25mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.61			
Ac Me			20.87			
Ac Me			20.96			
OMe			56.20			
OMe			56.28			
γ			63.00			
α			74.60			
β			80.32			
A2			112.77			
B2			113.79			
C β			117.95			
B5			119.82			
A6			120.45			
B6			121.64			
C3			123.31			
C5			123.31			
A5			123.45			
B1			124.06			
C2			130.44			
C6			130.44			
C1			132.73			
A1			136.78			
A4			140.71			
C α			146.02			
B4			148.27			
B3			152.06			
A3			152.19			
C4			153.74			
C γ			164.95			
Ac C=O			169.42			
Ac C=O			169.92			
Ac C=O			170.76			

Compound Number 1025

¹³C



threo

3-(4-acetoxy-3-methoxyphenyl) acrylic acid 4-[1,3-diacetoxy-2-(2-methoxyphenoxy) propyl] phenyl ester □

¹H (acetone)

Atom	H Shifts	Mult	J
C α	7.81	d	15.9
C β	6.77	d	16.0
α	6.14	d	6.5
β	4.81	m	
γ1	4.28	dd	11.9, 4.2
γ2	4.04	dd	11.9, 5.6

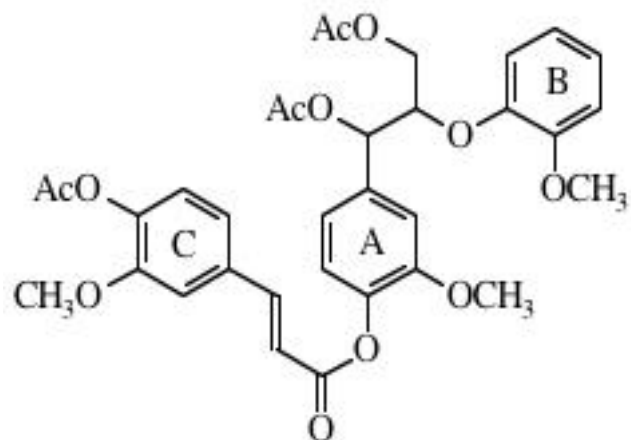
Notes:

R. Helm
20.6mg
std conditions

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.46			
Ac Me			20.59			
Ac Me			20.93			
OMe			56.20			
OMe			56.30			
OMe			56.44			
γ			63.61			
α			75.40			
β			80.70			
C2			112.61			
A2			112.70			
B2			113.75			
C β			118.03			
B5			119.23			
A6			120.34			
B6			121.68			
C6			122.52			
A5			123.64			
B1			123.72			
C5			124.20			
C1			134.04			
A1			136.77			
A4			140.83			
C4			142.98			
C α			146.46			
B4			149.08			
B3			151.84			
A3			152.30			
C3			152.76			
C γ			164.97			
Ac C=O			168.79			
Ac C=O			170.01			
Ac C=O			170.69			

Compound Number 1026

¹³C



erythro

3-(4-acetoxy-3-methoxyphenyl) acrylic acid 4-[1,3-diacetoxy-2-(2-methoxyphenoxy) propyl] phenyl ester □

¹H (acetone)

Atom	H Shifts	Mult	J
C α	7.81	d	15.8
C β	6.78	d	16.0
α	6.10	d	5.1
β	4.85	m	
γ1	4.39	dd	11.9, 5.6
γ2	4.24	dd	11.9, 4.2

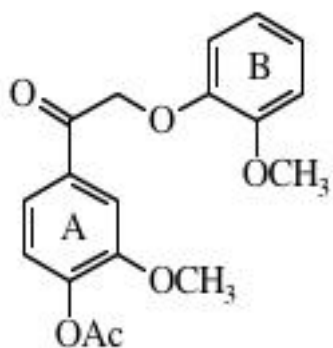
Notes:

R. Helm
20.9mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.46			
Ac Me			20.60			
Ac Me			20.86			
OMe			56.20			
OMe			56.27			
OMe			56.44			
γ			63.00			
α			74.60			
β			80.32			
C2			112.60			
A2			112.77			
B2			113.79			
C β			118.06			
B5			119.82			
A6			120.45			
B6			121.64			
C6			122.52			
A5			123.44			
B1			124.06			
C5			124.20			
C1			134.04			
A1			136.77			
A4			140.70			
C4			142.97			
C α			146.44			
B4			148.27			
B3			152.06			
A3			152.19			
C3			152.76			
C γ			165.00			
Ac C=O			168.80			
Ac C=O			169.92			
Ac C=O			170.76			

Compound Number 1027

¹³C



Acetic acid 2-methoxy-4-[2-(2-methoxyphenoxy) acetyl] phenyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
β	5.43		

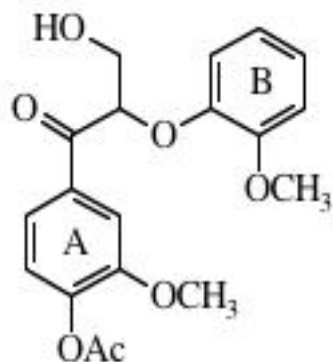
Notes:

R. Helm
crystalline

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.44			
OMe			56.21			
OMe			56.44			
β			72.50			
A2			112.66			
B2			113.63			
B5			115.72			
B6			121.54			
A6			122.13			
B1			122.79			
A5			123.99			
A1			134.59			
A4			145.22			
B4			148.97			
B3			150.88			
A3			152.58			
Ac C=O			168.63			
α			194.31			

Compound Number 1028

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.44			
OMe			56.12			
OMe			56.35			
γ			63.90			
β			84.22			
A2			113.43			
B2			113.73			
B5			117.45			
B6			121.60			
A6			122.81			
B1			123.34			
A5			123.80			
A1			135.27			
A4			145.05			
B4			148.29			
B3			151.13			
A3			152.36			
Ac C=O			168.60			
α			196.80			

Acetic acid 4-[3-hydroxy-2-(2-methoxyphenoxy) propionyl]-2-methoxy phenyl ester

¹H (acetone)

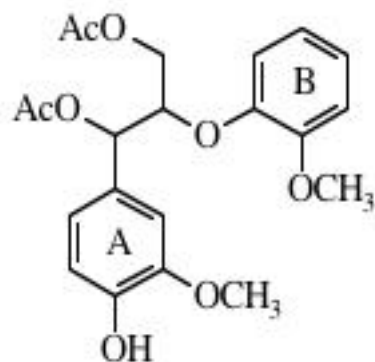
Atom	H Shifts	Mult	J
β	5.55		
γ's	4.09		

Notes:

R. Helm
20mg
300K acetone-d6

Compound Number 1029

¹³C



threo

Acetic acid 3-acetoxy-3-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
α	6.04	d	7.13
β	4.77	m	
γ1	4.21	dd	11.9, 3.6
γ2	3.95	dd	11.9, 5.6

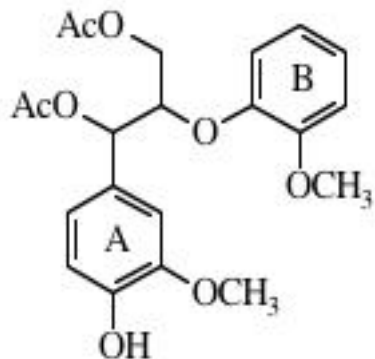
Notes:

R. Helm
19.6mg
acetone-d6

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.58			
Ac Me			20.97			
OMe			56.21			
OMe			56.30			
γ			63.86			
α			75.87			
β			80.99			
A2			111.89			
B2			113.77			
A5			115.64			
B5			119.13			
A6			121.19			
B6			121.67			
B1			123.57			
A1			129.17			
A4			147.71			
A3			148.26			
B4			149.31			
B3			151.83			
Ac C=O			169.95			
Ac C=O			170.66			

Compound Number 1030

¹³C



erythro

Acetic acid 3-acetoxy-3-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxyphenoxy) propyl ester

¹H (acetone)

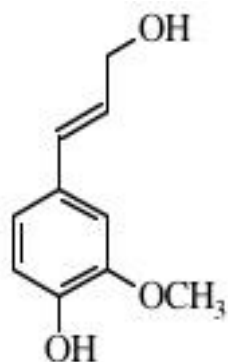
Atom	H Shifts	Mult	J
α	5.99	d	4.99
β	4.81	m	
γ1	4.34	dd	11.9, 6.2
γ2	3.98	dd	11.9, 4.0

Notes:

R. Helm
15mg
std conditions

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.60			
Ac Me			20.90			
OMe			56.20			
OMe			56.29			
γ			63.30			
α			74.89			
β			80.40			
A2			112.01			
B2			113.78			
A5			115.41			
B5			119.56			
A6			121.28			
B6			121.61			
B1			123.83			
A1			129.07			
A4			147.53			
A3			148.15			
B4			148.49			
B3			152.00			
Ac C=O			169.90			
Ac C=O			170.75			

Compound Number 2001

¹³C*trans*

coniferyl alcohol
4-hydroxy-3-methoxy cinnamyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.78	100	56.09	92	55.56	100
γ	63.66	67	63.37	100	61.73	64
2	108.40	59	109.91	71	109.72	67
5	114.48	69	115.73	99	115.47	68
6	120.18	81	120.55	100	119.43	70
β	126.05	92	127.96	90	127.49	65
1	129.18	48	130.16	40	128.52	52
α	131.23	80	130.41	97	129.00	69
4	145.51	53	147.07	45	146.17	54
3	146.64	31	148.36	34	147.72	55

¹H (acetone)

Atom	H Shifts	Mult	J
γ OH	3.78	t	5.65
OMe	3.85	s	
γ	4.18	td	1.5, 5.6
β	6.22	dt	15.9, 5.5
α	6.49	dt	15.9, 1.5
	□	□	
5	6.76	d	8.1
6	6.84	dd	8.1, 1.9
2	7.04	d	1.9
Ar OH	7.63	s	

Notes:

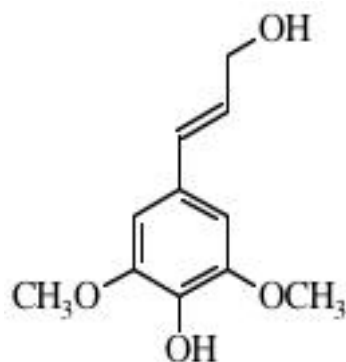
S. Quideau

Assignments confirmed in all three solvents

JAFC 1992-40(7), 1108-1110

Compound Number 2002

¹³C



sinapyl alcohol

4-hydroxy-3,5-dimethoxy cinnamyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.27	100	56.48	39	55.92	100
OMe	56.27	100	56.48	39	55.92	100
γ	63.76	52	63.33	21	61.62	42
2	103.35	94	104.65	32	103.79	76
6	103.35	94	104.65	32	103.79	76
β	126.58	49	128.27	19	127.89	41
1	128.22	22	128.99	10	127.40	28
α	131.50	50	130.62	100	129.17	42
4	134.80	20	136.52	8	135.17	14
3	147.13	41	148.71	16	148.01	50
5	147.13	41	148.71	16	148.01	50

¹H (acetone)

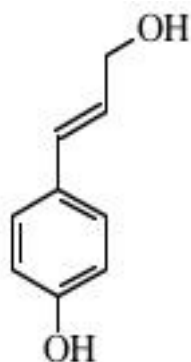
Atom	H Shifts	Mult	J
γ OH	3.88	t	5.65
OMe	3.82	s	
γ	4.20	td	5.6, 1.5
β	6.24	dt	15.8, 5.5
α	6.48	dt	15.8, 1.5
2,6	6.71	s	
4 OH	7.30	s	

Notes:

S. Quideau
 Note α and β change places in DMSO. Assignments confirmed in CDCl₃ and Acetone. JAF 1992-40(7), 1108-1110

Compound Number 2003

¹³C



p-coumaryl alcohol
4-hydroxy-cinnamyl alcohol

¹H (acetone)

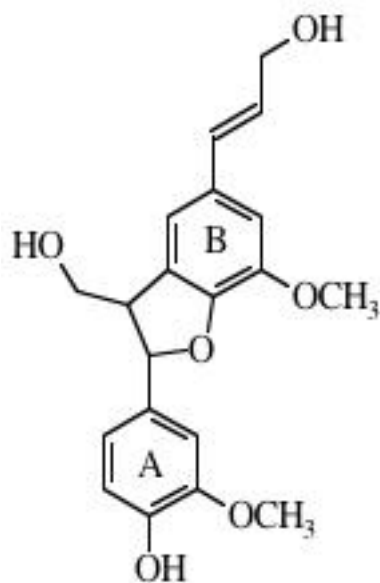
Atom	H Shifts	Mult	J
γ OH	3.85	t	5.65
g's	4.19	td	5.6, 1.6
β	6.19	dt	15.9, 5.6
α	6.50	dt	15.9, 1.6
3,5	6.78	m	
2,6	7.25	m	
4 OH	8.40	s	

Notes:

S. Quideau
JAFC-1992-40(7), 1108-1110

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ	63.79	46	63.41	41	61.72	49
3	115.50	100	116.15	84	115.37	85
5	115.50	100	116.15	84	115.37	85
β	125.74	46	127.71	42	127.15	50
2	127.73	98	128.33	100	127.38	100
6	127.73	98	128.33	100	127.38	100
1	128.90	24	129.68	18	127.92	27
α	131.08	48	130.13	44	128.70	50
4	156.12	31	157.76	18	156.80	27

Compound Number 2004

¹³C

4-[3-Hydroxymethyl-5-(3-hydroxypropenyl)-7-methoxy-2,3-dihydrobenzofuran-2-yl]-2-methoxyphenol

¹H (acetone)

Atom	H Shifts	Mult	J
β	3.53	br q	
γ + γ OH	3.78-3.88	m	
A3 OMe	3.81	s	
B3 OMe	3.85	s	
B γ OH	4.16	t	5.0
B γ	4.19	td	5.2, 1.5
α	5.56	d	6.5
B β	6.23	dt	15.8, 5.5
B α	6.52	dt	15.8, 1.5
A5	6.80	d	8.1
A6	6.87	ddd	8.1, 2.0, 0.5
B2	6.94	br s	
B6	6.97	br s	
A2	7.03	d	2.0
A4 OH	7.73	br s	

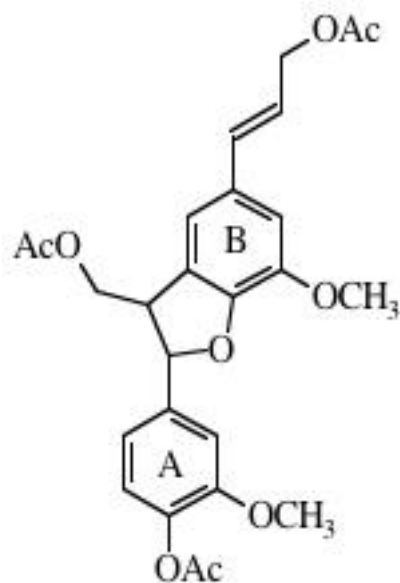
Notes:

S. Quideau-Ag₂O oxidation of coniferyl alcohol.
Assignments confirmed in acetone.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	53.53	70	54.73	73	53.02	41
A OMe	55.99	97	56.26	94	55.68	46
B OMe	56.01	100	56.38	100	55.73	100
B γ	63.83	89	63.39	79	61.70	77
γ	64.00	72	64.60	68	62.98	32
α	88.24	72	88.51	100	87.26	45
A2	108.75	73	110.48	99	110.37	59
B2	110.54	73	111.72	85	110.37	59
A5	114.33	78	115.67	60	115.00	38
B6	114.78	72	116.08	97	115.37	52
A6	119.43	75	119.57	99	118.58	55
B β	126.45	70	128.33	85	128.02	46
B5	128.09	50	130.40	59	129.52	48
B α	131.33	80	130.54	100	129.04	73
B1	130.87	47	131.91	54	130.56	78
A1	132.87	49	134.36	55	132.39	69
B3	144.47	42	145.14	50	143.72	70
A4	145.74	52	147.27	26	146.42	87
A3	146.68	44	148.36	32	147.13	56
B4	148.38	28	148.84	32	147.60	78

Compound Number 2005

¹³C



Acetic acid 4-[3-acetoxymethyl-5-(3-acetoxypropenyl)-7-methoxy-2,3-dihydrobenzofuran-2-yl]-2-methoxyphenyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	2.0	s	
B γ Ac Me	2.01	s	
A4 Ac Me	2.22	s	
β	3.78	m	
A3 OMe	3.79	s	
B3 OMe	3.88	s	
γ1	4.34	dd	11.1, 7.6
γ2	4.46	dd	11.1, 5.4
B γ	4.66	dd	6.5, 1.3
α	5.61	d	6.7
Bβ	6.24	dt	15.8, 6.5
B α	6.63	dt	15.8, 1.3
A6	7.0	br dd	8.1, 1.8
B6	7.03	br s	
B2	7.049	br s	
A5	7.054	d	8.1
A2	7.18	d	1.8

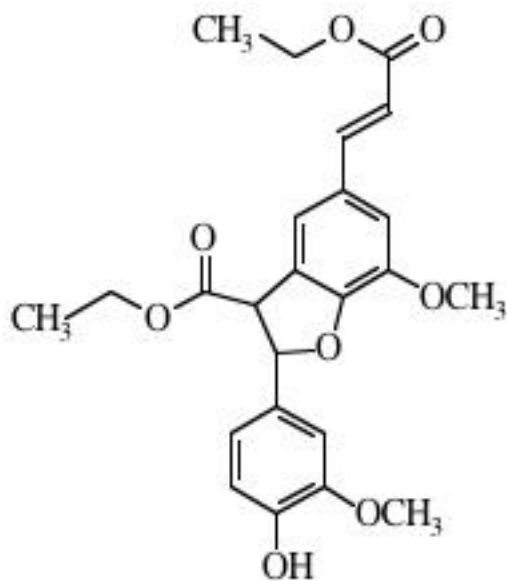
Notes:

S.Quideau-Ag2O oxidation of coniferyl alcohol + acetylation. Assignments confirmed in CDCl₃ and acetone
A1 and A4 switch places in CDCl₃

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.51	91	20.43	94	20.41	68
γ Ac Me	20.68	81	20.67	92	20.61	78
B γ Ac Me	20.90	84	20.78	77	20.79	84
β	50.36	71	51.33	85	49.53	46
A OMe	55.79	100	56.24	97	55.84	100
B OMe	55.92	95	56.41	92	55.84	100
B γ	65.06	83	65.47	100	64.57	60
γ	65.22	61	65.96	75	64.90	37
α	87.91	72	88.34	89	87.01	47
A2	109.84	77	111.07	88	110.59	50
B2	110.56	60	112.20	79	111.08	35
B6	115.23	69	116.32	76	115.36	40
A6	118.08	78	118.67	90	118.00	50
B β	121.16	72	122.30	86	121.53	45
A5	122.79	79	123.76	94	123.01	50
B5	127.21	63	128.82	61	127.84	50
B1	130.59	60	131.65	58	130.28	47
B α	134.13	76	134.64	87	133.52	47
A4	139.56	46	140.70	38	139.14	40
A1	139.30	58	140.99	54	139.59	46
B3	144.30	56	145.39	53	143.96	47
B4	148.03	39	149.21	37	147.55	35
A3	151.16	57	152.38	44	150.92	53
A4 Ac C=O	168.82	52	168.98	44	168.60	42
γ C=O	170.63	53	170.97	43	170.41	51
B γ C=O	170.76	43	170.80	32	170.27	44

Compound Number 2006

¹³C



□ 5-(2-Ethoxycarbonylvinyl)-2-(4-hydroxy-3-methoxyphenyl)-7-methoxy-2,3-dihydrobenzofuran-3-carboxylic acid ethyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
CH3	1.27	t	7.1
CH3	1.27	t	7.1
A3 OMe	3.82	s	
B3 OMe	3.91	s	
CH2	4.18	q	7.1
CH2	4.25	m	
β	4.43	d	8.0
α	6.03	d	8.0
B β	6.41	d	15.9
A5	6.84	d	8.1
A6	6.91	dd	8.1, 1.9
A2	7.08	d	1.9
B6	7.27	br s	
B2	7.31	br s	
B α	7.62	d	15.9
A4 OH	7.87	s	

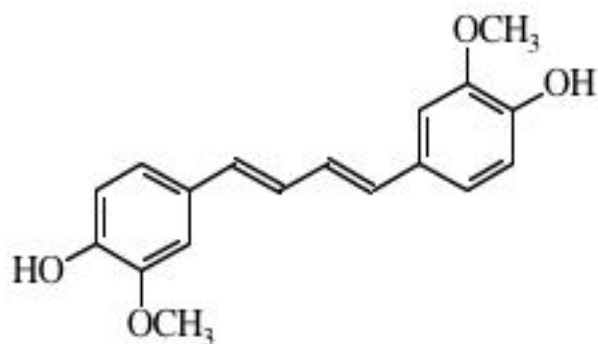
Notes:

S. Quideau-Ag₂O oxidation of ethyl ferulate.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A CH3	14.24	95	14.48	94	14.12	100
B CH3	14.31	96	14.63	92	14.32	91
β	55.54	77	56.06	88	54.33	42
A OMe	55.98	100	56.31	98	55.78	96
B OMe	56.08	94	56.49	100	56.04	78
A CH2	61.83	87	62.20	89	61.49	80
B CH2	60.37	85	60.56	89	59.99	67
α	87.46	80	88.34	89	87.36	45
A2	108.74	90	110.74	79	110.86	59
B2	111.93	71	113.30	83	112.55	37
A5	114.49	95	115.82	64	115.48	57
B β	115.93	78	116.69	87	115.84	45
B6	117.86	75	118.91	90	118.31	41
A6	119.44	93	120.18	91	119.41	58
B5	125.85	65	127.41	57	126.35	53
B1	128.61	70	129.46	59	128.23	53
A1	131.44	67	132.10	42	129.97	57
B α	144.50	77	145.22	85	144.66	43
B3	144.69	63	145.82	50	147.83	66
A3	146.69	63	148.56	35	144.44	60
A4	146.03	65	147.97	34	149.50	47
B4	149.90	42	150.99	34	147.19	59
B γ	167.18	58	167.28	53	166.65	57
γ	170.20	64	171.10	53	170.42	65

Compound Number 2007

¹³C



trans

1,4-bis-(4-hydroxy-3-methoxyphenyl)-1,3-butadiene

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.87	s	
α	6.56	m	
A5	6.78	d	8.1
β, A6	6.85-6.92	m	
A2	7.12	d	1.9
Ar OH	7.71	s	

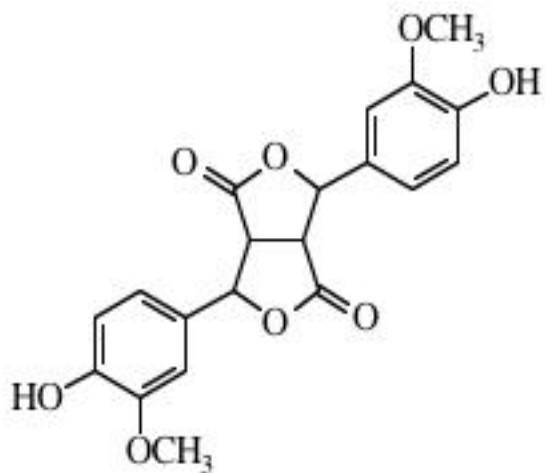
Notes:

S. Quideau
 From LiBH₄ red. of dilactone
 As this compound has a plane of symmetry the shifts for the other half are identical.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.89	100	56.21	100	55.55	100
2	107.95	90	109.76	84	109.38	61
5	114.55	90	115.96	77	115.55	57
6	120.29	93	120.95	96	119.81	67
β	127.35	87	128.07	85	126.90	49
1	130.25	48	130.81	41	128.96	35
α	131.72	88	132.49	80	131.37	59
4	145.45	57	147.41	44	146.43	45
3	146.69	53	148.60	42	147.80	52

Compound Number 2008

¹³C



dilactone from ferulic acid

3,6-Bis-(4-hydroxy-3-methoxyphenyl) tetrahydrofuro [3,4-c]
furan-1,4-dione

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.85	s	
β	4.09	t	1.0
α	5.77	br s	
5	6.86	d	8.2
6	6.92	dd	8.2, 1.8
2	7.05	d	1.8
4 OH	7.90	s	

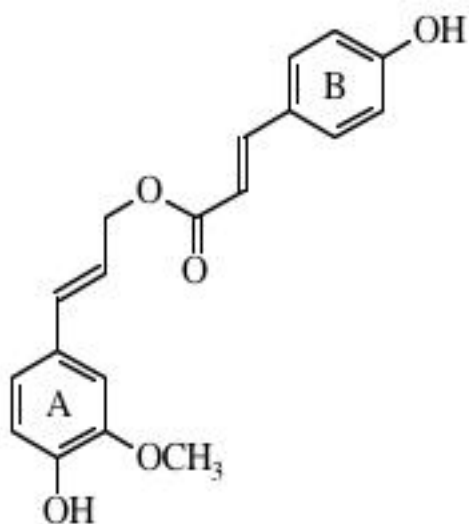
Notes:

S. Quideau
As this compound has a plane of symmetry the shifts for the other half are identical.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	48.39	83	49.11	95	48.11	83
OMe	56.13	95	56.39	95	55.81	74
α	81.90	86	83.22	94	82.06	75
2	107.52	100	110.40	88	110.64	98
5	114.98	92	116.00	81	115.46	85
6	117.41	92	119.57	100	119.22	100
1	129.81	52	130.82	49	129.00	73
4	146.35	53	148.17	42	147.36	70
3	147.06	47	148.72	36	147.88	85
γ	174.94	48	175.99	48	175.40	75

Compound Number 2009

¹³C



coniferyl p-coumarate

3-(4-Hydroxyphenyl) acrylic acid 3-(4-hydroxy-3-methoxyphenyl) llyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.86	s	
γ	4.78	dd	6.5, 1.3
β	6.25	dt	15.8, 6.5
B β	6.37	d	15.9
α	6.65	dt	15.8, 1.3
A5	6.79	d	8.1
B3,5	6.88	m	
A6	6.91	dd	8.1, 2.0
A2	7.11	d	2.0
B2,6	7.54	m	
B α	7.63	d	15.9
ArOH	7.76	s	
ArOH	9.03	s	

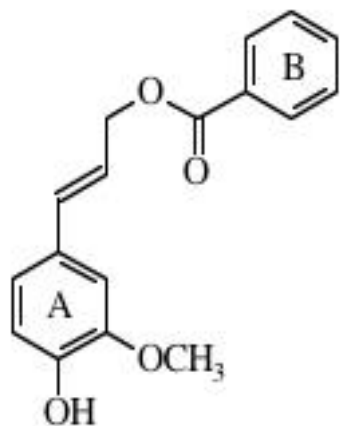
Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.87	55	56.20	47	55.61	77
γ	65.35	43	65.49	55	64.62	34
A2	108.44	51	110.20	47	109.91	52
B β	114.45	53	115.45	43	114.13	44
A5	114.98	47	115.83	40	115.46	51
B3	115.93	100	116.68	67	115.81	96
B5	115.93	100	116.68	67	115.81	96
A6	120.62	54	121.19	46	120.12	53
β	120.89	52	121.72	44	120.61	49
B1	126.81	32	126.90	24	125.12	38
A1	128.83	30	129.39	22	127.59	43
B2	130.00	96	130.91	100	130.37	100
B6	130.00	96	130.91	100	130.37	100
α	134.43	50	134.90	45	133.9	49
Bα	145.07	41	145.49	43	144.90	43
A4	145.84	32	147.80	22	146.87	39
A3	146.63	31	148.53	17	147.79	47
B4	158.26	32	160.65	17	159.89	37
B γ	167.57	28	167.27	23	166.46	40

Compound Number 2010

¹³C



coniferyl benzoate

3-Phenyl-acrylic acid 3-(4-hydroxy-3-methoxyphenyl)allyl ester

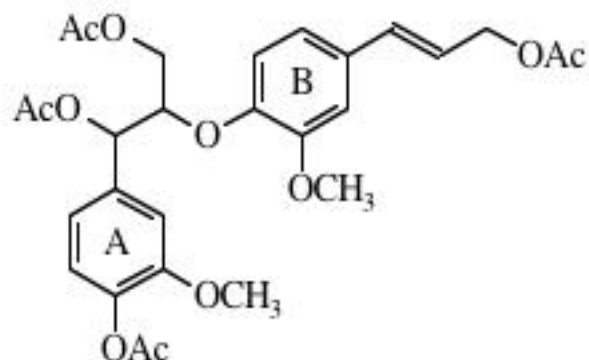
Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	55.86	43	56.21	59	55.61	58
γ	65.74	45	66.35	60	65.55	45
A2	108.39	41	110.25	57	109.96	46
A5	114.44	40	115.84	43	115.45	44
A6	120.64	43	121.29	64	120.23	80
β	120.81	44	121.32	64	120.23	80
B3	128.32	95	129.37	100	128.82	96
B5	128.32	95	129.37	100	128.82	96
A1	128.76	21	129.31	100	127.52	30
B2	129.61	100	130.17	94	129.20	100
B6	129.61	100	130.17	94	129.20	100
B1	130.24	13	131.30	17	129.78	24
B4	132.93	45	133.86	59	133.39	50
α	134.50	44	135.34	60	134.29	50
A3	146.63	20	148.54	18	147.79	36
A4	145.91	23	147.89	18	146.93	31
B α C=O	166.46	16	166.58	16	165.62	25

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.86	s	
γ	4.94	dd	6.5, 1.3
β	6.34	dt	15.8, 6.5
α	6.72	dt	15.8, 1.3
A5	6.80	d	8.1
A6	6.93	dd	8.1, 2.0
A2	7.14	d	2.0
B3,5	7.50	m	
B4	7.62	m	
B2,6	8.03 - 8.06	m	
ArOH	7.76	s	

Notes:

S. Quideau
isolated from gum s.am

*erythro*

Guaiacyl glycerol- β -coniferyl ether peracetate
Acetic acid 4-{1,3-diacetoxy-2-[4-(3-acetoxypentenyl)-2-methoxyphenoxy] propyl}-2-methoxyphenyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.93	s	
B γ Ac Me	2.02	s	
α Ac Me	2.07	s	
A4 Ac Me	2.21	s	
A3 OMe	3.82	s	
B3 OMe	3.85	s	
γ 1	4.22	dd	11.9, 4.1
γ 2	4.36	dd	11.9, 5.9
B γ	4.66	dd	6.4, 1.4
β	4.85	m	
α	6.06	d	5.1
B β	6.26	dt	15.9, 6.4
B α	6.62	dt	15.9, 1.4
B6	6.93	dd	8.3, 2.0
B5	6.97	d	8.3
A5	7.02	d	8.1
A6	7.05	dd	8.1, 1.8
B2	7.13	d	2.0
A2	7.25	d	1.8

Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.64		20.45	87	20.39	
α Ac Me	20.74		20.59	92	20.47	
γ Ac Me	20.99		20.77	86	20.69	
B γ Ac Me	20.99		20.85	90	20.75	
A3 OMe	55.80		56.25	100	55.72	
B3 OMe	55.91		56.27	100	55.78	
γ	62.53		62.98	71	61.92	
B γ	65.07		65.34	93	64.43	
α	73.70		74.49	83	73.07	
β	80.17		80.27	88	78.29	
B2	110.24		111.38	86	110.40	
A2	111.94		112.73	76	111.69	
B5	119.11		119.36	82	117.51	
A6	119.65		120.39	80	119.37	
B6	119.80		120.48	80	119.56	
B β	122.23		123.37	97	122.48	
A5	122.60		123.35	97	122.58	
B1	131.86		132.63	49	130.93	
B α	133.85		134.12	82	132.96	
A1	135.28		136.59	63	135.34	
A4	139.78		140.79	38	139.11	
B4	147.23		148.27	44	146.63	
B3	150.98		151.98	46	150.32	
A3	151.02		152.11	46	150.60	
A4 Ac C=O	168.80		168.90	38	168.51	
α Ac C=O	169.49		169.88	45	169.33	
γ Ac C=O	170.76		170.74	77	170.12	
B γ Ac C=O	170.83		170.74	77	170.21	

*threo*Guaiacylglycerol- β -coniferyl ether

1-(4-Hydroxy-3-methoxyphenyl)-2-[4-(3-hydroxypropenyl)-2-methoxyphenoxy]propane-1,3-diol

¹H (acetone)

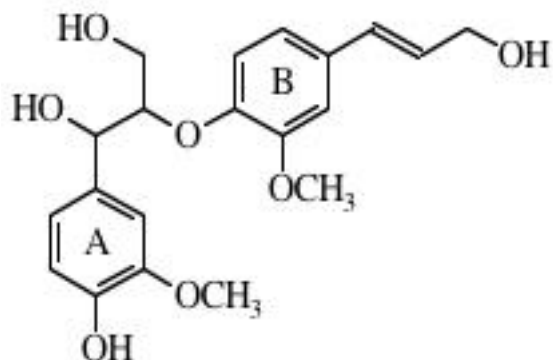
Atom	H Shifts	Mult	J
γ 1	3.48	dd	11.9, 5.7
γ 2	3.67	dd	11.9, 3.7
A,B γ OH	3.80-3.90		
A3 OMe	3.80	s	
B3 OMe	3.88	s	
B γ	4.20	br dd	5.3, 1.6
β	4.20	m	
α OH	4.45	d	3.9
α	4.87	br d	5.5
B β	6.28	dt	15.9, 5.4
B α	6.52	dt	15.9, 1.6
A5	6.76	d	8.1
A,B 6	6.88-6.91	m	
A2	7.08	d	1.9
B2	7.09	d	1.9
B5	7.11	d	8.4
A4 OH	7.50	br s	

Notes:

S. Quideau

α (e/t) and γ shifts (e/t) interchange from sample to sample, probably due to H-exchange of OH's in d₆-acetone. CDCl₃ and DMSO shifts not substantiated.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 OMe	55.97	83	56.19	100	55.44	75
B3 OMe	56.03	100	56.31	90	55.83	69
γ	61.21	22	61.88	60	60.16	50
B γ	63.56	57	63.25	100	61.65	100
α	74.07	21	73.83	50	71.01	35
β	89.47	54	88.37	80	84.36	36
B2	108.94	44	110.85	50	109.84	42
A2	110.00	68	111.42	40	111.05	38
A5	114.37	32	115.21	30	114.71	39
B5	120.15	63	119.57	90	115.53	42
B6	120.29	55	120.31	60	119.05	29
A6	120.83	53	120.54	80	119.10	51
B β	128.24	67	129.63	70	128.58	83
B α	130.53	67	129.85	90	128.60	83
B1	131.55	19	132.96	40	130.18	46
A1	133.15	28	133.82	40	132.97	43
A4	144.75	26	146.83	30	145.46	64
A3	145.71	16	148.03	30	147.03	48
B4	147.47	33	149.15	40	147.88	42
B3	151.33	35	151.69	40	149.70	25

*erythro*Guaiacylglycerol- β -coniferyl ether

1-(4-Hydroxy-3-methoxyphenyl)-2-[4-(3-hydroxypropenyl)-2-methoxyphenoxy]propane-1,3-diol

¹H (acetone)

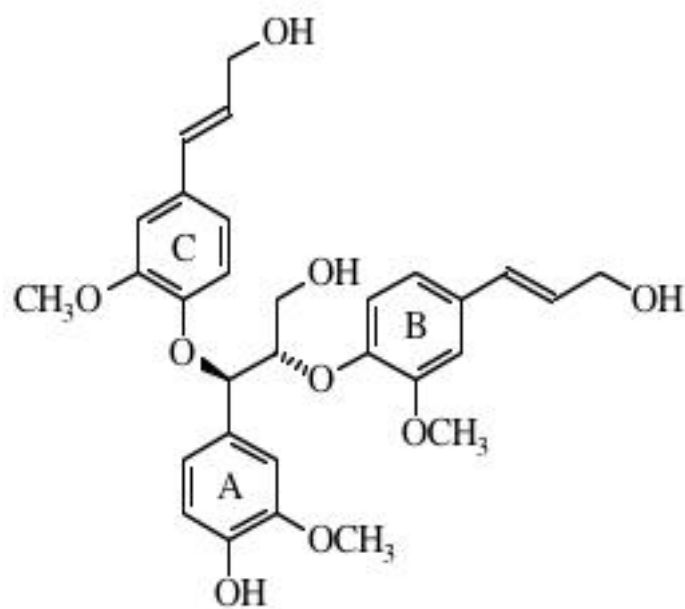
Atom	H Shifts	Mult	J
γ 1	3.69	dd	11.8, 4.0
γ 2	3.81	dd	11.8, 6.2
A,B γ OH	3.80-3.90		
A3 OMe	3.80	s	
B3 OMe	3.84	s	
B γ	4.19	br dd	5.4, 1.6
β	4.29	m	
α OH	4.57	d	4.6
α	4.89	br d	5.2
B β	6.26	dt	15.9, 5.4
B α	6.50	dt	15.9, 1.6
A5	6.75	d	8.1
A,B6	6.86-6.89	m	
B5	6.91	d	1.9
B2	7.05	d	1.9
A2	7.10	d	8.4
A4 OH	7.47	br s	

Notes:

S. Quideau

α (e/t) and γ shifts (e/t) interchange from sample to sample, probably due to H-exchange of OH's in d6-acetone. CDCl₃ and DMSO shifts not substantiated.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 OMe	55.97	84	56.21	100	55.64	100
B3 OMe	56.03	100	56.29	100	55.64	100
γ	60.87	16	61.82	60	60.16	92
B γ	63.56	58	63.25	99	61.65	92
α	72.96	11	73.81	70	71.67	24
β	87.34	43	86.63	49	83.75	23
B2	108.82	44	110.99	87	109.93	29
A2	110.05	68	111.44	92	111.47	24
A5	114.37	32	115.13	43	114.60	26
B5	119.14	42	119.27	58	115.60	38
B6	120.09	45	120.23	62	119.05	27
A6	120.79	54	120.46	86	119.54	27
B β	128.19	63	129.54	55	128.52	34
B α	130.56	61	129.87	92	128.60	78
B1	131.86	10	132.84	35	130.08	34
A1	133.11	34	134.24	35	133.23	28
A4	143.98	20	146.65	21	145.46	60
A3	145.27	14	147.96	27	147.00	40
B4	146.75	25	148.55	29	147.60	29
B3	151.62	22	151.88	31	149.75	44

*erythro*

Guaiacylglycerol- α,β -bis-coniferyl ether
4-{3-Hydroxy-1,2-bis-[4-(3-hydroxypropenyl)-2-methoxy
phenoxy]propyl}-2-methoxyphenol

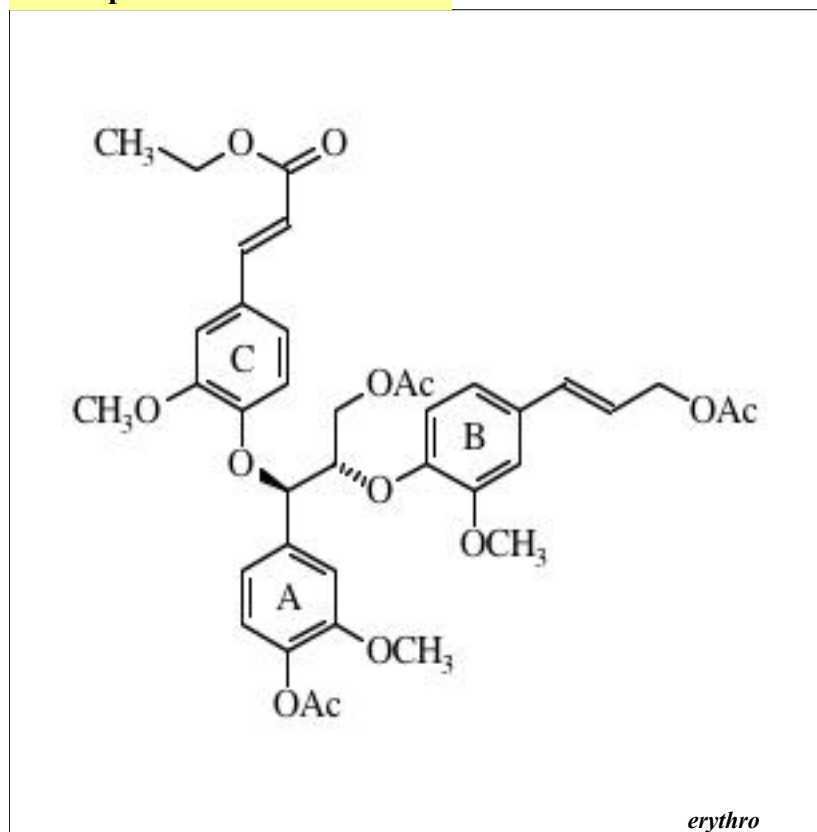
¹H (acetone)

Atom	H Shifts	Mult	J
A α	5.46	d	5.5
A β	4.56	m	
A γ 1	3.81□	dd	11.7, 7.1
A γ 2	3.93	dd	11.7, 4.1

Notes:

S. Quideau Shifts for α and β 's and A,B,C 1's change places in CDCl₃ and DMSO
S. Quideau, and J. Ralph, A biomimetic route to lignin model compounds via silver
(I) oxide oxidation. 2. NMR characterization of non-cyclic benzyl aryl ethers,
Holzforschung, 1994, 48(2), 124-132.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 OMe	55.76	82	56.18	83	55.41	88
B3 OMe	55.85	92	56.20	83	55.61	100
C3 OMe	55.93	100	56.32	76	55.80	100
γ	62.17	40	61.75	46	59.74	31
B γ	63.56	61	63.25	100	61.52	71
C γ	63.63	64	63.25	100	61.58	72
α	81.68	52	81.15	49	79.01	39
β	85.42	56	85.31	57	82.53	40
C2	109.38	61	110.74	50	109.93	62
B2	109.54	56	110.93	51	109.93	62
A2	109.77	62	112.11	53	111.91	41
A5	114.26	54	115.23	46	114.74	31
C5	115.94	57	117.02	54	115.71	48
B5	119.13	58	119.04	59	116.15	41
C6	119.49	64	119.90	67	118.87	58
B6	119.74	61	120.15	66	119.00	53
A6	120.33	55	121.49	57	120.34	35
C β	127.10	68	129.22	56	128.32	72
B β	127.60	70	129.45	61	128.47	58
B α	130.59	62	129.85	100	130.49	79
C α	130.79	62	129.85	100	130.49	79
A1	130.43	49	130.39	41	128.24	40
C1	130.85	66	132.05	38	128.71	58
B1	132.09	45	132.74	41	128.82	58
A4	145.49	50	147.18	32	146.07	45
C4	146.64	47	147.77	33	146.27	58
A3	146.85	44	148.10	31	147.11	45
B4	147.08	45	148.61	36	147.36	58
C3	149.80	47	151.17	41	149.73	61
B3	150.81	46	151.71	40	149.80	61



3-(4-{3-Acetoxy-1-(4-acetoxy-3-methoxyphenyl)-2-[4-(3-acetoxypropenyl)-2-methoxyphenoxy]propoxy}-3-methoxyphenyl) acrylic acid ethyl ester

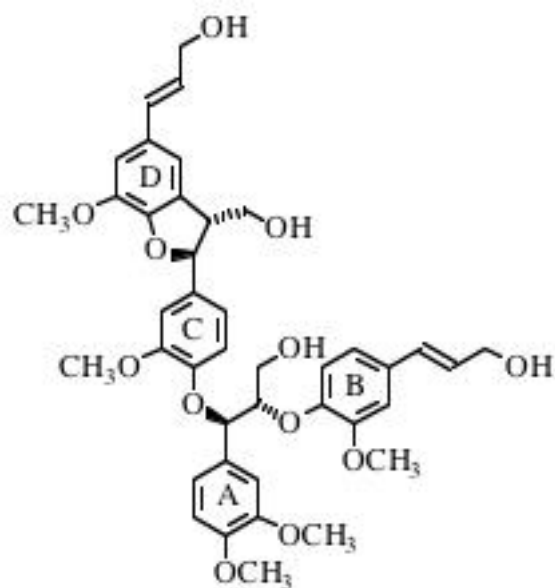
¹H (acetone)

Atom	H Shifts	Mult	J
γ1	4.45	dd	11.8, 3.8
γ2	4.53	dd	11.9, 6.0
Bγ	4.66	dd	6.4, 1.3
β ⁻	4.88	m	
α	5.71	d	5.3
Bβ	6.25	dt	15.8, 6.4
Cβ	6.39	d	15.9
Bα	6.61	dt	15.8, 1.3
Cα	7.53	d	15.9

Notes:

S. Quideau Shifts substantiated in d₆-acetone but not CDCl₃ or DMSO. γ and Bγ Ac C=O shifts may be interchanged S. Quideau, and J. Ralph, A biomimetic route to lignin model compounds via silver (I) oxide oxidation. 2. NMR characterization of non-cyclic benzyl aryl ethers, *Holzforschung*, 1994, 48(2), 124-132.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Me	14.33	90	14.57	85	14.19	73
A4 Ac Me	20.65	94	20.43	100	20.33	77
γ Ac Me	20.74	84	20.60	62	20.43	81
B γAc Me	21.00	88	20.77	100	20.71	100
A OMe	55.73	61	56.16	92	55.67	97
B OMe	55.96	82	56.20	62	55.80	54
C OMe	55.98	100	56.44	62	55.95	61
CH ₂	60.39	75	60.56	62	59.79	53
γ	63.22	44	63.41	38	62.33	24
B γ	65.09	87	65.37	54	64.41	59
α	79.99	42	80.47	38	78.45	27
β	81.98	50	81.70	46	79.57	33
B2	110.14	72	111.19	38	110.22	37
C2	110.73	65	111.92	38	111.40	41
A2	111.17	48	112.80	46	111.89	38
C5	115.87	54	116.69	38	115.28	34
C β	116.51	47	117.15	46	116.25	39
B5	119.10	58	119.28	69	117.18	40
A6	119.34	42	120.33	54	119.35	28
B6	119.82	62	120.47	62	119.50	45
C6	122.08	75	122.57	62	122.33	39
B β	122.15	75	123.17	69	122.24	43
A5	122.66	68	123.36	46	122.49	25
C1	128.62	52	129.41	46	127.56	39
B1	131.71	50	132.37	46	130.59	43
B α	133.90	79	134.18	69	133.00	53
A1	136.48	56	137.19	31	135.93	31
A4	139.64	57	140.63	46	138.94	51
C α	144.28	58	144.96	46	144.23	42
B4	147.35	39	148.51	23	146.96	50
C4	149.33	52	150.06	31	148.42	47
C3	150.23	53	151.36	46	149.75	44
B3	150.96	55	151.86	23	150.12	53
A3	151.20	43	152.12	38	150.49	38
C γ C=O	167.13	52	167.23	69	166.40	53
A4 Ac C=O	168.78	48	168.90	54	168.36	44
γAc C=O	170.77	27	170.81	31	170.09	48
B γ Ac C=O	170.86	55	170.82	69	170.14	54

*erythro*Veratrylglycerol- α -dehydrodiconifyl- β -con.ether¹H Acetone/D₂O

Atom	H Shifts	Mult	J
A α	5.48	d	5.8
A β	4.62	m	
A γ 1	3.80□	dd	11.9, 6.5
A γ 2	3.91	dd	11.9, 4.9
C α	5.51	d	5.8
C β	3.43	m	
C γ 1	3.69□	s	
C γ 2	3.80	s	

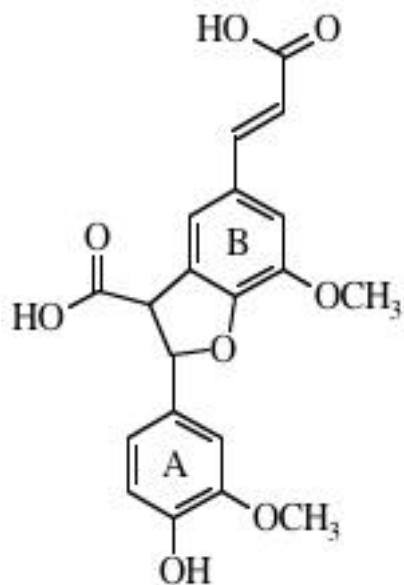
Notes:

S. Quideau Run only in Acetone:D₂O (9:1) S. Quideau, and J. Ralph, Holzforschung, 1994, 48(2), 124-132. Note: Two erythro isomers!! Resolvable pairs are: 80.10, 80.05 54.28, 54.21 136.08, 136.05 110.98, 110.89 147.31, 147.30 116.41, 116.42 118.42, 118.40

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
C β			Note* 54.28	30		
A3 OMe			55.83	100		
A4 OMe			55.80	72		
B OMe			56.09	100		
D OMe			56.20	100		
C OMe			56.33	86		
γ			61.20	46		
B γ			62.77	94		
D γ			62.85	50		
C γ			64.18	52		
α			80.10	29		
β			83.86	46		
C α			87.80	55		
B2			110.71	66		
C2			110.98	29		
D2			111.35	46		
A5			111.67	44		
A2			112.04	47		
D6			115.96	59		
C5			116.41	24		
B5			117.55	49		
C6			118.42	49		
B6			119.99	64		
A6			120.96	36		
D β			127.73	65		
B β			128.64	64		
B α			130.02	85		
D5			129.64	33		
D α			130.57	39		
A1			130.94	39		
D1			131.83	53		
B1			132.11	46		
C1			136.08	24		
D3			144.75	61		
C4			147.31	25		
B4			147.98	48		
D4			148.27	24		
A3			149.45	53		
A4			149.48	53		
C3			150.58	50		
B3			150.83	50		

Compound Number 2018

¹³C



beta-5-dehydrodiferulic acid

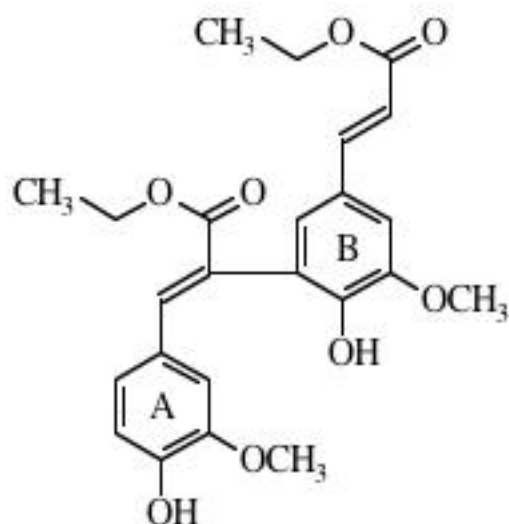
Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 OMe	56.03	55	56.31	82	55.61	80
B3 OMe	56.15	47	56.49	70	55.85	80
β	53.76	46	56.22	100	55.10	20
α	87.53	24	88.56	49	87.72	29
A2	108.77	93	110.72	57	110.61	70
B2	112.26	18	113.34	41	112.10	38
A5	114.53	20	115.78	57	115.30	61
B β	114.91	79	116.75	42	116.43	100
B6	118.63	26	118.95	42	117.93	49
A6	119.49	100	120.08	60	119.50	73
B5	125.93	24	128.05	35	127.82	43
B1	128.29	26	129.38	34	130.69	24
A1	131.44	29	132.49	31	137.46	15
B α	146.74	46	145.59	41	144.09	49
B3	144.71	80	145.73	34	144.19	49
A4	146.06	30	147.81	30	146.79	31
A3	146.74	46	148.53	31	147.60	60
B4	150.32	28	150.96	24	149.16	49
B γ	171.34	28	168.18	42	167.79	49
γ	173.67	31	172.55	38	171.66	42

¹H (acetone)

Atom	H Shifts	Mult	J
α	6.05	d	7.8
β	4.39	d	7.8
A2	7.08	d	2.0
A5	6.83	d	8.1
A6	6.91	dd	8.1, 2.0
A3 OMe	3.83	s	
B α	7.62	d	15.9
B β	6.39	d	15.9
B2	7.29	br s	
B6	7.33	br s	
B3 OMe	3.91	s	

Notes:

S. Quideau
 B α changes in CDCl₃
 JCS Perkin 1, 3485-98 (1994)
 Cmpd 13



□ 3-(4-Hydroxy-3-methoxyphenyl)-2-[2-hydroxy-3-methoxy-5-(2-propoxycarbonylvinyl)phenyl] acrylic acid ethyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
CH3	1.21	t	7.1
CH3	1.24	t	7.1
A3 OMe	3.44	s	
B3 OMe	3.96	s	
CH2	4.16	q	7.1
CH2	4.17	q	7.1
B β	6.38	d	15.9
A2	6.696	d	2.1
A5	6.702	d	8.2
A6	6.83	dd	8.2, 2.1
B6	7.00	d	2.0
B2	7.38	d	2.0
B α	7.56	d	15.9
A α	7.76	s	

Notes:

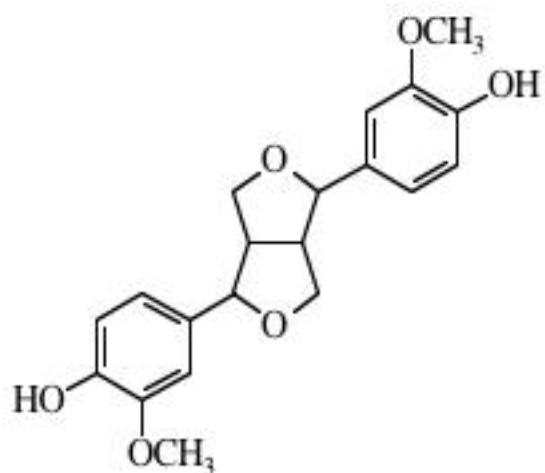
S. Quideau

B5,B6 and A6 switch in acetone and DMSO

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3	14.28	100	14.61	100	14.14	100
CH3	14.28	100	14.62	100	14.16	94
A3 OMe	55.24	74	55.51	81	54.66	78
B3 OMe	56.12	72	56.58	88	56.05	74
CH2	60.35	71	60.47	79	59.62	64
CH2	61.09	69	61.05	74	60.15	61
B2	108.68	58	110.25	76	110.05	38
A2	111.57	61	113.28	81	112.92	48
A5	114.29	65	115.63	81	115.02	45
B β	116.00	63	116.31	76	115.17	50
β	123.29	41	124.92	38	123.97	44
B5	124.76	43	126.56	45	125.09	45
B6	124.82	62	125.71	76	124.61	42
A6	125.82	61	126.37	81	125.16	48
B1	126.81	48	127.31	50	125.56	51
A1	126.94	50	127.58	50	125.66	49
α	141.45	53	141.37	71	140.11	39
B α	144.30	60	145.25	74	144.49	42
A3	145.86	45	147.87	45	147.02	58
B4	146.05	44	148.03	43	147.11	46
A4	147.11	51	148.99	52	148.16	52
B3	147.31	44	149.10	45	148.23	59
B γ	167.11	43	167.29	40	166.44	52
γ	167.46	34	167.77	33	166.83	43

Compound Number 2020

¹³C



Pinosesinol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	54.15	98	55.23	86	53.59	72
OMe	55.94	98	56.24	93	55.62	100
γ	71.66	98	72.20	88	70.91	70
α	85.86	98	86.62	83	85.17	72
2	108.60	95	110.60	80	110.43	72
5	114.27	93	115.52	69	115.15	73
6	118.95	100	119.59	100	118.64	75
1	132.91	51	134.17	46	132.26	61
4	145.24	59	146.86	47	145.91	66
3	146.70	48	148.32	32	147.53	66

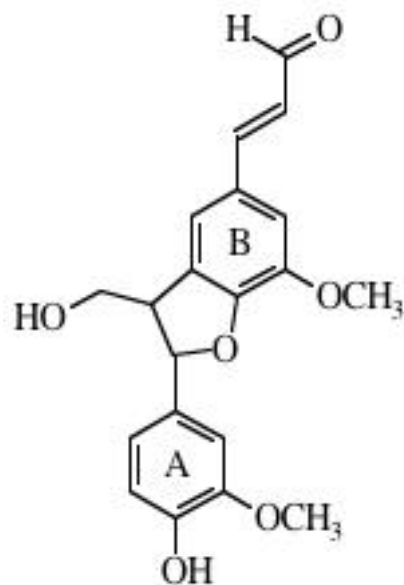
¹H (acetone)

Atom	H Shifts	Mult	J
β	3.08	m	
γ1	3.80	dd	9.1, 3.8
OMe	3.83	s	
γ2	4.19	dd	9.0, 7.0
α	4.66	d	4.25
A5	6.78	d	8.1
A6	6.83	dd	8.1, 1.8
A2	6.98	d	1.8
Ar OH	7.48	s	

Notes:

S. Quideau
As this compound has a plane of symmetry the shifts for the other half are identical.

Compound Number 2021

¹³C*erythro*

3-[2-(4-Hydroxy-3-methoxyphenyl)-3-hydroxymethyl-7-methoxy-2,3-dihydrobenzofuran-5-yl] prop-2-enal

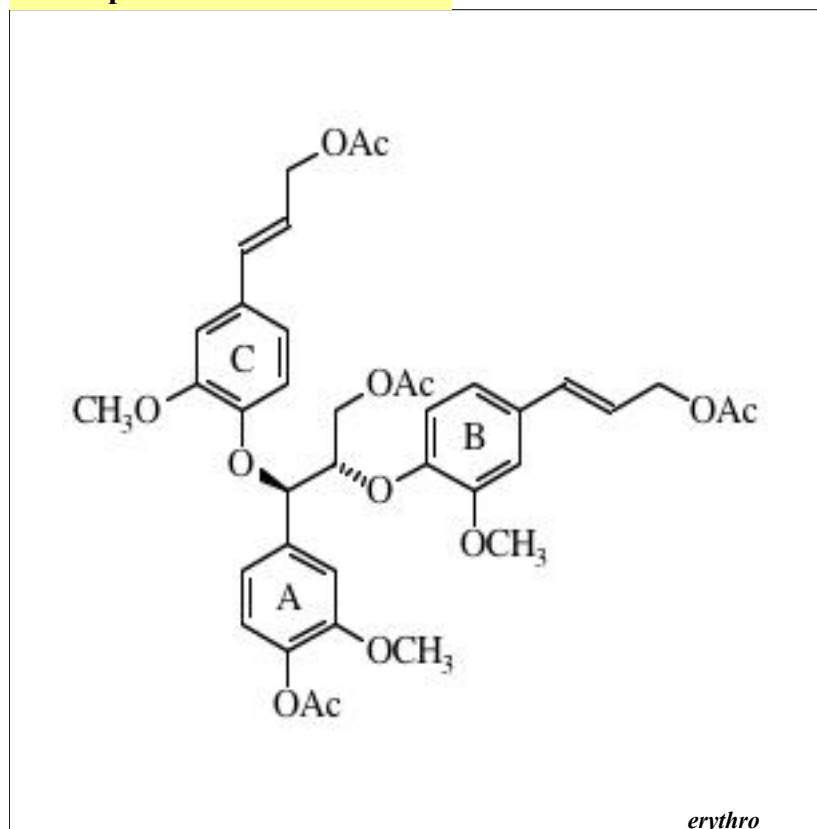
¹H (acetone)

Atom	H Shifts	Mult	J
β	3.61	br q	
A3 OMe	3.82	s	
B3 OMe	3.91	s	
γ	3.87-3.91	m	
α	5.65	d	6.6
B β	6.65	dd	15.8, 7.7
A5	6.81	d	8.1
A6	6.88	dd	8.1, 2.0
A2	7.04	d	2.0
B2	7.29	bro	
B6	7.32	bro	
B α	7.59	d	15.8
B γ	9.63	d	7.7

Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β			54.25	59		
A3 OMe			56.29	100		
B3 OMe			56.46	81		
γ			64.32	54		
α			89.39	82		
A2			110.59	94		
B2			113.56	67		
A5			115.76	61		
B6			119.64	85		
A6			119.73	83		
B β			127.14	76		
B5			129.00	59		
B1			131.24	41		
A1			133.75	40		
B3			145.65	41		
A4			147.55	31		
A3			148.46	23		
B4			152.41	22		
B α			154.10	77		
B γ			193.77	87		

Guaiacylglycerol- α,β -bis coniferyl ether acetate¹H (acetone)

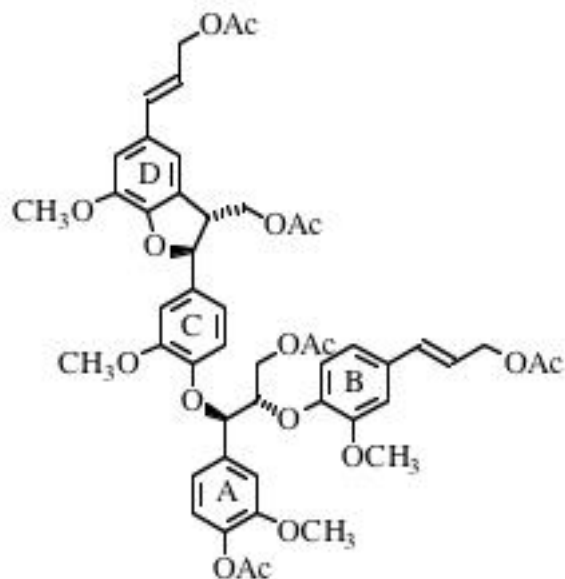
Atom	H Shifts	Mult	J
A α	5.62		
A β	4.87		
A γ 1	4.45		
A γ 2	4.53		

Notes:

S. Quideau

 α and β of B and C can interchange in CDCl₃S. Quideau, and J. Ralph, *Holzforchung*, 1994, 48(2), 124-132.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.63	45	20.44	57	20.33	87
γ Ac Me	20.73	40	20.62	57	20.42	87
C γ Ac Me	20.98	100	20.76	58	20.70	92
B γ Ac Me	20.98	77	20.78	55		
					20.70	92
A3 OMe	55.73	37	56.23	100	55.59	89
B3 OMe	55.91	44	56.23	100	55.64	89
C3 OMe	55.94	44	56.39	100	55.78	94
γ	63.37	20	63.56	28	62.39	31
C γ	65.08	35	65.37	55	64.39	100
B γ	65.12	41	65.37	55	64.39	100
α	80.17	25	80.85	31	78.68	38
β	81.92	24	81.74	36	79.56	31
C2	109.94	29	111.16	36	110.15	52
B2	110.11	29	111.32	41	110.21	52
A2	111.29	25	112.74	35	111.87	38
C5	116.41	28	117.41	35	115.81	52
B5	118.92	28	119.23	44	117.06	48
C6	119.49	26	120.45	51	119.43	70
B6	119.77	37	120.50	51	119.48	70
A6	119.79	37	120.51	51	119.50	70
C β	121.69	31	122.99	44	122.12	58
B β	122.03	31	123.18	47	122.19	59
A5	122.50	26	123.26	39	122.38	31
C1	130.61	24	131.73	38	130.12	45
B1	131.55	24	132.34	41	130.51	50
C α	133.92	32	134.22	91	133.00	76
B α	134.02	35	134.22	91	133.00	76
A1	136.80	24	137.52	40	136.19	57
A4	139.53	21	140.65	26	138.88	49
C4	147.45	26	148.20	39	146.38	48
B4	147.47	26	148.66	29	146.99	54
C3	150.18	25	151.43	40	149.75	49
B3	150.90	23	151.91	40	150.09	58
A3	151.09	22	152.12	32	150.45	52
A4 Ac C=O	168.76	23	168.85	35	168.34	50
A γ Ac C=O	170.76	29	170.72	32	170.07	73
D γ Ac C=O	170.83	29	170.74	32	170.10	73
C γ Ac C=O	170.83	29	170.77	40	170.12	73



erythro

Guaiacylglycerol- α -dehydrodiconiferyl-bis-ether peracetate
diastereomeric mixture

¹H (acetone)

Atom	H Shifts	Mult	J
A α	5.62	d	5.4
A β	4.88	m	
A γ 1	4.46	dt	11.9, 3.8
A γ 2	4.53	dt	11.9, 5.8
C α	5.49	d	6.9
C β	3.72	s	
C γ 1	4.28	dd	11.1, 7.5
C γ 2	4.40	dd	11.1, 5.4

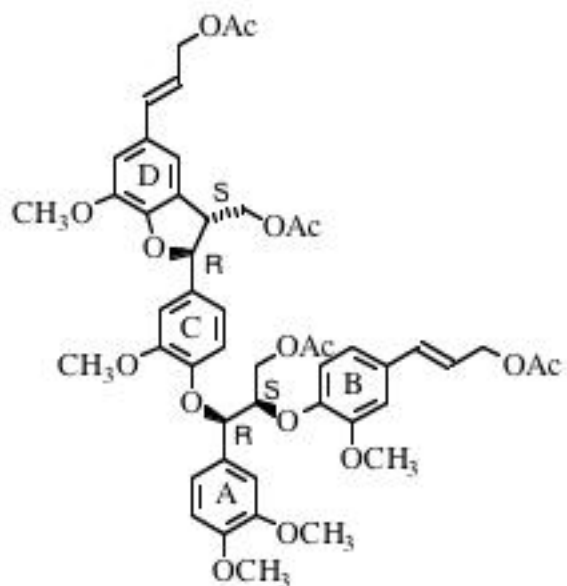
Notes:

S. Quideau

S. Quideau

S. Quideau, and J. Ralph, A biomimetic route to lignin model compounds via silver (I) oxide oxidation. 2. NMR characterization of non-cyclic benzyl aryl ethers, *Holzforschung*, 1994, 48(2), 124-132.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me	20.52	88	20.43	97	20.32	
A γ Ac Me	20.61	88	20.61	89	20.42	
C γ Ac Me	20.74	100	20.65	89	20.48	
B γ Ac Me	20.98	89	20.78	95	20.70	
D γ Ac Me	20.98	89	20.78	95	20.70	
OMe			56.39	78		
OMe			56.31	77		
OMe			56.17	100		
OMe			56.15	100		
C β	50.25	35	51.04	49	49.16	
γ	63.36	35	63.52	50	62.38	
B γ	65.06	84	65.36	85	64.40	
D γ	65.16	84	65.48	35	64.49	
C γ	65.28	43	65.84	55	68.42	
α	80.13	34	80.73	42	78.62	
β	81.87	47	81.63	48	79.49	
C α	88.38	30	88.61	38	87.25	
B2	110.09	75	111.17	30	110.20	
C2	110.17	75	111.36	57	110.74	
D2	110.61	55	112.02	30	110.93	
A2	111.33	32	112.69	45	111.89	
D6	115.31	39	116.24	32	115.24	
C5	116.39	41	117.29	31	115.76	
C6	118.64	29	119.11	31	118.35	
B5	118.89	62	119.11	31	117.00	
A6	119.51	38	120.45	81	119.43	
B6	119.77	70	120.46	81	119.49	
D β	121.13	60	122.13	66	121.31	
B β	122.01	67	123.10	74	122.18	
A5	122.47	52	123.24	57	122.38	
D5	127.53	32	128.99	42	127.93	
D1	130.49	41	131.41	48	129.99	
B1	131.52	45	132.23	49	130.48	
B α	133.90	69	134.20	74	133.00	
D α	134.31	65	134.69	74	133.50	
C1	134.49	65	135.94	27	134.13	
A1	136.76	39	137.49	28	136.18	
A4	139.52	43	140.56	47	138.88	
D3	144.36	42	145.32	44	143.83	
C4	147.36	45	147.96	37	146.31	
B4	147.45	45	148.56	46	146.95	
D4	148.22	27	149.22	46	147.51	
C3	150.35	27	151.33	30	149.63	
B3	150.87	47	151.82	55	150.07	
A3	151.06	36	152.05	46	150.44	
A4 Ac C=O	168.72		168.84		168.33	
B γ Ac C=O	170.74		170.74		170.12	
D γ Ac C=O	170.74		170.74		170.12	
A γ Ac C=O	170.80		170.76		170.12	
C γ Ac C=O	170.83		170.90		170.23	

*threo*Veratrylglycerol- α -dehydrodiconiferyl- β -coniferyl-bis-ether peracetate, diastereomeric mixture¹H (acetone)

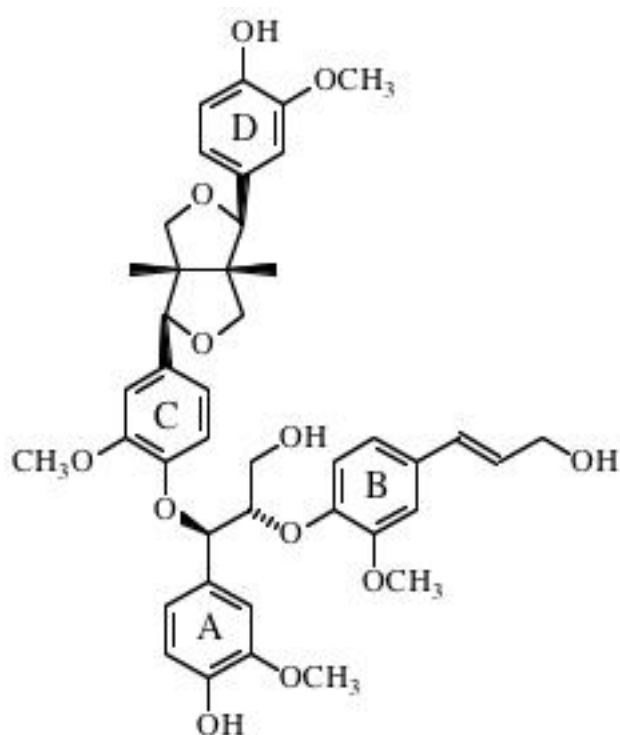
Atom	H Shifts	Mult	J
A α	5.54	d	5.2
A β	4.87	s	
A γ 1	4.44	td	11.8, 3.7
A γ 2	4.52	td	11.8, 6.2
C α	5.48	d	6.9
C β	3.70	s	
C γ 1	4.28	dt	11.1, 7.5
C γ 2	4.39	dt	11.1, 5.5

Notes:

S. Quideau

A3 and A4, C and D OMe's, and B and D γ 's can be interchanged in all solvents Shifts are confirmed for AcetoneS. Quideau, and J. Ralph, *Holzforchung*, 1994, 48(2), 124-132.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A γ Ac Me	20.75	72	20.64	98	20.45	97
C γ Ac Me	20.75	72	20.64	98	20.45	97
B γ Ac Me	20.98	100	20.79	98	20.70	97
D γ Ac Me	20.98	100	20.79	98	20.70	97
A4 OMe	55.75	89	55.97	94	55.33	99
A3 OMe	55.82	94	56.06	100	55.59	99
B3 OMe	55.86	94	56.22	100	55.70	99
C3 OMe	56.06	64	56.38	85	55.79	99
D3 OMe	55.97					
C β	50.18	28	51.08	39	49.16	54
γ	63.67	28	63.86	52	62.64	40
B γ	65.09	79	65.38	98	64.41	100
D γ	65.17	87	65.49	98	64.50	100
C γ	65.28	50	65.90	59	64.71	49
α	80.14	33	80.89	46	78.77	29
β	81.80	31	81.73	53	79.57	38
C α	88.43	28	88.65	44	87.28	52
B2	110.02	56	111.28	81	110.17	63
C2	110.33	29	111.45	39	110.63	29
D2	110.17	43	112.16	69	110.93	58
A5	110.56	56	112.22	69	111.25	45
A2	110.79	42	112.31	69	111.12	32
D6	115.29	38	116.31	52	115.24	46
C5	116.53	23	117.46	29	115.95	26
B5	118.47	51	118.91	48	116.79	46
C6	118.59	51	119.11	40	118.27	28
B6	119.73	57	120.48	73	119.49	66
A6	119.95	57	120.98	28	119.81	25
D β	121.16	48	122.19	76	121.32	61
B β	121.91	47	123.04	65	122.09	58
D5	127.57	30	129.06	38	127.93	53
A1	130.18	24	130.90	28	129.46	30
D1	130.49	32	131.46	49	129.99	58
B1	131.24	36	132.08	40	130.30	51
B α	133.94	58	134.26	75	133.03	76
C 1	134.12	38	135.74	28	133.92	39
D α	134.32	64	134.71	81	133.51	67
D3	144.37	43	145.37	49	143.83	63
C4	147.38	28	148.11	32	146.38	34
B4	147.71	33	148.83	40	147.12	51
D4	148.21	35	149.29	40	147.51	51
A3	148.83	32	150.20	44	148.37	51
A4	148.93	31	150.23	44	148.48	48
C3	150.39	25	151.42	31	149.69	33
B3	150.78	37	151.81	47	150.02	58
D γ Ac C=O	170.70		170.76		170.05	
B γ Ac C=O	170.77		170.76		170.10	
A γ Ac C=O	170.82		170.79		170.13	
C γ Ac C=O	170.85		170.90		170.23	

*erythro*

Guaiacylglycerol- α -pinoresinol- β -coniferyl-bis-ether
diastereomeric mixture

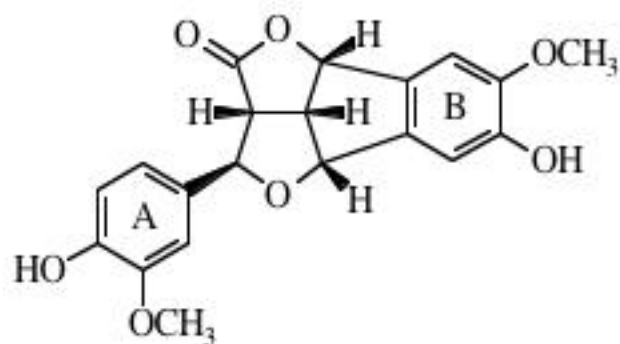
¹H (acetone)

Atom	H Shifts	Mult	J
A α	5.45	d	5.6
A β	4.55	m	
A γ 1	3.82	dd	11.5, 6.5
A γ 2	3.92	dd	11.5, 5.2
C α	4.63		
C β	3.04		
C γ 1	3.77		
C γ 2	4.17		

Notes:

S. Quideau Only run in acetone
S. Quideau, and J. Ralph, A biomimetic route to lignin model compounds via silver (I) oxide oxidation. 2. NMR characterization of non-cyclic benzyl aryl ethers, *Holzforchung*, 1994, 48(2), 124-132.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
D β			55.15	100		
C β			55.15	100		
D3 OMe			56.22	75		
A3 OMe			56.25	75		
B3 OMe			56.25	74		
C3 OMe			56.44	52		
γ			61.82	28		
B γ			63.27	44		
D γ			72.23	71		
C γ			72.23	71		
α			81.21	28		
β			85.38	36		
C α			86.37	51		
D α			86.58	36		
D2			110.59	52		
B2			111.05	43		
C2			111.43	22		
A2			112.21	19		
A5			115.28	32		
D5			115.50	45		
C5			116.83	24		
C6			118.96	20		
B5			119.06	43		
D6			119.61	61		
B6			120.17	42		
A6			121.53	23		
B β			129.50	37		
B α			129.88	42		
A1			130.53	27		
B1			132.78	33		
D1			134.10	32		
C1			136.29	22		
D4			146.85	26		
A4			147.24	12		
C4			147.61	23		
A3			148.15	16		
D3			148.30	22		
C3			151.12	17		
B3			151.75	21		



11-hydroxy-(4-hydroxy-3-methoxyphenyl)-10-methoxy-3a,4,6,6a-tetrahydro 3H-3,4-benzenofuro [3,4-c]furan-1-one

¹H (acetone)

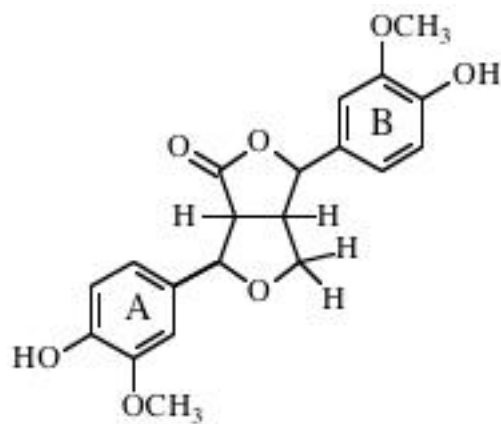
Atom	H Shifts	Mult	J
β	3.36	dd	10.7, 6.4
B β	4.24	dddd	10.6, 7.5, 6.9, 0.6
α	4.72	dquin	6.3, 0.6
B α	5.73	br d	
B γ	5.60	dq	

Notes:

S. Quideau
 Ref: S. Quideau and John Ralph. J. Chem Soc. Perkin Trans. 1 1993 - issue 6 - 653-659.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	50.40	100	51.13	86	49.78	54
β	53.87	88	54.58	81	53.16	50
B3 OMe	56.14	90	56.38	94	55.67	99
A3 OMe	55.95	93	56.25	92	55.58	100
α	82.38	87	84.18	90	83.14	62
B α	83.33	88	84.22	100	83.27	58
B γ	85.74	91	86.62	87	85.15	61
B2	106.87	84	108.57	78	108.24	50
A2	108.61	91	110.78	90	110.60	65
B5	110.88	83	112.10	66	111.46	54
A5	114.39	87	115.56	72	115.12	66
A6	118.82	90	119.80	90	118.98	65
A1	131.09	40	132.41	41	130.35	58
B1	132.06	37	133.24	34	131.52	63
B6	133.95	37	135.28	43	133.78	51
A4	145.52	40	147.28	35	146.38	65
A3	146.60	42	148.30	33	147.50	60
B4	148.42	40	150.03	42	149.01	63
B3	148.69	44	150.43	29	149.63	57
γ	176.43	43	177.32	46	176.86	65

Compound Number 2027

¹³C

4-cis-8-trans-bis (4-hydroxy-3-methoxyphenyl)-3,7-dioxabicyclo
[3-3-0] octan-2-one

¹H (acetone)

Atom	H Shifts	Mult	J
β	3.63	t	8.8
B β	3.35	ddd	9.0, 6.6, 4.6
α	5.05	br d	8.6
B α	5.23	br d	6.6
B γ cis	3.88	dd	9.5, 4.8
B γ trans	4.28	br d	9.5

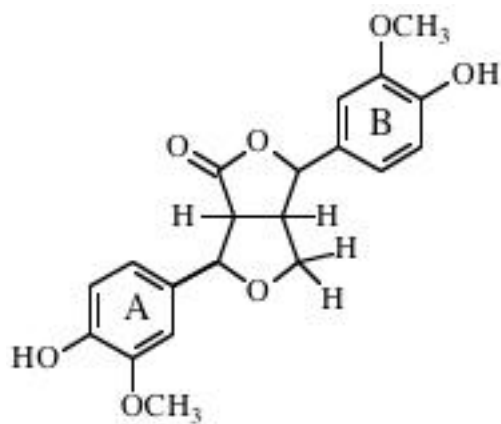
Notes:

S. Quideau
S. Quideau and John Ralph. J. Chem. Soc. Perkin Trans. 1 1993 issue 6 653-659.
Cmpd 14

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	51.31	89	52.02	97	50.42	58
β	51.67	91	52.43	93	51.54	73
A3 OMe	55.97	92	56.28	94	55.81	100
B3 OMe	56.11	100	56.35	93	55.91	61
B γ	71.63	91	72.08	87	71.06	58
α	84.00	93	84.43	95	83.07	54
B α	85.65	90	86.32	89	85.45	61
B2	107.89	96	110.68	96	110.88	60
A2	108.78	92	111.21	89	110.96	67
A5	114.43	99	115.39	76	115.28	55
B5	114.59	97	115.80	86	115.54	68
B6	118.83	100	120.06	100	119.27	68
A6	119.65	98	120.32	93	119.48	97
A1	127.88	46	129.78	49	128.41	54
B1	131.26	48	132.60	53	130.80	61
A4	145.81	60	147.15	35	146.24	57
B4	146.15	58	147.82	38	147.03	65
A3	146.60	46	147.99	35	147.35	71
B3	146.99	43	148.62	42	147.96	84
γ	174.51	30	174.93	38	174.99	62

Compound Number 2028

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	45.43	90	46.14	77		
β	54.80	99	55.35	78		
A3 OMe	56.00	82	56.26	100		
B3 OMe	56.13	93	56.34	82		
B γ	68.66	86	69.98	78		
B γ	80.37	89	81.09	78		
γ	83.70	88	84.56	81		
B2	107.47	85	109.50	73		
A2	108.17	91	110.24	74		
A5	114.41	100	115.65	37		
B5	114.65	82	115.87	42		
B6	117.76	88	118.57	74		
A6	118.11	97	119.17	85		
B1	127.90	53	129.22	36		
A1	132.46	44	133.48	41		
A4	145.33	63	147.10	17		
B4	145.56	45	147.24	19		
A3	146.67	44	148.39	14		
B3	146.80	49	148.54	15		
γ	177.07	54	177.77	38		

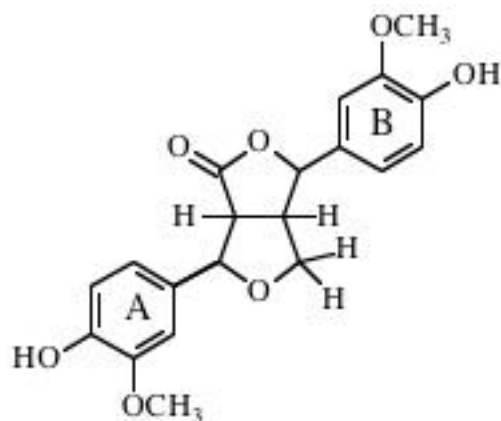
4-trans-8-cis-bis(4-hydroxy-3-methoxyphenyl)-3,7-dioxabicyclo [3-3-0] octan-2-one

¹H (acetone)

Atom	H Shifts	Mult	J
β	3.65	dd	8.7, 2.6
B β	3.71	m	
γ	5.16	br d	2.6
B α	5.82	br d	5.9
B γ cis	3.80	m	
B γ trans	3.47	dd	9.2, 6.7

Notes:

S. Quideau
S. Quideau and J. Ralph. J. Chem Soc . Perkin Trans. 1 1993 (6) 653-659



3,6-bis(4-hydroxy-3-methoxyphenyl)-tetrahydro-furo[3,4-c]furan-1-one
**4-cis-8-cis-bis (4-hydroxy-3-methoxyphenyl)-3,7-dioxabicyclo
 [3-3-0] octan-2-one**

¹H (acetone)

Atom	H Shifts	Mult	J
β	3.65	ddd	9.2, 3.7, 0.5
B β	3.39	dddd	9.2, 7.0, 4.6, 3.6, 0.6
α	5.20	dquin	3.7, 0.6
B α	5.39	br d	3.6
B γ cis	4.30	ddd	9.4, 7.0, 0.5
B γ trans	4.02	ddt	9.4, 4.6, 0.5

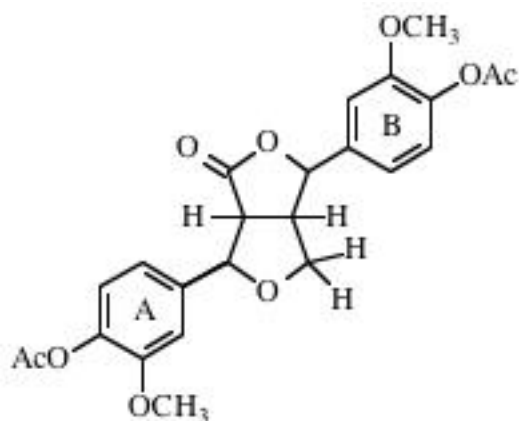
Notes:

S. Quideau
 S.Quideau and J. Ralph. J. Chem. Soc. Perkin Trans. 1 1993 (6) 653-659.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β	49.99	84	50.38	93	48.62	69
β	53.31	89	53.71	86	52.32	72
A3 OMe	56.02	88	50.26	99	55.61	100
B3 OMe	56.08	92	50.34	93	55.71	98
B γ	72.70	90	73.44	96	72.15	66
α	83.38	75	84.43	90	82.91	77
B α	84.59	91	85.78	92	84.83	73
A2	107.77	100	110.35	96	110.30	78
B2	108.11	87	110.45	97	110.54	77
A5	114.42	88	115.64	73	115.16	68
B5	114.71	85	115.87	71	115.34	66
A6	118.02	95	119.30	100	118.50	85
B6	118.40	99	119.66	95	118.88	78
B1	131.11	41	132.47	47	130.58	61
A1	132.31	41	133.17	47	131.08	57
A4	145.34	44	147.12	22	146.19	37
B4	146.07	46	147.80	26	146.85	47
A3	146.73	40	148.35	28	147.55	61
B3	146.94	47	148.63	30	147.73	59
γ	176.92	54	177.72	39	177.14	67

Compound Number 2030

¹³C



4-cis-8-cis-bis (4-hydroxy-3-methoxyphenyl)-3,7-dioxabicyclo [3-3-0] octan-2-one diacetate

¹H (acetone)

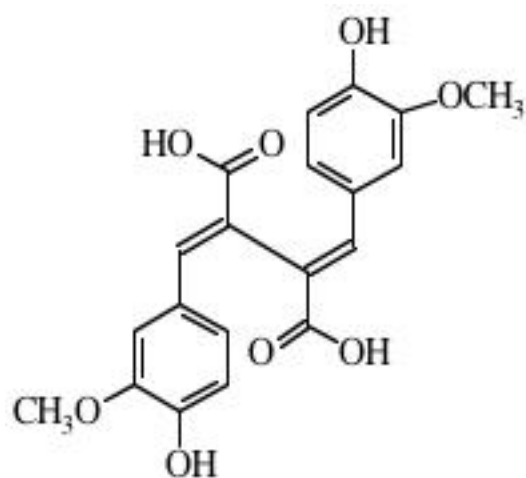
Atom	H Shifts	Mult	J
β	3.72	ddd	9.25, 3.8, 0.5
B β	3.45	dddd	9.15, 7.1, 4.8, 3.0, 0.6
B γ trans	4.12	ddt	9.5, 4.8, 0.5
B γ cis	4.39	ddd	9.5, 7.1, 0.5
B α	5.52	br d	3.6
α	5.29	dquin	3.8, 0.6

Notes:

S. Quideau
 Ralph, Helm, Quideau. J. Chem. Soc. Perkin Trans. 1 1992 2971-2980

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.61	98	20.45	100	20.39	
Ac Me	20.63	98	20.45	100	20.39	
B β	49.89	84	50.33	76	48.62	
β	53.14	95	53.59	76	52.19	
A3 OMe	55.99	92	56.24	76	55.82	
B3 OMe	56.06	100	56.35	75	55.95	
B γ	72.80	90	73.72	81	72.51	
α	82.99	80	84.01	82	82.49	
B α	83.89	88	84.93	78	83.93	
A2	109.13	86	110.86	82	110.37	
B2	109.35	86	111.05	77	110.69	
A6	117.14	90	118.40	81	117.87	
B6	117.22	86	118.53	83	118.00	
A5	122.98	95	123.65	79	122.80	
B5	123.38	97	123.96	82	123.07	
B1	138.04	53	139.95	39	138.71	
A4	139.26	41	140.40	27	138.80	
A1	139.32	40	140.68	43	139.21	
B4	139.96	36	140.96	23	139.30	
A3	151.35	48	152.38	30	150.88	
B3	151.66	54	152.62	28	151.05	
Ac C=O	169.04	48	168.98	28	168.57	
Ac C=O	168.90	50	168.94	28	168.53	
γ	176.66	54	177.49	36	176.98	

Compound Number 2031

¹³C4,4'-dihydroxy-3,3'-dimethoxy- β,β' -bicycinnamic acid¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.74	s	
5	6.78	d	8.2
6	7.11	dd	8.2, 2.0
2	7.31	d	2.0
α	7.83	s	

Notes:

S. Quideau

JCS Perkin 1, 3485-98 (1994)

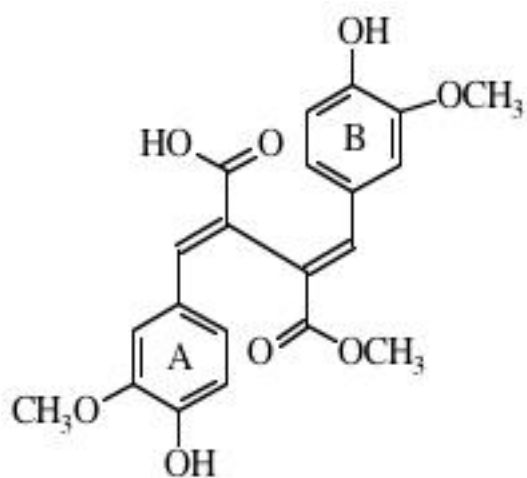
Cmpd 18

As this compound has a plane of symmetry only one set of shifts are reported.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.05	100	55.28	100
2			113.51	91	113.23	60
5			115.93	57	115.47	59
6			125.60	95	124.11	67
β			126.15	24	125.12	15
1			127.94	57	126.13	62
α			142.26	59	140.40	18
3			148.19	31	147.29	77
4			149.25	24	148.37	61
γ			168.46	28	168.06	40

Compound Number 2032

¹³C



γ' -methoxy-4,4'-dihydroxy-3,3'-dimethoxy- β,β' -bicycinnamic acid

¹H (acetone)

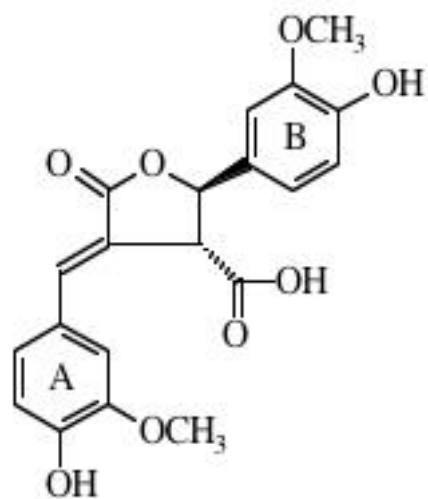
Atom	H Shifts	Mult	J
B γ OMe	3.66	s	
A3 OMe	3.72	s	
B3 OMe	3.73	s	
A,B 5	6.78	d	8.2
B6	7.11	dd	8.3, 2.0
A6	7.09	dd	8.3, 2.0
A2	7.25	d	2.0
B2	7.30	d	2.0
B α	7.81	s	
α	7.84	s	

Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B γ OMe			52.28	54		
B3 OMe			56.04	100		
A3 OMe			56.04	100		
A2			113.40	56		
B2			113.54	59		
A5			115.95	58		
B5			115.97	59		
A6			125.60	56		
β			125.67	56		
B β			125.67	56		
B6			125.73	66		
A1			127.78	36		
B1			127.81	36		
B α			142.36	51		
α			142.47	44		
B3			148.19	33		
A3			148.20	33		
A4			149.32	27		
B4			149.37	21		
B γ			168.22	27		
γ			168.53	19		

Compound Number 2033

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β			54.03	56	52.64	49
A3 OMe			56.27	100	55.54	90
B3 OMe			56.27	100	55.67	100
B α			81.24	66	80.17	48
B2			110.17	72	110.31	63
A2			113.95	67	113.67	53
B5			116.04	58	115.61	58
A5			116.20	57	115.70	58
B6			119.17	66	118.21	65
β			120.45	37	119.08	68
A1			126.54	68	124.72	57
A6			126.58	68	125.56	50
B1			132.37	42	130.42	62
α			140.46	59	139.48	42
B4			147.97	30	147.07	59
A3			148.54	29	147.72	67
B3			148.63	30	147.76	67
A4			150.20	34	149.54	51
γ			171.66	23	171.02	55
B γ			172.12	34	171.72	76

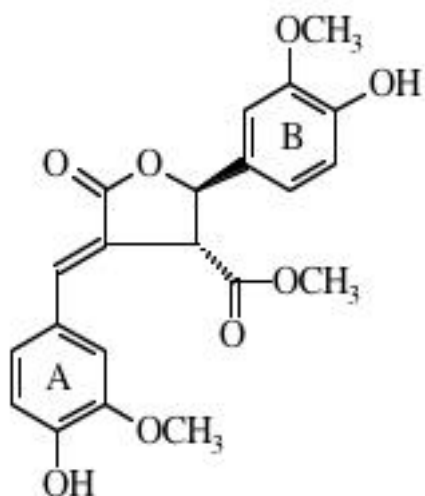
¹H (acetone)

Atom	H Shifts	Mult	J
B3 OMe	3.81	s	
A3 OMe	3.87	s	
B β	4.30	t	2.5
B α	5.75	d	2.8
B 5,6	6.82	m	
A5	6.89	d	8.2
B2	6.98	br s	
A6	7.21	dd	8.2, 2.0
A2	7.37	d	2.0
α	7.61	d	2.1

Notes:

S. Quideau
 JCS Perkin 1, 3485-98 (1994)
 Cmpd 12b (R=H)

Compound Number 2034

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B γ OMe	52.98	51	53.16	82	51.98	56
B β	53.49	50	53.78	89	52.75	74
B3 OMe	55.97	100	56.23	100	55.46	88
A3 OMe	55.97	100	56.26	100	55.62	100
B α	80.22	52	80.97	87	79.74	54
B2	107.65	56	110.12	89	110.26	63
A2	112.04	50	113.78	88	113.48	52
B5	114.78	62	116.04	89	115.53	47
A5	114.92	51	116.24	89	115.68	42
B6	118.22	54	119.23	93	118.26	67
β	118.38	38	120.03	52	118.34	41
A1	125.66	38	126.38	63	124.48	45
A6	125.59	51	126.42	93	125.44	50
B1	131.08	35	132.08	52	130.02	47
α	141.06	45	140.75	81	139.93	48
B4	146.12	37	147.99	56	147.11	33
A3	146.77	32	148.52	48	147.69	49
B3	146.89	33	148.61	48	147.71	50
A4	148.39	41	150.24	58	149.62	41
γ	170.77	38	171.45	33	170.53	68
B γ	171.23	26	171.56	52	170.70	48

¹H (acetone)

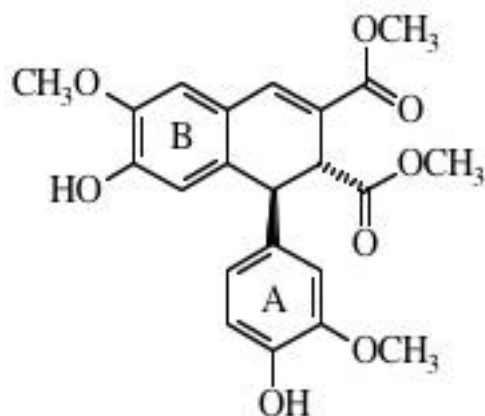
Atom	H Shifts	Mult	J
B γ OMe	3.73	s	
B3 OMe	3.81	s	
A3 OMe	3.88	s	
B β	4.39	t	2.6
B α	5.72	d	3.0
B 5,6	6.79 - 6.85	m	
A5	6.9	d	8.2
B2	6.97	br d	1.5
A6	7.17	dd	8.2, 2.0
A2	7.28	d	2.0
α	7.62	d	2.1

Notes:

S. Quideau

Compound Number 2035

¹³C



Dimethyl 7-hydroxy-6-methoxy-1-(4-hydroxy-3-methoxyphenyl)-trans-1,2-dihydronaphthalene-2,3-dicarboxylate

¹H (acetone)

Atom	H Shifts	Mult	J
A γ OMe	3.56	s	
B γ OMe	3.68	s	
A3 OMe	3.75	s	
B3 OMe	3.88	s	
β	3.94	d	3.0
α	4.53	d	3.0
A6	6.39	dd	8.2, 2.0
A5	6.65	d	8.2
B5	6.66	s	
A2	6.76	d	2.0
B2	7.10	s	
B α	7.65	s	

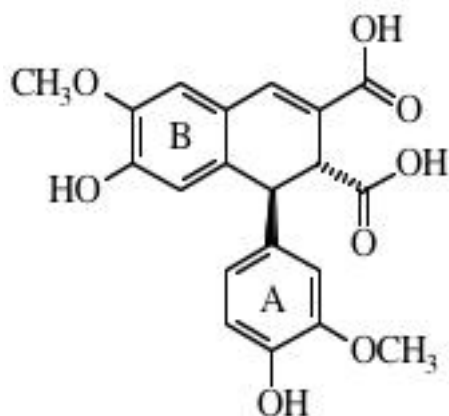
Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α	45.60	82	46.33	92	44.69	53
β	47.20	81	48.09	92	46.74	48
B γ OMe	51.87	96	51.87	94	51.67	77
A γ OMe	52.40	93	52.34	88	52.11	84
A3 OMe	55.83	100	56.21	99	55.62	100
B3 OMe	56.03	96	56.38	96	55.74	92
A2	110.12	91	112.03	100	111.65	66
B2	111.21	82	113.27	91	113.25	53
A5	114.17	90	115.59	98	115.24	64
B5	115.58	86	116.85	93	116.06	47
A6	120.35	89	120.83	98	119.48	61
B β	122.37	57	122.96	53	120.89	55
B1	123.85	58	124.37	58	122.47	48
B6	131.19	60	132.09	54	130.74	50
A1	134.28	61	135.31	59	133.56	54
B α	137.74	77	138.45	87	137.92	50
A4	144.42	69	146.29	58	145.31	66
B3	145.78	59	147.63	53	146.72	55
A3	146.40	60	148.20	53	147.39	64
B4	147.69	72	149.68	65	148.88	66
B γ	167.10	47	167.49	44	166.52	59
γ	172.93	60	173.17	58	172.31	69

Compound Number 2036

¹³C



β - β -coupled dehydrodiferulic acid

7-hydroxy-6-methoxy-1-(4-hydroxy-3-methoxyphenyl)-trans-1,2-dihydronaphthalene-2,3-dicarboxylic acid

¹H (acetone)

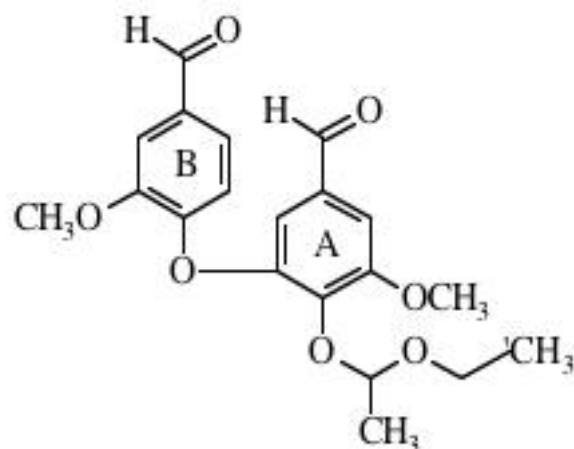
Atom	H Shifts	Mult	J
A3 OMe B3 OMe	3.74 3.86	s s	
β	3.88	d	1.8
α	4.61	br d	1.8
A6	6.42	dd	8.2, 2.0
A5	6.64	d	8.2
B5	6.71	s	
A2	6.79	d	2.0
B2	7.04	s	
B α	7.60	s	

Notes:

S. Quideau
JCS Perkin 1, 3485-98 (1994)
Cmpd 19
Not very soluble in CDCl₃

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α			46.00	72	44.25	35
β			48.08	43	47.80	13
A3 OMe B3 OMe			56.19 56.39	100 99	55.59 55.76	100 87
A2			111.98	88	111.57	63
B2			113.06	75	112.63	37
A5			115.48	73	115.13	60
B5			116.92	65	116.23	45
A6			120.67	90	119.30	61
B β			124.34	19	123.07	43
B1			124.64	53	124.67	5
B6			132.35	48	130.85	42
A1			136.12	39	134.50	5
B α			137.58	44	135.09	18
A4			146.06	33	145.04	47
B3			147.48	46	146.46	42
A3			148.10	44	147.28	51
B4			149.29	38	147.99	29
B γ			169.32	14	169.23	9
γ			173.62	31	173.27	51

Compound Number 2037

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
¹³ CH3			15.45	91		
CH3			21.28	90		
B OMe			56.43	100		
A OMe			56.66	95		
CH2			63.26	83		
CH			104.47	91		
A2			108.94	81		
B2			112.46	83		
A6			114.45	80		
B5			119.32	89		
B6			125.46	84		
B1			133.26	46		
A1			134.22	44		
A4			143.42	26		
A3			150.68	31		
B3			151.42	33		
B4			151.95	33		
A5			155.59	36		
α			191.23	94		
B α			191.48	96		

¹H (acetone)

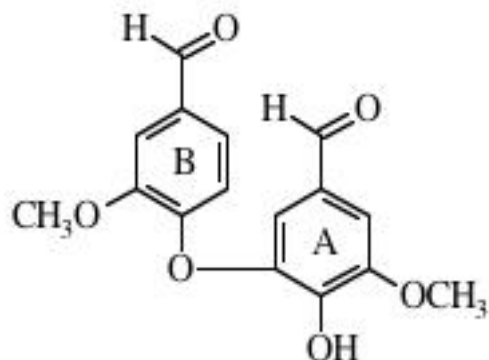
Atom	H Shifts	Mult	J
¹ CH3	1.08	t	7.05
CH3	1.38	d	5.1
CH2	3.56-3.89	m	
OMe	3.95	s	
OMe	3.99	s	
CH	5.53	q	5.1
B5	7.04	d	8.1
A6	7.11	d	1.8
A2	7.42	d	1.8
B6	7.53	dd	8.1
B2	7.62	d	1.9
α	9.85	s	
B α	9.95	s	

Notes:

S. Quideau

Compound Number 2038

¹³C



4-0-5-coupled dehydrodivanillin

3-{3-[4-(2-carboxyvinyl)-2-methoxy-phenoxy]-4-hydroxy-5-methoxy-phenyl} acrylic acid

¹H (acetone)

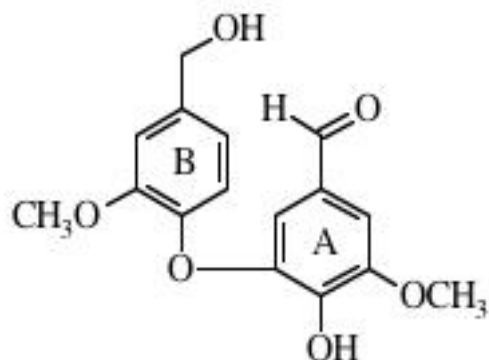
Atom	H Shifts	Mult	J
B OMe	3.95	s	
A OMe	3.98	s	
B5	6.94	d	8.2
A6	7.22	d	1.8
A2	7.40	d	1.8
B6	7.48	dd	8.2, 2.0
B2	7.58	d	2.0
α	9.80	s	
B α	9.92	s	

Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B3 OMe	56.07	100	56.41	100	55.85	100
A3 OMe	56.56	100	56.80	97	56.24	100
A2	106.80	68	108.48	66	108.09	51
B2	110.85	85	112.26	85	111.60	63
A6	116.92	67	116.99	61	116.27	86
B5	117.31	90	117.63	93	116.31	85
B6	125.55	90	125.55	88	124.80	68
A1	128.69	57	129.54	47	127.64	70
B1	132.76	54	133.56	47	131.84	69
A5	142.55	37	143.79	30	142.52	72
A4	143.30	44	145.22	36	144.52	56
A3	148.60	46	150.37	39	149.47	67
B3	150.61	45	151.49	36	149.82	78
B4	151.08	39	152.48	32	151.24	64
α	190.05	96	190.75	9	190.84	39
B α	190.84	100	191.43	97	191.57	27

Compound Number 2039

¹³C

4-0-5 coupled dehydrovanillin / vanillyl alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B3 OMe	55.94	58	56.19	94	55.61	100
A3 OMe	56.47	97	56.73	99	56.15	97
B α	64.91	88	64.34	35	62.59	90
A2	106.40	62	107.98	55	107.74	52
B2	111.55	97	112.52	98	111.09	34
A6	114.09	60	112.62	54	111.54	75
B6	119.49	100	119.78	100	118.81	81
B5	120.46	99	121.17	94	119.98	60
A1	128.30	59	129.00	48	127.04	46
B1	138.45	60	140.84	41	139.77	57
A4	142.58	48	143.92	31	142.63	42
B4	143.95	44	144.30	32	143.03	30
A5	145.16	42	146.98	31	145.90	43
A3	148.45	43	149.86	31	148.93	42
B3	150.87	48	152.00	34	150.45	71
α	190.44	83	190.91	92	190.97	67

¹H (acetone)

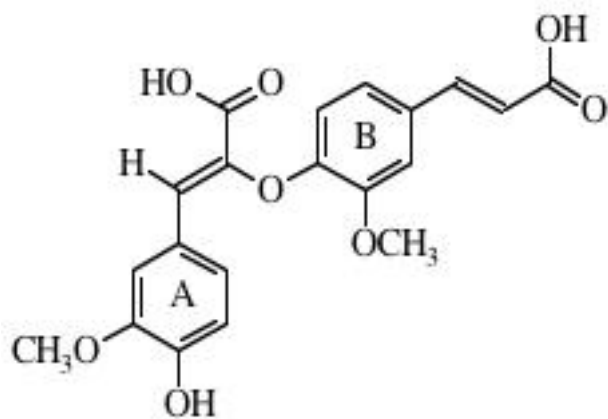
Atom	H Shifts	Mult	J
B3 OMe	3.79	s	
A3 OMe	3.95	s	
B α	4.63	s	
A6	6.91	d	1.8
B 5,6	6.94 - 6.97	m	
B2	7.16	br d	
A2	7.27	d	1.8
α	9.71	s	

Notes:

S. Quideau

Compound Number 2040

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 OMe			55.92	100	55.09	100
B3 OMe			56.47	91	55.86	85
B2			112.39	80	111.55	38
A2			113.77	83	112.98	41
B5			114.39	79	113.30	45
A5			115.96	70	115.53	36
B β			117.50	77	117.52	57
B6			122.92	82	122.02	42
A1			125.31	54	123.44	44
A6			126.06	80	124.62	39
α			128.49	63	127.09	34
B1			130.10	56	128.74	52
β			138.28	27	137.01	44
B α			145.25	77	143.71	46
A3			148.30	46	147.24	50
B4			148.90	40	147.42	47
A4			149.46	37	148.59	89
B3			150.23	52	148.59	88
γ			164.51	13	164.11	56
B γ			167.91	22	167.70	72

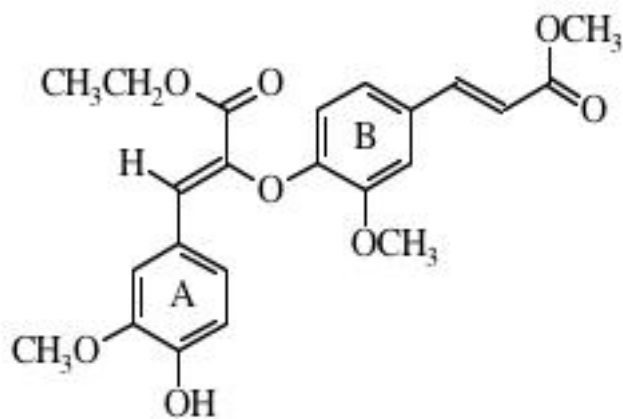
¹H (acetone)

Atom	H Shifts	Mult	J
A3 OMe	3.73	s	
B3 OMe	4.00	s	
B β	6.43	d	15.9
A5	6.82	d	8.2
B5	6.83	d	8.3
B6	7.13	dd	8.3, 2.0
A6	7.23	dd	8.2, 2.0
α	7.42	s	
B2	7.44	d	2.0
A2	7.52	d	2.0
B α	7.59	d	15.9

Notes:

S. Quideau
 JCS Perkin 1, 3485-98 (1994)
 Cmpd 15

Compound Number 2041

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3	14.14	95	14.47	100	14.05	100
B γ OMe	51.65	83	51.58	78	51.32	62
A3 OMe	55.59	100	55.92	93	55.11	75
B3 OMe	56.21	97	56.49	90	55.93	59
CH2	61.42	92	61.72	74	60.96	61
B2	111.24	83	112.45	70	111.79	41
A2	112.03	97	113.78	70	113.17	34
B5	114.14	89	114.53	71	113.46	35
A5	114.47	87	115.99	70	115.57	26
B β	116.32	82	117.10	71	116.29	42
B6	122.12	80	122.92	78	122.27	46
A1	124.74	55	125.19	9	123.18	32
A6	125.54	84	126.03	71	124.79	35
α	127.80	71	128.05	10	127.43	49
B1	129.31	60	130.09	45	128.78	39
β	137.73	51	138.39	42	136.44	41
B α	144.42	90	145.02	72	144.23	42
A3	146.43	53	148.29	40	147.27	33
B4	147.44	67	148.89	35	147.43	26
A4	147.80	47	149.48	40	148.67	46
B3	149.16	59	150.24	43	148.67	46
γ	163.41	43	163.75	32	162.67	33
B γ	167.50	62	167.63	47	166.80	48

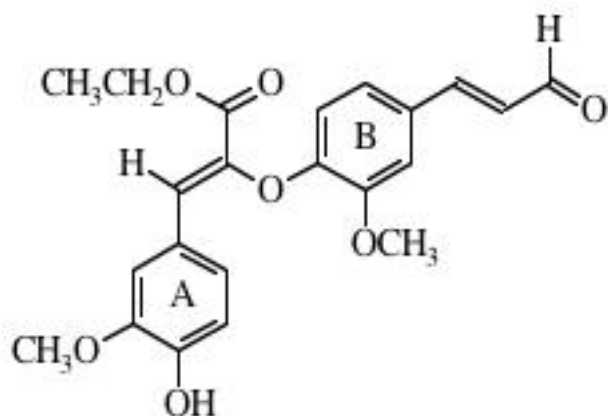
¹H (acetone)

Atom	H Shifts	Mult	J
CH3	1.21	t	7.1
B γ OMe	3.71	s	
A3 OMe	3.73	s	
B3 OMe	3.99	s	
CH2	4.17	q	7.1
B β	6.45	d	16.0
B5	6.79	d	8.3
A5	6.81	d	8.3,
B6	7.12	dd	8.3, 2.0
A6	7.22	dd	8.3, 2.0
α	7.37	s	
B2	7.44	d	2.0
A2	7.49	d	2.0
B α	7.59	d	16.0
Ar OH	8.12	br s	

Notes:

S. Quideau
Toward β-O-4 dehydro diferulic acid
(steryl ether, Z isomer)

Compound Number 2042

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3	14.06	98	14.48	12	14.05	100
B3 OMe	56.15	100	56.55	13	55.97	10
A3 OMe	55.47	94	55.94	16	55.11	73
CH2	61.37	91	61.76	92	60.99	74
B2	111.31	78	112.58	93	111.82	49
A2	112.06	80	113.81	91	113.35	53
B5	114.11	78	114.66	93	113.44	53
A5	114.57	79	116.03	82	115.59	40
B6	122.87	82	123.76	99	123.13	9
A1	124.41	62	125.16	54	123.13	83
A6	125.42	77	126.08	53	124.85	52
B β	127.19	85	128.29	100	128.89	65
α	127.90	75	128.16	100	127.35	55
B1	128.83	62	130.13	54	127.53	39
β	137.35	57	138.31	43	136.34	45
A3	146.51	57	148.31	43	147.45	41
A4	147.59	61	149.53	51	147.90	48
B4	148.54	52	149.58	46	148.78	59
B3	149.21	61	150.38	50	148.86	60
B α	152.33	80	153.18	96	152.98	57
γ	163.19	48	163.70	38	162.62	49
B γ	193.42	91	193.89	99	194.19	72

¹H (acetone)

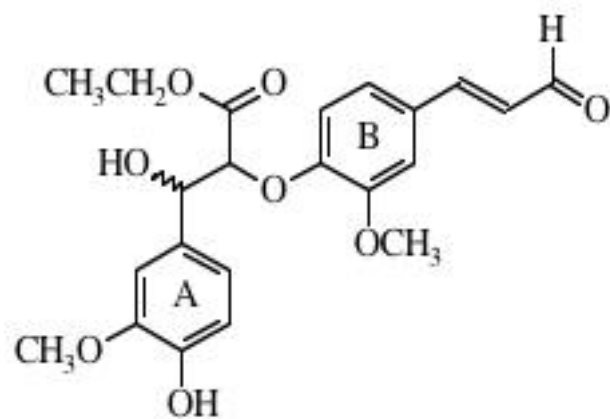
Atom	H Shifts	Mult	J
CH3	1.21	t	7.1
A3 OMe	3.73	s	
B3 OMe	4.00	s	
CH2	4.21	q	7.1
B β	6.70	dd	15.9, 7.7
A5	6.81	d	8.3
B5	6.83	d	8.3
B6	7.18	dd	8.3, 2.0
A6	7.23	ddd	8.3, 2.0, 0.4
α	7.38	s	
A2	7.49	d	2.0
B2	7.50	d	2.0
B α	7.58	d	15.9
B γ	9.65	d	7.7
Ar OH	8.14	s	

Notes:

S. Quideau
Toward β-O-4 dehydro diferulic acid(steryl ether, Z isomer)

Compound Number 2043

¹³C



erythro

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3	13.86	97				
OMe	55.72	100				
OMe	55.78	98				
CH2	61.33	84				
α	73.70	69				
β	82.29	71				
A2	109.63	73				
B2	111.09	72				
A5	113.93	71				
B5	115.99	71				
A6	119.80	73				
B6	122.72	82				
B β	127.15	81				
B1	128.79	80				
A1	130.89	64				
A3	145.48	70				
A4	146.36	58				
B3	149.72	54				
B4	150.11	59				
B α	152.38	74				
γ	168.80	64				
B γ	193.53	90				

¹H (acetone)

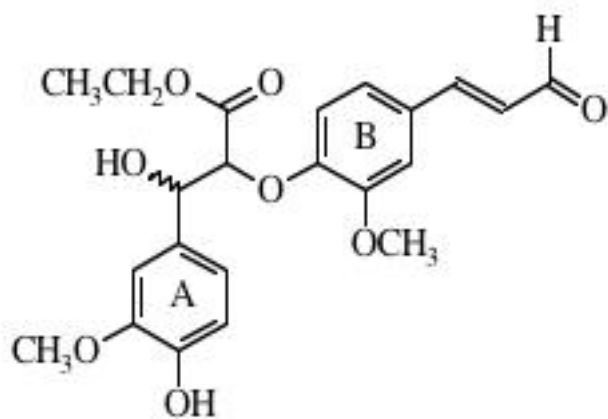
Atom	H Shifts	Mult	J
CH3	1.16	t	7.2
OMe	3.85	s	
OMe	3.86	s	
CH2	4.15	q	7.1
β	4.81	d	5.4
α	5.16	d	5.4
B β	6.58	dd	15.8, 7.7
B α	7.37	d	15.8
B γ	9.61	d	7.7
Ar OH	6.07		

Notes:

S. Quideau Compds 2043 and 2044 were run as a mixture and the different isomers were assigned. Relative intensities reflect the spectrum of the mixture. e isomer for synthesis of β-O-4 dehydro diferulic acid

Compound Number 2044

¹³C



threo

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3	13.73	100				
OMe	55.67	33				
OMe	55.82	34				
CH3	61.28	28				
α	74.49	14				
β	83.43	15				
A2	109.51	16				
B2	110.98	16				
A5	114.02	17				
B5	115.56	15				
A6	119.91	16				
B6	122.72	82				
B β	127.19	29				
B1	128.79	80				
A1	129.94	13				
A3	145.73	15				
A4	146.55	13				
B3	149.74	18				
B4	149.92	13				
B α	152.32	17				
γ	168.73	27				
B γ	193.53	90				

¹H (acetone)

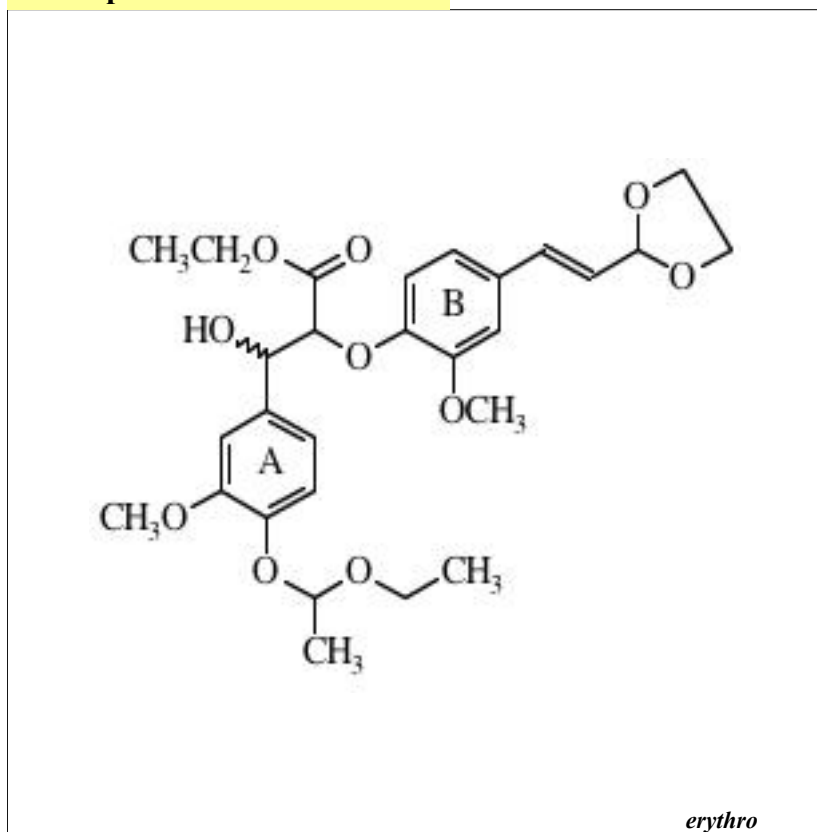
Atom	H Shifts	Mult	J
CH3	1.08	t	7.2
OMe	3.85	s	
OMe	3.87	s	
CH2	4.04-4.11	m	
β	4.67	d	6.2
α	5.10	d	6.2
B β	6.59	dd	15.8, 7.7
B α	7.38	d	15.8
B γ	9.62	d	7.7
Ar OH	6.10		

Notes:

S.Quideau Compounds 2043 and 2044 were run as a mixture and the different isomers were assigned. Relative intensities reflect the spectrum of the mixture. threo isomer for synthesis of β-O-4 dehydro diferulic acid

Compound Number 2045

¹³C



erythro

¹H (chloroform)

Atom	H Shifts	Mult	J
CH3	1.47	d	5.1
β t	4.56	d	6.6
β e	4.72	d	5.4
α t	5.06	br d	6.3
α e	5.13	br s	
A 4 CH	5.32	q	5.2
B γ	5.36	d	6.0
B β	6.03	dd	15.9, 6.0
B α	6.66	d	16.0

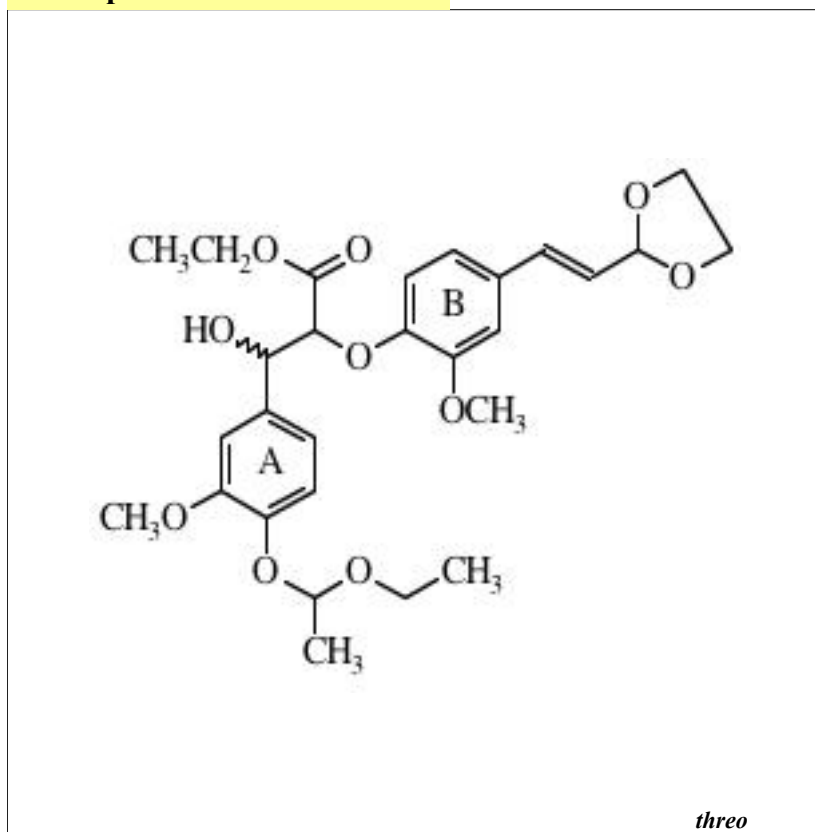
Notes:

S. Quideau
intermediate toward β-O-4 dehydro
diferulic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A γ CH3	13.82	47				
CH3	14.93	57				
CH3	20.10	36				
OMe	55.54	54				
OMe	55.63	37				
4 CH2	61.01	50				
A CH2	61.84	32				
B CH2	64.82	100				
B CH2	64.82	100				
α	73.57	33				
β	83.09	25				
	100.92	35				
	103.59	57				
	110.04	40				
	110.76	27				
	117.40	27				
	118.63	31				
	119.09	34				
	120.07	43				
	124.08	43				
	131.25	30				
	133.82	18				
	133.84	18				
	134.08	44				
	145.39	16				
	147.22	21				
	150.12	9				
	150.40	31				
γ	169.03	35				

Compound Number 2046

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3	-					
CH3	-					
CH3	-					
OMe	55.59	100				
OMe	55.59	100				
CH2	61.86	55				
CH2						
CH2	74.51	22				
α	84.39	21				
β	100.94	61				
	109.98	12				
	110.69	48				
	116.92	14				
	118.70	55				
	124.14	74				
	132.73	12				
	134.06	62				
	145.67	17				
	147.26	24				
	149.92	16				
	150.00	56				

¹H (chloroform)

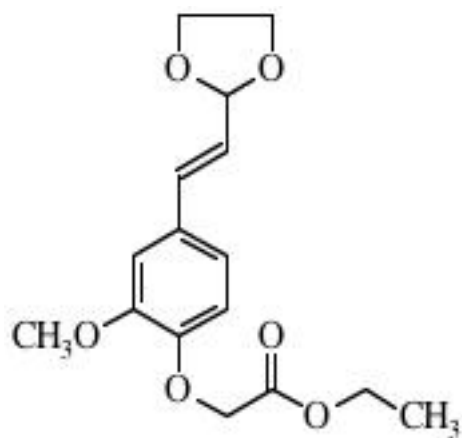
Atom	H Shifts	Mult	J
β	4.56	d	6.6
α	5.06	br d	6.3

Notes:

S. Quideau
intermediate toward b--O-4 dehydro diferulic acid

Compound Number 2047

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3	14.09	100				
OMe	55.84	72				
CH2	61.27	63				
CH2	65.01	94				
CH2	65.01	94				
CH2	66.42	60				
γ	103.90	71				
2	109.88	67				
5	113.88	67				
6	120.14	66				
β	123.75	68				
α	130.39	39				
1	134.47	66				
3	147.58	31				
4	149.56	34				
C=O	168.78	30				

¹H (chloroform)

Atom	H Shifts	Mult	J
CH3	1.26	t	7.1
OMe	3.87	s	
CH2	3.90-4.05	m	
CH2	4.24	q	7.1
CH2	4.67	s	
γ	5.39	d	6.1
β	6.05	dd	15.9, 6.1
α	6.69	d	15.9
5	6.76	d	8.3
6	6.90	dd	8.3, 2.0
2	6.99	d	2.0

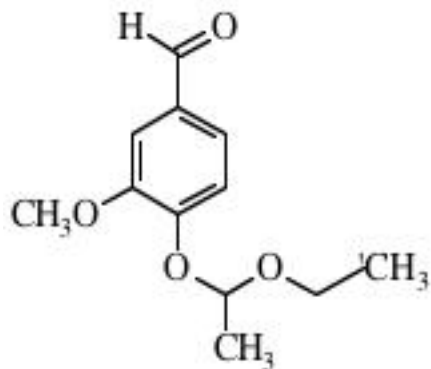
Notes:

S. Quideau

For synthesis of b--O-4 dehydro diferulic acid

Compound Number 2048

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
'CH3	15.03	85				
CH3	19.95	98				
OMe	55.90	94				
CH2	61.72	85				
CH	100.61	92				
2	109.81	79				
5	116.59	100				
6	126.06	81				
1	130.97	47				
3	150.78	37				
4	151.64	37				
α	190.89	91				

¹H (chloroform)

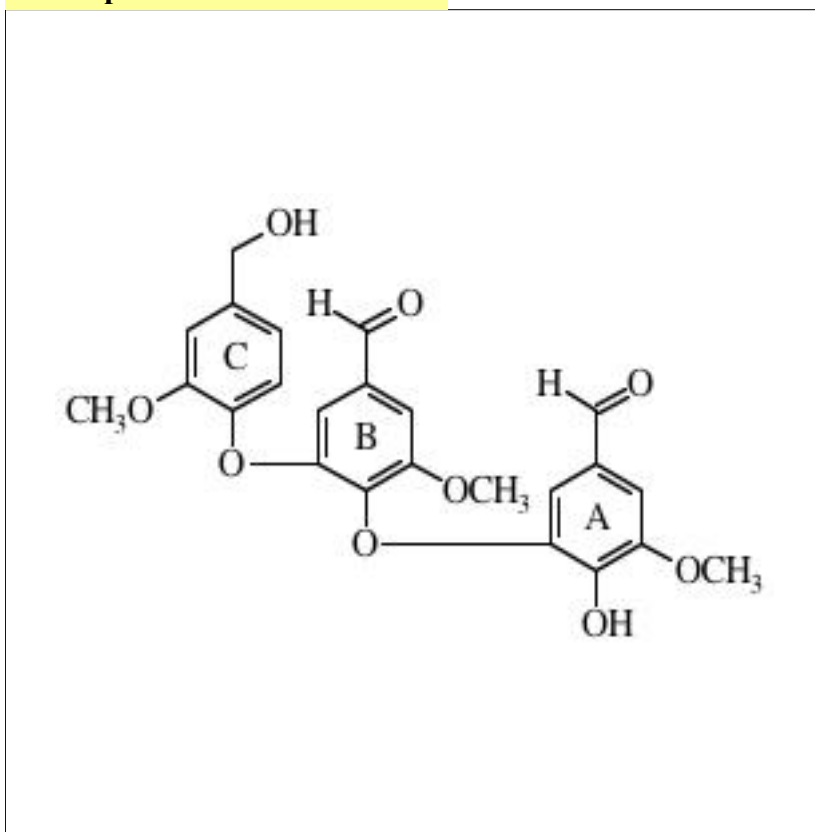
Atom	H Shifts	Mult	J
'CH3	1.21	t	7.1
CH3	1.58	d	5.3
CH2	3.50-3.85	m	
OMe	3.92	s	
CH	5.54	q	5.3
Aromatics	7.21-7.43		
α	9.87	s	

Notes:

S. Quideau
Intermediate for synthesis of β-O-4 dehydro diferulic acid

Compound Number 2049

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
C3 OMe			56.07	100		
A3 OMe			56.75	97		
B3 OMe			56.89	90		
C α			64.25	33		
B2			108.03	70		
A2			108.40	50		
B6			109.92	67		
A6			110.17	50		
C2			112.36	40		
C6			119.76	93		
C5			122.66	87		
A1			128.73	37		
B1			134.75	53		
B4			138.25	20		
C1			142.09	47		
C4			142.49	37		
A4			143.04	33		
A5			147.16	27		
A3			149.70	30		
C3			152.34	37		
B5			153.71	33		
B3			155.04	47		
α			191.02	55		
B α			191.69	55		

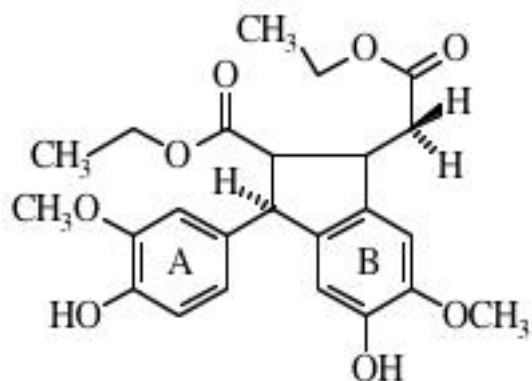
¹H (acetone)

Atom	H Shifts	Mult	J
C3 OMe	3.72	s	
B3 OMe	3.90	s	
A3 OMe	3.94	s	
C α	4.62	s	
B6	6.88	d	1.7
C6	6.94	dd	8.1, 1.7
C5	7.00	d	8.1
A6	7.01	d	1.7
C2	7.14	d	1.7
A2	7.26	d	1.7
B2	7.40	d	1.7
α	9.74	s	
B α	9.86	s	

Notes:

S. Quideau
5-O-4 trimer

Compound Number 2050

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A CH3	14.19	93	14.52	91	13.97	100
B CH3	14.22	88	14.47	89	14.07	100
B β	36.90	57	37.50	80	36.41	44
B α	42.15	75	43.06	85	41.74	54
α	51.31	66	52.35	80	50.93	46
A3 OMe	55.93	100	56.23	99	55.56	74
B3 OMe	56.10	99	56.39	100	55.64	97
β	58.66	67	59.09	87	56.96	53
B CH2	60.47	80	60.79	84	59.94	88
A CH2	60.63	78	60.95	84	60.07	76
B2	106.61	68	108.23	75	107.86	45
B5	110.87	80	112.04	82	111.25	42
A2	110.99	77	112.60	93	112.08	41
A5	114.29	91	115.76	92	115.32	45
A6	121.39	75	121.75	96	120.35	48
A1	134.34	58	135.02	55	133.25	53
B1	135.12	43	135.58	50	133.61	46
B6	137.10	49	137.90	47	136.47	49
A4	144.54	63	146.45	56	145.36	53
B4	145.61	60	147.43	57	146.34	58
B3	146.04	52	147.92	46	147.08	52
A3	146.50	59	148.37	48	147.51	55
B γ	172.30	54	172.45	58	171.45	77
γ	172.43	55	173.00	61	172.10	61

¹H (acetone)

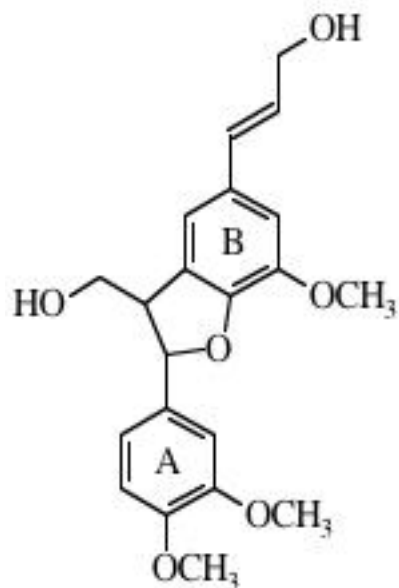
Atom	H Shifts	Mult	J
B β1	2.43	dd	16.0, 8.0
B β2	2.61	dd	16.0, 7.0
β	3.43	dd	9.85, 8.20
B α	3.90	brq	8.0
α	4.56	d	10.1

Notes:

S. Quideau
 Stereochemistry determined from NOESY
 experiments
 αβ-/α6 model

Compound Number 2051

¹³C



4-[3-Hydroxymethyl-5-(3-hydroxypropenyl)-7-methoxy-2,3-dihydrobenzofuran-2-yl]-1,2-dimethoxyphenyl

¹H (acetone)

Atom	H Shifts	Mult	J
β	3.52	br q	
A3 OMe	3.77	s	
A4 OMe	3.78	s	
B3 OMe	3.86	s	
γ's	3.80-3.92	m	
B γ OH	4.14	t	5.50
B γ	4.19	td	5.7, 1.7
α	5.58	d	6.4
B β	6.23	dt	15.8, 5.5
B α	6.52	dt	15.8, 1.7
A5	6.91	d	8.1
A, B6 + B2	6.94-9.67	m	
A2	7.03	d	1.8

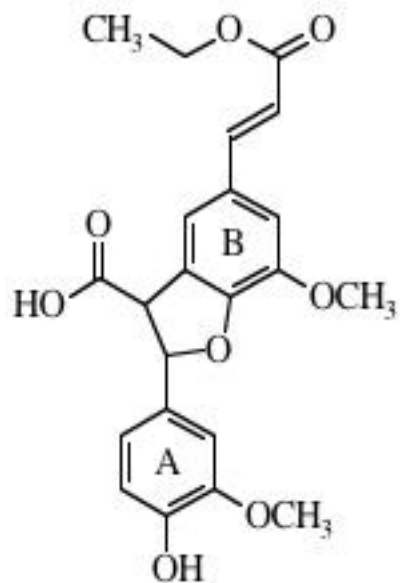
Notes:

S. Quideau
veratryl phenylcoumaran

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β			54.81	63		
A3 OMe			56.12	100		
A4 OMe			56.12	95		
B3 OMe			56.39	84		
B γ			63.38	71		
γ			64.65	61		
α			88.34	71		
A2			110.84	79		
B2			111.74	72		
A5			112.67	84		
B6			116.08	73		
A6			119.02	83		
B β			128.42	69		
B5			130.30	41		
B α			130.49	74		
B1			132.00	54		
A1			135.59	45		
B3			145.18	38		
B4			148.93	26		
A4			150.15	30		
A3			150.45	31		

Compound Number 2052

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3			14.63	85		
β			55.43	46		
A3 OMe			56.30	97		
B3 OMe			56.47	100		
CH2			60.51	79		
α			88.70	59		
A2			110.70	79		
B2			113.20	68		
A5			115.72	91		
B β			116.46	76		
B6			119.08	69		
A6			120.05	86		
B5			128.35	32		
B1			129.20	54		
A1			132.64	52		
B α			145.36	76		
B3			145.70	53		
A4			147.70	38		
A3			148.47	44		
B4			151.03	34		
B γ			167.31	60		
γ			172.24	20		

¹H (acetone)

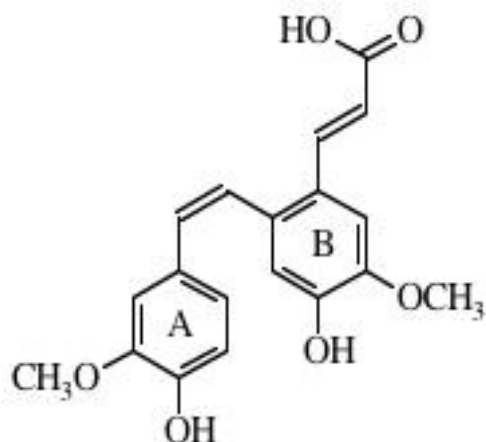
Atom	H Shifts	Mult	J
β	4.37	br d	7.8
α	6.06	d	7.9
B β	6.38	d	15.9
B α	7.60	d	15.9

Notes:

S. Quideau

Compound Number 2053

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 OMe			56.25	100		
B3 OMe			56.56	80		
B2			109.15	74		
A2			110.16	83		
A5			115.99	83		
B β			116.50	76		
β			120.61	78		
B6			120.84	74		
A6			121.14	88		
B5			125.47	48		
B1			126.98	56		
α			130.68	81		
A1			130.90	58		
B α			146.00	69		
B4			146.96	50		
A4			147.61	55		
A3			148.61	46		
B3			148.83	54		
B γ			168.22	47		

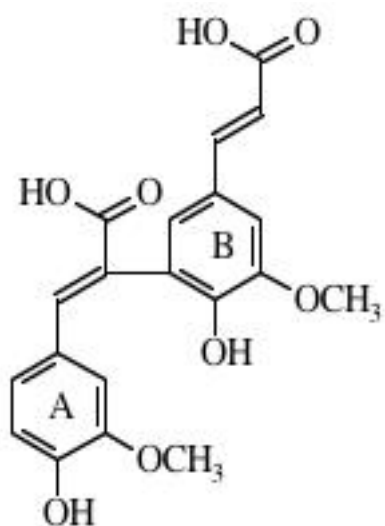
¹H (acetone)

Atom	H Shifts	Mult	J
A3 OMe	3.91	s	
B3 OMe	3.95	s	
B β	6.44	d	15.9
A5	6.83	d	8.1
A6	7.05	dd	8.1, 2.0
A2	7.22	d	2.0
B2	7.23	d	1.9
α	7.31	dd	16.5, 7.38
β	7.33	dd	16.5, 7.38
B6	7.54	d	1.9
B α	7.63	d	15.9

Notes:

S. Quideau

Compound Number 2054

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 OMe			55.48	100	54.62	100
B3 OMe			56.55	95	56.06	90
B2			110.27	67	109.76	36
A2			113.26	78	112.79	47
A5			115.63	74	115.63	47
B β			116.23	67	115.92	48
B5			125.14	40	124.57	42
B6			125.60	71	124.38	42
β			126.34	57	125.90	67
A6			126.36	80	124.95	48
B1			127.26	62	125.66	49
A1			127.58	62	125.88	67
α			141.81	62	139.75	34
B α			145.80	66	144.28	43
A3			147.86	54	145.82	32
B4			148.01	43	147.00	64
A4			148.98	50	148.05	65
B3			149.10	53	148.12	46
B γ			168.56	41	167.86	80
γ			169.15	36	168.38	68

¹H (acetone)

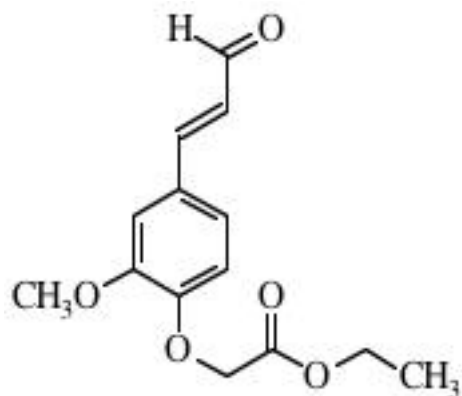
Atom	H Shifts	Mult	J
A3 OMe	3.45	s	
B3 OMe	3.95	s	
B β	6.38	d	15.4
A5	6.71	d	8.2
A2	6.73	d	1.9
A6	6.85	dd	8.2, 2.0
B6	7.03	d	1.9
B2	7.37	d	1.9
B α	7.60	d	15.9
α	7.81	s	

Notes:

S. Quideau
 JCS Perkin 1, 3485-98 (1994)
 Cmpd 14
 Not soluble in CDCl₃

Compound Number 2055

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3	14.06	91				
OMe	55.95	97				
CH2	61.44	86				
CH2	65.99	88				
2	110.77	93				
5	113.40	94				
6	122.75	97				
α	127.17	99				
1	128.31	54				
3	149.74	46				
4	149.96	40				
β	152.36	84				
C=O	168.25	44				
γ	193.41	100				

¹H (acetone)

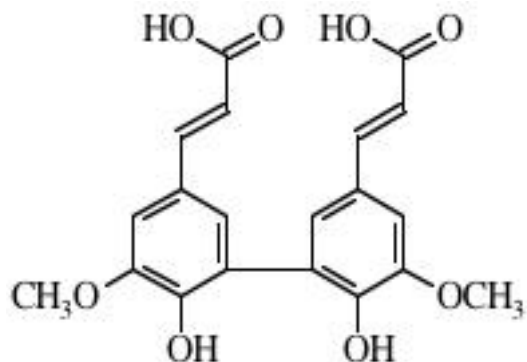
Atom	H Shifts	Mult	J
CH3	1.25	t	7.1
OMe	3.89	s	
CH2	4.23	q	7.1
CH2	4.69	s	
β	6.57	dd	15.8, 7.7
5	6.78	d	7.9
2,6	7.06-7.08	m	
α	7.36	d	15.8
γ	9.62	d	7.7

Notes:

S. Quideau
intermediate for synthesis of β-O-4 dehydro diferulic acid

Compound Number 2056

¹³C



5-5', Dehydrodiferulic Acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.52	100	56.04	55
2			109.97	89	109.44	56
β			116.28	94	115.82	64
5			125.62	54	125.20	60
6			126.07	96	125.05	60
1			126.60	64	124.83	74
α			145.89	100	144.56	55
4			147.38	40	146.43	71
3			148.92	58	147.90	99
γ			168.36	59	167.94	100

¹H (acetone)

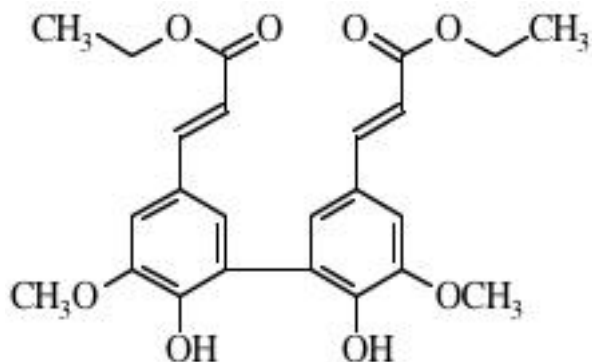
Atom	H Shifts	Mult	J
OMe	3.97	s	
β	6.42	d	15.4
6	7.21	d	2.0
2	7.35	d	2.0
α	7.64	d	15.9

Notes:

S. Quideau JCS Perkin 1, 3485-98 (1994) Cmpd 16
 Note chemical shift differences of 5,6,1 between solvents. Shifts were verified in both solvents As this compound has a plane of symmetry the shifts for the other half are identical.

Compound Number 2057

¹³C



5-5 Dehydrodiferulate diethyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
CH3	1.26	t	7.1
CH2	4.18	q	7.1
OMe	3.97	s	
β	6.43	d	15.9
6	7.20	d	2.0
2	7.36	d	2.0
α	7.62	d	15.9

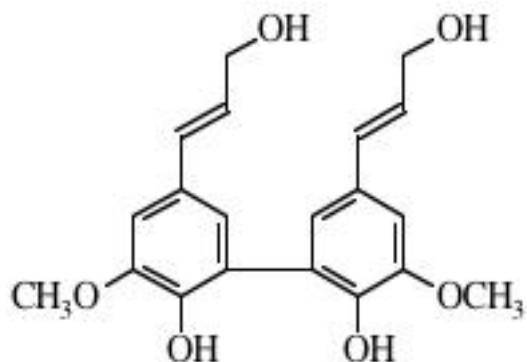
Notes:

S. Quideau
As this compound has a plane of symmetry the shifts for the other half are identical.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3	14.31	100	14.64		14.22	
OMe	56.17	84	56.56		56.03	
CH2	60.34	79	60.46		59.63	
2	108.78	61	109.95		109.47	
β	116.21	71	116.23		114.70	
5	123.59	34	125.59		125.20	
6	124.81	68	126.22		125.35	
1	126.73	51	126.64		124.58	
α	144.46	70	145.58		144.98	
4	145.10	37	147.47		146.84	
3	147.27	46	148.93		147.94	
γ	167.14	47	167.39		166.59	

Compound Number 2058

¹³C



5,5' Dehydrodiconiferyl Alcohol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.52	100		
γ			63.49	68		
2			108.97	69		
6			123.16	79		
5			126.15	21		
β			128.53	71		
1			129.69	45		
α			130.57	80		
4			144.53	26		
3			148.87	27		

¹H (acetone)

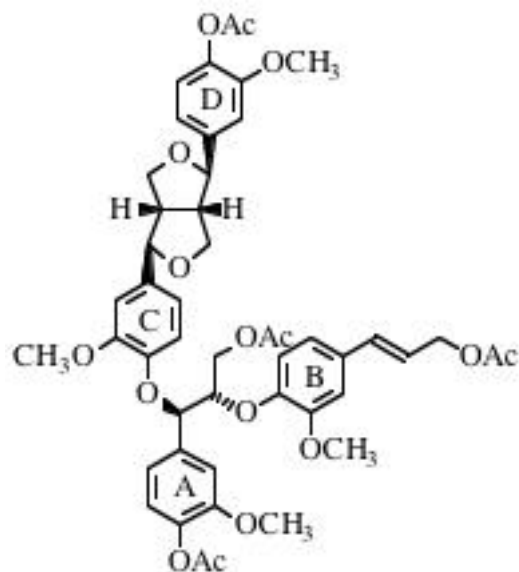
Atom	H Shifts	Mult	J
A3 OMe	3.89	s	
γ	4.21	br d	5.4
β	6.26	dt	15.8, 5..5
α	6.54	dt	15.8, 1.6
A6	6.92	d	2.0
A2	7.06	d	2.0
ArOH	7.42	s	

Notes:

S. Quideau Run only in acetone, no HMBC run. Assignment of quaternary carbons based on shift assignments of diacid/diester parents. Poor solubility on CDCl₃... sample degraded, no DMSO data. As this compound has a plane of symmetry the shifts for the other half are identical.

Compound Number 2059

¹³C



Guaiacylglycerol- α -pinoresinol- β -coniferyl-bis-ether (Ac'd)

¹H (acetone)

Atom	H Shifts	Mult	J
α	5.60	d	5.6
β	4.86	m	
γ 1	4.45	dd	11.9, 3.8
γ 2	4.53	dd	11.9, 5.9
C α	4.66	s	
C α	3.06	m	
C γ 1	3.83	m	
C γ 2	4.17	m	
D α	4.74	d	4.5
D γ	4.23	m	

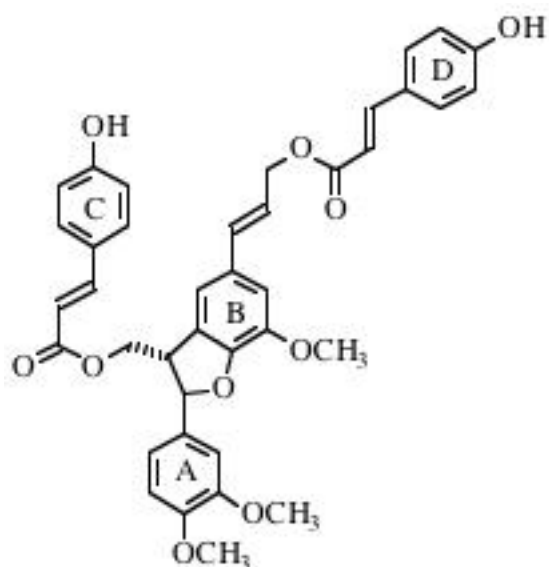
Notes:

S.Quideau
not substantiated in CDCl₃ & d₆ DMSO
Peracetate/diastereomeric mixture

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.59	99	20.45	99	20.35	99
Ac Me	20.59	99	20.45	99	20.35	99
Ac Me	20.70	70	20.62	50	20.43	49
Ac Me	20.93	70	20.78	70	20.70	49
C β	53.91	66	55.11	64	53.49	61
B β	54.39	74	55.36	60	53.74	63
A3 OMe	55.82	70	56.19	100	55.59	74
B3 OMe	55.95	100	56.23	100	55.65	74
D3 OMe	55.95	100	56.23	100	55.71	100
C3 OMe	56.11	56	56.40	100	55.79	100
A γ	63.45	36	63.62	40	62.44	36
B γ	65.05	69	65.38	59	64.40	61
C γ	71.88	70	72.37	48	71.07	52
D γ	71.88	70	72.48	48	71.18	52
A α	80.34	43	80.88	30	78.69	33
A β	81.87	43	81.73	43	79.56	32
D α	85.53	51	86.20	51	84.67	47
C α	85.64	45	86.27	51	84.75	47
D2	110.01	89	111.07	74	110.38	44
B2	110.35	59	111.31	74	110.20	82
C2	110.39	59	111.47	54	110.71	82
A2	111.55	35	112.77	28	111.89	34
C5	116.58	30	117.29	29	115.64	37
D6	117.93	79	118.62	71	116.96	41
C6	118.19	31	118.90	29	118.18	76
B5	118.87	39	119.11	51	117.83	76
A6	119.65	59	120.51	75	119.43	52
B6	119.65	59	120.51	75	119.43	52
B β	122.08	57	123.14	55	122.17	43
A5	122.45	49	123.25	79	122.37	86
D5	122.73	76	123.43	79	122.55	86
B1	131.55	40	132.27	34	130.46	33
B α	133.93	59	134.23	57	133.01	51
C1	135.13	35	136.85	25	135.21	29
A1	136.93	35	137.72	39	136.37	31
D4	139.19	29	140.08	31	138.42	17
A4	139.62	37	140.62	31	138.86	30
D1	140.23	44	141.84	44	140.50	33
C4	146.94	22	147.42	23	145.70	19
B4	147.63	30	148.67	30	147.00	21
C3	150.46	29	151.27	19	149.61	17
B3	150.93	39	151.86	36	150.06	24
A3	151.12	39	152.10	31	150.43	24
D3	151.27	39	152.24	34	150.72	22
A4 AcC=O	168.71	30	168.90	35	168.36	27
D4 AcC=O	168.98	40	169.05	35	168.54	25
B γ AcC=O	170.68	36	170.78	40	170.08	25
A γ AcC=O	170.76	36	170.81	40	170.12	25

Compound Number 2060

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β	50.40	30	51.33	39	49.47	15
A3 OMe	55.90	100	56.09	56	55.48	57
A4 OMe	55.90	100	56.13	32	55.76	22
B3 OMe	56.03	33	56.41	55	55.82	55
B γ	65.19	31	65.42	40	64.46	21
γ	65.38	25	65.92	33	64.80	12
α	88.86	34	89.15	42	87.87	20
A2	109.31	41	110.93	47	110.01	29
B2	110.67	26	112.25	33	111.03	11
A5	111.06	42	112.65	50	111.67	28
D β	114.53	39	115.08	51	113.68	21
C β	115.14	43	115.49	51	114.05	32
B6	115.39	32	116.36	40	115.31	16
D3	115.93	96	116.68	100	115.77	100
D5	115.83	96	116.68	100	115.77	100
C3	115.96	96	116.70	100	115.77	100
C5	115.96	96	116.70	100	115.77	100
A6	118.91	43	119.44	52	118.66	28
B β	121.37	36	122.40	41	121.56	18
D1	126.75	29	126.85	33	124.94	24
C1	126.98	29	126.97	37	125.08	29
B5	127.79	35	129.21	36	128.08	22
C2	130.00	34	130.94	100	130.34	100
C6	130.00	34	130.94	100	130.34	100
D2	130.06	97	131.02	100	130.34	100
D6	130.06	97	131.02	100	130.34	100
B1	130.62	34	131.51	27	130.06	24
A1	132.86	33	134.52	34	133.61	18
B α	134.27	36	134.78	44	132.79	29
B3	144.40	33	145.42	36	143.91	22
C α	144.94	40	145.50	50	144.89	29
D α	145.40	37	145.91	45	145.13	23
B4	148.27	26	149.42	25	147.65	23
A3	149.14	38	150.43	25	148.72	36
A4	149.17	38	150.51	28	148.81	21
D4	158.05	31	160.61	25	159.87	34
C4	158.23	31	160.71	25	159.94	27
C γ	167.20	34	167.23	38	166.38	5
D γ	167.37	29	167.23	38	166.38	14

¹H (acetone)

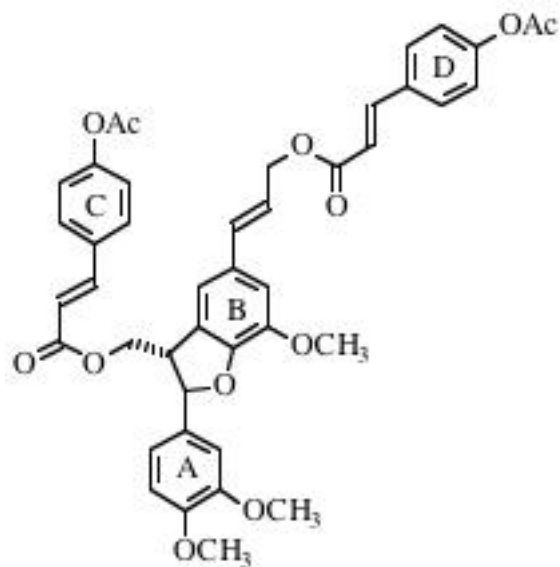
Atom	H Shifts	Mult	J
A3,4 OMe	3.77	s	
β	3.85	m	
B3 OMe	3.88	s	
γ1	4.45	dd	11.1, 7.6
γ2	4.58	dd	11.1, 5.4
B γ	4.78	dd	6.5, 1.2
a	5.61	d	7.1
B β	6.31	dt	15.8, 6.5
D β	6.33	d	15.9
C β	6.37	d	15.9
B α	6.70	dt	15.8, 1.2
C,D 3,5	6.88	m	
A5	6.93	d	8.3
A6	7.00	d	8.3, 2.0
A,B 2	7.07	br d	2.0
B6	7.11	br s	
D 2,6	7.51	m	
C 2,6	7.54	m	
C α	7.63	d	15.9
D α	7.53	d	15.9

Notes:

S. Quideau
 C3,4,5 and D3,4,5 Can be interchanged
 not substantiated in CDCl₃ & DMSO

Compound Number 2061

¹³C



¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.26	s	
A3,4 OMe	3.76	s	
B3 OMe	3.88	s	
β	~3.88	m	
γ1	4.48	dd	11.1, 7.5
γ2	4.61	dd	11.1, 5.4
B γ	4.81	dd	6.5, 1.3
α	5.61	d	7.2
B β	6.32	dt	15.8, 6.5
A5	6.43	d	8.3
D β	6.50	d	16.0
C β	6.54	d	16.0
B α	6.71	dt	15.8, 1.2
A6	7.00	dd	8.2, 2.0
A2	7.08	d	2.0
B2	7.08	br s	
B6	7.11	br s	
C,D 3,5	7.16-7.21	m	
D 2,6	7.68	m	
C α	7.70	d	16.0
C 2,6	7.72	m	

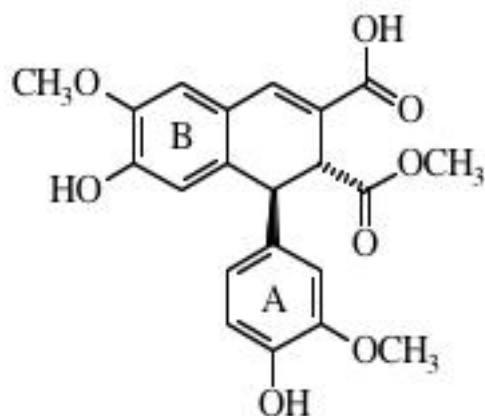
Notes:

S. Quideau
 C4,D4 and Cg,Dg Can be interchanged
 Not substantiated in CDCl₃ & DMSO

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
C4 AcMe	21.08	85	20.94	91	20.76	100
D4 AcMe	21.08	85	20.94	91	20.76	100
β	50.45	30	51.21	31	49.36	32
A3 OMe	55.97	52	56.08	46	55.50	95
A4 OMe	56.00	47	56.14	31	55.50	95
B3 OMe	56.13	47	56.41	42	55.76	85
B γ	65.31	30	65.71	32	64.66	31
γ	65.56	23	66.15	23	64.98	26
α	88.94	35	89.17	34	87.72	31
A2	109.53	32	110.97	38	110.11	48
B2	110.96	25	112.28	26	111.18	30
A5	111.26	40	112.63	39	111.77	48
B6	115.41	30	116.35	30	115.30	32
D β	117.59	37	118.61	41	117.65	49
C β	118.21	41	119.01	41	118.01	57
A6	118.94	42	119.53	38	118.65	49
B β	121.34	34	122.17	31	121.32	33
D3	122.14	100	123.23	100	122.24	96
D5	122.14	100	123.23	100	122.24	96
C3	122.19	100	123.23	100	122.28	96
C5	122.19	100	123.23	100	122.28	96
B5	127.79	27	129.17	27	128.02	47
C2	129.21	57	130.16	96	129.49	44
C6	129.21	57	130.16	96	129.49	44
D2	129.42	24	130.21	93	129.53	96
D6	129.42	24	130.21	93	129.53	96
B1	130.66	26	131.47	26	130.01	41
D1	131.92	23	132.77	25	131.47	47
C1	132.16	23	132.91	25	131.62	46
A1	132.96	28	134.41	28	132.74	41
B α	134.47	31	134.99	31	133.72	41
C α	143.91	40	144.43	39	143.59	24
D α	144.39	37	144.79	37	143.81	55
B3	144.53	24	145.42	26	143.87	47
B4	148.45	18	149.44	19	147.67	32
A3	149.36	30	150.45	25	148.81	45
C4	152.21	17	153.46	21	151.99	47
D4	152.36	17	153.53	21	152.03	47
C γ	166.47	30	166.80	48	165.84	45
D γ	166.61	23	166.80	48	165.87	45
C4 C=O	168.97	30	169.45	34	168.87	52
D4 C=O	169.01	30	169.45	34	168.87	52

Compound Number 2062

¹³C



Methyl 7-hydroxy-5-methoxy-1-(4-hydroxy-3-methoxyphenyl)-trans-1,1-dihydronaphthalene-3-carboxylic Acid 2-carboxylate

¹H (acetone)

Atom	H Shifts	Mult	J
A γ OMe	3.55	s	
A3 OMe	3.74	s	
B3 OMe	3.87	s	
β	3.96	d	3.1
α	4.51	d	3.1
A6	6.43	dd	8.3, 1.9
A5	6.657	d	8.3
B5	6.661	s	
A2	6.77	d	2.0
B2	7.06	s	
B α	7.66	s	

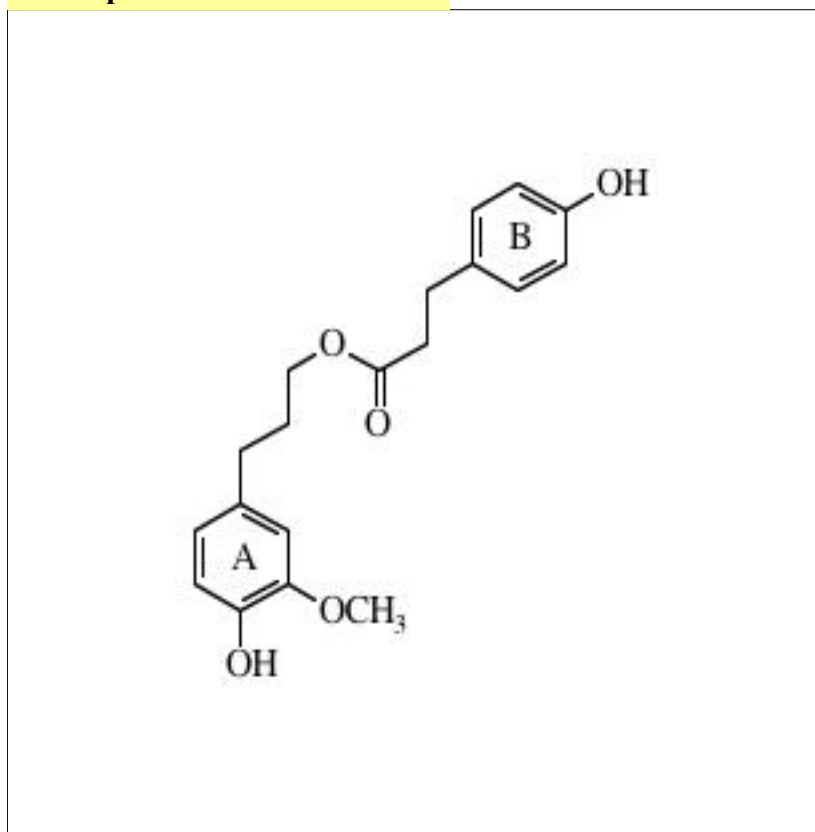
Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α			46.46	87		
β			48.06	64		
A g OMe			52.25	96		
A3 OMe			56.18	95		
B3 OMe			56.36	95		
A2			112.01	95		
B2			113.11	87		
A5			115.52	72		
B5			116.75	64		
A6			120.82	100		
B β			123.97	24		
B1			124.58	64		
B6			132.08	64		
A1			135.45	73		
B α			138.07	56		
A4			146.14	35		
B3			147.51	48		
A3			148.11	48		
B4			149.34	35		
B γ			168.80	12		
A γ			173.44	63		

Compound Number 2063

¹³C



Dihydroconiferyl 4-hydroxydihydrocinnamate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	30.11	46	30.75	47	29.49	37
β	30.40	42	31.33	47	29.95	38
α	31.75	44	32.24	47	30.91	36
B β	36.17	45	36.69	49	35.47	39
OMe	55.87	47	56.16	45	55.48	47
γ	63.85	44	64.03	48	63.13	35
A2	110.96	48	112.73	49	112.43	40
A5	114.28	47	115.62	45	115.28	92
B3	115.31	99	116.00	89	115.03	39
B5	115.31	99	116.00	89	115.03	39
A6	120.93	51	121.55	51	120.30	43
B2	129.37	100	130.05	100	129.04	100
B6	129.37	100	130.05	100	129.04	100
B1	132.46	25	132.38	23	130.50	30
A1	133.09	28	133.55	25	131.83	33
A4	143.76	25	146.58	22	144.53	35
A3	146.40	23	148.16	17	147.38	31
B4	154.13	26	156.57	22	155.55	33
B γ	173.26	24	173.09	21	172.32	34

¹H (acetone)

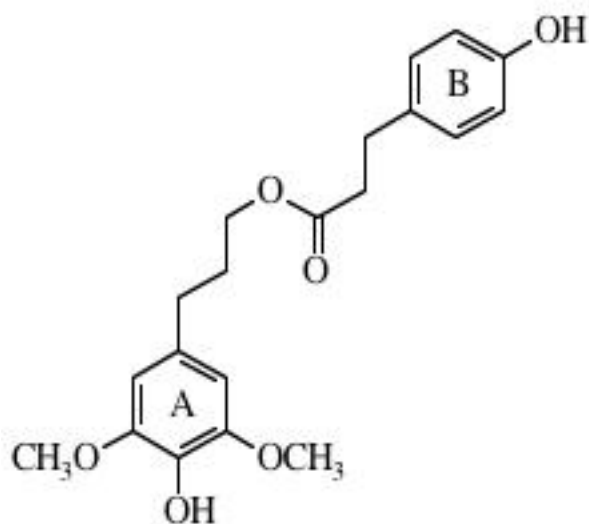
Atom	H Shifts	Mult	J
β	1.86	m	
α	2.55	t	7.4
B β	2.56	t	7.6
B α	2.82	t	7.6
OMe	3.80	s	
γ	4.03	t	6.5
A6	6.61	dd	8.0, 2.0
A5	6.73	d	7.9
B 3,5	6.75	m	
A2	6.79	d	2.0
B 2,6	7.06	m	
ArOH	7.86	s	
ArOH	8.10	s	

Notes:

S. Quideau

Compound Number 2064

¹³C



Dihydrosinapyl dihydro-p-coumarate

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B α	30.11	48	30.77	49	29.49	36
β	30.41	44	31.31	48	29.90	37
α	32.26	46	32.71	47	31.41	32
B β	36.17	46	36.71	49	35.46	36
OMe	56.27	96	56.57	92	55.87	100
OMe	56.27	96	56.57	92	55.87	100
γ	63.82	48	64.04	49	63.15	33
A2	105.03	94	106.69	90	105.63	69
A6	105.03	94	106.69	90	105.63	69
B3	115.32	95	116.01	92	115.02	81
B5	115.32	95	116.01	92	115.02	81
B2	129.34	100	130.07	100	129.03	91
B6	129.34	100	130.07	100	129.03	91
B1	132.28	31	132.40	26	130.50	25
A1	132.36	24	132.59	27	131.04	27
A4	132.93	26	135.07	23	133.55	25
A3	146.93	50	148.62	43	147.85	53
A5	146.93	50	148.62	43	147.85	53
B4	154.19	28	156.61	25	155.55	28
B γ	173.21	29	173.08	26	172.32	30

¹H (acetone)

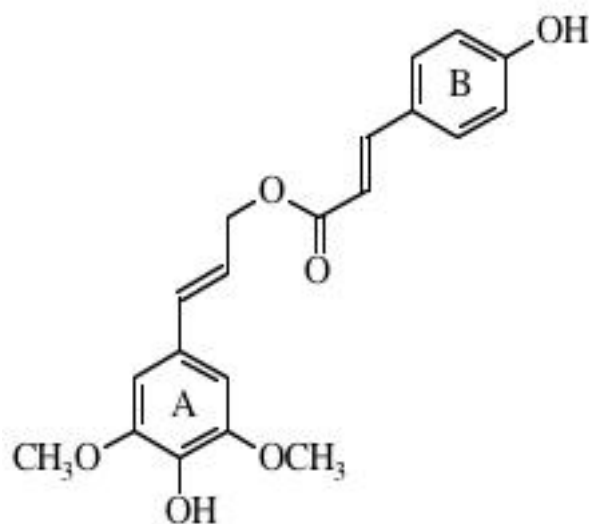
Atom	H Shifts	Mult	J
β	1.87	m	
α	2.55	t	7.6
B β	2.56	t	7.5
B α	2.82	t	7.6
OMe	3.79	s	
γ	4.03	t	6.5
A 2,6	6.48	s	
B 3,5	6.74	m	
A4 OH	6.89	s	
B 2,6	7.06	m	
B4 OH	8.08	s	

Notes:

S. Quideau

Compound Number 2065

¹³C



Sinapyl p-coumarate

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.84	s	
γ	4.78	dd	6.5, 1.3
β	6.28	dt	15.8, 6.5
B β	6.38	d	15.9
α	6.64	dt	15.8, 1.3
A 2,6	6.79	s	
B 3,5	6.89	m	
B 2,6	7.55	m	
B α	7.63	d	15.9

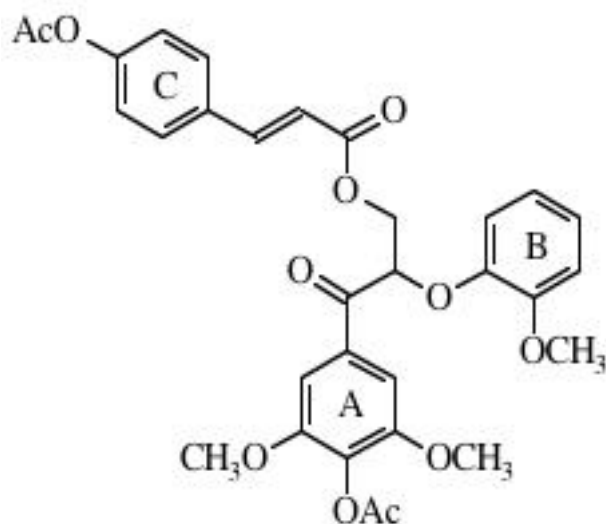
Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe	56.28	100	56.61	91	□55.97	100
OMe	56.28	100	56.61	91	55.97	100
γ	65.15	43	65.42	43	64.50	23
A2	103.55	89	105.16	91	104.20	64
A6	103.55	89	105.16	91	104.20	64
B β	115.15	45	115.52	45	114.08	38
B3	115.92	93	116.70	100	115.78	64
B5	115.92	93	116.70	100	115.78	64
β	121.44	44	122.07	48	121.06	28
B1	126.98	28	126.99	24	125.08	25
A1	127.84	27	128.22	25	126.47	26
B2	129.98	94	130.95	99	130.34	73
B6	129.98	94	130.95	99	130.34	73
α	134.53	44	135.14	47	134.03	30
A4	135.03	28	137.27	22	135.80	26
B α	144.91	39	145.45	45	144.88	36
A3	147.10	59	148.84	49	148.04	64
A5	147.10	59	148.84	49	148.04	64
B4	158.06	32	160.62	27	159.87	25
B γ	167.32	26	167.22	23	166.40	24

Compound Number 2066

¹³C



2-(4-Acetoxy-3,5-dimethoxybenzoyl)-2-(2-methoxyphenoxy)
ethyl 4-acetoxycinnamate

¹H (acetone)

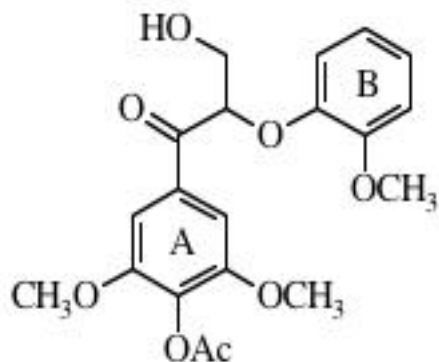
Atom	H Shifts	Mult	J
Ac Me	2.26	s	
Ac Me	2.26	s	
B3 OMe	3.75	s	
OMe	3.86	s	
γ1	4.60	dd	12.0, 6.8
γ2	4.86	dd	12.0, 3.6
β	5.96	dd	6.8, 3.6
C α	6.50	d	16.0
B6	6.83	ddd	7.9, 8.8, 2.5
B 1,2,5	6.98	m	
C 3,5	7.18	m	
A 2,6	7.56	s	
C β	7.62	d	16.0
C 2,6	7.69	m	

Notes:

S. Quideau
B5 and C β can be interchanged

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac	20.41	52	20.21	45	20.08	56
Ac	21.10	51	20.94	45	20.83	50
B3 OMe	55.71	52	56.12	49	55.55	63
OMe	56.34	93	56.68	89	56.21	100
OMe	56.34	93	56.68	89	56.21	100
γ	64.70	31	65.07	36	63.82	20
β	80.76	41	80.41	44	78.23	28
A2	105.93	76	106.52	84	105.47	52
A6	105.93	76	106.52	84	105.47	52
B2	112.59	49	113.82	47	112.95	34
B5	117.42	43	118.33	50	116.01	35
C β	118.35	48	118.38	51	117.39	41
B6	121.03	47	121.64	47	120.63	40
C3	122.18	100	123.24	100	122.38	90
C5	122.18	100	123.24	100	122.38	90
B1	123.60	45	123.34	8	122.55	32
C2	129.32	96	130.27	91	129.69	87
C6	129.32	96	130.27	91	129.69	87
C1	131.84	31	132.66	8	131.49	34
A1	132.66	30	133.94	26	132.49	34
A4	133.39	20	134.24	27	132.55	30
C α	144.59	42	145.13	13	144.28	36
B4	146.72	31	147.84	42	146.32	37
B3	150.37	29	151.34	24	149.51	39
A3	152.28	63	153.40	22	151.95	76
A5	152.28	63	153.40	22	151.95	76
C4	152.36	31	153.59	49	152.13	34
C γ	166.62	35	166.84	23	165.85	33
Ac C=O	168.05	29	168.13	26	167.63	37
Ac C=O	169.08	29	169.41	22	168.94	42
α	194.44	33	194.92	24	194.02	35

Compound Number 2067

¹³C

1(4-acetoxy-3,5-dimethoxyphenyl)-3-hydroxy-2-(2-methoxyphenoxy)propanone

¹H (acetone)

Atom	H Shifts	Mult	J
B3 OMe	3.77	s	
OMe	3.85	s	
γ	4.10	dd	6.2, 5.0
γ OH	4.28	t	6.2
β	5.56	t	5.0
A 2,6	7.49	s	
B6	6.80	m	
B 1,5	6.41	m	
B2	6.96	m	

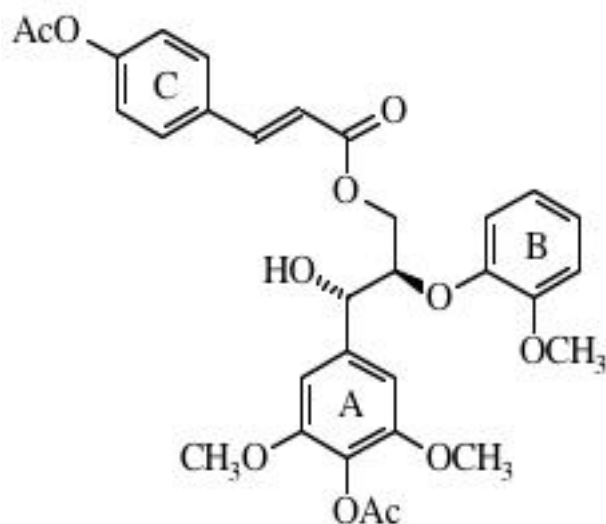
Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.20	46		
B3 OMe			56.11	48		
OMe			56.62	94		
OMe			56.62	94		
γ			63.90	47		
β			84.04	50		
A2			106.56	100		
A6			106.56	100		
B2			113.67	50		
B5			117.03	46		
B6			121.61	53		
B1			123.24	53		
A4			133.99	13		
A1			134.39	25		
B4			148.26	21		
B3			151.03	21		
A3			153.25	48		
A5			153.25	48		
Ac C=O			168.15	24		
α			196.77	26		

Compound Number 2068

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac			20.25	50		
Ac			20.94	51		
B3 OMe			56.21	45		
OMe			56.39	94		
OMe			56.39	94		
γ			64.01	31		
α			73.49	40		
β			83.04	40		
A2			104.37	75		
A6			104.37	75		
B2			113.66	46		
C β			118.84	42		
B5			119.77	46		
B6			121.73	47		
C3			123.18	100		
C5			123.18	100		
B1			123.67	43		
A4			128.89	15		
C2			130.15	94		
C6			130.15	94		
C1			132.86	28		
A1			140.77	30		
C α			144.38	42		
B4			148.69	25		
B3			152.04	25		
A3			152.89	52		
A5			152.89	52		
C4			153.43	24		
C γ			166.80	28		
Ac C=O			168.58	21		
Ac C=O			169.43	30		

¹H (acetone)

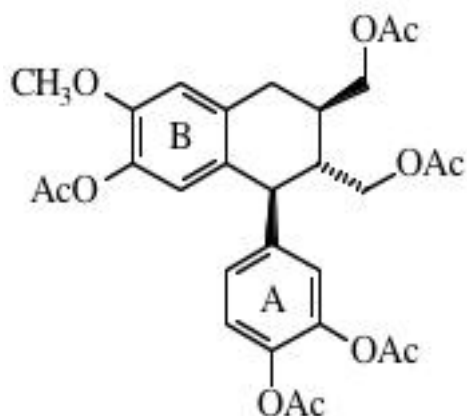
Atom	H Shifts	Mult	J
Ac	2.20	s	
Ac	2.26	s	
OMe	3.78	s	
B3 OMe	3.81	s	
γ1	4.47	dd	11.9, 3.9
γ2	4.52	dd	11.9, 6.1
β	4.73	m	
α OH	4.78	d	4.5
α	5.07	br t	4.8
C β	6.41	d	16.0
B6	6.84	ddd	7.9, 6.4, 2.7
A 2,6	6.88	s	
B 1,2	6.95	m	
B5	7.04	br dd	1.4
C 3,5	7.17	m	
C α	7.51	d	16.0
C 2,6	7.66	m	

Notes:

S. Quideau

Compound Number 2069

¹³C



Isotaxiresinol

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.00	s	
Ac Me	2.01	s	
Ac Me	2.10	s	
β	2.14	m	
Ac Me	2.22	s	
Ac Me	2.24	s	
B β	2.26	m	
B α	2.90	m	
A3 OMe	3.78	s	
γ1	3.90	dd	11.7, 3.5
α	4.06	br d	10.2
Bγ1	4.11	dd	11.2, 6.0
γ2	4.12	dd	11.7, 3.5
B γ2	4.22	dd	11.2, 4.4
B5	6.34	d	0.9
B2	6.88	br s	
A2	7.04	d	2.1
A6	7.10	dd	8.3, 4.1
A5	7.14	d	8.3

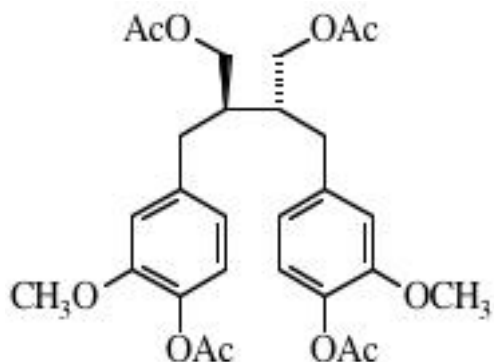
Notes:

S. Quideau
 Diaxial configuration on 6-membered ring --Trans 7,8
 Natural occurring isomer is (+), i.e. 7S.8R, 8R'

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 Ac Me			20.36	85		
A4 Ac Me			20.45	100		
B4 Ac Me			20.50	88		
Ac Me			20.60	83		
Ac Me			20.72	86		
B α			33.50	67		
B β			36.27	82		
β			44.34	80		
α			47.51	80		
OMe			56.18	96		
γ			63.57	65		
B γ			66.69	72		
B2			112.97	74		
B5			124.12	74		
A5			124.36	82		
A2			124.92	78		
A6			127.98	79		
B6			131.84	54		
B1			135.41	55		
B4			139.26	46		
A4			142.08	41		
A3			143.41	42		
A1			144.19	58		
B3			150.55	44		
A4 Ac C=O			168.52	46		
B4 Ac C=O			168.63	46		
A3 Ac C=O			168.92	45		
Ac C=O			171.04	58		
Ac C=O			171.05	55		

Compound Number 2070

¹³C



Seco-isolariciresinol

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
4 Ac Me			20.47	100		
γ AcMe			20.83	84		
α			35.51	64		
β			40.81	77		
γ			64.67	68		
2			114.00	79		
6			121.67	80		
5			123.32	80		
4			139.14	45		
1			140.00	1		
3			152.01	50		
4 Ac C=O			169.04	46		
γAc C=O			171.04	52		

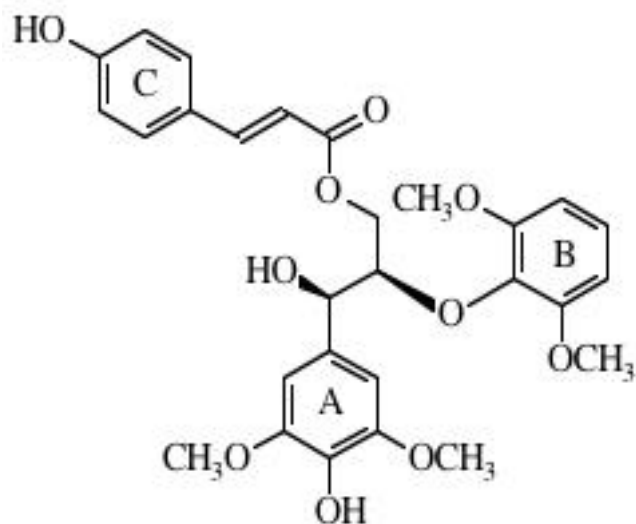
¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	2.00	s	
4 Ac Me	2.21	s	
β	2.22	m	
α1	2.70	dd	13.9, 7.9
α2	2.83	dd	13.8, 6.7
A3 OMe	3.74	s	
γ1	4.03	dd	11.4, 5.5
γ2	4.25	dd	11.4, 6.1
A6	6.70	dd	8.0, 1.95
A2	6.87	d	1.92
A5	6.92	d	8.0

Notes:

S. Quideau
 natural occurring isomer (-), i.e. 8R, 8R'
 As this compound has a plane of symmetry the shifts for the other half are identical.

Compound Number 2071

¹³C*threo*¹H (acetone)

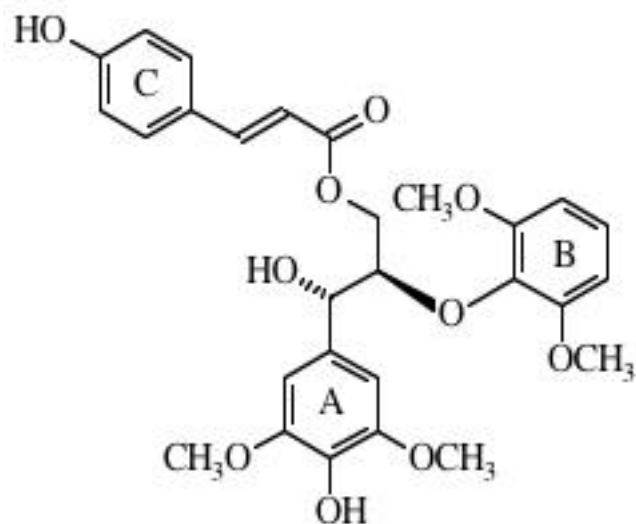
Atom	H Shifts	Mult	J
A 3,5 OMe	3.76	s	
B 3,5 OMe	3.83	s	
γ1	4.06	dd	11.9, 4.2
β	4.27	ddd	7.3, 4.2, 3.1
γ2	4.45	dd	12.0, 3.2
α	5.00	br d	7.1
α OH	4.60	d	3.2
C β	6.33	d	16.0
B 2,6	6.68	d	8.4
A 2,1	6.67	d	0.3
C 3,5	6.89	m	
B1	7.01	dd	8.7, 8.1
C α	7.48	d	16.0
C 2,6	7.53	m	

Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B OMe	56.01	54	56.44	81	55.78	26
B OMe	56.01	54	56.44	81	55.78	26
A OMe	56.25	56	56.59	49	55.93	100
A OMe	56.25	56	56.59	49	55.93	100
γ	63.92	23	64.78	28	64.09	8
α	74.66	35	74.81	35	72.17	17
β	87.07	29	86.87	38	83.84	17
A2	103.75	78	105.39	72	104.32	36
A6	103.75	78	105.39	72	104.32	36
B2	105.16	98	106.35	100	105.58	51
B6	105.16	98	106.35	100	105.58	51
C β	114.87	38	115.52	42	114.12	36
C3	115.97	96	116.68	95	115.82	74
C5	115.97	96	116.68	95	115.82	74
B1	124.30	44	124.72	40	123.62	22
C1	126.83	32	126.97	44	125.07	25
C2	129.98	100	130.92	91	130.21	54
C6	129.98	100	130.92	91	130.21	54
A1	130.58	41	132.00	30	131.16	26
A4	134.50	38	136.27	24	134.63	32
B4	136.62	33	137.85	20	136.12	28
C α	144.86	44	145.28	41	144.38	13
A3	146.99	79	148.38	53	147.49	40
A5	146.99	79	148.38	53	147.49	40
B3	152.93	71	154.03	51	152.97	63
B5	152.93	71	154.03	51	152.97	63
C4	158.23	37	160.58	32	159.80	24
C γ	167.12	23	167.12	27	166.25	32

Compound Number 2072

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B OMe	56.20	92	56.48	78	55.77	76
B OMe	56.20	92	56.48	78	55.77	76
A OMe	56.33	89	56.60	76	55.92	100
A OMe	56.33	89	56.60	76	55.92	100
γ	62.59	30	63.57	31	63.38	19
α	71.90	36	73.19	40	72.62	27
β	83.18	41	84.40	42	83.51	28
A2	102.78	85	104.59	88	103.77	62
A6	102.78	85	104.59	88	103.77	62
B2	105.36	92	106.34	96	105.32	69
B6	105.36	92	106.34	96	105.32	69
C β	115.19	46	115.73	46	114.12	42
C3	115.91	97	116.65	45	115.81	87
C5	115.91	97	116.65	45	115.81	87
B1	124.44	44	124.75	37	123.40	31
C1	126.85	36	127.03	32	125.03	37
C2	129.88	100	130.82	100	130.11	83
C6	129.88	100	130.82	100	130.11	83
A1	129.75	32	131.66	28	132.10	29
A4	133.91	29	135.91	24	134.45	32
B4	134.69	30	136.59	24	135.92	36
C α	144.58	44	144.99	47	144.16	37
A3	147.00	69	148.49	57	147.63	67
A5	147.00	69	148.49	57	147.63	67
B3	153.69	70	154.53	57	152.89	84
B5	153.69	70	154.53	57	152.89	84
C4	158.15	35	160.43	34	159.74	32
C γ	167.29	37	167.16	32	166.27	38

¹H (acetone)

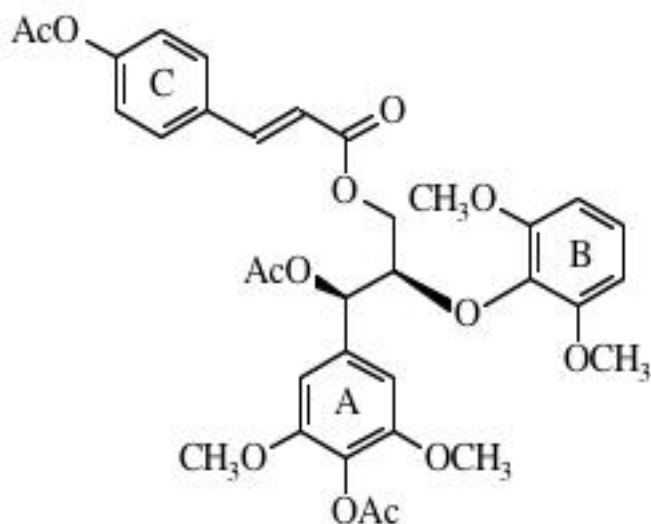
Atom	H Shifts	Mult	J
A 3,5 OMe	3.79	s	
B 3,5 OMe	3.82	s	
γ1	4.23	dd	11.8, 3.4
γ2	4.45	dd	11.8, 7.3
β	4.58	m	
α OH	4.697	d	3.9
α	4.96	br m	
C β	6.15	d	16.0
B 2,6	6.68	d	8.4
A 2,6	6.71	d	0.7
C 3,5	6.84	m	
B1	7.01	dd	8.6, 8.2
C α	7.33	d	16.0
C 2,6	7.46	m	

Notes:

S. Quideau

Compound Number 2073

¹³C



threo

¹H (acetone)

Atom	H Shifts	Mult	J
α Ac Me	1.97	s	
Ac Me	2.02	s	
Ac Me	2.27	s	
OMe	3.78	s	
OMe	3.79	s	
γ1	4.07	dd	11.9, 4.7
γ2	4.41	dd	11.9, 3.8
β	4.68	ddd	6.8, 4.7, 3.8
α	6.18	d	6.8
C β	6.56	d	16.0
B 2,6	6.66	d	8.4
A 2,6	6.86	br s	
B1	6.99	t	8.4
C 3,5	7.19	m	
C α	7.55	d	16.0
C 2,6	7.72	m	

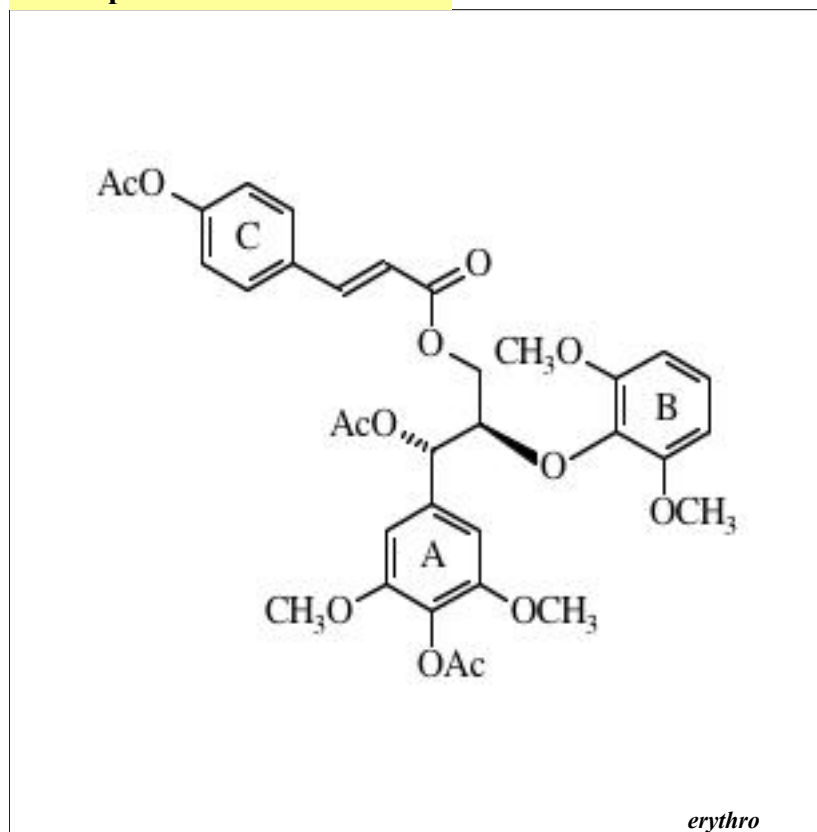
Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.36	49	20.23	47	20.15	54
Ac Me	21.02	83	20.95	73	20.75	47
α Ac Me	21.02	83	20.95	73	20.88	52
OMe	55.89	100	56.35	72	55.80	77
OMe	55.89	100	56.35	72	55.80	77
OMe	56.13	78	56.49	73	56.01	56
OMe	56.13	78	56.49	73	56.01	56
γ	64.01	22	64.66	25	63.72	10
α	75.63	30	76.79	34	75.97	16
β	80.86	29	81.83	32	80.62	18
A2	104.10	51	104.92	61	103.89	34
A6	104.10	51	104.92	61	103.89	34
B2	105.09	69	106.22	77	105.29	70
B6	105.09	69	106.22	77	105.29	70
C β	117.75	34	118.88	38	117.82	27
C3	122.09	79	123.20	100	122.43	100
C5	122.09	79	123.20	100	122.43	100
B1	123.74	31	124.47	37	123.68	22
A4	128.57	18	129.54	14	127.74	25
C2	129.19	96	130.22	88	129.68	67
C6	129.19	96	130.22	88	129.68	67
C1	131.92	26	132.90	24	131.66	31
B4	135.42	30	136.76	36	135.61	27
A1	136.56	24	137.85	20	136.15	31
C α	143.86	33	144.48	39	143.76	29
A3	151.94	55	153.07	53	151.55	74
A5	151.94	55	153.07	53	151.55	74
C4	152.10	24	153.46	24	152.09	30
B3	153.14	53	154.19	53	152.69	66
B5	153.14	53	154.19	53	152.69	66
C γ	166.24	27	166.62	26	165.86	32
Ac C=O	168.45	25	168.46	21	168.06	28
Ac C=O	169.05	41	169.45	29	169.06	38
Ac C=O	169.68	27	169.93	27	169.44	30

Compound Number 2074

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.36	57	20.24	42	20.15	61
α Ac Me	21.02	86	20.95	71	20.76	54
Ac Me	21.02	86	20.95	71	20.87	53
B OMe	55.87	100	56.32	80	55.78	100
B OMe	55.87	100	56.32	80	55.78	100
A OMe	56.07	100	56.47	79	55.97	88
A OMe	56.07	100	56.47	79	55.97	88
γ	63.13	25	63.73	28	62.64	15
α	74.50	34	75.58	37	74.23	26
β	80.92	35	81.67	38	80.19	26
A2	103.93	65	104.60	84	103.45	55
A6	103.93	65	104.60	84	103.45	55
B2	105.05	75	106.12	83	105.27	69
B6	105.05	75	106.12	83	105.27	69
C β	117.84	41	118.80	42	117.70	36
C3	122.03	87	123.19	100	122.43	99
C5	122.03	87	123.19	100	122.43	99
B1	124.00	3	124.72	43	124.00	29
A4	128.37	21	129.35	15	127.59	31
C2	129.19	94	130.15	90	129.57	82
C6	129.19	94	130.15	90	129.57	82
C1	131.98	31	132.85	26	131.56	33
B4	135.39	27	136.69	34	134.77	39
A1	135.73	33	136.77	21	135.43	34
C α	143.73	39	144.29	41	143.54	36
A3	151.84	62	153.06	55	151.58	85
A5	151.84	62	153.06	55	151.58	85
C4	152.04	29	153.44	23	152.06	36
B3	153.32	66	154.34	56	152.85	94
B5	153.32	66	154.34	56	152.85	94
C γ	166.42	32	166.52	27	165.70	36
Ac C=O	168.49	30	168.51	25	168.10	40
Ac C=O	169.04	35	169.44	27	169.05	45
Ac C=O	169.43	30	170.00	26	169.49	39

¹H (acetone)

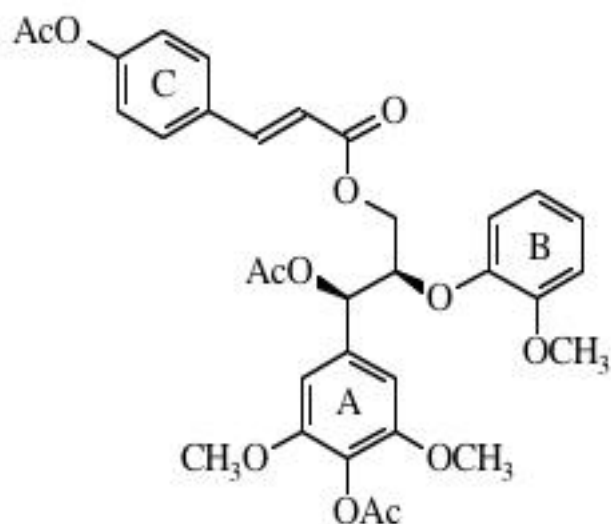
Atom	H Shifts	Mult	J
α Ac Me	2.15	s	
Ac Me	2.21	s	
Ac Me	2.26	s	
B 3,5 OMe	3.79	s	
A 3,5 OMe	3.81	s	
γ1	4.36	dd	11.9, 4.0
γ2	4.53	dd	11.9, 6.2
β	4.80	dt	6.2, 4.0
α	6.14	d	4.2
C β	6.35	d	16.0
B 2,6	6.65	d	8.4
A 2,6	6.83	br s	
B1	6.99	t(dd)	8.4
C 3,5	7.18	m	
C α	7.44	d	16.0
C 2,6	7.66	m	

Notes:

S. Quideau
B3,5 OMe and A3,5 OMe can be interchanged

Compound Number 2075

¹³C



threo

γ -p-coumaroylated syringylglycerol- β 04-guaiacol ether (Ac'd)

¹H (acetone)

Atom	H Shifts	Mult	J
α Ac Me	2.04	s	
Ac Me	2.20	s	
Ac Me	2.27	s	
B OMe	3.79	s	
A 3,5 OMe	3.81	s	
γ 1	4.19	dd	12.0, 5.5
γ 2	4.39	dd	11.9, 3.9
β	4.88	ddd	6.6, 5.5
α	6.15	d	6.6
C β	6.54	d	16.0
B6	6.87	m	
A 2,6	6.88	br s	
B 1,2	6.93 - 7.00	m	
B5	7.08 - 7.10	m	
C 3,5	7.19	m	
C α	7.58	d	16.0
C 2,6	7.71	m	

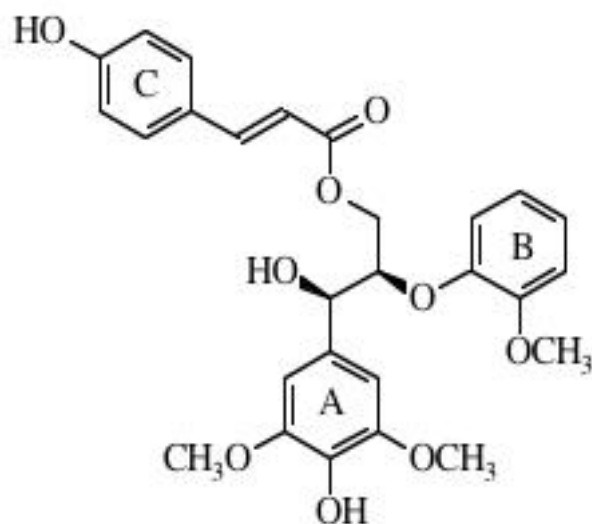
Notes:

S. Quideau
Not run in DMSO

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.42		20.23	25		
Ac Me	21.10		20.94	40		
α Ac Me	21.10		20.94	40		
B3 OMe	35.77		56.21	30		
OMe	56.20		56.51	51		
OMe	56.20		56.51	51		
γ	63.39		63.97	14		
α	74.88		75.92	20		
β	80.50		80.89	19		
A2	104.09		105.00	41		
A6	104.09		105.00	41		
B2	112.45		113.74	31		
C β	117.52		118.62	24		
B5	118.85		119.25	26		
B6	121.00		121.70	27		
C3	122.14		123.22	100		
C5	122.14		123.22	100		
B1	123.34		123.75	24		
A4	128.81		129.70	7		
C2	129.31		130.26	56		
C6	129.31		130.26	56		
C1	131.91		132.83	15		
A1	134.81		136.23	17		
C α	144.25		144.78	25		
B4	147.99		149.16	13		
B3	150.86		151.87	13		
A3	152.01		153.21	29		
A5	152.01		153.21	29		
C4	152.20		153.53	18		
C γ	166.32		166.64	19		
Ac C=O	168.47		168.43	14		
Ac C=O	169.09		169.43	22		
Ac C=O	169.71		170.03	14		

Compound Number 2076

¹³C



threo

γ -p-coumaroylated syringylglycerol- β 04-guaiacyl ether

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B3 OMe	55.82	50	56.27	38	55.60	54
OMe	56.31	91	56.59	74	55.88	95
OMe	56.31	91	56.59	74	55.88	95
γ	63.19	29	64.23	31	63.47	15
α	74.70	39	74.11	32	71.53	31
β	86.09	36	84.42	41	81.02	29
A2	103.82	80	105.41	85	104.24	68
A6	103.82	80	105.41	85	104.24	68
B2	112.19	50	113.60	48	112.70	46
C β	114.66	44	115.30	46	113.86	43
C3	115.95	99	116.68	99	115.78	100
C5	115.95	99	116.68	99	116.25	100
B5	120.53	49	119.33	50	116.25	54
B6	121.45	50	121.82	51	120.71	47
B1	124.12	52	123.52	47	121.71	35
C1	126.89	33	126.96	30	125.00	48
C2	130.04	100	130.97	100	130.30	95
C6	130.04	100	130.97	100	131.30	95
A1	130.29	34	132.11	25	131.22	36
A4	134.73	36	136.36	18	134.67	53
C α	145.18	44	145.57	46	144.84	35
A3	147.11	68	148.47	45	147.58	99
A5	147.11	68	148.47	45	147.58	99
B4	147.91	32	149.37	24	147.86	46
B3	150.91	32	151.80	23	149.91	55
C4	158.08	36	160.60	30	159.87	41
C γ	166.86	36	167.15	29	166.38	52

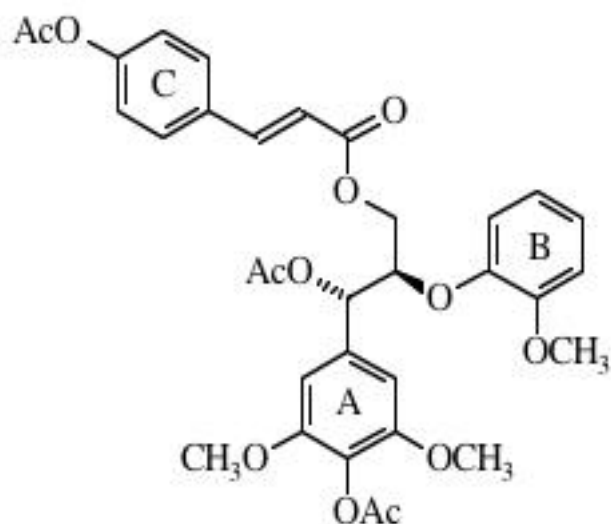
¹H (acetone)

Atom	H Shifts	Mult	J
A OMe	3.79	s	
B3 OMe	3.84	s	
γ 1	4.11	dd	12.0, 6.2
γ 2	4.36	dd	12.0, 3.4
β	4.57	td	6.1, 3.4
α	4.96	(br)d	5.9
C β	6.31	d	16.0
A 2,6	6.82	d	0.4
B6	6.85-6.90	m	
C 3,5	6.88	m	
B 1,2	6.94-7.01	m	
B5	7.15	dd	7.9, 1.5
C α	7.48	d	16.0
C 2,6	7.51	m	

Notes:

S. Quideau

Compound Number 2077

¹³C*erythro***γ-p-coumaroylated syringylglycerol-β04-guiacol ether (Ac'd)**¹H (acetone)

Atom	H Shifts	Mult	J
α Ac Me	2.09	s	
Ac Me	2.21	s	
Ac Me	2.26	s	
B3 OMe	3.81	s	
A OMe	3.81	s	
γ1	4.43	dd	11.9, 4.3
γ2	4.49	dd	11.9, 5.8
β	4.94	m	
α	6.12	d	5.1
C β	6.45	d	16.0
B6	6.85	m	
A 2,6	6.89	d	0.4
B 1,2	6.95-7.00	m	
B5	7.03-7.06	m	
C 3,5	7.19	m	
C α	7.57	d	16.0
C 2,6	7.69	m	

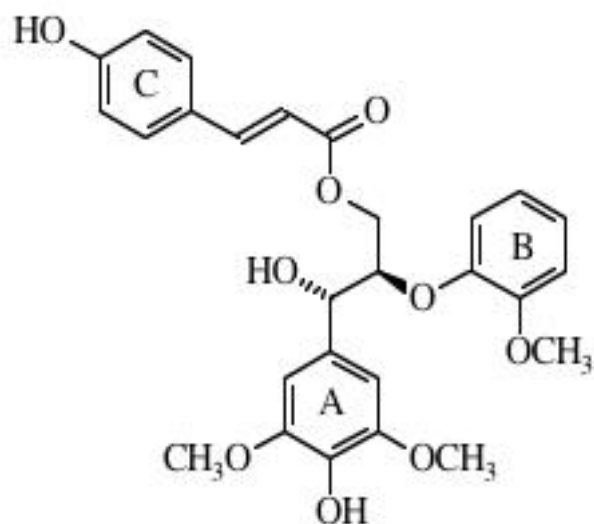
Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.40	51	20.24	43	20.12	50
α Ac Me	21.01	47	20.90	37	20.70	51
Ac Me	21.06	58	20.94	47	20.84	54
B3 OMe	55.73	52	56.20	47	55.61	58
A OMe	56.14	93	56.50	82	55.97	99
A OMe	56.14	93	56.50	82	55.97	99
γ	62.98	27	63.41	27	62.35	18
α	74.17	35	74.99	35	73.53	29
β	80.31	36	80.38	34	78.34	24
A2	104.43	73	105.14	70	104.10	53
A6	104.43	73	105.14	70	104.10	53
B2	112.51	43	113.75	43	112.88	43
C β	117.59	43	118.57	40	117.53	40
B5	119.50	43	119.79	41	117.81	42
B6	120.95	45	121.65	42	120.69	45
C3	122.09	95	123.21	100	122.38	100
C5	122.09	95	123.21	100	122.38	100
B1	123.58	41	124.02	38	122.81	34
A4	128.67	20	129.57	13	127.73	27
C2	129.28	100	130.22	83	129.63	86
C6	129.28	100	130.22	83	129.63	86
C1	131.93	30	132.79	24	131.51	33
A1	134.92	31	136.25	26	134.99	32
C α	144.23	41	144.74	38	143.94	39
B4	147.24	31	148.36	22	146.75	36
B3	151.07	32	152.03	21	150.27	41
A3	151.98	61	153.07	45	151.48	70
A5	151.98	61	153.07	45	151.48	70
C4	152.16	29	153.51	21	152.08	36
C γ	166.44	30	166.63	26	165.76	33
Ac C=O	168.49	28	168.48	21	168.01	33
Ac C=O	169.06	33	169.43	25	168.97	37
α Ac C=O	169.48	27	169.95	21	169.34	30

Compound Number 2078

¹³C



erythro

γ -p-coumaroylated syringylglycerol- β 04-guaiacyl ether

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B3 OMe	55.83	53	56.23	48	55.54	
OMe	56.29	100	56.60	89	55.90	
OMe	56.29	100	56.60	89	55.90	
γ	62.70	30	64.04	33	63.29	
α	72.39	33	73.51	35	71.77	
β	84.23	40	83.41	42	80.92	
A2	103.13	84	105.23	84	104.38	
A6	103.13	84	105.23	84	104.38	
B2	112.22	49	113.63	47	112.74	
C β	114.40	46	115.37	45	113.93	
C3	115.95	99	116.67	100	115.75	
C5	115.95	99	116.67	100	115.75	
B5	120.53	49	119.55	48	116.89	
B6	121.46	54	121.72	48	120.62	
B1	124.03	46	123.46	45	121.83	
C1	126.44	36	126.92	28	124.99	
C2	129.98	99	130.90	94	130.24	
C6	129.98	99	130.90	94	130.24	
A1	130.16	37	132.59	31	132.05	
A4	134.15	37	136.12	26	134.61	
C α	145.25	44	145.42	43	144.71	
A3	147.00	60	148.42	51	147.52	
A5	147.00	60	148.42	51	147.52	
B4	147.02	39	148.91	24	147.52	
B3	151.42	35	152.00	22	150.03	
C4	158.68	38	160.58	31	159.82	
C γ	167.39	39	167.28	28	166.41	

¹H (acetone)

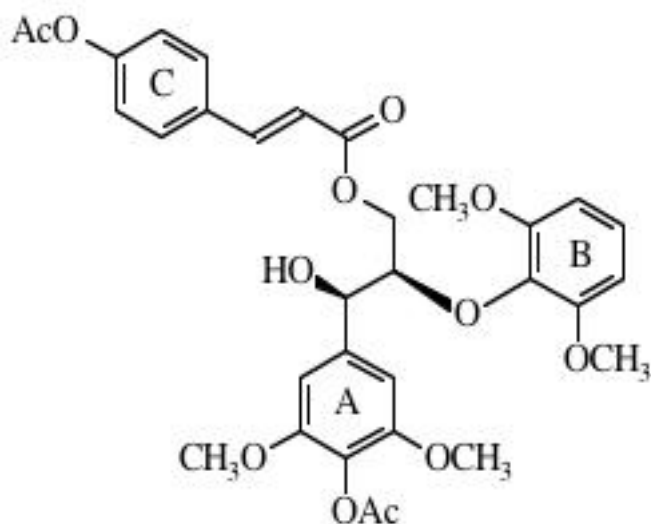
Atom	H Shifts	Mult	J
OMe	3.80	s	
B3 OMe	3.81	s	
γ 1	4.41	dd	11.8, 3.8
γ 2	4.47	dd	11.8, 6.4
β	4.68	ddd	6.4, 5.0, 3.8
α	4.98	br d	4.9
C β	6.25	d	16.0
A 2,6	6.81	brs	
B6	6.83	m	
C 3,5	6.87	m	
B 1,2	6.91-6.96	m	
B5	7.05	br dd	7.8, 1.5
C α	7.44	d	16.0
C 2,6	7.48	m	

Notes:

S. Quideau

Compound Number 2079

¹³C



threo

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.19	s	
Ac Me	2.27	s	
A OMe	3.75	s	
B OMe	3.82	s	
γ1	4.16	dd	11.9, 4.6
β	4.38	ddd	6.3, 4.5, 3.6
γ2	4.50	dd	11.9, 3.6
α	5.07	br d	6.4
C β	6.47	d	16.0
B 2,6	6.68	d	8.4
A 2,6	6.87	br s	
B1	7.01	t	8.4
C 3,5	7.19	m	
C α	7.63	d	16.0
C 2,6	7.70	m	

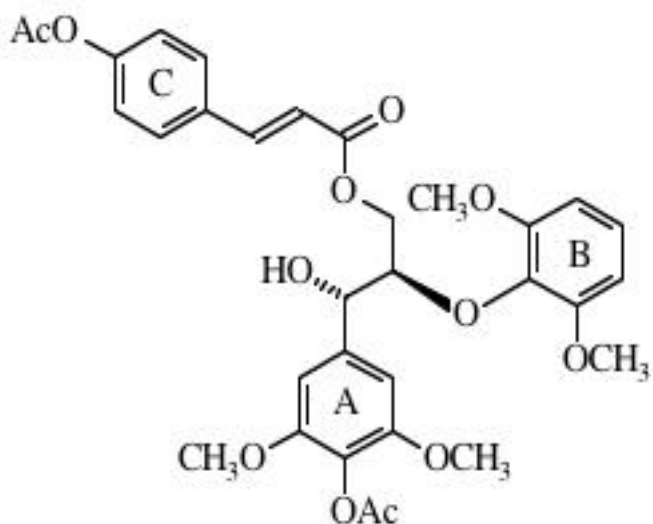
Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.25	53		
Ac Me			21.06	53		
A OMe			56.36	83		
A OMe			56.36	83		
B OMe			56.45	81		
B OMe			56.45	81		
γ			64.93	30		
α			74.56	23		
β			85.88	37		
A2			104.48	69		
A6			104.48	69		
B2			106.35	88		
B6			106.35	88		
C β			118.98	40		
C3			123.19	100		
C5			123.19	100		
B1			124.80	43		
A4			128.98	14		
C2			130.17	91		
C6			130.17	91		
C1			132.93	39		
B4			137.65	21		
A1			140.28	21		
C α			144.26	40		
A3			152.82	53		
A5			152.82	53		
C4			153.43	24		
B3			154.07	54		
B5			154.07	54		
C γ			166.65	26		
Ac C=O			168.54	25		
Ac C=O			169.45	36		

Compound Number 2080

¹³C



erythro

¹H (acetone)

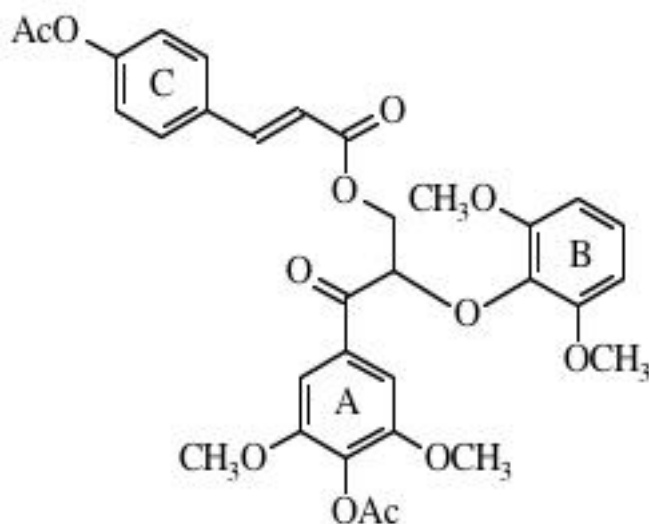
Atom	H Shifts	Mult	J
Ac Me	2.19	s	
Ac Me	2.26	s	
A OMe	3.78	s	
B OMe	3.83	s	
γ1	4.30	dd	11.7, 3.8
γ2	4.51	dd	11.7, 6.9
β	4.62	m	
α	5.05	br t	3.7
C β	6.34	d	16.0
B 2,6	6.09	d	8.4
A 2,6	6.82	br s	
B1	7.03	t	8.4
C 3,5	7.17	m	
C α	7.44	d	16.0
C 2,6	7.66	m	

Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.26	47		
Ac Me			20.94	54		
A OMe			56.38	86		
A OMe			56.38	86		
B OMe			56.48	97		
B OMe			56.48	97		
γ			63.67	31		
α			73.30	37		
β			84.07	39		
A2			103.76	82		
A6			103.76	82		
B2			106.31	88		
B6			106.31	88		
C β			119.10	44		
C3			123.16	100		
C5			123.16	100		
B1			124.83	43		
A4			128.69	14		
C2			130.11	89		
C6			130.11	89		
C1			132.93	29		
B4			136.57	21		
A1			140.05	25		
C α			144.00	42		
A3			152.94	48		
A5			152.94	48		
C4			153.36	21		
B3			154.51	52		
B5			154.51	52		
C γ			166.71	28		
Ac C=O			168.59	23		
Ac C=O			169.45	27		

Compound Number 2081

¹³C¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.26	s	
Ac Me	2.28	s	
B OMe	3.72	s	
A OMe	3.85	s	
γ1	4.63	dd	11.7, 6.2
γ2	4.74	dd	11.7, 4.6
β	5.69	dd	6.2, 4.6
C β	6.39	d	16.0
B 2,6	6.64	d	8.4
B1	6.49	t	8.4
C 3,5	7.17	m	
C α	7.50	d	16.0
A 2,6	7.58	br s	
C 2,6	7.64	m	

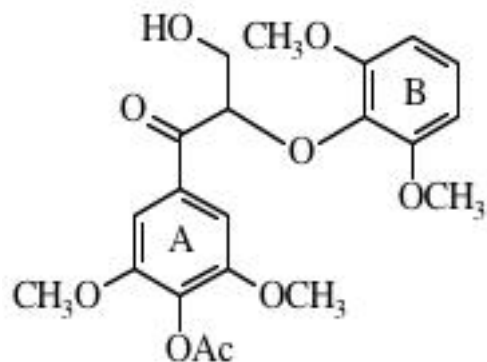
Notes:

S. Quideau

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.40	42	20.23		20.12	47
Ac Me	21.08	40	20.95		20.85	40
B OMe	55.88	85	56.31		55.80	100
B OMe	55.88	85	56.31		55.80	100
A OMe	56.28	82	56.67		56.20	92
A OMe	56.28	82	56.67		56.20	92
γ	64.49	27	64.90		63.77	17
β	81.85	38	81.50		79.82	26
B2	105.11	91	106.18		105.39	63
B6	105.11	91	106.18		105.39	63
A2	106.37	82	106.93		105.86	49
A6	106.37	82	106.93		105.86	49
C β	117.67	43	118.55		117.57	33
C3	122.15	100	123.25		122.45	76
C5	122.15	100	123.25		122.45	76
B1	124.23	46	124.99		124.07	28
C2	129.21	97	130.19		129.61	71
C6	129.21	97	130.19		129.61	71
C1	131.90	33	132.72		131.48	32
A4	133.05	19	133.96		132.28	26
A1	133.49	35	134.72		133.31	33
B4	135.68	24	136.63		135.12	32
C α	144.02	44	144.62		143.83	32
A3	152.08	69	153.20		151.80	69
A5	152.08	69	153.20		151.80	69
C4	152.16	28	153.52		152.11	31
B3	153.03	65	154.07		152.53	70
B5	153.03	65	154.07		152.53	70
C γ	166.34	33	166.55		165.73	32
Ac C=O	168.06	29	168.19		167.72	33
Ac C=O	169.08	29	169.43		169.02	32
α	194.81	33	195.26		184.38	31

Compound Number 2082

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.21	51		
B OMe			56.28	100		
B OMe			56.28	100		
A OMe			56.61	97		
A OMe			56.61	97		
γ			63.35	42		
β			86.41	48		
B2			106.22	97		
B6			106.22	97		
A2			106.51	91		
A6			106.51	91		
B1			124.92	47		
A4			133.59	14		
A1			135.01	29		
B4			137.01	20		
A3			153.06	51		
A5			153.06	51		
B3			153.77	50		
B5			153.77	50		
Ac C=O			168.18	22		
α			196.25	27		

¹H (acetone)

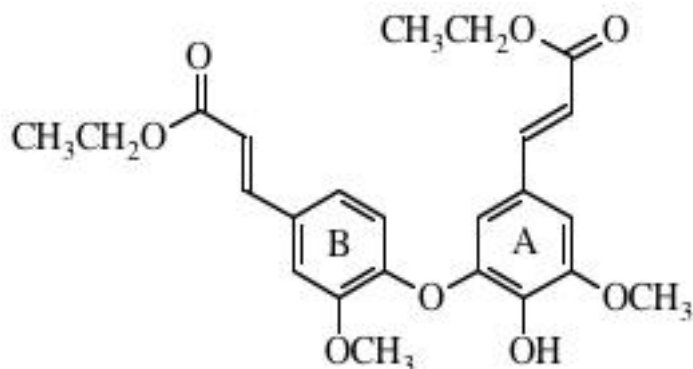
Atom	H Shifts	Mult	J
Ac Me	2.27	s	
B OMe	3.73	s	
A OMe	3.86	s	
γ + γ OH	3.90-3.98	m	
β	5.22	dd	5.7, 4.5
B 2,6	6.67	d	8.4
B1	7.02	dd t	8.6, 8.2, 8.4
A 2,6	7.48	s	

Notes:

S.Quideau

Compound Number 3001

¹³C



4-O-5 dehydrodiethylferulate

3-{3-[4-(2-ethoxycarbonyl-vinyl)-2-methoxy-phenoxy]-4-hydroxy-5-methoxy-phenyl}acrylic acid ethyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
A CH3	1.24	t	7.1
B CH3	1.27	t	7.1
B3 OMe	3.93	s	
A3 OMe	3.96	s	
A CH2	4.16	q	7.1
B CH2	4.19	q	7.1
A β	6.36	d	15.9
B β	6.48	d	15.95
B5	6.81	d	8.3
A6	6.89	d	1.9
B6	7.17	dd	8.7, 2.0
A2	7.22	d	1.9
B2	7.46	d	2.0
A α	7.53	d	15.9
B α	7.62	d	15.95

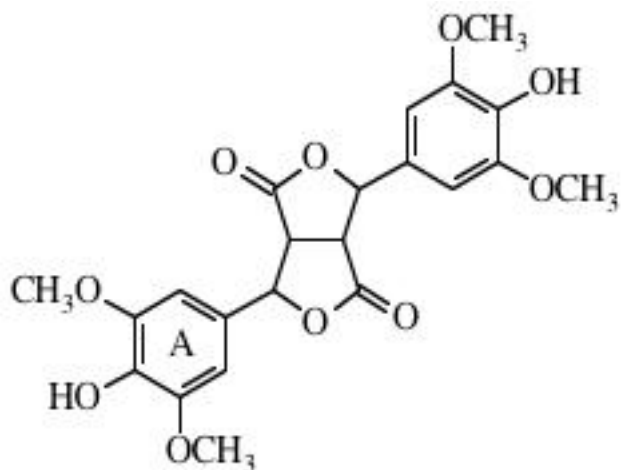
Notes:

jrf107.P1 /1 (H1), /2 (C13), /3 (Dept135)

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A CH3			14.60	100		
B CH3			14.60	92		
B3 OMe			56.41	89		
A3 OMe			56.77	82		
A CH2			60.53	71		
B CH2			60.64	72		
A2			107.99	69		
B2			112.66	78		
A6			114.45	73		
A β			116.99	76		
B β			117.93	80		
B5			118.36	69		
B6			122.84	78		
A1			126.67	56		
B1			131.04	53		
A4			141.41	19		
A5			144.45	40		
B α			144.81	75		
A α			144.94	73		
B4			149.35	39		
A3			150.12	34		
B3			151.41	43		
B γ			167.15	53		
A γ			167.16	56		

Compound Number 3002

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β			49.06			
OMe			56.77			
OMe			56.77			
α			83.39			
2			104.31			
6			104.31			
4			129.87			
1			137.51			
3			149.04			
5			149.04			
g			176.05			

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.83	s	
β	4.11	s	
α	5.95	s	
2,6	6.73	s	
OH	7.42	s	

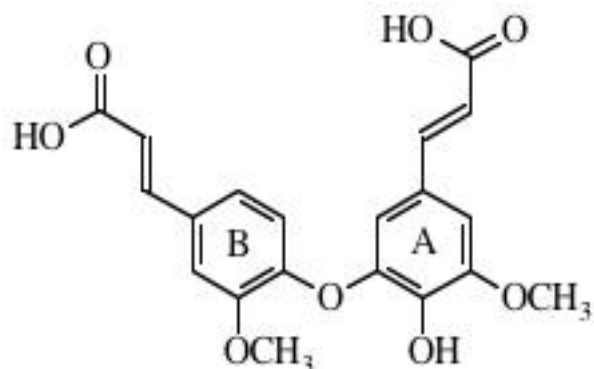
Notes:

FLJ144

As this dimer contains a plane of symmetry the CS's are reported for one unit.

Compound Number 3003

¹³C



4-O-5 dehydrodiferulic acid

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B3 OMe			56.40	94	55.85	100
A3 OMe			56.76	100	56.24	93
A2			108.03	70	107.58	32
B2			112.7	75	111.86	39
A6			114.46	79	114.05	46
A β			117.00	75	116.96	25
B β			117.95	76	118.00	21
B5			118.33	79	116.34	43
B6			122.80	79	121.91	46
A1			126.71	63	125.22	61
B1			131.06	63	129.43	54
A4			141.38	46	140.35	64
A5			144.44	54	142.94	64
A α			145.23	76	143.81	36
B α			145.38	73	143.63	29
B4			149.34	56	148.05	64
A3			150.12	56	149.28	71
B3			151.38	58	149.56	79
B γ			168.02	62	167.82	61
A γ			168.05	66	167.82	61

¹H (acetone)

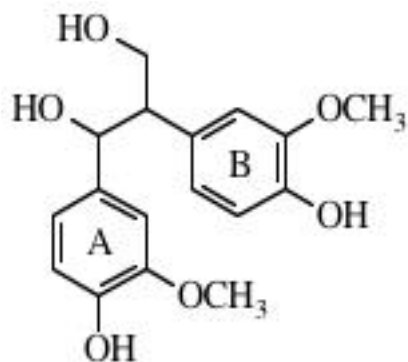
Atom	H Shifts	Mult	J
B3 OMe	3.58	s	
A3 OMe	3.88	s	
A β	6.36	d	15.9
B β	6.47	d	15.95
B5	6.82	d	8.3
A6	6.90	d	1.9
B6	7.22	dd	8.3, 2.0
A2	7.22	d	1.9
B2	7.45	d	2.0
A α	7.54	d	15.9
B α	7.63	d	15.95
<u>DMSO</u>			
B3 OMe	3.85		
A3 OMe	3.86		
A β	6.35		
B β	6.47		
B5	6.59		
A6	6.85		
B6	7.12		
A2	7.20		
B2	7.43		
A α	7.42		
B α	7.51		

Notes:

Acetone: jrf117 /2 (C13) and /1 (H1) DMSO: jrf127.c7/2 Not soluble in chloroform
¹H NMR (DMSO-d₆) δ: 3.85 (B3-OMe), 3.86 (A3-OMe), 6.35 (A8), 6.47 (B8),
 6.59 (B5), 6.85 (A6), 7.12 (B6), 7.20 (A2), 7.43 (B2), 7.42 (A7), 7.51 (B7)
 JCS Perkin 1, 3485-98 (1994) Cmpd 17

Compound Number 3004

¹³C



erythro

1,2-diguaiacylpropane-1,3-diol

¹H (acetone)

Atom	H Shifts	Mult	J
β	2.93	m	
γ1	3.72	m	
γ2	3.87	m	
α	5.02	bd	
B6	6.60	bd	
B5	6.66	dd	
A5	6.68	d	8.1
A6	6.68	m	
A2	6.71	m	
B2	6.74	d	1.9

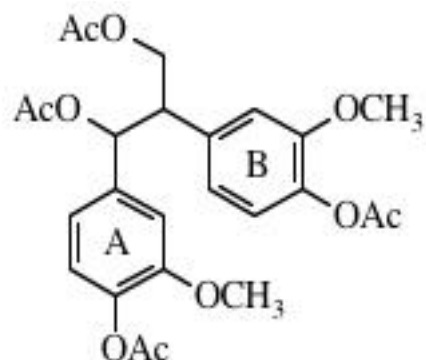
Notes:

jrlz 15
Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			55.85	100		
OMe			55.95	100		
β			56.31	45		
γ			64.21	38		
α			74.66	57		
A2			111.01	99		
B2			114.00	99		
A5			114.81	35		
B5			115.00	36		
A6			119.95	95		
B6			123.05	95		
B1			132.24	64		
A1			136.67	38		
B4			145.96	16		
A4			146.17	16		
B3			147.56	18		
A3			147.63	16		

Compound Number 3005

¹³C



threo

Acetic acid 3-acetoxy-2,3-bis-(4-acetoxy-3-methoxyphenyl)propyl ester

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.41	96		
Ac Me			20.44	93		
Ac Me			20.72	81		
Ac Me			21.01	92		
β			50.71	78		
OMe			56.18	91		
OMe			56.21	100		
γ			64.71	68		
α			76.50	75		
A2			112.51	80		
B2			114.33	76		
A6			119.77	80		
B6			121.85	84		
A5			123.14	82		
B5			123.22	84		
B1			137.82	60		
A1			138.39	54		
B4			139.96	36		
A4			140.35	38		
B3			151.76	41		
A3			151.85	45		
Ac C=O			168.84	45		
Ac C=O			168.88	40		
α Ac C=O			170.01	47		
γ Ac C=O			170.81	43		

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.93	s	
α Ac Me	2.09	s	
Ac Me	2.18	s	
Ac Me	2.19	s	
β	3.56	m	
OMe	3.67	s	
OMe	3.71	s	
γ1	4.38	dd	11.2, 5.2
γ2	4.54	dd	11.2, 7.2
α	6.02	d	8.2
B6	6.77	ddd	8.1, 2.0, 0.3
A2	6.79	bd	1.9
A6	6.82	ddd	8.1, 1.9, 0.5
B2	6.85	bd	1.9
B5	6.90	d	8.1
A5	6.91	d	8.1

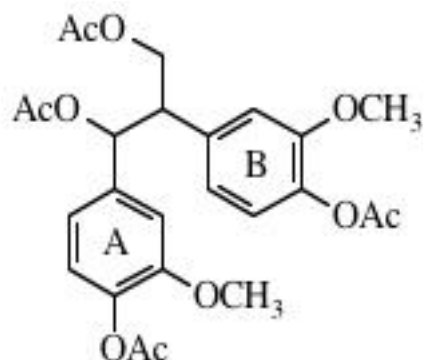
Notes:

jrlz9.1

Liming Zhang, isolate from mild acidolysis

Compound Number 3006

¹³C



erythro

Acetic acid 3-acetoxy-2,3-bis-(4-acetoxy-3-methoxyphenyl)propyl ester

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.43	98		
Ac Me			20.46	100		
Ac Me			20.65	83		
Ac Me			20.83	85		
β			50.98	76		
OMe			56.20	97		
OMe			56.22	92		
γ			64.86	65		
α			75.56	75		
A2			112.09	74		
B2			114.52	75		
A6			119.73	76		
B6			121.93	75		
B5			123.13	78		
A5			123.30	84		
B1			137.43	50		
A1			138.72	50		
B4			140.05	40		
A4			140.51	39		
B3			151.80	46		
A3			152.00	49		
Ac C=O			168.89	41		
Ac C=O			168.95	38		
α Ac C=O			169.94	46		
γ Ac C=O			170.74	46		

¹H (acetone)

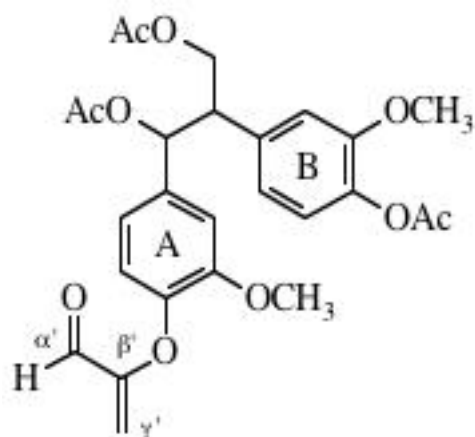
Atom	H Shifts	Mult	J
γ Ac Me	1.92	s	
α Ac Me	1.97	s	
Ac Me	2.20	s	
Ac Me	2.21	s	
β	3.50	m	6.7
OMe	3.69	s	
OMe	3.73	s	
γ1	4.20	dd	11.2, 6.7
γ2	4.37	dd	11.2, 6.8
α	6.16	d	6.6
B6	6.84	ddd	8.1, 1.9, 0.3
A2	6.84	bd	1.8
A6	6.87	ddd	8.1, 1.8, 0.5
B2	6.92	bd	1.9
B5	6.96	d	8.1
A5	6.98	d	8.1

Notes:

jrlz11.1
Liming Zhang, isolate from mild acidolysis
1H data at 600 MHz

Compound Number 3007

¹³C



erythro

Acetic acid 3-acetoxy-2,3-bis-(4-acetoxy-3-methoxyphenyl)propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.94	s	
α Ac Me	2.00	s	
Ar Ac Me	2.07	s	
β	3.50	m	
OMe	3.69	s	
OMe	3.76	s	
γ1	4.22	dd	11.2, 6.8
γ2	4.38	dd	11.2, 6.8
γ1'	5.00	d	2.8
γ2'	5.38	d	2.8
α	6.19	d	6.4
B6	6.81	dd	8.1, 1.6
A2	6.88	bd	
A6	6.89	dd	7.3, 1.5
B5	6.94	d	8.1
A5	6.97		
A2	6.99		
a'	9.45		

Notes:

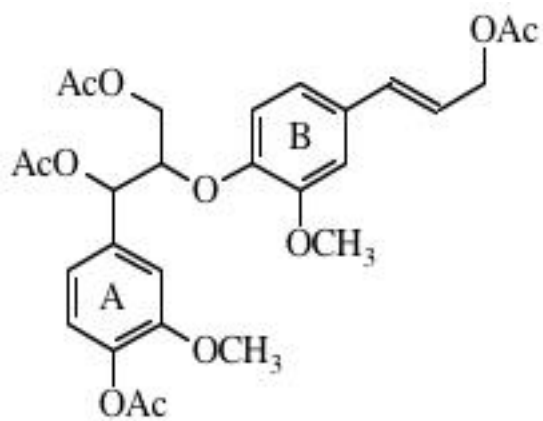
jrlz 13

Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.60	114	20.43	58		
Ac Me	20.79	80	20.66	51		
Ac Me	20.96	67	20.83	54		
β	50.13	61	51.07	41		
OMe	55.85	120	56.12	66		
OMe	55.85	120	56.22	66		
γ	63.96	49	64.82	42		
α	74.76	68	75.38	40		
γ'	107.76	51	108.01	34		
A2	111.65	73	122.68	40		
B2	113.15	58	114.44	41		
A6	119.35	65	120.17	43		
B6	121.12	65	122.12	48		
A5	121.61	68	122.14	31		
B5	122.45	79	123.16	52		
B1	135.71	51	137.41	27		
A1	136.32	58	138.17	29		
B4	139.10	43	140.07	19		
A4	142.55	43	143.24	18		
B3	150.75	68	151.76	25		
A3	150.75	68	151.81	27		
β'	157.84	60	159.33	25		
B4 Ac C=O	168.79	29	168.91	21		
α Ac C=O	169.70	52	169.94	23		
γAc C=O	170.69	65	170.71	24		
α'	186.74	93	187.55	45		

Compound Number 3008

¹³C



threo

Acetic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-
2-[4-(3-acetoxypropenyl)-2-methoxyphenoxy]propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.95	s	
B γ Ac Me	2.01	s	
α Ac Me	2.02	s	
A4 Ac Me	2.21	s	
OMe	3.82	s	
OMe	3.85	s	
γ1	4.02	dd	11.9, 5.7
γ2	4.25	dd	11.9, 4.1
B γ	4.66	dd	6.4, 1.3
β	4.81	m	
α	6.10	d	6.4
B β	6.26	dt	15.9, 6.4
B α	6.63	bd	15.9
B6	6.95	dd	8.3, 2.0
B5	7.00	d	8.3
A5	7.03	d	8.2
A6	7.09	dd	8.2, 1.7
B2	7.14	d	1.9
A2	7.22	d	1.6

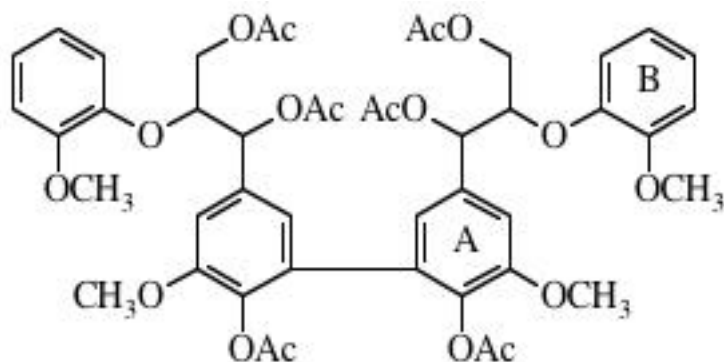
Notes:

jrlz 35
Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.41	56		
Ac Me			20.55	58		
Ac Me			20.75	45		
Ac Me			20.89	50		
OMe			56.23	56		
OMe			56.27	56		
γ			63.54	44		
B γ			65.33	57		
α			75.29	56		
β			80.62	57		
B2			111.30	58		
A2			112.63	47		
B5			118.73	57		
A6			120.28	44		
B6			120.52	44		
B β			123.25	57		
A5			123.54	51		
B1			132.34	32		
B α			134.14	54		
A1			136.59	31		
A4			140.90	22		
B4			149.08	26		
B3			151.74	23		
A3			152.21	22		
A4 Ac C=O			168.85	26		
α Ac C=O			169.95	30		
γ Ac C=O			170.64	23		
B γ Ac C=O			170.64	23		

Compound Number 3009

¹³C



threo

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.26	69		
Ac Me			20.61	112		
Ac Me			20.93	77		
OMe			56.17	86		
OMe			56.52	78		
γ			63.51	56		
α			75.31	34		
β			80.70	52		
A2			111.90	41		
B2			113.72	65		
B5			119.41	42		
A6			121.64	101		
B6			121.68	101		
B1			123.87	55		
A5			131.91	25		
A1			135.93	45		
A4			138.48	18		
B4			148.99	46		
B3			151.87	35		
A3			152.58	32		
4 Ac C=O			168.88	11		
α Ac C=O			170.09	39		
γ Ac C=O			170.71	36		
erythro isomer						
γ			62.95			
α			74.59			
β			80.34			
B5			120.09			
B1			124.19			
A5			131.70			
A4			138.36			
B4			148.19			
B3			152.11			

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.77	s	
OMe	3.85	s	
γ1	4.09	m	
γ2	4.29	m	
β	4.78	m	
α	6.08	d	
A6,B6	6.80-6.90	m	
B1	6.96	m	
B2	6.99	m	
B5	7.02	m	
A2	7.26	m	

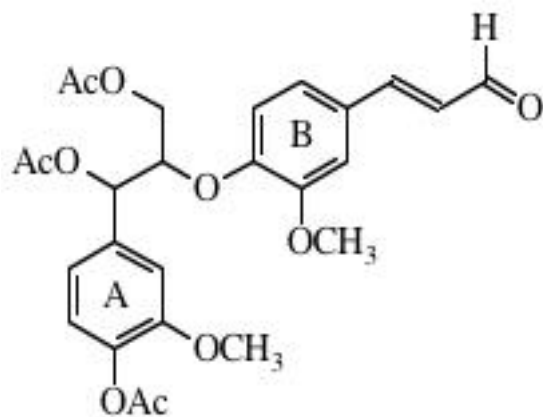
Notes:

J.Ralph jrf79.5

As this dimer contains a plane of symmetry the CS's are reported for one unit.

Compound Number 3010

¹³C



threo

Acetic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-
2-[2-methoxy-4-(3-oxopropenyl)phenoxy]propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.01	s	
Ac Me	2.08	s	
Ac Me	2.21	s	
OMe	3.82	s	
OMe	3.91	s	
γ 1	4.07	dd	12.0, 5.8
γ 2	4.28	dd	12.0, 4.1
β	4.96	m	
α	6.11	d	6.4
Bβ	6.70	dd	15.9, 7.7
A5	7.03	d	8.1
A6	7.08	dd	8.5, 1.4
B5	7.15	d	8.4
A2	7.24	bd	
B6	7.25	dd	8.8, 1.7
B2	7.40	d	1.8
B α	7.59	d	16.0
B γ	9.66	d	7.6

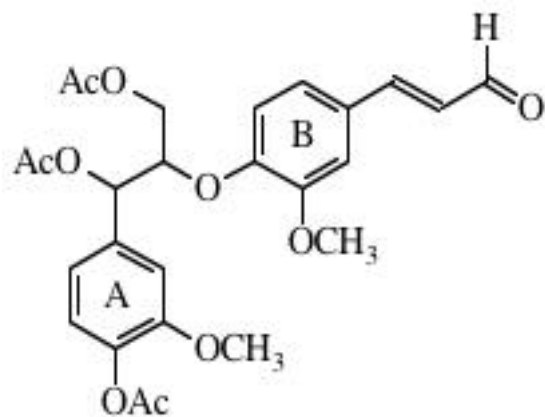
Notes:

jrlz 29 1mg
Liming Zhang, isolate from mild acidolysis
see 3011 some shifts taken from isomer mix

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
g Ac Me	20.60	80	20.43	39		
a Ac Me	20.68	45	20.57	24		
A4 Ac Me	20.94	60	20.88	20		
OMe	55.90	71	56.30	39		
OMe	55.98	85	56.41	25		
γ	62.81	25	63.45	25		
α	74.14	28	75.19	25		
β	79.67	30	80.26	24		
B2	111.28	31	112.56	27		
A2	111.58	35	112.66	31		
B5	117.36	31	117.85	32		
A6	119.48	38	120.34	28		
A5	122.71	32	123.61	24		
B6	122.89	32	123.76	31		
B β	127.40	34	128.23	27		
B1	128.88	22	129.89	14		
A1	134.87	24	136.40	18		
A4	140.01	19	140.99	15		
B4	150.72	24	151.73	22		
B3	150.68	24	151.73	22		
A3	151.16	23	152.26	16		
B α	152.26	45	153.29	26		
A4 Ac C=O	168.72	23	168.87	17		
α Ac C=O	169.41	24	169.85	15		
γ Ac C=O	170.48	24	170.66	15		
B γ	193.43	58	193.61	32		

Compound Number 3011

¹³C



erythro

Acetic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-
2-[2-methoxy-4-(3-oxopropenyl)phenoxy]propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me			
Ac Me			
Ac Me			
OMe	3.82	s	
OMe	3.90	s	
γ 1	4.27	m	
γ 2	4.37	m	
β	4.99	m	
α	6.07	d	5.2
B β	6.79	dd	15.9, 7.7
A5	7.02	d	8.1
A6	7.07	m	
B5	7.11	d	8.3
A2	7.23	m	
B6	7.27	d	1.8
B2	7.38	d	2.0
B α	7.58	d	15.9
B γ	9.65	d	7.7

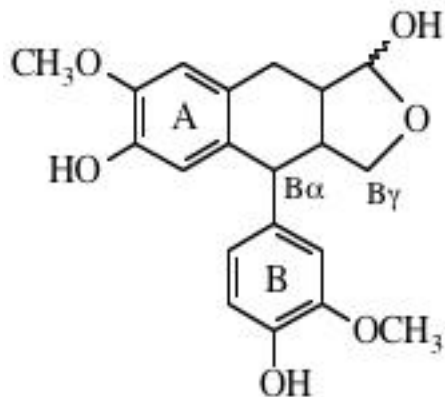
Notes:

jrlz41
Liming Zhang, isolate from mild acidolysis
CS's taken from isomer mix spectrum

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ Ac Me	20.60	80	20.65	73		
α Ac Me	20.68	45	20.79	45		
A4 Ac Me	20.94	60	21.10	38		
OMe	55.87	71	56.51	53		
OMe	55.90	85	56.65	39		
γ	62.44	25	63.19	30		
α	73.55	28	74.57	27		
β	79.56	27	80.02	31		
B2	111.38	32	112.85	32		
A2	112.00	28	113.08	33		
B5	117.93	29	118.49	32		
A6	119.76	29	120.75	33		
A5	122.61	29	123.50	37		
B6	122.81	29	123.91	36		
B β	127.47	34	128.53	33		
B1	129.10	22	130.22	19		
A1	134.80	22	136.48	21		
A4	139.90	17	141.11	15		
B4	150.02	18	151.22	16		
B3	150.95	22	152.12	20		
A3	151.00	22	152.35	16		
B α	152.26	45	153.45	32		
A4 Ac C=O	168.74	23	169.09	23		
α Ac C=O	169.57	22	170.07	20		
γ Ac C=O	170.65	22	170.88	20		
B γ	193.43	58	194.10	66		

Compound Number 3014

¹³C



4-(4-hydroxy-3-methoxyphenyl)-7-methoxy-1,3,3a,4,9,9a-hexahydronaphtho[2,3-c]furan-1,6-diol

¹H (acetone)

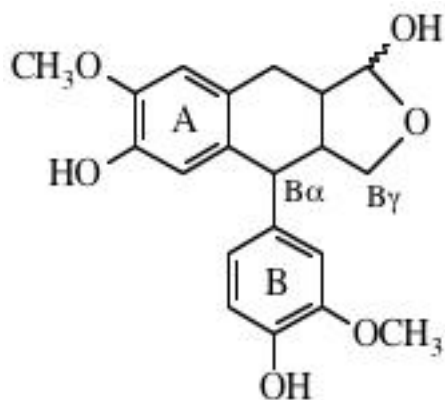
Atom	H Shifts	Mult	J
A β	1.98	m	
B β	2.54	m	
A α1	2.84	m	
A α2	3.00	m	
B γ1	3.47	dd	10.0, 8.0
B α	3.64	d	12.2
B γ2	3.77	m	
OMe	3.77	s	
OMe	3.80	s	
A γ OH	4.99	d	4.3
A γ	5.40	d	4.3
A5	6.22	d	0.9
B6	6.63	dd	8.0, 2.0
A2	6.72	s	
B2	6.74	d	2.0
B5	6.77	d	8.0
A4 OH	7.17	s	
B4 OH	7.39	s	

Notes:

jrlz5, mixture of 2 isomers in ca. 2:1 ratio.
 Data for major isomer
 Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α			29.84	55		
B β			46.24	56		
β			47.00	30		
B α			51.09	62		
OMe			55.96	79		
OMe			56.05	86		
B γ			72.06	57		
γ			98.75	34		
B2			112.38	29		
A2			112.84	57		
B5			115.51	32		
A5			116.17	35		
B6			121.75	42		
A1			128.34	44		
A6			133.42	39		
B1			137.28	38		
A4			145.11	19		
B4			145.93	17		
A3			146.61	21		
B3			148.24	20		

Compound Number 3015

¹³C

4-(4-hydroxy-3-methoxyphenyl)-7-methoxy-1,3,3a,4,9,9a-hexahydronaphtho[2,3-c]furan-1,6-diol

¹H (acetone)

Atom	H Shifts	Mult	J
A β	1.98	m	
B β	2.28	m	
A α1	2.80	m	
A α2	3.00	m	
B γ 1,2	3.64	m	
B α	3.72	bd	11.4
OMe	3.77	s	
OMe	3.80	s	
A γ	5.18	d	6.2
A γOH	5.28	d	
A5	6.55	d	
B6	6.62	dd	10.1, 2.0
A2	6.72	s	
B2	6.74	d	2.0
B5	6.77	d	8.0
A4 OH	7.17	s	
B4 OH	7.39	s	

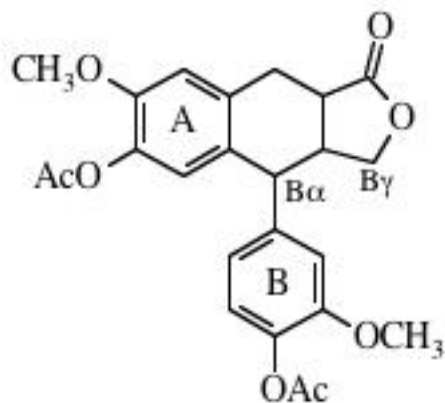
Notes:

jrlz5, mixture of 2 isomers in ca. 2:1 ratio.
Data for minor isomer
Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α			31.98	22		
Bβ			49.88	48		
β			49.88	48		
B α			50.12	18		
OMe			55.96	79		
OMe			56.05	86		
Bγ			70.96	23		
γ			104.08	14		
B2			112.28	29		
A2			112.79	27		
B5			115.51	32		
A5			116.28	14		
B6			121.75	42		
A1			127.93	18		
A6			133.38	17		
B1			136.75	14		
A4			145.31	9		
B4			145.95	11		
A3			146.63	11		
B3			148.20	9		

Compound Number 3016

¹³C



Acetic acid 4-(4-acetoxy-3-methoxyphenyl)-7-methoxy-1-oxo-1,3,3a,4,9,9a-hexahydroanphtho[2,3-c]furan-6-yl ester

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.13	s	
Ac Me	2.23	s	
B β	2.75	m	
A β	2.78	m	
A α1	2.98	m	
A α2	3.18	dd	16.0, 5.0
OMe	3.75	s	
OMe	3.81	s	
B α	4.16	m	
B γ	4.16	m	
A5	6.44	s	
B6	6.83	dd	8.1, 1.9
B2	6.96	d	1.9
A2	6.98	s	
B5	7.03	d	8.1

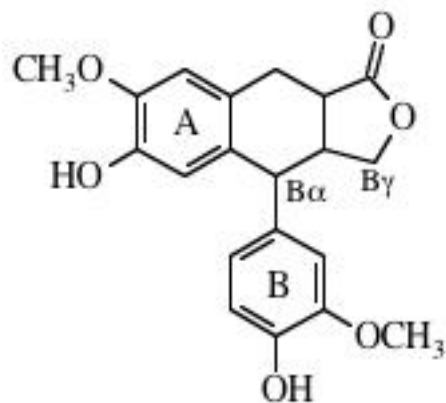
Notes:

jrlz25
Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.53	82	20.36	48		
Ac Me	20.63	86	20.48	50		
α	29.57	49	30.12	23		
β	41.66	83	41.87	48		
B β	47.44	74	47.65	47		
Bα	49.93	71	50.09	45		
OMe	55.87	92	56.20	84		
OMe	55.93	103	56.20	84		
B γ	71.60	63	71.85	44		
B2	111.77	22	113.40	17		
A2	112.98	80	114.00	42		
B6	120.61	36	121.45	19		
B5	123.20	50	123.86	45		
A5	123.70	78	124.12	50		
A6	130.39	57	132.09	27		
A1	133.59	48	134.97	27		
A4	138.36	45	139.27	23		
B4	139.08	30	140.00	21		
B1	140.74	56	142.52	35		
A3	149.92	54	150.80	25		
B3	151.59	34	152.59	19		
Ac C=O	168.90	53	168.75	21		
Ac C=O	169.03	36	168.75	21		
γ	176.43	60	176.77	26		

Compound Number 3017

¹³C



6-Hydroxy-4-(4-hydroxy-3-methoxyphenyl)-7-methoxy-3a,4,9,9a-tetrahydro-3H-naphtho[2,3-c]furan-1-one

¹H (acetone)

Atom	H Shifts	Mult	J
B β	2.67	m	
A β	2.67	m	
A α	3.07	dd	16.2, 4.5
OMe	3.78	s	
OMe	3.82	s	
B α	3.95	bd	9.5
B γ	4.10	m	
A5	6.26	d	0.9
B6	6.69	dd	8.0, 2.0
A2	6.79	s	
B2	6.80	d	2.0
B5	6.80	d	8.0

Notes:

jrlz33

Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
α			29.73	66		
β			41.98	80		
B β			47.61	75		
B α			49.95	70		
OMe			55.99	80		
OMe			56.03	85		
B γ			71.78	66		
B2			112.25	18		
A2			112.93	67		
B5			115.61	23		
A5			116.23	26		
B6			121.92	30		
A1			126.77	51		
A6			132.87	42		
B1			135.09	45		
A4			145.61	14		
B4			146.29	12		
A3			146.89	19		
B3			148.42	17		
γ			177.15	42		

Compound Number 3018

¹³C



Acetic acid 8-(4-acetoxy-3-methoxyphenyl)-6,7-bis-acetoxy methyl-3-methoxy-5,6,7,8-tetrahydronaphthalen-2-yl ester

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.01	s	
Ac Me	2.02	s	
Ac Me	2.11	s	
Ac Me	2.22	s	
Bβ	2.16	m	
β	2.29	m	
α	2.92	m	
OMe	3.74	s	
OMe	3.78	s	
Bγ1	3.92	dd	11.7, 3.6
Bα	4.02	d	10.5
Bγ2	4.09	m	
Aγ1	4.11	m	
Aγ2	4.23	dd	11.1, 5.3
A5	6.34	bs	
B6	6.74	dd	8.1, 2.0
A2	6.87	s	
B2	6.92	d	2.0
B5	6.99	d	8.1

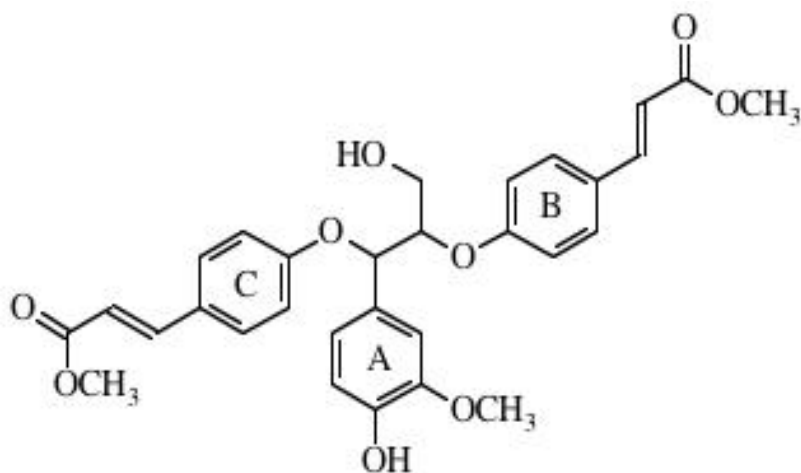
Notes:

jrlz27
Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me	20.56	67	20.36	54		
Ac Me	20.65	67	20.47	51		
Ac Me	20.77	67	20.69	51		
Ac Me	20.82	93	20.72	51		
α	33.02	45	33.53	33		
β	35.13	58	36.29	44		
B β	43.44	56	44.25	43		
B α	47.22	50	47.98	39		
OMe	55.83	65	56.17	45		
OMe	55.91	77	56.19	45		
B γ	63.04	48	63.57	37		
γ	66.20	46	66.74	40		
A2	111.81	65	112.90	50		
B2	113.17	42	114.53	46		
B6	121.52	55	121.11	57		
B5	122.81	53	123.64	44		
A5	123.71	53	124.16	40		
A6	131.13	46	132.26	26		
A1	134.05	38	135.25	31		
A4	138.03	34	139.17	19		
B4	138.03	34	139.63	26		
B1	142.77	46	144.24	23		
A3	149.35	43	150.46	20		
B3	151.16	41	152.28	22		
Ac C=O	168.91	26	168.93	23		
Ac C=O	169.11	25	168.96	23		
Ac C=O	170.80	41	171.06	31		
Ac C=O	170.97	49	171.06	31		

Compound Number 3019

¹³C



erythro

3-(4-{3-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-2[4-(2-methoxy carbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
B γ OMe	3.70	s	
C γ OMe	3.71	s	
A3 OMe	3.78	s	
γ 's	3.95	m	5.8
γ OH	4.16	t	5.8
β	4.88	m	
α	5.60	d	5.5
C β	6.34	d	16.0
B β	6.37	d	16.0
A5	6.79	d	8.1
A6	7.00	m	
C2,6	6.97	m	8.8
B2,6	7.02	m	8.8
A2	7.12	d	1.9
C3,5	7.50	m	8.6
B3,5	7.54	m	8.6
C α	7.55	d	16.0
B α	7.59	d	16.0

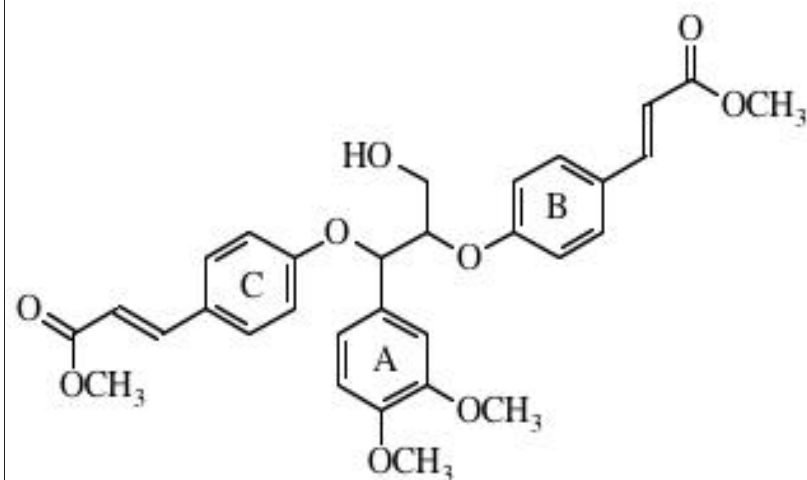
Notes:

jrf101.C9-12
Authenticated assignments in acetone.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
C γ OMe	51.55	54	51.52	51	51.27	59
B γ OMe	51.59	50	51.53	51	55.63	66
A3 OMe	55.92	65	56.26	58	55.80	22
γ	61.43	27	61.42	24	59.79	15
α	78.70	35	79.32	34	77.75	18
β	81.89	35	82.67	32	81.24	18
A2	109.26	33	112.00	35	111.78	17
A5	114.48	35	115.55	24	115.29	27
B β	115.68	41	116.15	45	115.13	37
C β	115.86	45	116.25	42	115.13	37
C2	116.24	87	117.23	86	116.20	50
C6	116.24	87	117.23	86	116.20	50
B2	116.54	93	117.34	92	116.24	64
B6	116.54	93	117.34	92	116.24	64
A6	120.21	33	121.43	34	120.28	19
C1	127.73	38	128.19	42	126.74	44
B1	128.00	38	128.22	43	126.86	43
A1	128.67	45	129.37	38	127.73	40
B3	129.57	84	130.46	86	129.93	100
B5	129.57	84	130.46	86	129.93	100
C3	129.61	100	130.48	100	129.93	100
C5	129.61	100	130.48	100	129.93	100
C α	144.12	43	144.87	39	144.16	24
B α	144.23	38	144.94	43	144.26	29
A4	145.72	49	147.35	22	146.29	41
A3	146.78	45	148.23	25	147.31	52
C4	159.14	41	160.49	45	159.17	43
B4	159.81	42	161.67	44	160.5	53
C γ	167.62	44	167.67	40	166.86	55
B γ	167.63	48	167.72	39	166.92	56

Compound Number 3020

¹³C



3-(4-{1-(3,4-dimethoxyphenyl)-3-hydroxy-2[4-(2-methoxycarbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
B γ OMe	3.693	s	
C γ OMe	3.711	s	
A4 OMe	3.732	s	
A3 OMe	3.752	s	
γ 's	3.954	m	5.9, *
γ OH	4.157	t	5.9
β	4.881	m	5.5, 4.9
α	5.603	d	5.5
C β	6.335	d	16.0
B β	6.363	d	16.0
A5	6.876	d	8.2
C2,6	6.973	m	8.8
B2,6	7.015	m	8.7
A6	7.047	dd	8.2, 1.9
A2	7.126	d	1.9
C3,5	7.515	m	8.8
B3,5	7.550	m	8.7
C α	7.543	d	16.0
B α	7.582	d	16.0

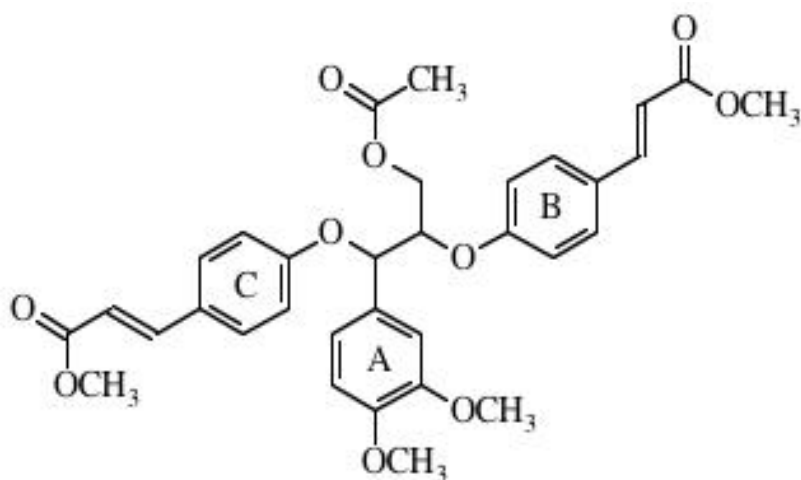
Notes:

jrf119.C2
 assignments not authenticated - from #3019

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
C γ OMe			51.52	38		
B γ OMe			51.52	38		
A4 OMe			55.97	40		
A3 OMe			56.12	40		
γ			61.38	20		
α			79.21	34		
β			82.64	34		
A2			112.38	32		
A5			112.47	28		
B β			116.21	40		
C β			116.33	34		
C2			117.26	86		
C6			117.26	86		
B2			117.38	98		
B6			117.38	98		
A6			121.02	38		
C1			128.26	30		
B1			128.32	32		
B3			130.51	100		
B5			130.51	100		
C3			130.52	94		
C5			130.52	94		
A1			130.56	32		
C α			144.87	38		
B α			144.96	40		
A4			150.25	32		
A3			150.26	28		
C4			160.50	30		
B4			161.69	32		
C γ			167.66	30		
B γ			167.72	28		

Compound Number 3021

¹³C



erythro

3-(4-{3-carboxyoxy-1-(3,4-dimethoxyphenyl)-2-[4-(2-methoxy carbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.920	s	
B γ OMe	3.694	s	
C γ OMe	3.712	s	
A4 OMe	3.736	s	
A3 OMe	3.759	s	
γ 1	4.460	dd	11.9, 6.2
γ 2	4.507	dd	11.9, 3.8
β	5.084	m	6.2, 5.8, 3.8
α	5.629	d	5.8
C β	6.343	d	16.0
B β	6.378	d	16.0
A5	6.888	d	8.3
C2,6	6.992	m	8.7
B2,6	7.018	m	8.7
A6	7.073	dd	8.3, 2.0
A2	7.161	d	2.0
C3,5	7.527	m	8.7
B3,5	7.570	m	8.7
Cα	7.548	d	16.0
Bα	7.584	d	16.0

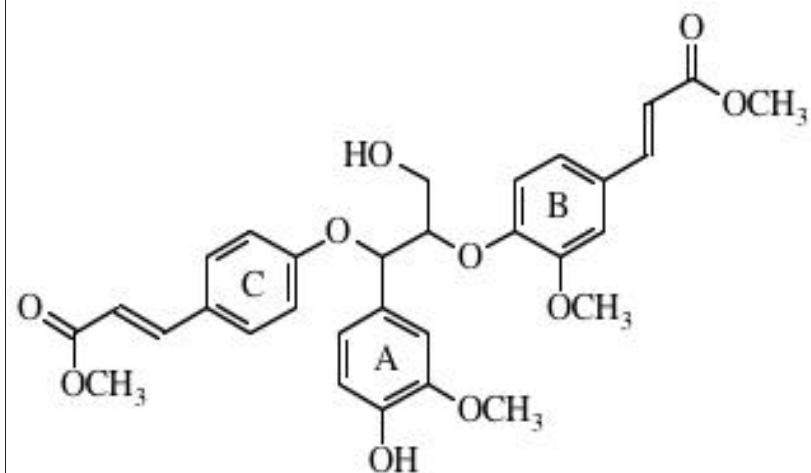
Notes:

jrf137
 assignments not authenticated - from #3019/3020
 A4 vs A3 OMe may be switched

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ Ac Me			20.58	53		
C γ OMe			51.54	53		
B γ OMe			51.57	47		
A4 OMe			55.97	53		
A3 OMe			56.14	55		
γ			63.49	34		
α			79.32	39		
β			79.81	39		
A2			112.17	42		
A5			112.47	42		
B β			116.49	45		
C β			116.55	47		
C2			117.27	95		
C6			117.27	95		
B2			117.41	97		
B6			117.41	97		
A6			120.88	39		
C1			128.55	24		
B1			128.74	24		
A1			130.09	34		
B3			130.53	100		
B5			130.53	100		
C3			130.61	97		
C5			130.61	97		
C α			144.81	82		
B α			144.81	82		
A4			150.38	26		
A3			150.43	24		
C4			160.24	26		
B4			161.18	26		
C γ			167.66	29		
B γ			167.69	26		
γ Ac C=O			170.79	24		

Compound Number 3022

¹³C



erythro

3-(4-{3-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-2-[2-methoxy-4-(2-methoxycarbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl

¹H (acetone)

Atom	H Shifts	Mult	J
B γ OMe	3.696	s	
C γ OMe	3.720	s	
A3 OMe	3.804	s	
B3 OMe	3.853	s	
γ 's	3.95	m	
β	4.791	m	
α	5.621	d	5.3
C β	6.330	d	16.0
B β	6.417	d	16.0
A5	6.798	d	8.2
C2,6	6.978	m	8.8
A6	7.013	dd	8.2, 1.9
B5	7.065	d	8.3
B6	7.123	dd	8.3, 1.9
A2	7.205	d	1.9
B2	7.283	d	1.9
C3,5	7.493	d	8.8
C α	7.554	d	16.0
B α	7.584	d	16.0

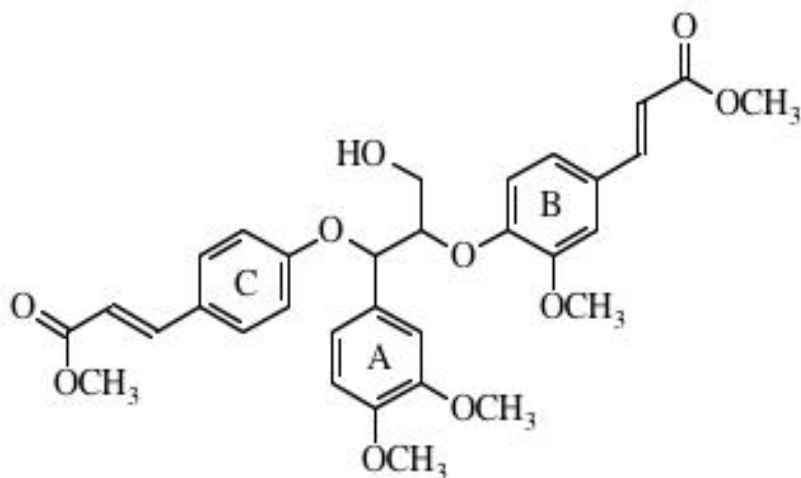
Notes:

jrf103.C12-25
fully authenticated in acetone

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B γ OMe	51.55	57	51.52	59	51.27	89
C γ OMe	51.66	56	51.56	56	51.28	82
A3 OMe	55.83	69	56.22	69	55.48	99
B3 OMe	55.96	69	56.32	66	55.79	100
γ	61.29	31	61.31	30	59.66	28
α	78.46	42	79.44	41	77.95	34
β	86.25	42	84.21	42	81.84	34
B2	110.87	46	112.14	49	111.43	40
A2	109.37	42	112.21	41	112.01	34
A5	114.49	44	115.38	38	114.89	36
C β	115.62	47	116.16	52	115.16	44
B β	116.77	48	116.59	51	115.24	49
C2	116.28	100	117.23	98	116.22	92
C6	116.28	100	117.23	98	116.22	92
B5	120.21	43	117.54	48	115.45	47
A6	119.50	47	121.53	41	120.44	34
B6	122.14	48	123.04	49	122.48	44
C1	127.67	39	128.13	41	126.79	62
B1	129.92	39	129.21	44	127.27	65
A1	129.32	43	129.39	46	127.54	60
C3	129.57	97	130.42	100	129.91	90
C5	129.57	97	130.42	100	129.91	90
C α	144.21	46	144.89	48	144.18	46
B α	144.28	47	145.23	48	144.61	44
A4	145.68	46	147.29	37	146.27	65
A3	146.78	42	148.17	38	147.24	74
B4	149.40	42	151.24	43	149.76	79
B3	151.14	46	151.54	46	150.11	69
C4	159.30	43	160.57	43	159.25	63
C γ	167.39	45	167.68	44	166.86	76
B γ	167.64	44	167.71	46	166.95	71

Compound Number 3023

¹³C



erythro

3-(4-{1-(3,4-dimethoxyphenyl)-3-hydroxy-2-[2-methoxy-4-(2-methoxycarbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl

¹H (acetone)

Atom	H Shifts	Mult	J
B γ OMe	3.693	s	
C γ OMe	3.715	s	
A3 OMe	3.741	s	
A4 OMe	3.773	s	
B3 OMe	3.865	s	
γ *	*	*	
β	4.787	m	
α	5.640	d	5.3
C β	6.337	d	16.0
B β	6.416	d	16.0
A5	6.871	d	8.3
C2,6	6.981	m	8.8
A6	7.067	dd	8.3, 1.9
B5	7.068	d	8.3
B6	7.134	dd	8.3, 1.9
A2	7.200	d	1.9
B2	7.302	d	1.9
C3,5	7.517	d	8.8
C α	7.537	d	16.0
B α	7.573	d	16.0

Notes:

jrf121.C5-7

assignments not authenticated - from #3022 and 3020

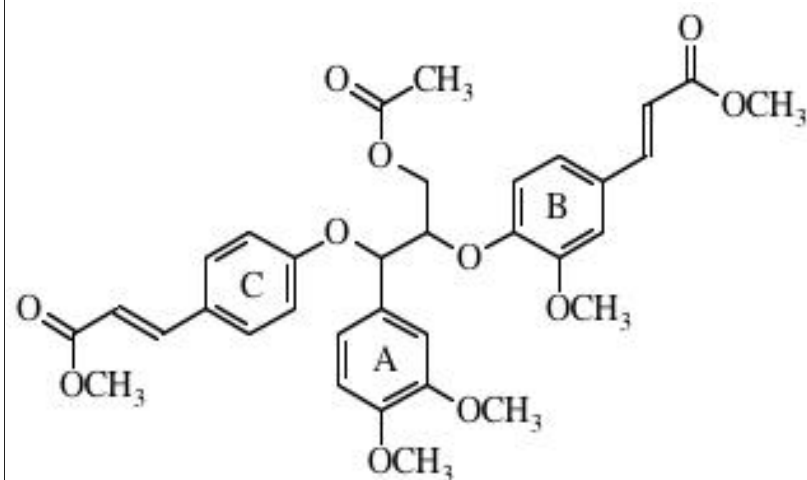
A4 vs A3 OMe may be switched

* γ and γ -OH protons buried, C-H correlations not run.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B γ OMe			51.52	53		
C γ OMe			51.55	45		
A4 OMe			55.98	50		
A3 OMe			56.07	50		
B3 OMe			56.37	50		
γ			61.29	23		
α			79.37	37		
β			84.19	32		
B2			112.19	42		
B5			112.24	40		
A2			112.70	37		
C β			116.27	42		
B β			116.67	42		
C2			117.29	97		
C6			117.29	97		
B5			117.60	42		
A6			121.14	39		
B6			123.10	42		
C1			128.25	27		
B1			129.30	31		
C3			130.49	100		
C5			130.49	100		
A1			130.59	31		
C α			144.91	42		
B α			145.25	40		
A4			150.20	26		
A3			150.23	27		
B4			151.31	24		
B3			151.65	27		
C4			160.63	27		
C γ			167.68	27		
B γ			167.71	26		

Compound Number 3024

¹³C



erythro

3-(4-{3-carboxyoxy-1-(3,4-dimethoxyphenyl)-2-[2-methoxy-4-(2-methoxycarbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.920	s	
B γ OMe	3.695	s	
C γ OMe	3.716	s	
A3 OMe	3.745	s	
A4 OMe	3.775	s	
B3 OMe	3.877	s	
γ1	4.428	dd	11.9, 3.8
γ2	4.487	dd	11.9, 6.2
β	4.988	m	6.2, 5.3, 3.8
α	5.659	d	5.3
C β	6.345	d	16.0
B β	6.431	d	16.0
A5	6.888	d	8.3
C2,6	6.995	m	8.8
B5	7.051	m	8.3
A6	7.066	dd	8.3, 2.0, 0.4
B6	7.143	dd	8.3, 2.0, 0.4
A2	7.190	d	2.0
B2	7.323	d	2.0
C3,5	7.527	m	8.8
C α	7.553	d	16.0
B α	7.576	d	16.0

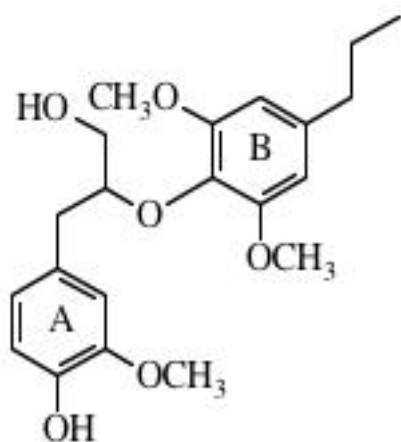
Notes:

jrf139
 assignments not authenticated - from #3023 and 3021
 A4 vs A3 OMe may be switched
 Note γ's, J's switch from #3021!!

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
g Ac Me			20.61	46		
B γ OMe			51.54	54		
C γ OMe			51.58	46		
A4 OMe			55.99	50		
A3 OMe			56.09	52		
B3 OMe			56.35	50		
γ			63.49	30		
α			79.62	37		
β			81.21	35		
A2			112.24	33		
B5			112.38	76		
B2			112.38	76		
C β			116.42	37		
B β			116.98	39		
C2			117.28	91		
C6			117.28	91		
B5			118.21	39		
A6			120.82	35		
B6			122.93	39		
C1			128.46	30		
B1			129.89	26		
A1			130.14	30		
C3			130.52	100		
C5			130.52	100		
C α			144.85	41		
B α			145.14	41		
A4			150.33	28		
A3			150.37	28		
B4			150.72	26		
B3			151.80	30		
C4			160.44	28		
C γ			167.67	35		
B γ			167.67	35		
γ OAc C=O			170.79	30		

Compound Number 3026

¹³C



2-(2,6-dimethoxy-4-propylphenoxy)-3-(4-hydroxy-3-methoxyphenyl)propan-1-ol

¹H (acetone)

Atom	H Shifts	Mult	J
B γ	0.917	t	7.3
B β	1.619	m	
B α	2.523	dd	
α1	2.941	dd	13.6, 8.2
α2	3.077	dd	13.6, 5.4
γ1	3.392	m	12.0, 4.1
γ2	3.483	m	12.0, 3.4
γ OH	3.5	m	
A OMe	3.809	s	
B OMe	3.817	s	
β	4.128	m	
B2,6	6.540	s	
A6	6.711	dd	8.0, 1.8
A5	6.740	dd	8.0, 0.4
A2	6.892	d	1.8
Ar OH	7.349	s	

Notes:

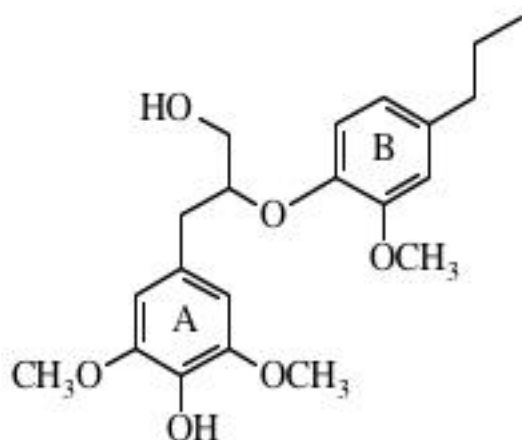
jrbha61
 Hγ's are perfect dd's after adding D2O to acetone - otherwise complex multiplets;
 J's are from D2O exchanged spectra. All spectra ref'd to solvent, Acetone 2.04, 29.8
 CDC13 7.24, 77.0, DMSO 2.49, 39.5

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B γ	13.76	64	14.06	44	13.73	55
B β	24.51	86	25.30	47	24.10	57
α	37.28	48	38.00	38	36.86	27
B α	38.39	50	38.91	38	37.64	37
A OMe	55.81	35	56.17	19	55.51	50
B OMe	55.97	62	56.41	35	55.81	100
γ	62.17	45	62.77	28	61.65	29
β	84.36	48	85.24	32	83.39	28
B2	105.42	92	106.55	100	105.58	55
B6	105.42	92	106.55	100	105.58	55
A2	112.20	79	113.87	44	113.58	38
A5	114.15	68	115.50	47	115.06	36
A6	122.03	74	122.78	50	121.64	35
A1	130.19	49	130.81	35	129.36	42
B4	133.40	39	134.92	22	133.46	33
B1	138.77	55	139.25	33	137.62	41
A4	143.99	47	145.78	28	144.60	43
A3	146.31	40	148.03	24	147.11	38
B3	152.99	100	154.09	56	152.76	82
B5	152.99	100	154.09	56	152.76	82

Atom	CDCl ₃		DMSO	
	CS	i	CS	i
B γ	0.928		0.886	
B β	1.614		1.573	
B α	2.513		2.753	
α1	2.966		2.871	
α2	3.192		~3.35?	
γ1	3.418		~3.35?	
γ2	3.54		~3.35?	
γ OH	3.56		~3.35?	
A OMe	3.805		3.697	
B OMe	3.831		3.708	
β	4.150		4.068	
B2,6	6.392		6.465	
A6	6.745		6.583	
A5	6.809		6.641	
A2	6.796		6.763	
Ar OH	5.698		8.634	

Compound Number 3027

¹³C



3-(4-hydroxy-3,5-dimethoxyphenyl)-2-(2-methoxy-4-propylphenoxy)propan-1-ol

¹H (acetone)

Atom	H Shifts	Mult	J
B γ	0.894	t	7.4
B β	1.585	m	
B α	2.491	m	
α1	2.85	dd	13.9, 6.2
α2	2.922	dd	13.9, 6.1
γ	3.602	m	
γ OH	3.734	t	
A OMe	3.770	s	
B OMe	3.806	s	
β	4.335	m	
A2,6	6.596	s	
B6	6.646	ddt	8.2, 2.1, 0.6
B2	6.817	d	2.1
B5	6.833	d	8.2
Ar OH	6.940		

Notes:

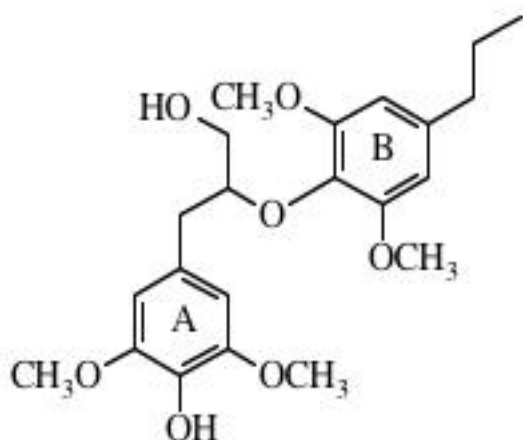
jrbha67

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B γ	13.77	63	14.01	45	13.67	66
B β	24.57	84	25.40	49	24.22	75
A α	37.76	53	38.21	41	36.90	59
B α	37.94	48	38.23	45	36.90	59
B OMe	55.77	31	56.19	19	55.47	62
A OMe	56.28	53	56.56	33	55.82	97
γ	63.47	53	63.46	22	61.84	28
β	85.35	48	83.47	31	80.56	38
A2	106.13	100	107.93	100	106.83	50
A6	106.13	100	107.93	100	106.83	50
B2	112.30	67	113.81	50	112.74	41
B5	120.04	70	118.54	45	115.44	47
B6	121.03	69	121.36	58	120.11	41
A1	128.98	60	129.59	27	128.24	47
A4	133.32	52	135.34	20	133.78	56
B1	138.31	52	137.38	28	135.09	44
B4	145.32	51	146.85	22	145.41	44
A3	146.97	95	148.48	35	147.64	100
A5	146.97	95	148.48	35	147.64	100
B3	150.89	52	151.57	22	149.53	47

¹ H	CDCl ₃	DMSO
B γ	0.910	0.86
B β	1.589	1.54
B α	2.499	2.45
α1	2.856	2.74
α2	3.032	2.84
γ1	3.578	
γ2	3.655	
γ OH		4.75
A OMe	3.831	3.68
B OMe	3.841	3.71
β	4.160	4.30
A2,6	6.478	6.49
B6	6.628	6.62
B2	6.697	6.76
B5	6.651	6.83
Ar OH	8.03	8.03

Compound Number 3028

¹³C



3-(4-hydroxy-3,5-dimethoxyphenyl)-2-(2,5-dimethoxy-4-propylphenoxy)propan-1-ol

¹H (acetone)

Atom	H Shifts	Mult	J
B γ	0.917	t	7.4
B β	1.620	m	
B α	2.525	m	
α1	2.925	dd	13.6, 8.1
α2	3.074	dd	13.6, 5.3
γ1	3.402	m	12.0, 4.1
γ2	3.486	m	12.0, 3.6
γ OH	3.47	m	
A OMe	3.793	s	
B OMe	3.825	s	
β	4.142	m	
B2,6	6.544	s	
A2,6	6.573	s	
Ar OH	6.949	s	

Notes:

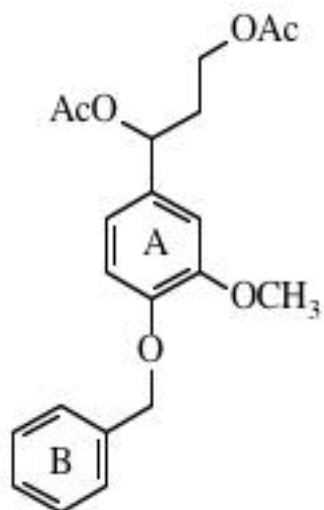
jrbha63 Hγ's are dd's after adding D2O to acetone - otherwise complex multiplets; J's are from D2O exchanged spectra. In acetone: Many peaks were split with a 2:1 ratio. Aα 38.38 & 38.50, Bα 38.80 & 38.93, A1 129.69 & 129.86, B4 134.94 & 134.97, A4 135.24 & 135.28, B1 139.10 & 139.26, A3/5 148.44 & 148.49, B3/5 154.07 & 154.12

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B γ	13.70	37	14.06	100	13.82	49
B β	24.47	100	25.30	82	24.18	48
α	37.65	39	38.38	45	37.35	25
B α	38.24	47	38.80	45	37.60	27
A OMe	55.96	90	56.43	72	55.91	100
B OMe	56.19	86	56.58	76	55.97	96
γ	62.19	51	62.93	49	61.88	27
β	84.19	49	85.20	56	83.32	23
B2	105.42	37	106.57	59	105.67	11
B6	105.42	37	106.57	59	105.67	11
A2	106.12	35	107.83	55	106.89	10
A6	106.12	35	107.83	55	106.89	10
A1	129.21	49	129.69	38	128.54	30
B4	133.07	29	134.94	14	133.46	24
A4	133.28	28	135.24	16	133.70	28
B1	138.64	43	139.10	38	137.61	25
A3	146.75	55	148.44	45	147.65	48
A5	146.75	55	148.44	45	147.65	48
B3	152.92	79	154.07	54	152.79	52
B5	152.92	79	154.07	54	152.79	52

¹ H	CDCl ₃	DMSO
B γ	0.917	0.879
B β	1.592	1.562
B α	2.489	2.45
α1	2.950	2.756
α2	3.175	2.868
γ1	3.408	
γ2	3.542	
γ OH	3.47	4.334?
A OMe	3.798	3.692
B OMe	3.829	3.696
β	4.152	4.103
B2,6	6.386	6.449
A2,6	6.498	6.462
Ar OH	5.493	8.044

Compound Number 3029

¹³C



1-(4-benzyloxy-3-methoxyphenyl)propane-1,3-diol

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.99	s	
α Ac Me	2.03	s	
β	2.18	m	
OMe	3.83	s	
γ	4.08	m	
B α	5.09	s	
α	5.85	dd	8.2, 5.7
A6	6.91	dd	8.3, 2.0
A5	6.99	d	8.3
A2	7.04	d	2.0
Bz H's	7.28-7.51	m	

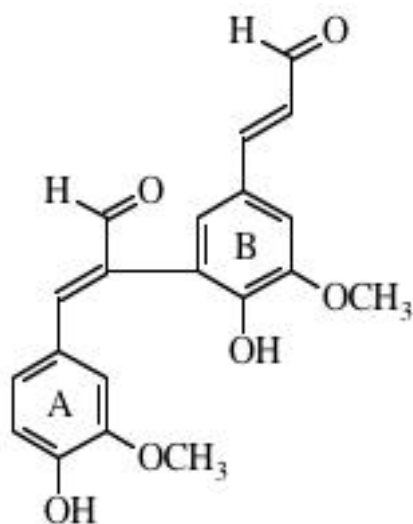
Notes:

JRHKC25

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ Ac Me			20.70			
α Ac Me			21.01			
β			35.78			
OMe			56.16			
γ			61.20			
B α			71.26			
α			73.17			
A2			111.49			
A5			114.64			
A6			119.58			
B3			128.28			
B5			128.28			
B2			129.09			
B6			129.09			
B4			128.45			
A1			134.19			
B1			138.33			
A4			149.02			
A3			150.68			
α Ac C=O			170.17			
γ Ac C=O			170.80			

Compound Number 3030

¹³C



beta-[5-(2-formylvinyl)-2-hydroxy-3-methoxyphenyl]
coniferyl aldehyde

¹H (acetone)

Atom	H Shifts	Mult	J
A3 OMe	3.47	s	
B3 OMe	3.96	s	
B β	6.66	dd	15.8, 7.8
A5	6.77	d	8.3
A2	6.87	d	2.0
A6	6.98	dd	8.3, 2.0
B6	7.01	d	2.0
B2	7.44	d	2.0
A α	7.57	s	
B α	7.57	d	15.8
OH	8.43	s	
B γ	9.61	d	7.8
A γ	9.69	s	

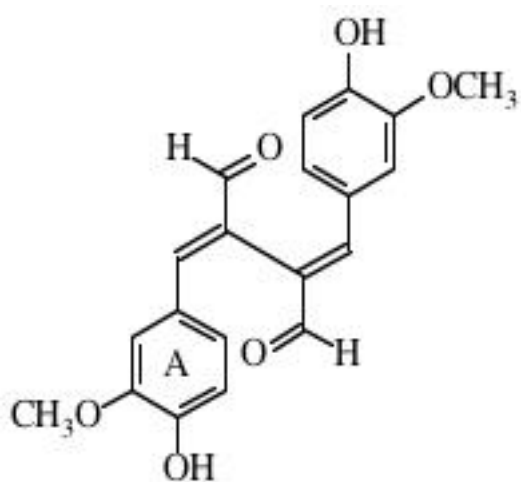
Notes:

JRHKB117 (Higuchi)
13mg

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 OMe			55.55			
B3 OMe			56.63			
B2			110.61			
A2			113.56			
A5			115.95			
A β			123.15			
B6			126.36			
A6			126.92			
B β			127.29			
A1			127.38			
B1			127.44			
B5			136.33			
A3			148.13			
B4			148.59			
A3			149.30			
B4			150.16			
A α			151.36			
B α			153.79			
A γ			193.43			
B γ			193.96			

Compound Number 3032

¹³C



2,3-diformyl-1,4-bis(4-hydroxy-3-methoxyphenyl)
buta-1,3-diene

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.70	s	
5	6.82	d	8.31
6	7.21	dd	8.31, 2.15
2	7.28	d	2.15
α	7.78	s	
OH	8.29	s	
γ	9.66	s	

Notes:

JRHKb121 11mg

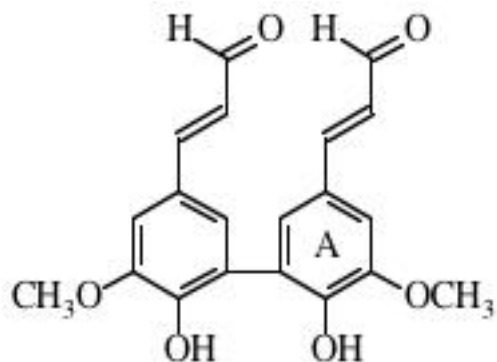
Higuchi

As this dimer contains a plane of symmetry the CSs are reported for one unit.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.11			
2			113.71			
5			116.24			
6			126.25			
1			127.47			
β			134.42			
3			148.41			
4			150.51			
α			152.83			
γ			192.74			

Compound Number 3033

¹³C



5,5'-bis-coniferyl aldehyde

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.95	s	
β	6.68	dd	15.84, 7.84
6	7.27	s	2.0
2	7.36	s	2.0
α	7.59	s	15.84
γ	9.65	s	7.84

Notes:

JRHKb123 37mg

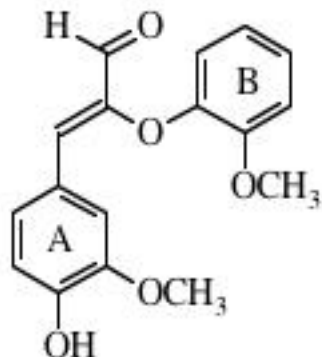
Higuchi

As this dimer contains a plane of symmetry the CSs are reported for one unit.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.52			
2			110.00			
1			126.05			
5			126.13			
β			126.81			
6			127.10			
3			149.42			
4			149.63			
α			154.40			
γ			193.92			

Compound Number 3034

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 OMe B3 OMe			55.84 56.17			
B2 A2			113.51 113.82			
B5 A5			114.85 116.07			
B6			121.34			
B1			123.35			
A1			125.49			
A6			126.57			
α			137.82			
B4			146.22			
β			148.09			
A3 B3			148.30 149.89			
A4			150.20			
γ			187.90			

¹H (acetone)

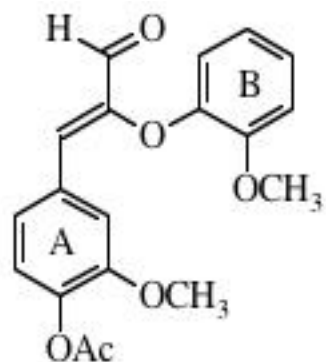
Atom	H Shifts	Mult	J
A4 OMe B3 OMe	3.73 3.88	s s	
B5	6.72	dd	8.0, 2.0
B6	6.76	ddd	8.2, 7.1, 2.0
A5	6.87	d	8.3
B1	6.95	ddd	8.2, 7.1, 2.0
B2	7.05	dd	8.2, 2.0
α	7.26	s	
A6	7.33	dd	8.3, 2.0
A2	7.59	d	2.0
γ	9.50	s	

Notes:

HKc63.4

Compound Number 3035

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.41			
A3 OMe B3 OMe			55.97			
B2			56.20			
A2			113.62			
B5			114.66			
B6			115.56			
B1			121.39			
A5			123.83			
A6			124.06			
A1			124.53			
α			132.33			
A4			135.40			
B4			142.47			
β			146.01			
B3			149.94			
A3			150.01			
Ac C=O			152.27			
γ			168.73			
			188.21			

¹H (acetone)

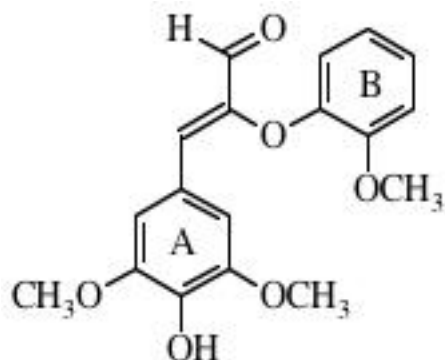
Atom	H Shifts	Mult	J
Ac Me	2.23	s	
A3 OMe B3 OMe	3.73 3.87	s s	
B5	6.79	m	
B6	6.79	m	
B1	6.97	m	
B2	7.06	bd	7.8
A5	7.11	d	8.3
α	7.30	s	
A6	7.45	dd	8.3, 2.0
A2	7.68	d	2.0
γ	9.55	s	

Notes:

HKc 63.4Ac

Compound Number 3036

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B3 OMe			56.11			
A3 OMe			56.31			
A5 OMe			56.31			
A2			109.27			
A6			109.27			
B2			113.39			
B5			114.53			
B6			121.32			
B1			123.27			
A1			124.05			
α			138.23			
A4			139.74			
B4			146.16			
β			148.15			
A3			148.57			
A5			148.57			
B3			149.76			
γ			187.91			

¹H (acetone)

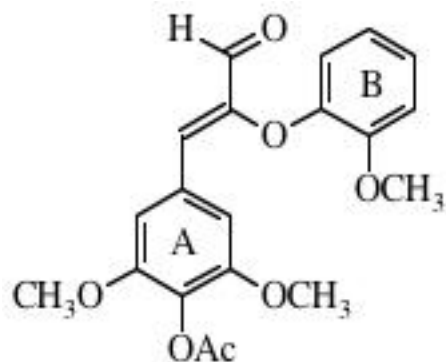
Atom	H Shifts	Mult	J
A3,5 OMe	3.74	s	
B3 OMe	3.88	s	
B5	6.70	dd	8.2, 1.7
B6	6.76	ddd	8.2, 7.2, 1.5
B1	6.94	ddd	8.2, 7.2, 1.7
B2	7.05	dd	8.2, 1.5
A2,6	7.24	s	
α	7.26	s	
γ	9.51	s	

Notes:

HKd 59.1

Compound Number 3037

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.17			
B3 OMe			56.14			
A3 OMe			56.29			
A5 OMe			56.29			
A2			108.10			
A6			108.10			
B2			113.48			
B5			115.07			
B6			121.37			
B1			123.68			
A1			131.35			
A4			131.53			
α			136.12			
B4			145.97			
b			149.81			
B3			149.84			
A3			153.20			
A5			153.20			
Ac C=O			168.30			
γ			188.26			

¹H (acetone)

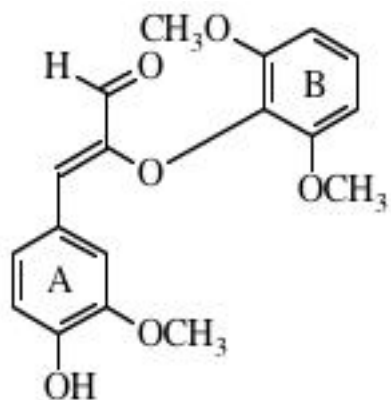
Atom	H Shifts	Mult	J
Ac Me	2.21	s	
A3,5 OMe	3.73	s	
B3 OMe	3.88	s	
B5	6.76	dd	8.2, 2.4
B6	6.77	ddd	8.2, 6.5, 1.4
B1	6.97	ddd	8.2, 6.5, 2.4
B2	7.06	dd	8.2, 1.4
A2,6	7.29	s	
α	7.31	s	
γ	9.57	s	

Notes:

HKd 59.1 Ac

Compound Number 3038

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 OMe			56.07			
B3 OMe			56.53			
B5 OMe			56.53			
B2			106.40			
B6			106.40			
A2			114.55			
A5			115.95			
B1			124.17			
A6			125.77			
A1			126.72			
α			129.06			
B4			135.22			
A3			148.04			
A4			149.05			
β			150.82			
B3			152.47			
B5			152.47			
γ			186.64			

¹H (acetone)

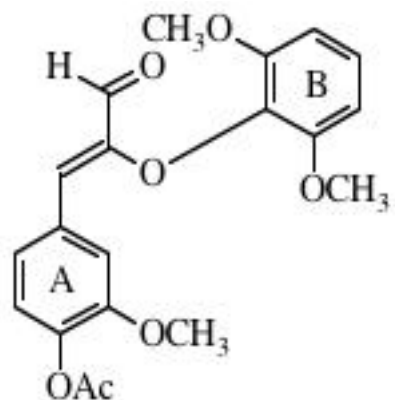
Atom	H Shifts	Mult	J
B3,5 OMe	3.74	s	
A3 OMe	3.81	s	
α	6.64	s	
B2,6	6.65	d	8.2
A5	6.88	d	8.3
B1	6.99	dd	8.2, 7.6
A6	7.45	dd	8.3, 2.0
A2	7.60	d	2.0
γ	9.25	s	

Notes:

HKd 23.3

Compound Number 3039

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.45			
A3 OMe			56.09			
B3 OMe			56.52			
B5 OMe			56.52			
B2			106.29			
B6			106.29			
A2			115.15			
A5			123.78			
A6			124.04			
B1			124.53			
α			126.73			
A1			133.43			
B4			134.81			
A4			141.52			
A3			152.04			
β			152.11			
B3			152.41			
B5			152.41			
Ac C=O			168.85			
γ			187.00			

¹H (acetone)

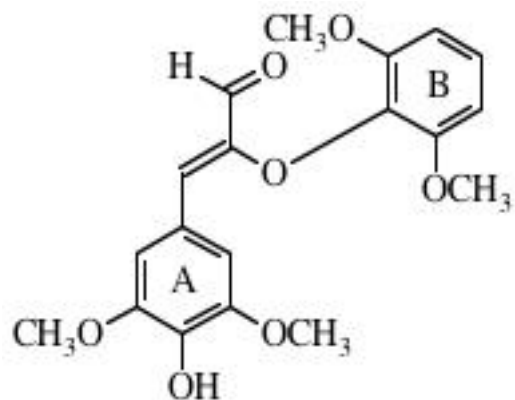
Atom	H Shifts	Mult	J
Ac Me	2.24	s	
B3,5 OMe	3.75	s	
A3 OMe	3.80	s	
B2,6	6.67	d	8.3
α	6.71	s	
B1	7.01	dd	8.3, 7.9
A5	7.11	d	8.2
A6	7.54	dd	8.2, 1.9
A2	7.68	d	1.9
γ	9.32	s	

Notes:

HKd 23.3 Ac

Compound Number 3040

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3 OMe			56.51			
A5 OMe			56.51			
B3 OMe			56.59			
B5 OMe			56.59			
B2			106.50			
B6			106.50			
A2			109.41			
A6			109.41			
B1			124.18			
A1			125.37			
α			129.08			
B4			135.21			
A4			138.72			
A3			148.44			
A5			148.44			
β			150.91			
B3			152.46			
B5			152.46			
γ			186.60			

¹H (acetone)

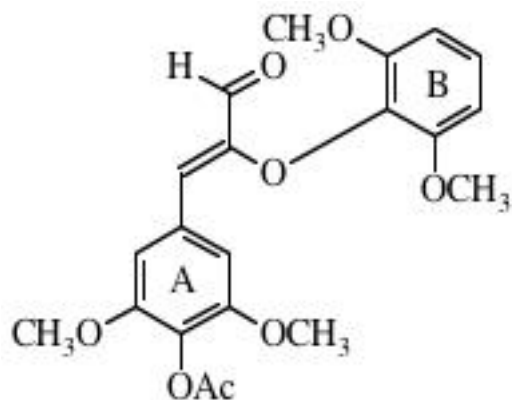
Atom	H Shifts	Mult	J
B3,5 OMe	3.75	s	
A3,5 OMe	3.80	s	
α	6.63	s	
B2,6	6.66	d	8.3
B1	6.99	t	8.3
A2,6	7.31	s	
γ	9.25	s	

Notes:

HKd 63.1

Compound Number 3041

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.22			
B3 OMe			56.35			
B5 OMe			56.35			
A3 OMe			56.56			
A5 OMe			56.56			
B2			106.37			
B6			106.37			
A2			108.07			
A6			108.07			
B1			124.51			
α			126.81			
A4			130.47			
A1			132.69			
B4			134.76			
β			152.09			
B3			152.35			
B5			152.35			
A3			153.01			
A5			153.01			
Ac C=O			168.43			
γ			186.95			

¹H (acetone)

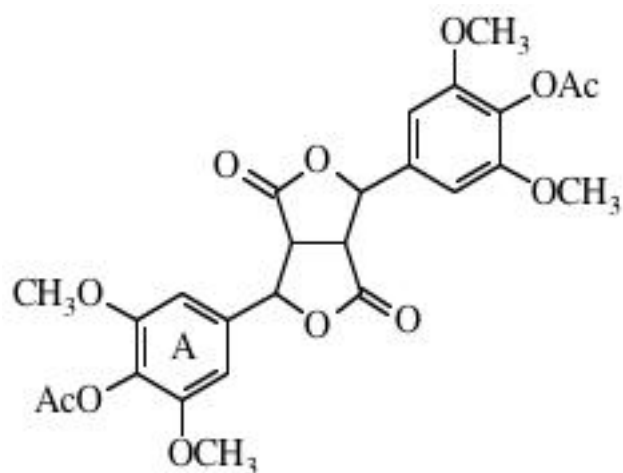
Atom	H Shifts	Mult	J
Ac Me	2.23	s	
A3,5 OMe	3.77	s	
B3,5 OMe	3.78	s	
B2,6	6.67	d	8.3
α	6.69	s	
B1	7.01	dd	8.6, 8.2
A2,6	7.34	s	
γ	9.32	s	

Notes:

HKd 63.1 Ac

Compound Number 3042

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Ac Me			20.18			
β			48.76			
3 OMe			55.56			
5 OMe			55.56			
α			82.61			
2			103.05			
6			103.05			
4			129.76			
1			137.84			
3			153.54			
5			153.54			
Ac C=O			168.50			
γ			175.77			

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.23	s	
OMe	3.81	s	
β	4.20	s	
α	5.86	s	
2,6	6.81	s	

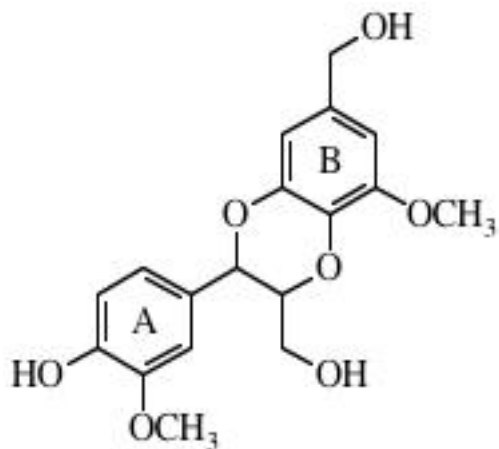
Notes:

FLj 144

As this dimer contains a plane of symmetry the CS's are reported for one unit.

Compound Number 3043

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B3 OMe			56.26	98		
A3 OMe			56.32	105		
γ			61.83	53		
Bα			64.61	63		
α			76.97	93		
β			79.30	91		
B2			104.10	84		
B6			108.55	97		
A2			111.90	89		
A5			115.70	52		
A6			121.49	98		
A1			129.50	54		
B4			133.24	25		
B1			135.46	40		
B5			145.19	39		
A4			147.92	26		
A3			148.44	24		
B3			149.84	49		

¹H (acetone)

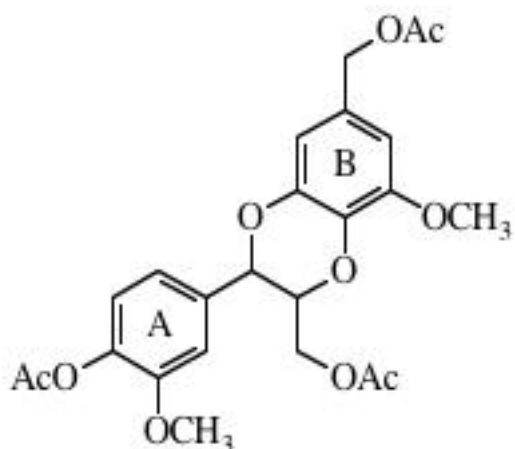
Atom	H Shifts	Mult	J
γ1	3.47	m	
γ2	3.76	m	
B3 OMe	3.81	s	
A3 OMe	3.85	s	
β	3.99	ddd	7.9, 3.9, 2.5
Bα	4.49	m	
α	4.95	d	7.9
B6	6.53	ddd	1.8, 0.75, 0.75
B2	6.60	d	1.8
A5	6.86	d	8.1
A6	6.94	ddd	8.1, 1.9, 0.5
A2	7.09	d	1.9
A4 OH	7.80	s	

Notes:

F. Lu
flm11

Compound Number 3044

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A4 Ac Me			20.45	18		
γ Ac Me			20.49	18		
Bα Ac Me			20.81	12		
A3 OMe			56.36	18		
B3 OMe			56.44	18		
γ			63.36	14		
Bα			66.36	17		
β			75.97	16		
α			77.01	16		
B2			106.08	14		
B6			110.41	15		
A2			112.77	15		
A6			120.75	16		
A5			123.88	16		
B1			129.92	9		
B4			133.65	8		
A1			136.00	10		
A4			141.45	7		
B5			144.92	9		
B3			149.98	8		
A3			152.57	9		
A4 Ac C=O			168.86	9		
γ Ac C=O			170.62	8		
Bα Ac C=O			170.83	5		

¹H (acetone)

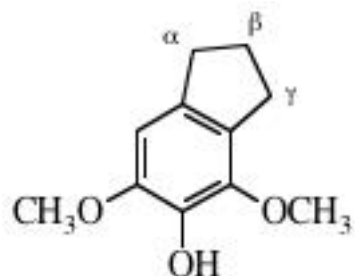
Atom	H Shifts	Mult	J
Bα Ac Me	1.99	s	
γ Ac Me	2.03	s	
A4 Ac Me	2.24	s	
B3 OMe	3.83	s	
A3 OMe	3.84	s	
γ1	4.02	dd	12.4, 4.3
γ2	4.28	dd	12.4, 3.4
β	4.40	ddd	7.7, 4.3, 3.4
Bα	4.98	s	
α	5.04	d	7.7
B6	6.61	d	1.9
B2	6.66	d	1.9
A6	7.08	dd	8.1, 1.7
A5	7.11	d	8.1
A2	7.26	d	1.7

Notes:

F. Lu
flm11Ac

Compound Number 3045

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β			26.11			
γ			30.33			
α			33.51			
5 OMe			56.73			
3 OMe			59.83			
6			104.24			
2			128.60			
1			134.89			
4			138.17			
3			144.71			
5			148.47			

¹H (acetone)

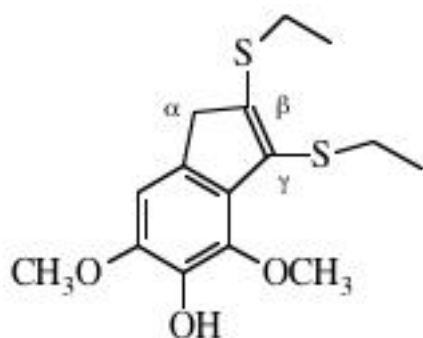
Atom	H Shifts	Mult	J
β	1.98	quint	7.2
α	2.78	br t	7.2
γ	2.83	br t	7.2
5 OMe	3.77	s	
3 OMe	3.79	s	
6	6.58	s	
<u>Benzene</u>			
β	1.86	quin	7.37
α	2.71	td	7.37, 0.66
γ	2.86	t	7.37
5 OMe	3.28	s	
3 OMe	3.75	s	
6	6.32	s	

Notes:

HKE-11
Raney nickel reaction of hke5.5

Compound Number 3046

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ S-CH3			15.11			
β S-CH3			15.41			
β S-CH2			26.33			
γ S-CH2			29.12			
α			41.68			
5 OMe			56.91			
3 OMe			62.30			
6			105.00			
γ			126.93			
2			131.50			
1			133.78			
3			104.04			
4			141.58			
5			147.06			
β			148.43			

¹H (acetone)

Atom	H Shifts	Mult	J
γ S-CH3	1.15	t	7.37
β S-CH3	1.30	t	7.37
γ S-CH2	2.89	q	7.37
β S-CH2	2.95	q	7.37
α	3.58	d	0.92
5 OMe	3.82	s	
3 OMe	3.85	s	
6	6.87	br t	0.92

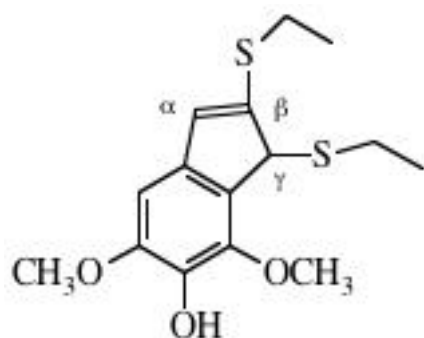
Notes:

hke 5.4.1

Thioacidolysis product of β-O-4 (S-G) aldehyde dimer

Compound Number 3047

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ S-CH3			14.39			
β S-CH3			14.45			
γ S-CH2			22.23			
β S-CH2			26.80			
γ			52.56			
5 OMe			56.71			
3 OMe			60.09			
6			100.11			
α			124.89			
2			128.89			
1			135.82			
4			137.70			
β			145.14			
3			145.23			
5			149.46			

¹H (acetone)

Atom	H Shifts	Mult	J
γ S-CH3	1.00	t	7.5
β S-CH3	1.33	t	7.37
γ S-CH2	2.22, 2.04	dq, dq	12.1, 7.5
β S-CH2	2.94	q	7.37
5 OMe	3.82	s	
3 OMe	3.96	s	
γ	4.39	d	1.18
α	6.38	d	1.18
6	6.63	s	

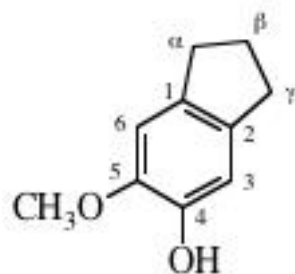
Notes:

hke 5.5

Thioacidolysis product of γ-O-4 (S-G) aldehyde dimer

Compound Number 3048

¹³C



6-methoxy-indan-5-ol

¹H (acetone)

Atom	H Shifts	Mult	J
β	1.99	quint	7.63
α	2.74	t	7.63
γ	2.76	t	7.63
OMe	3.79	s	
3	6.66	s	
6	6.78	s	

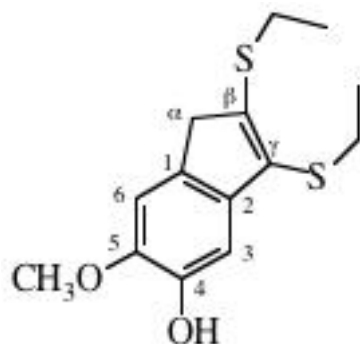
Notes:

hke87
Desulfurized (Raney-nickel Rxn)
thioacidolysis product of β-O-4 (G-S) aldehyde model compound

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β			26.45			
α			33.13			
γ			33.25			
OMe			56.48			
6			108.74			
3			111.56			
1			135.00			
2			136.73			
4			146.11			
5			147.01			

Compound Number 3049

¹³C



2,3-bis-ethylsulfanyl-6-methoxy-1H-inden-5-ol

¹H (acetone)

Atom	H Shifts	Mult	J
γ S CH3	1.67	t	7.37
β S CH3	1.31	t	7.37
γ S CH2	2.81	q	7.37
β S CH2	2.99	q	7.37
α	3.58	d	0.79
OMe	3.83	s	
3	6.87	s	
6	7.06	br t	0.79

Notes:

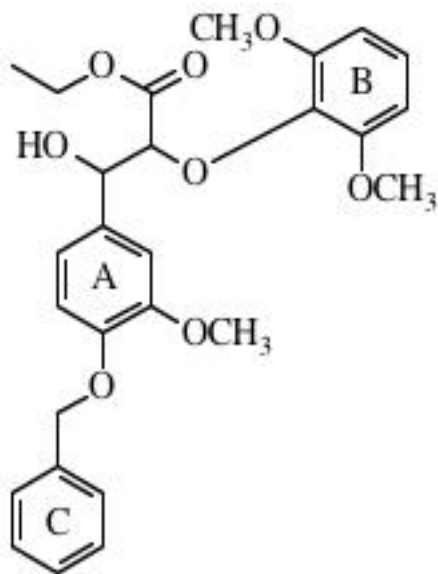
hke83.3

Thioacidolysis product of β-O-4 (G-S) aldehyde dimer model.

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β S CH3			15.47			
γ S CH3			15.74			
β S CH2			23.65			
γ S CH2			27.70			
α			41.57			
OMe			56.83			
4			106.37			
6			109.01			
γ			128.64			
1			133.31			
2			140.13			
5			146.09			
4			146.91			
β			148.16			

Compound Number 3050

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3			14.41			
A OMe			56.13			
B OMe			56.44			
B OMe			56.44			
CH2			60.69			
C α			71.37			
α			74.31			
β			86.14			
B2			106.37			
B6			106.37			
A2			112.31			
A5			114.41			
A6			120.34			
B1			124.73			
C2			128.31			
C6			128.31			
C4			128.41			
C3			129.09			
C5			129.09			
A1			134.57			
B4			137.19			
C1			138.62			
A4			148.71			
A3			150.33			
B3			153.64			
B5			153.64			
γ			169.44			

¹H (acetone)

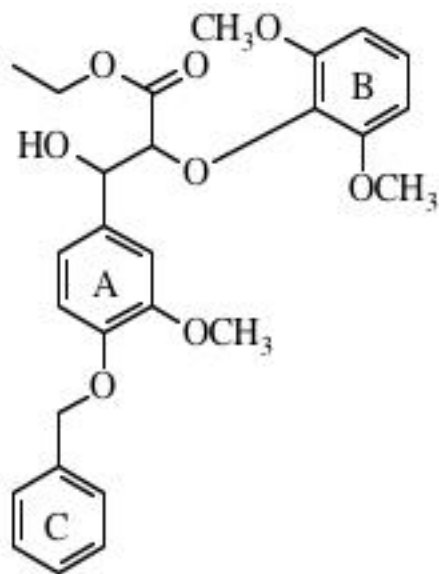
Atom	H Shifts	Mult	J
CH3	1.09	t	7.10
B OMe	3.75	s	
A OMe	3.82	s	
CH2	4.04	m	
β	4.68	d	5.39
α	4.96	d	5.39
C α	5.09	s	
B 2,6	6.64	d	8.16
A6	6.92	dd	8.29, 1.71
A5	6.96	d	8.29
B1	6.99	t	8.16
A2	7.17	d	1.71
C 3,4,5	7.27-7.40	m	
C 2,6	7.37	br d	7.37

Notes:

hkd79.2C
possibly erythro

Compound Number 3051

¹³C



¹H (acetone)

Atom	H Shifts	Mult	J
CH3	0.99	t	7.23
A OMe	3.79	s	
B OMe	3.82	s	
CH2	3.95	m	
β	4.02	d	8.42
α	4.84	d	8.42
C α	5.09	s	
B 2,6	6.71	d	8.5
A6	6.81	dd	8.29, 1.97
A5	6.94	d	8.29
A2	6.99	d	1.97
B1	7.05	t	8.55
C 3,4,5	7.29-7.39	m	
C 2,6	7.46	br d	7.37

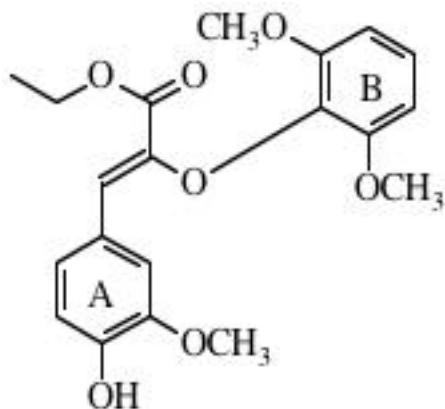
Notes:

hkd79.2Ex
possibly threo

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3			14.30			
A OMe			56.15			
B OMe			56.42			
B OMe			56.42			
CH2			60.68			
C α			71.38			
α			76.04			
β			90.35			
B2			106.26			
B6			106.26			
A2			112.09			
A5			114.61			
A6			120.46			
B1			125.18			
C2			128.33			
C6			128.33			
C4			128.44			
C3			129.11			
C5			129.11			
A1			132.51			
B4			138.07			
C1			138.56			
A4			149.17			
A3			150.62			
B3			153.39			
B5			153.39			
γ			169.49			

Compound Number 3052

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3			14.35			
A OMe			56.09			
B OMe			56.79			
B OMe			56.79			
CH2			61.05			
B2			107.08			
B6			107.08			
A2			114.38			
A5			115.74			
α			119.07			
B1			123.37			
A6			125.09			
A1			126.76			
B4			136.27			
β			143.08			
A3			148.01			
A4			148.10			
B3			152.01			
B5			152.01			
γ			163.74			

¹H (acetone)

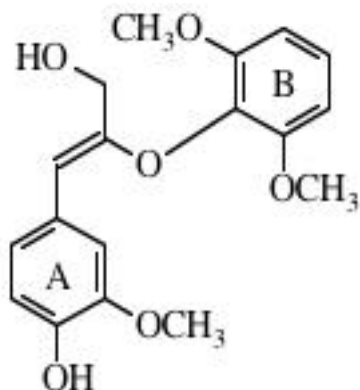
Atom	H Shifts	Mult	J
CH3	1.11	t	7.10
B OMe	3.74	s	
A OMe	3.76	s	
CH2	4.06	q	7.10
B 2,6	6.67	d	8.68
α	6.79	s	
A5	6.82	d	8.29
B1	6.94	t	8.68
A6	7.29	dd	8.29, 1.84
A2	7.52	d	1.84

Notes:

hkd 17.2.1.3

Compound Number 3053

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
1H data only						

¹H (acetone)

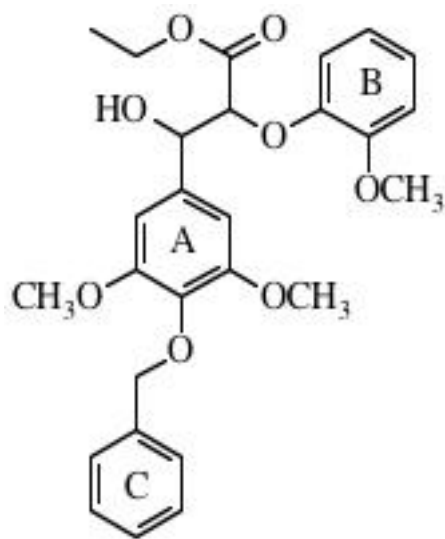
Atom	H Shifts	Mult	J
A OMe	3.76	s	
B OMe	3.77	s	
γ	3.97	br s	
α	5.75	br s	
B 2,6	6.68	d	8.42
A 5	6.79	d	8.29
B 1	7.07	t	8.42
A 6	7.18	dd	8.29, 1.84
A 2	7.46	d	1.84

Notes:

hkd87

Compound Number 3054

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3			14.35			
B OMe			56.36			
A OMe			56.44			
A OMe			56.44			
CH2			61.29			
C α			75.06			
α			75.59			
β			84.38			
A2			105.44			
A6			105.44			
B2			113.87			
B5			117.25			
B6			121.61			
B1			123.44			
C4			128.31			
C3			128.76			
C5			128.76			
C2			128.82			
C6			128.82			
A1			136.70			
A4			137.61			
C1			139.47			
B4			148.70			
B3			151.03			
A3			154.17			
A5			154.17			
γ			169.85			

¹H (acetone)

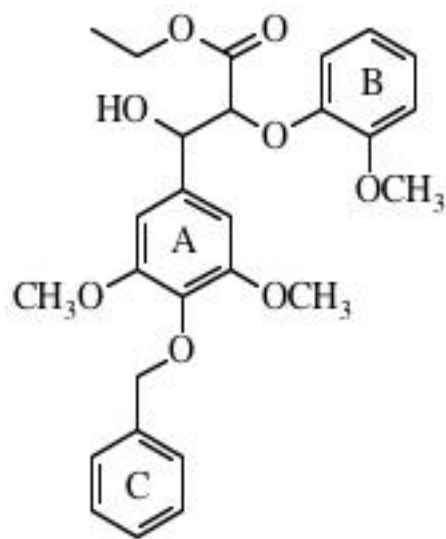
Atom	H Shifts	Mult	J
CH3	1.08	t	7.1
B OMe	3.80	s	
A OMe	3.82	s	
CH2	4.04	m	7.1
β	4.72	d	5.52
Cα	4.93	s	
α	5.08	d	5.52
A 2,6	6.83	s	
B 5,6	6.77-6.85	m	
B 1,2	6.90-7.00	m	
C 3,4,5	7.24-7.38	m	
C 2,6	7.50	br d	7.37

Notes:

hkd35.2.1.2
possibly erythro (see 3055)
separated by cyclohexane:EtOAc:Acetic Acid (100:50:1)

Compound Number 3055

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3			14.16			
B OMe			56.28			
A OMe			56.40			
A OMe			56.40			
CH2			61.28			
α			74.84			
C α			75.04			
β			83.40			
A2			105.51			
A6			105.51			
B2			113.77			
B5			116.96			
B6			121.52			
B1			123.43			
C4			128.28			
C3			128.73			
C5			128.73			
C2			128.80			
C6			128.80			
A4			137.51			
A1			137.79			
C1			139.50			
B4			148.35			
B3			151.08			
A3			154.04			
A5			154.04			
γ			170.25			

¹H (acetone)

Atom	H Shifts	Mult	J
CH3	1.19	t	7.10
B OMe	3.77	s	
A OMe	3.83	s	
CH2	4.16	q	7.10
β	4.70	d	6.71
C α	4.94	s	
α	5.07	d	6.71
B 5,6	6.79	m	
A 2,6	6.90	s	
B 1,2	6.90-6.97	m	
C 3,4,5	7.24-7.37	m	
C 2,6	7.5	br d	7.37

Notes:

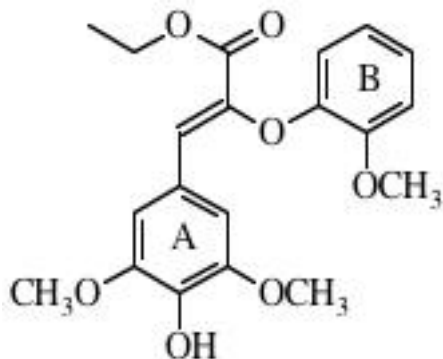
hkd35.2.1.1

Possible threo (see 3054)

separated by cyclohexane:EtOAc:Acetic Acid (100:50:1)

Compound Number 3056

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
CH3			14.19			
B OMe			56.30			
A OMe			56.37			
A OMe			56.37			
CH2			61.58			
A2			109.09			
A6			109.09			
B2			113.72			
B5			114.15			
B6			121.49			
B1			123.24			
A1			124.12			
α			127.99			
β			138.78			
A4			138.94			
B4			146.94			
A3			148.50			
A5			148.50			
B3			149.87			
γ			164.06			

¹H (acetone)

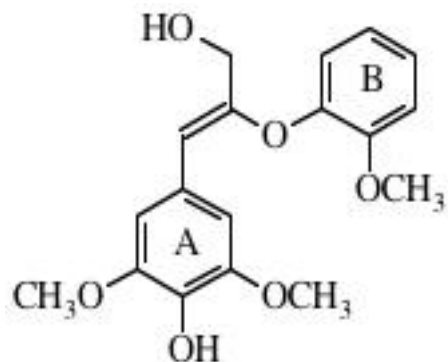
Atom	H Shifts	Mult	J
CH3	1.21	t	7.10
A OMe	3.73	s	
B OMe	3.90	s	
CH2	4.20	q	7.10
B5	6.72	dd	8.02, 1.58
B6	6.79	ddd	8.02, 7.37, 1.58
B1	6.94	ddd	8.02, 7.37, 1.58
B2	7.06	dd	8.02, 1.58
A 2,6	7.16	s	
α	7.33	s	

Notes:

hkd91.1.2

Compound Number 3057

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
1H data only						

¹H (acetone)

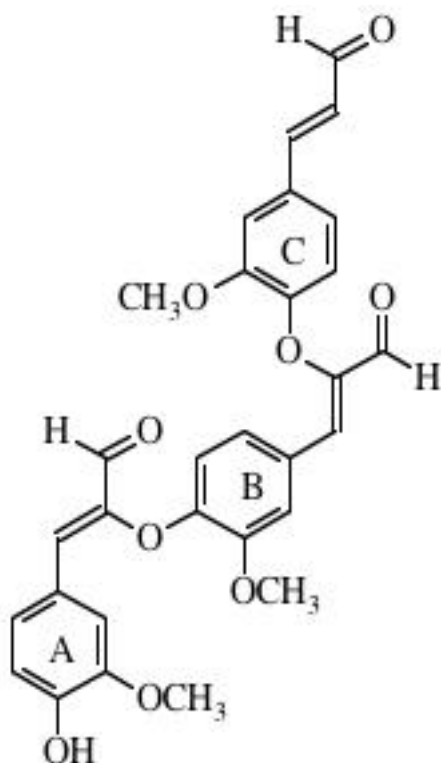
Atom	H Shifts	Mult	J
A OMe	3.67	s	
B OMe	3.90	s	
γ	4.15	br s	
α	6.21	br s	
A 2,6	6.90	s	
B 1,2,5,6	6.75-7.05	m	
A4 OH	8.00	s	

Notes:

hkd57.4
1H Data only

Compound Number 3058

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A OMe			55.93			
B OMe			56.14			
C OMe			56.50			
C2			112.55			
A2			113.95			
B2			114.87			
B5			115.18			
C5			115.42			
A5			116.26			
C6			123.59			
A1			125.21			
B6			125.59			
A6			126.78			
B1			128.03			
Cβ			128.38			
C1			130.35			
Bα			137.15			
Aα			138.31			
Aβ			147.52			
A3			148.46			
B4			148.47			
Bβ			148.51			
C4			148.72			
B3			149.91			
C3			150.35			
A4			150.58			
Cα			153.13			
Aγ			187.43			
Bγ			187.65			
Cγ			193.91			

¹H (acetone)

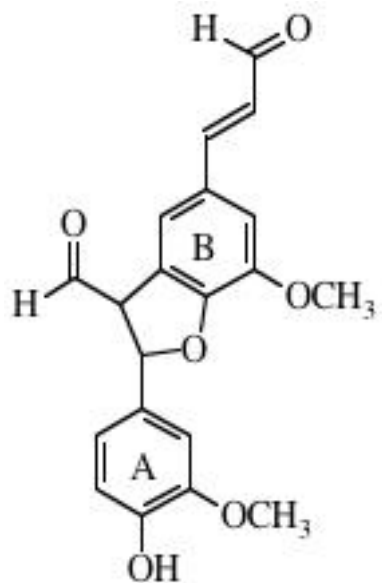
Atom	H Shifts	Mult	J
A OMe	3.69	s	
B OMe	3.83	s	
C OMe	3.98	s	
C β	6.70	dd	15.92, 7.65
B5	6.79	d	8.29
C5	6.82	d	8.29
A5	6.85	d	8.29
C6	7.15	dd	8.29, 1.97
B6	7.28	dd	8.29, 1.97
A6	7.30	dd	8.29, 1.97
A α	7.30	s	
B α	7.33	s	
C2	7.48	d	1.97
A2	7.52	d	1.97
C α	7.58	d	15.92
B2	7.67	d	1.97
A OH	8.37	bs	
Aγ	9.48	s	
Bγ	9.53	s	
Cγ	9.65	d	7.65

Notes:

hkc43.4.1

Compound Number 3059

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A OMe			56.31			
B OMe			56.54			
β			62.91			
α			85.24			
A2			110.66			
B2			114.27			
A5			115.93			
B6			119.49			
A6			119.81			
B5			125.79			
Bβ			127.69			
B1			129.66			
A1			132.18			
B3			146.01			
A3			147.91			
A4			148.57			
B4			151.77			
Bα			153.45			
Bγ			193.83			
γ			197.57			

¹H (acetone)

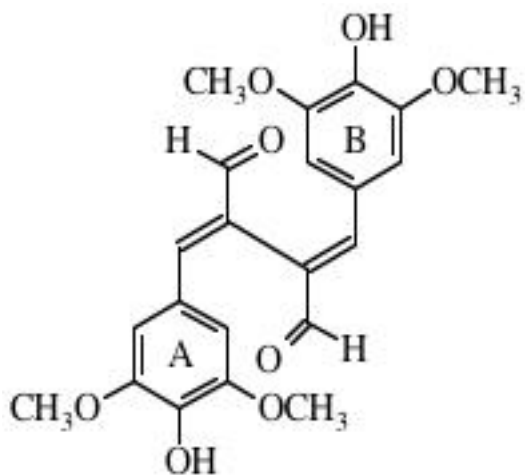
Atom	H Shifts	Mult	J
A OMe	3.82	s	
B OMe	3.92	s	
β	4.50	d	6.5
α	6.20	d	6.5
B β	6.70	dd	15.78, 7.76
A5	6.84	d	8.16
A6	6.90	dd	8.16, 1.84
A2	7.06	d	1.84
B2	7.38	s	
B6	7.43	s	
B α	7.61	d	15.78
A OH	8.29	s	
B γ	9.64	d	7.76
A γ	9.94	s	

Notes:

hkf69.2.2
F1173.12

Compound Number 3060

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
OMe			56.54			
2			109.07			
6			109.07			
1			126.05			
β			134.78			
4			140.10			
3			148.71			
5			148.71			
α			152.98			
γ			192.70			

¹H (acetone)

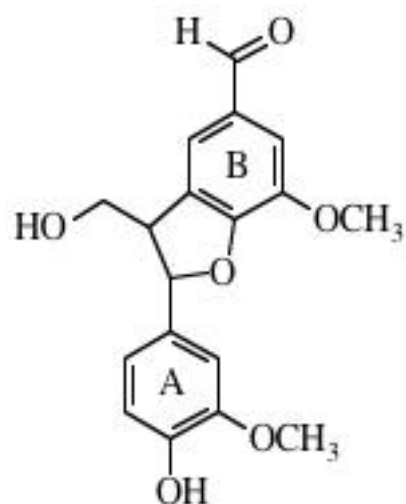
Atom	H Shifts	Mult	J
OMe	3.72	s	
2,6	7.02	s	
α	7.79	s	
OH	7.94	bs	
γ	9.67	s	

Notes:

hkf7-1
This compound has a plane of symmetry and so the signals are reported for only one half.

Compound Number 3061

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
β			53.84			
A OMe			56.30			
B OMe			56.37			
γ			64.22			
α			89.87			
A2			110.65			
B2			113.44			
A5			115.79			
A6			119.82			
B6			121.43			
B5			131.19			
B1			132.40			
A1			133.42			
B3			145.81			
A4			147.67			
A3			148.49			
B4			154.87			
B α			190.90			

¹H (acetone)

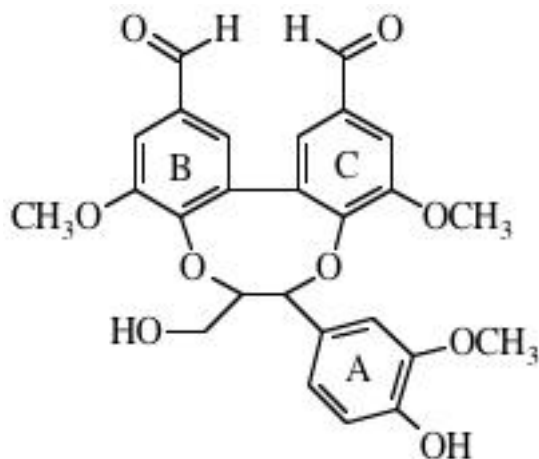
Atom	H Shifts	Mult	J
β	3.67	bq	
A OMe	3.82	s	
B OMe	3.92	s	
γ	3.92	m	
α	5.69	d	6.84
A5	6.81	d	8.16
A6	6.88	dd	8.16, 1.97
A2	7.05	d	1.97
B2	7.42	d	1.45
B6	7.53	dd	1.45, 0.92
A OH	7.65	bs	
B α	9.82	s	

Notes:

hkf75.322

Compound Number 3062

¹³C



Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
C OMe			56.32			
A OMe			56.37			
B OMe			56.62			
γ			62.29			
α			85.11			
β			87.48			
B2			111.71			
C2			111.88			
A2			112.08			
A5			115.64			
A6			121.57			
C6			125.15			
B6			125.32			
A1			130.25			
B5			133.27			
C5			133.72			
B1			134.42			
C1			134.56			
A4			147.73			
A3			148.23			
B4			152.46			
C4			152.81			
B3			154.23			
C3			154.39			
Cα			191.66			
Bα			191.71			

¹H (acetone)

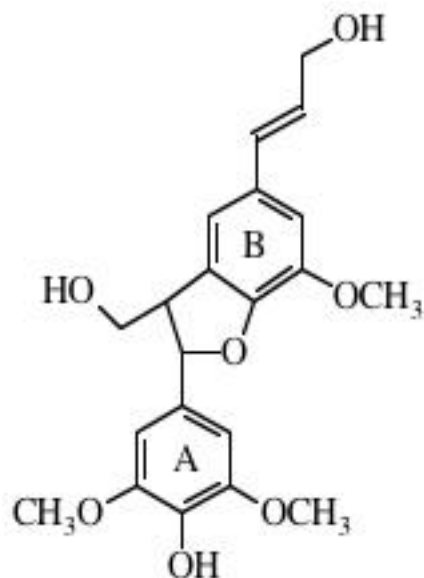
Atom	H Shifts	Mult	J
γ1	3.48	m	
γ2	3.95	m	
A OMe	3.82	s	
C OMe	3.91	s	
B OMe	4.03	s	
β	4.18	m	
α	5.05	d	10.14
A5	6.84	d	8.16
A6	6.93	dd	8.16, 1.97
A2	7.05	d	1.97
C2	7.56	d	1.84
B2	7.65	d	1.84
C6	7.70	d	1.84
B6	7.74	d	1.84
C α	10.02	s	
B α	10.06	s	

Notes:

hkf83.2.1 (6 mg)

Compound Number 3063

¹³C



Simulanol, S-(8-5)-G

4-[3-hydroxy-5-(3-hydroxy-propenyl)-7-methoxy-2,3-dihydrobenzofuran-2-yl]-2,6-dimethoxy-phenol

¹H (acetone)

Atom	H Shifts	Mult	J
A OMe	3.79	s	
B OMe	3.86	s	
Aβ	3.54	m	
Bγ	4.19	td	J = 5.52, 1.58
Aα	5.54	d	J = 6.71
Bβ	6.23	dt	J = 15.92, 5.52
Bα	6.52	dt	J = 15.92, 1.58
A 2,6	6.74	s	
B2	6.84	s	
B6	6.97	s	
A4-OH	7.19	s	

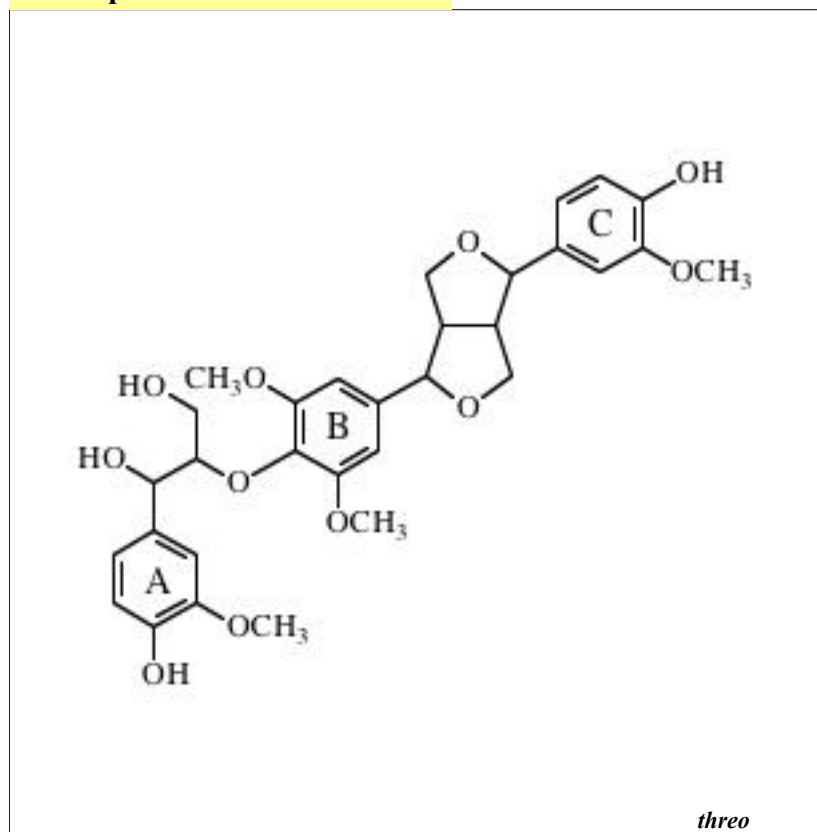
Notes:

hkh 99.14 Morreel #6
 Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Aβ			54.78			
B OMe			56.44			
B OMe			56.44			
A OMe			56.67			
Bγ			63.39			
Aγ			64.52			
Aα			88.74			
A2			104.55			
A6			104.55			
B2			111.80			
B6			116.07			
Bβ			128.38			
B5			130.47			
Bα			130.52			
B1			131.95			
A1			133.30			
A4			136.68			
B3			145.16			
A3			148.74			
A5			148.74			
B4			148.95			

Compound Number 3064

¹³C



buddlenol E, G-(8-O-4)-S-(8-8)-G

1-(4-hydroxy-3-methoxy-phenyl)-2-{4-[4-(4-hydroxy-3-methoxy-phenyl)-tetrahydro-furo[3,4c]furan-1-yl]-2,6-dimethoxy-phenoxy}-

¹H (acetone)

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Cβ			55.15			
Bβ			55.46			
OMe			56.24			
B OMe			56.59			
B OMe			56.59			
OMe			56.70			
Aγ			60.98			
Cγ			72.30			
Bγ			72.54			
Aα			73.38			
Bα			86.57			
Cα			86.60			
Aβ			87.86			
B2			104.12			
B6			104.12			
C2			110.62			
A2			110.92			
A5			115.20			
C5			115.54			
C6			119.60			
A6			120.04			
C1			133.77			
B1			133.80			
A1			134.10			
C4			135.72			
B4			139.10			
A3			146.47			
C3			146.90			
A4			147.98			
B3			154.20			
B5			154.20			

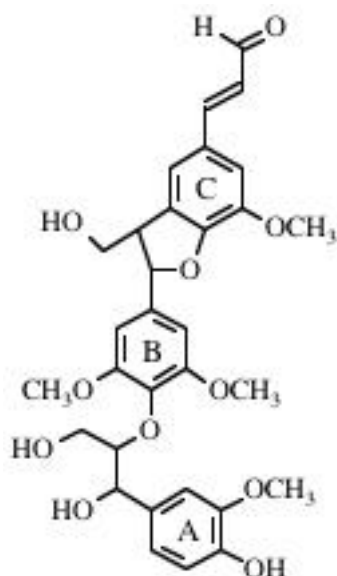
Atom	H Shifts	Mult	J
Cβ + Bβ	3.10	m	
Aγ1	3.43	m	
Aγ2	3.84	m	
Cγ2 + Bγ2	3.86	m	
Aβ	4.15	m	
Cγ1 + Bγ1	4.24	m	
Cα	4.68	d	J = 4.34
Bα	4.73	d	J = 4.34
Aα	4.97	m	
B 2,6	6.76	s	
C2	6.98	d	J = 1.84
A2	7.03	d	J = 1.84
A4-OH	7.37	s	
C4-OH	7.49	s	

Notes:

hkh 99.6 Morreel #22
 Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549

Compound Number 3065

¹³C



threo

buddlenol A, G-(t8-O-4)-S-(8-5)-G'

3-(2-{4-[2-hydroxy-3-methoxy-phenyl]1-hydroxymethyl-ethoxy}-3,5-dimethoxy-phenyl)-3-hydroxymethyl-7-methoxy-2,3-

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.82	s	
B OMe	3.84	s	
OMe	3.94	s	
A α	4.97	t	J = 4.47
B α	5.70	d	J = 6.45
C β	6.66	dd	J = 15.78, 7.63
A5	6.76	d	J = 8.02
A6	6.83	dd	J = 8.02, 1.84
B 2,6	6.83	s	
A2	7.03	d	J = 1.84
C α	7.59	d	J = 15.78
C γ	9.64	d	J = 7.63

Notes:

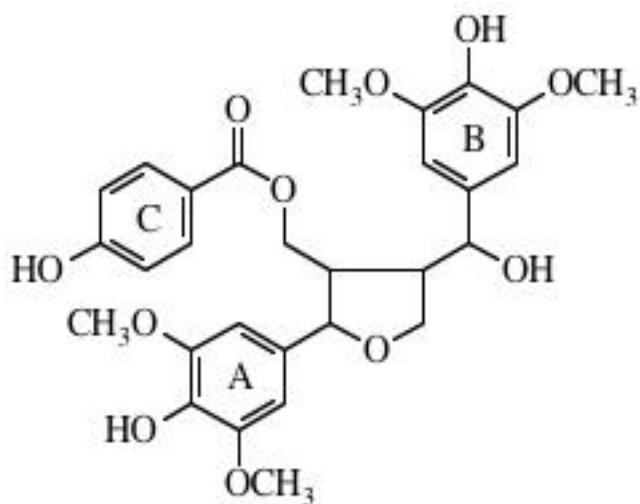
hkh 19.1t Morreel #23

Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. *Plant Physiol.* November 2004, Vol.136, pp.3537-3549

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
PROTON data only						

Compound Number 3066

¹³C



SP-(8,8)-S

tetrahydro- α 4,2-bis-(4-hydroxy-3,5-dimethoxyphenyl) α -3O-(4-hydroxybenzoyl)-3,4-furandimethanol

¹H (acetone)

Atom	H Shifts	Mult	J
A β	2.55	m	
OMe	3.74	s	
OMe	3.78	s	
B β	3.99	m	
B γ	4.14	m	
A γ 1	4.41	m	
A γ 2	4.68	m	
A α	4.90	d	J = 6.3
B α	4.96	d	J = 5.0
A2,6	6.66	s	
B2,6	6.72	s	
C3,5	6.87	m	
C2,6	7.77	m	

Notes:

Fln 117 Morreel #19
 Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B β			48.37			
A β			49.80			
OMe			56.50			
OMe			56.50			
OMe			56.50			
OMe			56.50			
A γ			63.99			
B γ			69.95			
B α			72.59			
A α			85.34			
A2			104.45			
A6			104.45			
B2			104.53			
B6			104.53			
C3			115.98			
C5			115.98			
C1			122.40			
C2			132.45			
C6			132.45			
A1			134.49			
B1			134.91			
A4			136.01			
B4			136.01			
A3			148.54			
A5			148.54			
B3			148.54			
B5			148.54			
C4			162.56			
C α			166.43			

Compound Number 3067

¹³C

<i>threo</i>

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
PROTON data only						

G-(8-O-4)-S

threo-1-(4-hydroxy-3-methoxy-phenyl)-2-[2,6 dimethoxy-phenoxy-4-(3-

¹H (acetone)

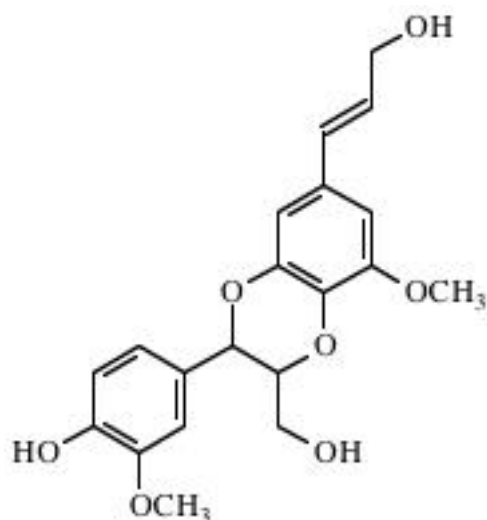
Atom	H Shifts	Mult	J
Aγ	3.39	m	-
A3 OMe	3.83	s	
B3 OMe	3.87	s	
Bγ	4.21	m	-
Aα-OH	4.33	d	J = 3.8
Aα	4.96	dd	J = 6.8, 8.4
Bβ	6.37	dt	J = 15.8, 5.1
Bα	6.54	d	J = 15.8
A5	6.76	d	J = 8.2
B2/6	6.79	s	
A6	6.82	dd	J = 8.2, 1.3
A2	7.03	d	J = 1.3
A4-OH	7.33	br s	

Notes:

HKh83.5, FL1112 Compound #8, Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549 See compound #118 for peracetate

Compound Number 3068

¹³C



trans

G-(8-O-4)-5H [nocomtol]

4-[3-hydroxymethyl-7-(E)-(3-hydroxypropenyl)-5-methoxy-2,3-dihydro-benzo[1,4]dioxin-2-yl]-2-methoxyphenol

¹H (acetone)

Atom	H Shifts	Mult	J
Aγ1	3.50	m	-
Aγ2	3.76	m	-
B3 OMe	3.85	s	
A3 OMe	3.85	s	
Aβ	4.05	m	-
Bγ	4.20	dd	J = 5.4, 1.6
Aα	4.96	d	J = 7.9
Bα	6.26	dt	J = 15.9, 5.4
Bβ	6.47	dt	J = 15.9, 1.6
B6	6.68	d	J = 1.8
A5	6.87	d	J = 8.1
A6	6.95	dd	J = 8.1, 1.8
A2	7.10	d	J = 1.8

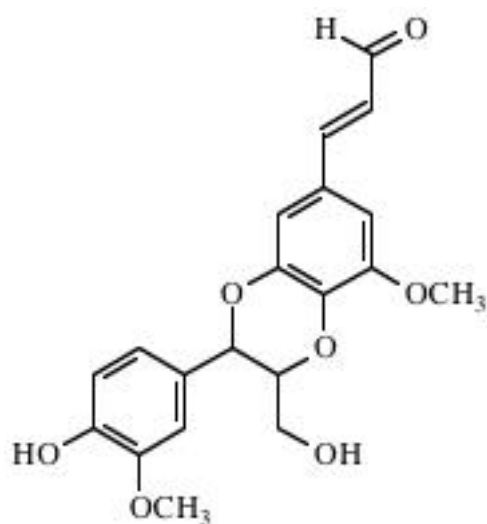
Notes:

FLm08 Cmpd 1a: Phenolic profiling of caffeic acid O-methyltransferase-deficient poplar reveals novel benzodioxane oligolignols. K. Morreel, J. Ralph, F. Lu, G. Goeminne, R. Busson, P. Herdewijn, J.L. Goeman, J. Van der Eycken, W. Boerjan and E. Messens. *Plant Physiology*, 136(4), 4023-4036 (2004).

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
B3-OMe			56.2			
A3-OMe			56.2			
Aγ			61.9			
Bγ			63.6			
Aα			76.7			
Aβ			79.3			
B2			103.2			
B6			108.5			
A2			111.7			
A5			115.7			
A6			121.4			
Bβ			129.0			
A1			129.1			
Bα			130.1			
B1			130.3			
B4			133.7			
B5			145.2			
A4			147.8			
A3			148.3			
B3			149.8			

Compound Number 3069

¹³C



trans

G-(8-O-4)-5H' [nocomtal]

(2E)-3-[3-(4-hydroxy-3-methoxy-phenyl)-2-(hydroxymethyl)-8-methoxy-2,3-dihydro-1,4-benzodioxin-6-yl]acrylaldehyde

¹H (acetone)

Atom	H Shifts	Mult	J
Aγ1	3.53	m	-
Aγ2	3.82	m	-
A3 OMe	3.86	s	
B3 OMe	3.91	s	
Aβ	4.14	ddd	J = 8.0, 3.8, 2.6
Aα	5.01	d	J = 8.0
Bβ	6.67	dd	J = 15.8, 7.6
A5	6.88	d	J = 8.0
B6	6.92	dd	J = 2.0, 0.4
A6	6.97	ddd	J = 8.0, 2.0, 0.4
B2	7.02	d	J = 2.0
A2	7.12	d	J = 2.0
Bα	7.53	d	J = 15.8
A4-OH	7.59	bs	-
Bγ	9.64	d	7.6

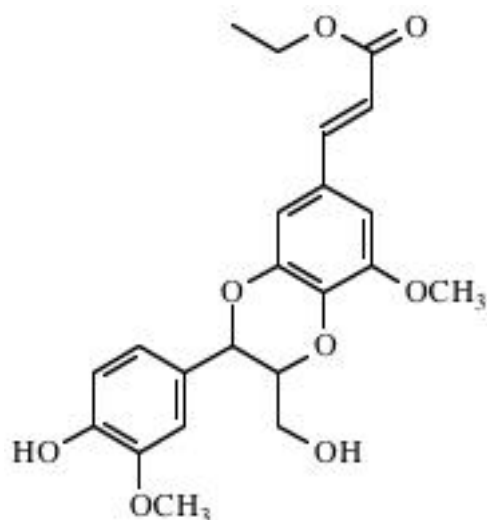
Notes:

FLn55 Cmpd 3: Phenolic profiling of caffeic acid O-methyltransferase-deficient poplar reveals novel benzodioxane oligolignols. K. Morreel, J. Ralph, F. Lu, G. Goeminne, R. Busson, P. Herdewijn, J.L. Goeman, J. Van der Eycken, W. Boerjan and E. Messens. *Plant Physiology*, 136(4), 4023-4036 (2004).

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
A3-OMe			56.4			
B3-OMe			56.5			
Aγ			61.6			
Aα			77.0			
Aβ			79.8			
B2			105.5			
B6			111.9			
A2			112.0			
A5			115.8			
A6			121.6			
B1			127.5			
Bβ			128.0			
A1			128.9			
Bα			137.4			
B5			145.6			
A3			148.1			
A4			148.5			
B3			150.4			
B4			153.7			
Bγ			193.8			

Compound Number 3070

¹³C



trans

G-(8-O-4)-5H''

3-[3-(4-hydroxy-4-methoxyphenyl)-2-hydroxymethyl-8-methoxy-2,3-dihydrobenzo[1,4] dioxin-6-yl]-acrylic acid ethyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
Me	1.25	t	J = 7.1
Aγ1	3.50	m	-
Aγ2	3.83	m	-
B3 OMe	3.85	s	
A3 OMe	3.92	s	
Aβ	4.09	m	-
CH2	4.17	q	J = 7.1
Aα	4.98	d	J = 8.0
Bβ	6.40	d	J = 15.9
B6	6.85	d	J = 1.5
A5	6.88	d	J = 8.1
B2	6.95	d	J = 1.5
A6	6.96	dd	J = 8.1, 1.8
A2	7.10	d	J = 1.8
Bα	7.54	d	J = 15.9

Notes:

FL1111 Cmpd c: Phenolic profiling of caffeic acid O-methyltransferase-deficient poplar reveals novel benzodioxane oligolignols. K. Morreel, J. Ralph, F. Lu, G. Goeminne, R. Busson, P. Herdewijn, J.L. Goeman, J. Van der Eycken, W. Boerjan and E. Messens. *Plant Physiology*, 136(4), 4023-4036 (2004).

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Me			14.6			
B3-OMe			56.2			
A3-OMe			56.3			
Aγ			61.6			
CH2			61.6			
Aα			76.9			
Aβ			79.5			
B2			104.7			
B6			111.1			
A2			111.7			
A5			115.7			
Bβ			117.0			
A6			121.4			
B1			127.4			
A1			128.8			
B4			136.4			
Bα			145.2			
B5			145.3			
A4			147.8			
B3			148.3			
A3			150.1			
Bγ			167.2			

Compound Number 3071

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
γ Ac Me			20.66			
A3 OMe			56.62			
B3 OMe			56.73			
γ			63.59			
α			73.31			
β			84.56			
A2/6			104.65			
B2/6			106.94			
Bβ			129.11			
B1			131.09			
A1			131.65			
A4			136.04			
B4			139.26			
A3/5			148.51			
Bα			153.45			
B3/5			154.57			
γ Ac C=O			167.76			
Bγ			193.90			

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.84	s	-
A3/5 OMe	3.80	s	-
B3/5 OMe	3.94	s	-
γ1	4.12	dd	J = 11.9, 3.2
γ2	4.39	dd	J - 11.9, 7.4
β	4.62	m	-
α	4.94	dd	J = 6.7, 4.0
A2/6	6.70	s	-
Bβ	6.77	dd	J = 15.8, 7.6
B2/6	7.12	s	-
Bα	7.61	d	J = 15.8
Bγ	9.67	d	J = 7.6

Notes:

HKj51T6.7 Cmpd #9, Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549 Note the single γ-acetate!

Compound Number 3072

¹³C

Atom	CDCl ₃		Acetone		DMSO	
	CS	i	CS	i	CS	i
Bβ			54.8			
OMe			56.35			
OMe			56.39			
OMe			56.58			
Aγ			61.86			
Cγ			63.26			
Bγ			64.58			
Aα			73.84			
Aβe			86.32			
Aβt			88.03			
Bα			88.24			
A2/6			105.36			
C2/6			111.14			
B2/5/6			119.33			
Cβ			128.42			
Cα			130.48			

S-(8-O-4)-G-(8-5)-G

¹H (acetone)

Atom	H Shifts	Mult	J
Bβ	3.51	m	
Aγ1	3.51	m	
Aγ2	3.71	m	
Bγ	3.85	m	
OMε	3.77	s	
OMε	3.86	s	
OMε	3.94	s	
Cγ	4.19	dd	J = 5.5, 1.3
Aβt	4.24	m	
Aβe	4.32	m	
Aα	4.86	d	J = 5.9
Bα	5.59	d	J = 6.5
Cβ	6.23	dt	J = 15.9, 5.5
Cα	6.51	d	J = 15.9
A 2,6	6.76	s	

Notes:

HKf145, mixture of isomers Morreel #39 Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549