

Species	Lab avg	Lab eqn ^h	r^2 ^g	Lab-based prediction using field average	Rim Fire	Predicted/ field	Lab avg/ Rim Fire
				MCE			
Black carbon ^b (g kg ⁻¹)	0.68 (1.09)	$y = 1.7926x^{25.655}$	0.3237	0.169	0.187 ^e	0.90	3.64
EF _{abs} 870 ^b	3.21 (5.16)	$y = 8.497x^{25.655}$	0.3237	0.80	–	–	–
EF _{abs} 401 ^c	11.16 (6.00)	$y = 11.385x^{1.7374}$	0.028	9.71	–	–	–
EF _{abs} 401 (BrC) ^c	7.15 (5.20)	$y = -32.81x + 37.53$	0.0648	7.57	–	–	–
EF _{scat} 870 ^b	10.15 (22.64)	$y = 0.9868x^{-17.48}$	0.2404	4.94	–	–	–
EF _{scat} 401 ^c	70.37 (81.25)	$y = -1343.6x + 1314.7$	0.4462	87.99	–	–	–
SSA (401) ^c	0.79 (0.13)	–	–	0.90 ^d	–	–	–
SSA (870) ^b	0.64 (0.26)	–	–	0.91 ^d	–	–	–
AAE ^c	2.80 (1.57)	$y = -35.45x + 35.64$	0.8335	3.31	3.75 ^f	0.78	0.75

^a Values in brackets are (1σ) standard deviation. ^b Average for all 75 stack fires for which 870 nm data are available. ^c Average for 31 fires for which both 401 and 870 nm are available. ^d SSA values calculated from B_{abs} and B_{scat} EF. ^e Value not published (X. Liu, personal communication, 2017; https://www.nasa.gov/mission_pages/seac4rs/index.html). ^f From Forrister et al. (2015). ^g The low r^2 equations return reasonable values at the field-average MCE. ^h In the equations below, “y” is the quantity in column 1 and “x” is MCE.