



# Newsletter

of the ASIAN CRYSTALLOGRAPHIC ASSOCIATION.

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## Presidents Message

Dear Colleagues:

The Bordeaux Congress is now only nine months away. This is the main meeting on the crystallographic calendar and one that will involve many of us in our capacity as delegates or participants. It is also the place where the ASCA Council will meet to discuss activities for the next triennium. I hope you will give some thought to ways that the ASCA can be more effective in the promoting crystallographic cooperation in the region. This triennium has, as we expected, been a relatively simple beginning for our Association. The principle limiting factor has been funds. It is clear that in the next period we must explore other avenues to improve our financial situation, recognising that the current level of ASCA membership fees provides for little beyond the production of this newsletter. Eventually we must aim for our own conference, probably in conjunction with a regular meeting of a national society. This is certain to come, and when it does there is no reason why it should not be as large and as successful as the regional meetings of the the European Crystallographic Committee and the American Crystallographic Association.

These are matters that the ASCA Executive will address at the Congress. If you have suggestions for the Executive, either for new projects, or, indeed, for changes to our present activities, please communicate these to your society, or directly with your ASCA Councillor. We will be guided by your comments and suggestions.

There will be one more ASCA newsletter before the IUCr Congress. In this we will publish for each country the names and addresses of the executives of the national societies and of the members of the IUCr National Committees and Commissions. Some of this data is available in other places but it is often difficult to find when urgently needed! The secretaries of national organisations are requested to forward this information to your ASCA Councillor, or directly to me, before March 1990.

In the last issue I emphasised the need for each crystallographer to send in noteworthy news about past or future events. I repeat this request with a reminder that the newsletter only appears every six months. On several occasions details of forthcoming meetings and seminars have arrived past the time when they could be effectively included. Correspondents should be warned that regular postal services can take a surprisingly long time (two months in one instance!). Please use the TELEFAX when ever possible. This is a very efficient medium and you have the guarantee that your message has arrived! Electronic mail is also fast if it is available to you. Communication is the main activity of ASCA at the moment, and it is clear that effectiveness of this Newsletter can probably be improved in a number of ways. More frequent issues is an alternative, coupled, possibly, with a "less processed" format of photocopied excerpts from submitted material. These are decisions for the next ASCA Executive and Newsletter editor.

Best wishes and every success for the New Year  
Syd Hall.

# News from Australia

## 'Big Science' Report

The report by the Australian National Committee for Crystallography entitled 'A Requirement for Australian Research Access to "Big Science" Facilities' was released in March 1989 and a copy has been posted to all SCA members. This report addresses the need for access by Australian scientists to both synchrotron radiation and intense neutron beams. In particular, the report recommends the purchase of a beam-line at an overseas synchrotron facility, involvement in an overseas neutron beam facility, the refurbishment of the Australian HIFAR reactor and upgrading instrumentation at HIFAR.

## A New Fellow of the Academy

Congratulations to the immediate Past President of the SCA, Peter Colman, on his election as a Fellow of the Australian Academy of Science. Peter and his colleague, Jose Varghese, have recently also had the honour of a detailed article on their work on the structure of the influenza virus appearing in the national press.

## David Rivett Medal

Rod Hill of the CSIRO Division of Mineral Products has won the 1988 CSIRO Officer's Association David Rivett Medal for fundamental research in crystallography, and application of this expertise in the improvement of lead acid battery performance. The award is made every two years and alternately for work in the physical and biological sciences. Rod's applications of novel computer analysis methods to X-ray and neutron powder diffraction data has led to new knowledge of lead acid batteries, and to the preferred conditions for producing the best battery plates. Some of this work is presently being utilised by battery manufacturers.

## Notes from CRYSTAL XVI

The CRYSTAL16 meeting of the Society of Crystallographers in Australia was held at Erskine House, Lorne, Victoria during February 16-19, 1989. The meeting was attended by 74 delegates.

The Conference Lecture 'Atomic Motions in Molecular Crystals; What can one Learn from Diffraction Studies?' was delivered by Jack Dunitz (Swiss Federal Institute of Technology, Zurich). Alex Moodie of RMIT delivered the

Ewald Award Medallist Lecture, 'Slices, Paths and Scattering in Crystals', and Gill Norris of Massey University, New Zealand, as an overseas delegate, delivered the lecture 'Structural Studies on Human Apolactoferrin'. These keynote lectures, as well as the other presentations and poster sessions, set a high scientific standard and led to much lively discussion. Other presentations included a thought-provoking talk by Larry Calvert (formerly of The National Research Council of Canada) on 'The Powder Diffraction File' and David Winkler of CSIRO gave a brief account of the current position regarding the Cambridge Data File.

A special session 'In Memory of John Vasey Sanders' was chaired by Dr. Sander's long-standing friend and colleague D.J.M. (Judge) Bevan. Speakers included Alex Moodie (RMIT), Chris Rossouw (CSIRO), David Cockayne (University of Sydney) and Richard Welberry (ANU).

## SCA Meetings

The SCA Executive and business meetings were held at Lorne on February 17-18. A summary of some of the items discussed are as follows:

- \* The new elected members of Council are John White (President), Allan White (Vice President) and Chris Howard.
- \* A motion that the Society continue membership of FASTS, to be reviewed at the next Business Meeting, was carried.
- \* Peter Colman reported that the Council recommends that the funds resulting from the 1987 Perth Congress should be invested to maintain their real value, and be used provide scholarships, studentships and fellowships.
- \* Sandy Mathieson was nominated for Honorary Life Membership of the Society. This was sponsored by Ted Maslen, Hans Freeman and Peter Colman. It was supported unanimously by the Meeting.
- \* Hans Freeman presented a report from the ANCCr, the main feature of which was a summary of the 'Big Science' report.
- \* David Winkler (CSIRO) gave a summary of the current status of the Cambridge Data Base in Australia. There are 17 current subscribers. Future support will be sought from either the Government; university levy; crystallographers levy, or a continuance of the current funding arrangement.
- \* Mark Spackman offered to host Crystal 17 at the University of New England in the autumn of 1991.

# Winter School on Crystallography in Thailand

A Winter School on the Crystallography of Natural Materials for Science and Industry will be held February 7-15 1990 at Chulalongkorn University in Bangkok, Thailand. It is organised under the auspices of the Thai Crystallographic Association, VISTA, Science Society of Thailand, Chulalongkorn University, and IUCr Commission on Crystallographic Teaching.

The school and workshop is to promote crystallography for science and industrial development of local and regional natural products and minerals. As part of the programme of the International School /Workshop on Crystallography held in Asia, it serves as a forum for an improvement of scientific cooperation among participants. The programme includes plenary lectures by invited speakers, tutorials, workshops, demonstrations, contributed papers, group discussions, poster displays and the exhibition of scientific equipment, instruments and industrial products.

The school will be held in the campus of Chulalongkorn University. The University is located on Phaya-Thai Road in central Bangkok, and is about 25 km from the Bangkok International Airport. The climate of Bangkok in February is dry, sunny, cool with the average temperature 20-32 °C and humidity of 60-70 %.

Accommodation for the school will be at the University's SASA International House and one of its Hostels. All are within walking distance of Mah-Boon-Krong (MBK) Shopping Centre which offers a large variety of Asian and European cuisine at reasonable prices. The minimum cost of a sharing room in SASA International House is US\$30.

Participation is open to all scientists. The registration fee is US\$250 and US\$70 for accompanying guests, and 450 Baht for Thai participants. There will be some financial support from IUCr for a limited number of young crystallographers attending the School. Requests for participation should be submitted preferably by November 15 1989.

Contributed papers in the field of the crystallography of natural materials are invited. Abstracts must be in English and camera-ready. The entire abstract including title, author's names, addresses and text must fit inside a rectangle 220 mm x 150 mm, typewritten, to one and a half spaces on a white A4-size paper (297 mm x 210 mm) and should not exceed 1

page. The title of the paper should follow the normal way of writing by using a capital letter for the first letter of nouns.

Three copies of the camera-ready manuscripts should be submitted prior to Dec. 15 1989 to: Dr. Phathana Phavanantha, Physics Department, Chulalongkorn University, Phaya-Thai Road, Bangkok 10330, Thailand

## News from Japan

### Report of Crystallographic Society of Japan

Prof. Fumiyuki Marumo (Tokyo Institute of Technology) has been elected to be the President of the 1990 CSJ Executive Committee. Other CSJ committee members will be decided next April.

The Journal of the Crystallographic Society of Japan is issued bimonthly (in Japanese, with an English abstract) and includes one special issue containing review articles on current topics. Oversea crystallographers can send requests to the Executive Office (2F Saito Build. 2-16-13, Yushima, Bunkyo-ku, Tokyo 113).

The Annual General Meeting of the CSJ usually held in November each year. The 1989 Meeting will be held at Yokohama, Nov. 27-29 1989. The Program is available on request from the Executive office.

Prof. Taizo Sasaki, the past Director of the Photon Factory, has been elected to the 1989 President of the Japanese Society of Synchrotron Radiation Research.

We note with sadness the death during 1988-89 of the following Japanese crystallographers: *Em. Prof. Seiji Kaya* (Tokyo Univ.), aged 89 (past President of Science Council of Japan). *Em. Prof. Tokunosuke Watanabe* (Osaka Univ.), aged 84 (past President of CSJ). *Prof. Kenji Doi* (Ibaragi Univ.), aged 59. *Prof. Hideki Morikawa* (Tokyo Institute of Technology), aged 47.

### New Synchrotron Source Planned

Another synchrotron radiation source of 8 GeV to be established at Harima Science Park in Hyogo prefecture in 1990. The scheduled phases are as follows. R & D: 1987-1989; Construction: 1990-1994; First beam: 1995. This facility is planned by Science and Technology Agency (Japan Atomic Energy Research Institute, and the Institute of Physical and Chemical Research Institute).

## Review of Research Facilities

The research facilities of the crystallography groups at the Tokyo Institute of Technology and Nagoya University are introduced in this issue. The format of the information is as follows: *Group leader*: department (subject/technique) (ED: electron diffraction, EM: electron microscopy, XD: X-ray diffraction.)

Tokyo Institute of Technology (Meguro-ku, Tokyo 152); *Yagi*: Physics (surface phys./EM), *Takayanagi*: Physics (surface structure/EM & ED), *Nitto*: Metallurgy (char. of materials/XD & EM), *Marumo*: Research Lab. of Engineering Materials (structure analysis/XD), *Hashizume*: Research Lab. of Engineering Materials (char. Dyn. XD/XD), *N. Tanaka*: Chemistry (protein structure/XD). [Research facilities for shared use: High Energy, Ultra High Vacuum Electron Microscope (Hitachi, 1000keV, 10<sup>-10</sup> Torr, <0.2 nm).]

Nagoya University (Chigusa-ku, Nagoya 464-01); *Wada*: Physics (crystal growth of fine particles), *Nakai*: Physics (surface science/RHEED, Light scatt.) *Harada*: Applied Physics (char. of surface & interface/XD), *Sakata*: Applied Physics (accurate determination of structure /XD), *Mihama*: Applied Physics (char. of fine particles/ED & EM), *Ichimiya*: Applied Physics (surface/RHEED), *Kashiwase*, *Kogiso* & *Mori*: Physics (inelastic X-ray scatt./XD), *Fukano*, *Nishida* & *Ohmasa*: Physics (fine particles/EM & ED), *Saka*: Materials Science (char. of materials/XD & EM), *Ashida* & *Yamane*: Applied Chemistry (protein structure /XD). [Research facilities for shared use: (i) High Intensity X-ray Generator (60keV, 1.5 A for Cu target), (ii) High Energy Electron Microscope (Hitachi, 1000keV), (iii) High Energy Scanning Electron Microscope (Hitachi, 1000keV, 0.3nm<sup>2</sup>).]

## Korean Award

Chung Hoe Koo, an honorary Professor at Seoul National University, has been honoured with the King Sejong Cultural Award, one of the most distinguished prizes from the government of Republic of Korea, for his contributions to science and technology on 542nd Hangeul Anniversary. Professor Koo received his B.S. from Seoul National University in 1948 and his Ph. D. from Osaka University; he has been a Professor at Snu since 1960. He is generally recognized as the first pioneer for research and teaching of X-ray crystallography in Korea.

## Meeting Diary

*For further details of meetings see the latest Journal of Applied Crystallography.*

- 27-29 Nov CSJ Annual General Meeting, *Yokohama, Japan.*  
4-7 Dec 34<sup>th</sup> Ann. Conf. on Magnetism & Magnetic Materials. *Boston, USA*  
18-20 Dec Conference on the Stability of Materials. *London, England.*

### 1990

- 7-15 Feb Winter School on Crystallography of Natural Materials. *Bangkok, Thailand*  
4-6 Apr Structure of Surfaces & Interfaces as Studied Using Synchrotron Radiation. *Manchester, UK.*  
10-12 Apr Conference on New Materials and their Applications. *Coventry, UK.*  
17-20 Apr INTERMAG'90, International Magnetics Conf. *Brighton, UK.*  
18-29 Apr Direct Methods of Solving Crystal Structures School. *Erice, Italy.*  
22-29 Apr Electron Crystallography School. *Erice, Italy*  
2-6 Jul European Conference on Powder Metallurgy PM'90, *London, UK.*  
8-13 Jul 33<sup>rd</sup> IUPAC Symposium on Macromolecules. *Montreal, Canada.*  
12-17 Jul 15<sup>th</sup> Meeting of the International Mineralogical Association. *Beijing P. R. China.*  
16-18 Jul Short Range Order in III-Ordered Materials. *Orsay, France.*  
16-19 Jul Symposium on Powder Diffraction *Toulouse, France.*  
19-28 Jul 15<sup>th</sup> IUCr Congress. *Bordeaux, France.*  
29-31 Jul Symposium on Symmetry in Physical Space and Superspaces. *Chatenay-Malabry, France.*  
29-31 Jul Symposium on Complementary Applications of Diffraction by Neutrons and X-ray Synchrotron Radiation. *Grenoble, France.*  
29 Jul - 5 Aug School on Crystallographic Computing. *Bischenberg, France.*  
12-18 Aug XII Congress for Electron Microscopy. *Seattle, USA*  
18-20 Sep XI<sup>th</sup> Symposium on Industrial Crystallization, *Garmisch-Partenkirchen, FRG.*