



Newsletter

of the ASIAN CRYSTALLOGRAPHIC ASSOCIATION.

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President's Message

This is the last newsletter for the 1987-90 term of the AsCA Executive. In Bordeaux a new AsCA Council will be formed and a new Executive elected. In some respects this triennium has been a relatively quiet one for AsCA. There are good reasons for this and it may be important to state them here so that there is a clear understanding of the role of AsCA.

First and foremost AsCA is an association of national societies with the common objective to improve scientific cooperation in the region. Its main functions include the dissemination of scientific information, resource sharing and collaboration in the organisation of regional meetings. AsCA is intended to complement the scientific activities of the national societies of which it is composed. The emphasis on science is important. AsCA is, and must always remain,

a totally non-political body. It serves the same cooperative role that the ECC does in Europe. AsCA is a regional associate of the IUCr in order to assist its scientific objectives. It is not, and should not be looked upon, as a lobbyist for the region. It does not have any voting powers in the IUCr General Assembly, nor do I believe it ever should have. This is the function of the individual member countries and their societies.

The real strength of AsCA is its *purely* scientific objectives. National societies do not always have the luxury of this position because some decisions involve non-scientific considerations. AsCA has no role in such decisions. It must be seen to neither support nor oppose the wishes of a member society, nor for that matter of a society which is not a member of our association. This is obvious of those of us who worked hard to give birth to AsCA but it may not yet be universally understood.

This triennium has been therefore quiet, but not without its more exciting moments! Our modest achievements in improving scientific communication in the region are but the first steps for our young organisation. The scope of AsCA activities are certain to increase as our financial and organisational resources improve. Indeed it is expected that AsCA will be able to announce important new activities following the Bordeaux IUCr meeting in August.

Finally, I want to use this opportunity to thank the AsCA Council, and especially the Secretary Treasurer Jimpei Harada, for considerable assistance and support during my term of office.

With best wishes for the future,

Syd Hall

News from Japan

Annual Meeting of CSJ

The 1989 Annual Meeting and General Assembly of the Crystallographic Society of Japan were held at Yokohama International Congress Hall, November 27-29, 1989. There were some 350 participants including three Australians, three Chinese, two Americans and a German.

The CSJ prizes went to *O. Shimomura* (Res. Inst. in Inorganic Materials) and *Y. Kitano* (Hiroshima Univ.) for their outstanding contributions to high-pressure X-ray diffraction and high-resolution electron microscopy of intermetallic compounds, respectively. *Prof. I. Kushiro* of Tokyo Univ. gave the Nishikawa commemorative talk, titled "The Origin of Volcanoes: Behavior of Molten Silicates under High Pressure".

At the meeting 111 papers were presented in the two poster sessions and the three oral sessions included 39 papers. Symposia were organized on crystallography reaching the extremities and the recent trends in protein crystallography. *Prof. Ted Maslen* (Univ. Western Australia) gave an invited talk in one of the symposia. The next annual meeting, planned at Sendai, Nov. 1990, will celebrate the Society's 40th anniversary.

New CSJ President and Executive

Prof. Fumiyuki Marumo was elected as President of CSJ for the term April 1990 - March 1991. New executive members are: *O. Nittono* (in charge of Journals), *N. Tanaka* (Treasurer), *Y. Matsu-ura* (events), *H. Hashizume* (Public Relations), *N. Yasuoka* (Crystallographic Information) and *N. Ishizawa* (Secretary).

Photon Factory Visit

An Australian delegation visited KEK on 21st and 22nd February, 1990. The delegation composed of *Hans Freeman* (Sydney Univ), *John White* (Australian National Univ), *John Boldman* (Australian Nuclear Science & Technology Organization), *Joseph Hlubucek* (Department of Industry, Technology and Commerce) and *Mark Hyman* (Australian Embassy in Tokyo) were shown all activities of the Photon Factory, the Booster Facility and the Tristan Project for high energy physics experiments by the director of Photon Factory, *Junichi Chikawa*.

The delegation were particularly interested in collaboration with Photon Factory on a basis of having their own dedicated synchrotron radiation beam line. Discussion centred how a beam line and an experimental station could be constructed and how such an outstation would be manned and managed. A review of these plans is underway in Australia at the moment and this should be finalized in July.

It is also worth noting that the Synchrotron Radiation Society of Japan has officially supported the plan of a second national synchrotron radiation center, of which a brief description is found in the October issue of the AsCA Newsletter.

Personnel and equipment at the Photon Factory in Tsukuba.

Here is a brief review of the principal research workers, their instrumentation and their location at the Photon Factory. *Chikawa*: (crystal growth, imperfection/XD), *Iwasaki*: (metal & alloy structure, high pressure/SD), *Ando*: (Char. of crystal perfection/XD, BL-6C2, AR), *Sakabe*: (protein structure/XD, BL-6A), *Matsushita*: (X-ray optics/SD, BL-16X), *Nakajima*: (phase transition, ultra-low temperature/XD, BL-6C1), *Ohsumi*: (structure analysis of submicrometer-sized specimen/XD, BL-4B), *Iida*: (fluorescence analysis, x-ray spectrometry/XD, BL-4A), *Amemiya*: (small angle scatt./XD, BL-15A), *Sasaki*: (structure, inelastic scatt./XD, BL-3A,-10A), *Kawata*: (Compton scatt./XD, BL-15B, AR-NE1A1), *Nakagawa*: (protein structure/XD, BL-6A), *Iwazumi*: (diffuse scatt./XD, AR-NE1A2), *Mitsuhashi*: (Light Source gas/XD).

Research facilities include a 2.5 GeV electron/positron linear accelerator, 2.5 GeV electron/positron storage ring and beam lines, and beam lines belonging to 6.5-8 GeV Accumulation Ring. Synchrotron radiation facilities are available for research to any university and research institute (government or commercial).

Thai Winter School

A Winter school on the Crystallography of Natural Materials for Science and Industry was held in Bangkok at Chulalongkorn University from February 7-15, 1990. The theme of the school was the crystallography of natural product chemistry and of gems. This school was

arranged by the IUCr Teaching Commission and held under the auspices of the Thai Crystallographic Association, VISTA, The Science Society of Thailand and Chulalongkorn University.

Lecturers at the school from overseas included *H. A. Hauptman, J. P. Glusker, D. Van der Helm, C. Gramaccioli, I. D. Brown, T. Ashida, N. Kasai, R. Srinivasan, M. Viriyayuthakorn, A.H. White, W. Robinson, S.R. Hall* and *C. Kennard*. Lectures were also given by *P. Phavanantha* and *P. Aranyakanon*. There were approximately 80 participants, mostly from Thailand.

The Chulalongkorn campus is a beautiful site for a meeting and it provided excellent facilities for the school. The program of lectures in the morning and tutorials in the afternoon ran smoothly and offered tuition at a range of levels. The lectures on the first three days concentrated on natural product structures while the latter part of the school was dedicated to gemmology and mineralogy.

The social program for the school was varied and interesting. On the opening day there was a welcoming evening of Thai classical music held in the traditional Thai Pavilion of Chulalongkorn University. The following evening school participants and lecturers joined in the observation of Maga Puja Day at one of the local Buddhist Temples. The Sunday excursion visited the gem mines in the Kanchanaburi province and the bridge over the River Kwai. There was also a school banquet.

The program and local organisers, *Jenny Glusker* and *Phathana Phavanantha*, are to be congratulated on a well organised and enjoyable teaching school.

Special IUCr Assembly

An extraordinary General Assembly was held in London on 19 December 1989 to vote on the resolution of the Executive that the 1993 IUCr General Assembly and Congress should not be held in Beijing. Attendees at this assembly from the AsCA region were *Professor X-J. Xu* and *Professor J. Harada*, representing the National Committees of P.R. China and of Japan, respectively. Representatives from the IUCr adhering bodies of Belgium, Canada, France, Israel, Italy, The Netherlands, Switzerland, U.K., U.S.A. and U.S.S.R. were also present.

Following two hours of discussion on the resolution, the motion was put and a secret ballot was held. Of the 40 votes cast, 15 were for the resolution to not hold the 1993 Congress in Beijing, 22 votes were against the resolution and there were 3 abstentions. The resolution was therefore defeated and the original decision of the General Assembly in Perth in August 1987 (to hold the 1993 General Assembly and Congress in Beijing) stands.

This decision must be voted on by the IUCr General Assembly in Bordeaux.

News from Australia

Student Awards for Bordeaux

The SCA has awarded nine student travel grants to crystallography postgraduates in Australia and New Zealand for travel to the IUCr Congress in Bordeaux. The recipients are: *Tony Brown* (Univ. of New England), *Joanne Etheridge* (RMIT), *Barry Fields* (Univ. of Sydney), *Jackie Gulbis* (La Trobe Univ.), *Kate Hawkins* (Univ. of Qld.), *James Hester* (Univ. of W.A.), *William Shepard* (Massey Univ.), *Louise Vilkins* (Flinders Univ.), *Vilma Zubak* (CSIRO, Biotechnology).

The students have been requested to write a review of the Congress, and on some specific sessions of interest. These will be published in the SCA Newsletter.

1991 Crystal 17 Meeting

The Seventeenth Meeting of the SCA is to be held at the University of New England, Armidale, NSW, in first week of April 1991. The local organiser is *Mark Spackman* in the Chemistry Department. Intended visitors are *Alan Hewat, Bruce Forsyth* and *Gerry Gibbs* and there is expected to be a strong neutron scattering theme at this meeting.

1990-1991 SCA Executive

The President of the SCA for this term is *John W. White* (Research School Chem., ANU); the Vice President: *Allan H. White* (University of W.A.); Secretary: *Geoff A. Williams* (Aust. Radiation Lab., Vic.); Treasurer: *Colin H.L. Kennard* (Univ. of Qld.). The elected SCA Council members are: *Jim Graham* (CSIRO Mineralogy, W.A.); *Maureen F. Mackay* (La Trobe University, Vic.); *Chris J. Howard* (ANSTO, N.S.W.).

Funding for 'BIG SCIENCE'

As a result of the 'Big Science' Report commissioned by The Australian National Committee for Crystallography, the Department of Industry, Technology and Commerce (DITAC) has established a committee to advise the Government on requirements for overseas collaboration in this area of science. *Prof Hans Freeman* is a member of this committee, and largely as a result of his strong advocacy, DITAC have made available limited funds this financial year to facilitate travel to synchrotron radiation and high-flux neutron beam sources.

Hon. Doctorate to Sandy Mathieson

Professor A. (Sandy) McL. Mathieson, BSc (Aber), PhD (Glas), DSc (Melb), FRACI, FAA, an Honorary Professor in the Department of Chemistry at La Trobe University since July 1985, had the honorary degree of DSc conferred on him by the University of St Andrews, the oldest university in Scotland (founded 1411), on 6 July 1989.

Molecular Design Society

The Molecular Design Society has been recently formed in Australia. The Society caters to scientists from research organisations, academic institutions, hospitals, and medical and industrial laboratories who are actively engaged in aspects of molecular design. The Society aims to foster interaction between the widely differing approaches to the design of biologically active compounds. The current members have research interests in drugs, peptides, genetic engineering, pesticides, bioactive polymers, molecular modelling, synthetic chemistry, bioassays, theoretical chemistry, enzymology, crystallography, medicine and pharmacy.

The Society has informal meetings six to eight times per year. Enquiries should be directed to the Secretary, *Dr Ted Lloyd*, Victorial College of Pharmacy

New Diffractometers

The new CAD-4 diffractometer installed in the Chemistry Department at the University of Queensland is now operational and *Graham Smith* and *Colin Kennard* have already measured 15 data sets. The diffractometer also has a low-temperature facility.

Another CAD4 has ordered for the Crystallography Centre at the University of Western Australia. Delivery is expected in July. This will restore the functional diffractometer situation at the Centre to two.

Meeting Diary

- 8-13 Jul IUPAC 33 Symposium on Macromolecules. *Montreal Canada.*
- 12-17 Jul IMA 15. *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 IUCr 15 Congress & Assembly. *Bordeaux, France.*
- 19-31 Jul Symmetry in Physical Space & Super-spaces. *Chatenay, France.*
- 29-31 Jul Applications of Neutrons and Synchrotron Rad. *Grenoble, France.*
- 29 Jul - IUCr Computing School.
5 Aug *Bischenberg, France.*
- 12-18 Aug XII Congress for Electron Microscopy. *Seattle, USA.*
- 18-20 Sep XIth Symp. Industrial Crystallisation *Garmisch-Partenkirchen, FRG.*
- Nov. 40th CSI Meeting. *Sendai, Japan.*

1991

- 28 Jan - 'Inorganic Chem. 1991' Conference.
1 Feb *U. Waikato, Hamilton, New Zealand*
- 18-24 Mar Xray Structure Analysis Course. *Chem. Cryst., Parks Rd, U. Oxford.*
- April. Crystal 17. *Univ. New England, NSW, Australia.*
- 21-26 Jul American Crystallographic Assn. Meeting. *Toledo, Ohio.*

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

Council Meeting

The AsCA Council will hold its first meeting at the IUCr Congress in Bordeaux at 1400h Sat. July 21 in the *Malard* meeting room.

Councillors please check their letter boxes and the notice board for other AsCA announcements.