

# NEWSLETTER TO ASIAN CRYSTALLOGRAPHERS

Number 1, December 1985

Editor : Jimpei Harada

## MESSAGE FROM THE PRESIDENT OF THE CRYSTALLOGRAPHIC SOCIETY OF JAPAN

It gives me great pleasure to see the dawn of the activities of the Asian Crystallographic Association (ASCA). The first newsletter is now at hand. We have now a powerful means to disseminate crystallographic information which undoubtedly will stimulate scientific activity and serve to enhance crystallography in this region.

Thanks should go to the good offices of colleagues of the Society of Crystallographers in Australia (SCA), the Crystallographic Society of Japan (CSJ) and all the delegates at the Hamburg meeting.

Y. IITAKA

## MESSAGE FROM THE PRESIDENT OF THE SOCIETY OF CRYSTALLOGRAPHERS IN AUSTRALIA

This newsletter is the start of a new era in cooperation and information-exchange between crystallographers of our region. I am sure it is the forerunner of newsletters that will, as the Asian Crystallographic Association (ASCA) becomes established, include contributions from all member countries. Its main purpose at this time is to keep us abreast of meetings and research activities in the region. Cooperation in other ways is certain to evolve as our research becomes increasingly specialized, sophisticated and expensive. Sharing resources is clearly an important objective. In future it may be possible to promote the concept of joint educational and research facilities, and the exchange of scientific personnel. This already exists, to a limited extent, but can be increased and improved.

These activities follow from last years' exploratory ASCA meeting at Hamburg. As a firm supporter of this concept, the Society of Crystallographers in Australia looks forward to the establishment and future growth of the Association.

S. R. HALL

## EDITORIAL REMARKS

Preliminary discussions concerning the proposed formation of an Association of Crystallographers in the Asian Region were held during the 1984 IUCr Congress in Hamburg. The meeting was convened by the Society of Crystallographers in Australia (SCA) and was attended by a total of 27 delegates representing 6 countries. Eight countries contacted by the SCA prior to the meeting sent their apologies ; a further four did not respond to correspondence.

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The formation of an Asian Crystallographic Association was given unanimous support by the delegates at the Hamburg meeting. The major decisions made by this meeting were that the SCA should proceed with the drafting of a Constitution for the Association, that this draft should be circulated to delegates of the 14 foundation member countries for their amendments and recommendations, and that a newsletter be produced for the dissemination of crystallographic information in the Asian region. All three resolutions have now been acted upon, and we hope that a constitution will be available for final consideration at the 1987 IUCr Congress in Perth.

This inaugural newsletter has been produced by the Japanese and Australian Crystallographic Societies and, as a result, contains news items originating primarily from these two countries. As the Association grows we trust that both the contributions and the circulation of the newsletter will expand to include all of the member countries. Any person wishing to make comments on, or contributions to, future newsletters is invited to contact either :

Prof. J. Harada	Dr R. J. Hill,
Department of Applied Physics,	CSIRO,
Faculty of Engineering,	Division of Mineral Chemistry,
Nagoya University,	P. O. Box 124,
Chikusa-ku, Nagoya 464	Port Melbourne, Victoria 3207
JAPAN.	AUSTRALIA.

### CRYSTALLOGRAPHIC SOCIETY OF JAPAN

#### ( i ) Organization

The Crystallographic Society of Japan (CSJ) was established in 1950 by the late Professor Seiji Nishikawa who was its first president. Since then the CSJ has been managed by a president and a fixed number of councillors, with normal terms of two years. The membership numbers about 800 at present but active members are limited to roughly 300.

Officers for the 1984/1985 terms are :

	1984	1985
President	S. Nagakura (Tokyo Institute of Technology)	Y. Iitaka (Tokyo Univ.)
General Secretary	O. Nittono (Tokyo Institute of Technology)	I. Ohsumi (Tokyo Univ.)
Treasurer	K. Yagi (Tokyo Institute of Technology)	A. Itai (Tokyo Univ.)
Secretary for	J. Harada	T. Urugami
Foreign Affairs	(Nagoya Univ.)	(Okayama Univ. of Science)
Secretary for	F. Iwasaki	F. Iwasaki
Annual Meetings	(Univ. of Electro-Communications)	
Editor of the	S. Kikuta	S. Kikuta

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Journal of CSJ (Tokyo Univ.)  
 Computing T. Ashida T. Ashida  
 (Nagoya Univ.)

**(ii) Activities**

The annual meeting of the CSJ is usually held in the period from October to November. During the meeting the CSJ prize is offered to one or two young scientists and a special invited general talk is given as the Seiji Nishikawa commemorative lecture. The CSJ issues the Journal of the Crystallographic Society of Japan (in Japanese, with English titles and abstracts) six times a year.

**(iii) Annual Meeting of the CSJ in 1985**

The annual meeting of the CSJ was held at the Tsukuba Research Center Agency of Industrial Science and Technology last November. There were more than 250 participants with 91 poster papers being presented and two symposiums (entitled "A feature view of the protein crystallography" and "Crystal growth under special environments") being held. The JSC prizes were given to Dr. Sumio IJIMA (Research Development Co., c/o Dept. of Physics, Meijo University) for his development of high resolution electron microscopic method to the studies of crystal surface and defect structures, and also to Professor Hiroo HASHIZUME (Tokyo Institute of Technology) for his development of X-ray position sensitive detector to the study of dynamic structure. The Seiji Nishikawa commemorative talk was given by Professor Mineo KUMAZAWA (The University of Tokyo) and was entitled "Earth Science and Crystallography". The meeting was a great success.

**FORTHCOMING MEETINGS (JAPAN)**

- Aug. 26-30, 1986 : Int. Conf. Martensitic Transformation (ICOMAT-86).  
 (Cultural Center of Nara Prefecture)  
 Contact : Prof. A. Nagasawa, Faculty of Science, Nara Women's  
 University, Nara 630
- Aug. 31-Sept. 7, 1986 : XIth International Congress on Electron Microscopy.  
 (Kyoto)  
 Contact : Dr. H. Harada, Department of Anatomy, Faculty of  
 Medicine, Kyoto University, Kyoto 606
- Nov., 1986 : The 1986 meeting of CSJ.  
 (Nagoya)  
 Contact : Prof. J. Harada

**THE PHOTON FACTORY OF THE NATIONAL LABORATORY  
 FOR HIGH ENERGY PHYSICS (JAPAN)**

The Photon Factory (PF) is a synchrotron radiation laboratory that provides

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abundant photons from the ultraviolet through to hard X-rays for users from Universities, research laboratories and industry. Construction of the 2.5 GeV electron linear accelerator and 2.5 GeV electron storage ring was approved by the Japanese government in April, 1977, and was commenced in April 1978 at the site of the National Laboratory for High Energy Physics. The facility was completed in February 1982, and the first electron beam was stored in the storage ring in March 1982. The PF was opened for public use in June of 1983. Since then, significant improvements have been made in the quality of the beam.

The establishment of the Photon Factory owes greatly to the leadership and enthusiasm of Professor Kazutake Kohra who was the first director of the PF until he retired on April 1, 1984. The present director is Professor Junichi Chikawa who was appointed to the position on April 1, 1985, following the retirement of Professor Taizo Sasaki.

The radiation source is now operating normally, with a maximum current of 150 mA. The life-time at 100 mA is typically 15 to 20 hrs (March 1985). There are nine main beam lines with 25 branch lines. Three beam lines are now under construction, and an additional four beam lines are expected to be constructed within fiscal year 1985. About two hundred proposals have been admitted by the Program Advisory Committee (PAC) and more than eight hundred users were registered in connection with the proposals in June 1984. Details of the facilities available at the PF and the general activities of the facility are summarized in the Photon Factory Activity Reports (1982/1983 and 1983/1984). A PF user's meeting is held in early November every year.

The Activity Reports are available on request from the Technical Information Office, KEK at the address :

Technical Information Office,  
National Laboratory For High Energy Physics,  
Oho-machi, Tsukuba-gun, Ibaraki-ken, 305 Japan.  
Telex (0) 3652-534 (International)  
Cable : KEKOH0.

The easiest way for overseas users to work at the PF is to be involved in a collaborative project with Japanese scientists. Therefore, it is recommended that an intending user contact a scientist at a Japanese University to become his or her host.

#### **SOCIETY OF CRYSTALLOGRAPHERS IN AUSTRALIA**

The first documented meeting of Australian Crystallographers took place at the University of Sydney in May 1961. Since then, fifteen "Crystal" meetings have been held, the most recent occurring in Adelaide in May 1985 (see below).

The Society of Crystallographers in Australia came into existence as a formally constituted body only after the Crystal 10 meeting in Hawksbury, New South Wales in February 1976.

The management of the Society is vested by its Articles and Rules in a Council

comprising of a President, Vice-president, Secretary, Treasurer, three Ordinary Council Members and the President of the previous term. The membership of the SCA currently stands at approximately 180.

Officers of the SCA for the current term (to August 1987) are :

President :	S. R. Hall (Univ. WA)
Vice President :	P. M. Colman (CSIRO, Protein Chemistry)
Secretary :	R. J. Hill (CSIRO Min Chem)
Treasurer :	M. F. MacKay (Latrobe Univ.)
Council :	F. H. Moore (AINSE, Lucas Heights)
	R. W. Cheary (NSWIT)
	J. Graham (CSIRO, Mineralogy)
	T. M. Sabine (NSWIT)
	(immediate past President)

Standing Committees (\*Chairperson)

Electron diffraction :	J. R. J. Sellar (ANU)*
	R. A. Eggleton (ANU)
	L. A. Bursill (Univ. Melbourne)
X-ray diffraction :	S. W. Wilkins (CSIRO Chem Phys)*
	J. N. Varghese (CSIRO Protein Chem)
	B. H. O'Connor (WAIT)
Neutron diffraction :	T. J. Hicks (Monash Univ.)*
	C. H. L. Kennard (Univ. Qld)
	F. H. Moore (AINSE)
Computing :	A. D. Rae (Univ. NSW)*
	T. R. Welberry (ANU)
	M. R. Taylor (Flinders Univ.)
Nominations :	M. R. Snow (Univ. Adelaide)*
	J. Epstein (Kodak, Vic)
	M. Sterns (ANU)

#### AUSTRALIAN NATIONAL COMMITTEE FOR CRYSTALLOGRAPHY

While the SCA is the "grass-roots" body representing Crystallographers in Australia, official contact with the International Union of Crystallography is made through the Australian Academy of Science and its National Committee for Crystallography. The current membership of the NCC is :

H. C. Freeman	(Chairman : term expires 1/4/87)
E. N. Maslen	(1/4/87)
B. M. Gatehouse	(1/4/87)
R. L. Segall	(1/4/86)
F. H. Moore	(1/4/88)
S. R. Hall	(ex-officio SCA representative)

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**REPORT ON CRYSTAL 15 AND THE COMPUTING SCHOOL  
(AUSTRALIA)**

**Computing School**

The inaugural SCA Computing School was held immediately prior to the Crystal 15 Meeting at the Haven Motor Inn, Glenelg, S. A. from Sunday afternoon, May 12, to Tuesday morning, May 14.

The school was convened by Neil Isaacs (St Vincent's Inst. Med. Res.) and consisted of a total of 15 review lectures presented by 12 different speakers, interspersed with work sessions and **ad hoc** seminars. All of the speakers distributed lecture summary notes to the audience at the beginning of each talk. The work sessions provided the opportunity to obtain hands-on experience with the use of the Cambridge Crystallographic Data Base, APPLECRYST software, and the XTAL Program System. Registrants numbered approximately 70.

**Crystal 15**

Approximately 20 crystallographers not registered for the Computing School arrived during the morning of May 14, resulting in a total attendance of about 100 for the Crystal Meeting.

The meeting continued through Thursday evening, May 16, following the familiar format of specific-topic sessions opened by review lectures (7 in total), and continuing with a number of short oral presentations (20). Poster papers (35) were on display throughout the meeting in two locations in close proximity to the dining and lecture areas. Wednesday afternoon was left free for sightseeing and/or discussions, with the SCA Business Meeting at 4.30 and the Conference Dinner in the evening. Friday, May 17 was set aside for a post-conference tour of several wineries in the Southern Vales area.

**FORTHCOMING MEETINGS (AUSTRALIA)**

- Nov 19-26, 1986 : 56th ANZAAS Congress, Sydney, NSW. Contact : Executive Officer,  
56th ANZAAS Congress, G. P. O. Box 873, Sydney, NSW, 2001.
- Aug 12-20, 1987 : 14th General Assembly and Congress of the IUCr, Perth, Western  
Australia. Contact : Dr E. N. Maslen, Crystallography Centre, Univ.  
of WA, Nedlands 6009, Western Australia.
- Satellites :
- Neutron Scattering, Sydney, Aug 5-8. Contact : Trevor Hicks,  
Monash Univ.
  - X-Ray Powder Diffractometry, Perth, Aug 21-22. Contact : Brian  
O'Connor, WAIT.
  - Crystallographic Computing, Adelaide, Aug 22-29. Contact : Max  
Taylor, Flinders Univ.
  - Solid State Properties of Minerals, Sydney, Aug 24-26. Contact :  
Prof D. Haneman, U NSW.
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