

August, 1980

Dear Colleague,

My apologies for the late appearance of this letter which was promised to you in early June.

*Next Meeting*

The next meeting, Crystal 13, will be run by Colin Kennard and the Queensland crystallographers. They have decided on *Brisbane* in *February 1982* at a College of the University of Queensland. Phillips have kindly agreed to support a social evening and both MIM (\$500) and CRA (\$100) have offered support without strings. Colin is still looking for further contributions. He also would like suggestions now for *major themes* and *invited people*. Please send these direct to him at Department of Chemistry, University of Queensland, St. Lucia 4067. He would like geology and teaching to be two of the themes.

*Last Meeting Report by George McLaughlin*

The twelfth Meeting of Crystallographers in Australia was held from 30th January to 2nd February 1980 and, like recent CRYSTAL meetings, the venue was a more remote country centre, this time the Australian National University in CANBERRA. There were 104 participants including a number from Europe, Japan, U.K. and the U.S.A., plus about twenty accompanying guests.

The enthusiasm for the various topics covered was reflected in the good attendance at all sessions and by the subsequent discussions. Buffalo Bill Duax (Medical Foundation of Buffalo, U.S.A.) gave the first of seven excellent invited papers by reviewing recent work on the Structure of Ionophores and the mechanism for ion capture and release. This was followed by contributed papers on conformation, structure-function relationships and insulin structure.

The second invited paper covered Polarised Neutron Diffraction and was presented by Brian Figgis (U.W.A.). This was followed by contributions on powder pattern analysis and charge density studies.

The topical third review covered the immobilisation of high level nuclear waste in SYNROC and was, of course, presented by Ted Ringwood (A.N.U.) and preceded a number of papers on substitution, defects, structural distortion, superstructure and incommensurate superlattices of minerals and structures of organometallic and transition metal cage compounds.

After some last minute uncertainty as to whether or not he would be allowed into the country, Keith Hodgson (Stanford, U.S.A.) arrived in time to describe his studies using Synchrotron Radiation. This topic was also given a deal of exposure in discussion sessions and proved to be of great interest.



Unfortunately, Phil Reynolds (U.W.A.) had to withdraw from the meeting at short notice due to a foot problem. His review on Structure and Thermodynamics of Real Crystals was given by Brian Figgis and subsequent contributions covered Debye-Waller factors and anharmonicity.

Alex Moodie (CSIRO Division of Chemical Physics, Melbourne) started off the Electron Diffraction session by informing us of the applications of dynamical electron scattering, and the final review by Dr. Birks (Naval Research Laboratories, U.S.A.) on defect crystals and plasma diagnosis inspired a great deal of interest in a field which is not well known to many participants. Dr. Fleischmann (Enraf Nonius, Holland) described Nonius' current developments in the use of area detectors and the direction of future development.

Discussion groups were held in crystallographic computing, neutron diffraction and protein crystallography and were all well attended. The future of the Cambridge Crystal Data File and neutron diffraction facilities in Australia received much attention. Active discussion resulted around the proposals for a Pacific Regional Crystallographic Grouping of the IUCr and the possibility of Australia making a bid for the 1987 IUCr Congress.

The Poster Sessions were very well presented and obviously were of benefit to participants and contributors alike.

The fact that the scientific programme was fairly heavy did not prevent most participants and their guests from joining in the social programme; in fact, it has been rumoured that a number of people had very little sleep during those four days! A mixer/light supper (courtesy of PHILLIPS) was held on the Wednesday after the evening session. A very enjoyable night for all was on Thursday when participants and guests were taken by coach to Gundaroo for an evening of bush tucker, bush music and dancing and a lot of fun (courtesy of JEOL), and for the die-hards there was a get-together at Bruce Hall on Friday night which lasted well into Saturday morning.

The organisers once again express their thanks to the invited speakers, session chairmen, sponsors, the Research School of Chemistry and Bruce Hall staff at A.N.U., and to the participants for contributing to what was a successful meeting. I would personally like to express my sincere thanks to my colleagues, Richard Welberry and Paul Tucker (who is now at the University of the West Indies, Jamaica) for all their efforts in organising the meeting.

#### *Post-graduate student prize*

The enclosed yellow poster is to advertise the student prize. This prize is valuable and should be widely advertised. Please place it in a prominent position on your notice board. There were not quite enough printed for all members. If you did not get one then someone else in your section will have one.

#### *Cambridge Data File*

The files has proved difficult to finance in a central way. CSIRO has met the current fees and is looking to users to contribute. The proposal now is that users pay \$350 per year for which they get all data tapes and programmes to run on their own computers. This differs from the earlier arrangement of access via CSIRONET which some users found inconvenient and more expensive. A number of groups plan to

---

\* This includes the quaterly updates.



join this scheme which will start soon. Those who haven't made up their minds can still join by contacting Bruce Poppleton at Division of Chemical Physics, CSIRO, Box 160 P.O. Clayton, Vic. 3168.

#### *Diffraction installations*

Flinders and Adelaide Universities are installing a CAD 4 later this month at Adelaide. The Universities of Melbourne and N.S.W. plan CAD 4 installations early next year.

#### *I.U.Cr Congress*

Your executive has agreed to co-sponsor the 1987 Congress with the Australian Academy of Science. This *does not* involve the Academy in any commitment of funds now or at any time in the future. The Academy can assist us via the office staff for which it makes a charge. The executive is to consider setting up a fund to support this objective which will entail substantial expense.

#### *Subscriptions*

Members will notice that the first line of the address label on this communication displays a date (year only). This indicates that the member's subscription is paid up to 31st December of that year. Members whose subscriptions are in arrears (i.e. 1979 on label) are requested to remedy the situation immediately by forwarding \$5 (or \$2 for students) to the treasurer (Dr. M.R. Taylor, School of Physical Sciences, The Flinders University of S.A., Bedford Park, S.A. 5042).

#### *Next Newsletter*

Hopefully late November.

M.R SNOW

Secretary,  
Department of Physical &  
Inorganic Chemistry  
University of Adelaide.