28 August–2 September

Fifteenth European Crystallographic Meeting (ECM-15), Dresden, Germany. The scientific programme will include invited lectures, microsymposia, and poster sessions. The first circular lists 19 main topics of the conference. [Contact: Professor P. Paufler, Institut fur Kristallographie, Fachbereich Physik, Technissche Universitaet Dresden, Mommsenstr. 13, D-0-8027, Dresden, Germany. Phone: [+ [37] 51] 463 33 78, E-mail: paufler@physik.tu-dresden.dbp.de].

4–9 September

16th General Meeting of the International Mineralogical Association (IMA), Pisa, Italy. [Contact: Professor S. Merlino, IMA '94 Chairman, Dipartimento di Scienze della Terra, Via S. Maria 53, 56100 Pisa, Italy].

12–13 October

International Centre for Diffraction Data Fall Technical Meetings, ICDD Headquarters, Newtown Square, Pennsylvania, USA. [Contact: Ms. Josephine Felizzi, International Centre for Diffraction Data, Newtown Square Corporate Campus, 12 Campus Boulevard, Newtown Square, PA 19073, USA. Phone (610) 325-9814].

December 1994

Materials Research Society Fall Meeting, Boston, Massachusetts, USA. [Contact: Materials Research Society, Meetings Department, 9800 McKnight Road, Suite 327, Pittsburgh, PA 15237, USA. Phone (412) 367-3003; FAX (412) 367-4373].

1995

23–28 July

Annual Meeting of the American Crystallographic Association, Montreal, Canada. [Contact: M. Cygler, Local Chair, Biotech Research Institute, 6100 Royalmount Avenue, Montreal, PQ H4P 2R2, Canada].

6–11 August

Sixteenth European Crystallographic Meeting (ECM-16), Lund, Sweden. The meeting is intended as a forum for interdisciplinary contacts between all diverse subfields of crystallography. The programme committee is anxious to attract all types of crystallographic contributions. [Contact: Ake Oskarsson (Chairman of the Organizing Committee), Department of Inorganic Chemistry 1, Chemical Center, Lund University, P.O. Box 124, S-221 00 Lund, Sweden. Phone: Int+46 46 108102. E-mail: Ake.Oskarsson@INORGK1.LU.SE].

1996

8–17 August

Seventeenth IUCr General Assembly and International Congress of Crystallography. Seattle, Washington, USA. [Contact: Professor R. F. Bryan, Department of Chemistry, University of Virginia, Charlottesville, VA 22903, USA].

Organizational Announcements

BRITISH CRYSTALLOGRAPHIC ASSOCIATION INDUSTRIAL GROUP AWARDS 1993

Two awards were made at the Industrial Group's Autumn Meeting in November 1993. Colin Baxter of Rolls-Royce, Derby was presented with an award in recognition of his achievements in the field of X-ray diffraction. These included the establishment of routine phase identification in solving major aero-engine production and operational problems and the industrial development of X-ray diffraction metallurgical techniques.

However, his single most significant contribution to industrial crystallography has been the development of the SCORPIO system (Single Crystal Orientation Rapid Processing and Interpretation Operation). The system has been exported to major overseas turbine blade manufacturers and 95% of the Western World's production of single-crystal turbine blades are being measured on a SCORPIO system. The picture shows Colin receiving his award, a model of Gamma Prime in nickel-based superalloy from the Industrial Group Chairman, Dr. Steve Fletcher.

Colin Dineen of the GEC Hirst Research Laboratories was also the recipient of an award but was unfortunately unable to attend the meeting. His award was in recognition of his work on the development of X-ray techniques for the characterization of electronic materials, including semiconductor thin film and single-crystal assessment. He was involved in the design of the first Hirst Topographic camera which gave X-ray transmission topographs of silicon wafers using direct imaging. Another of his contributions to the field of X-ray analysis was his involvement with the

diamond identification programme using X-ray topography techniques. This work was sponsored by The Diamond Trading Company. Colin was given a model of a diamond.

ICDD ELECTS DISTINGUISHED FELLOWS

The International Centre for Diffraction Data is pleased to announce that Dr. Larry Calvert and Professor Yoshio Takeuchi have been elected to join the ICDD list of Distinguished Fellows. Both scientists have been recognized by the ICDD Board of Directors for their sustained, outstanding work in the field of powder diffraction. Dr. Calvert is the first ICDD member to receive this award posthumously.

Meeting Reports

FALL CONFERENCE OF THE INTERNATIONAL CENTRE FOR DIFFRACTION DATA (ICDD) NEWTOWN SQUARE, PA 17–18 MARCH 1993

Seventeen posters on a range of useful diffraction subjects were presented at the Fall Conference. Ten of the posters were for a special poster session organized by Alan Mighell (NIST) and Andrew Wims (GM R&D Center). The theme of the session was analytical and research applications of the NIST Crystal Data and the NIST/Sandia/ICDD Electron Diffraction Databases which are available from ICDD. Thanks to all authors for their excellent presentations. The titles and a brief abstract of the ten posters from the special session are given below.

Search of the Crystal Data File with the Siemens XSCANS Package

Joseph Formica and Charles Campana, Siemens Analytical Instrumentation Division and Robert Sparks, Consultant

A procedure for the search of the NIST Crystal Data File is incorporated in the XSCANS program for the Siemens single-crystal diffractometer. XSCANS searches for a number of reflections, centers and determines indices for these reflections and calculates the least-squares primitive cell parameters. Then the NIST Crystal Data File is searched to determine if the structure has been reported in the literature. This approach takes typically an hour compared to several hours to collect a complete data set.

Search Schemes (Metric, Chemical, or Physical) Using the Database "Crystal Data"

Ram Poduri, Earl Ryba, Susan Hoyle, and Gerald G. Johnson Jr., The Pennsylvania State University

The program called NBS*SEARCH from NIST was converted to run on a VAX with 26 search options. This poster highlighted step-by-step how this menu driven software was used to solve a problem. The problem was how to determine the structure of an Al–Co–Ce compound when the single-crystal metric data were available. A Crystal Data File search on the lattice parameters using the VAX software came up with one answer, for a Ga–Co–Nd structure. The two compounds are isostructural as Ga and Al, and Nd and Ce have essentially identical metallic radii. Further work is in progress to correlate all the information including neutron diffraction data.

Porting of Crystal Data File Search Software from VMS to MS–DOS

Harlan Clark, International Centre for Diffraction Data

The Crystal Data File search software described in the poster by Poduri has been converted to run under the MS-DOS operating system on PC's. For faster execution speed, several arrays are held in memory instead of being accessed repeatedly from the CD-ROM. Because 3 of the 31 programs were too large to fit in conventional 640 K memory, all programs were modified if necessary and then recompiled and relinked using Microsoft's 32-bit Fortran system.

Focus for PDF, CDF Access

Quintin Johnson and Rong-Sheng Zhou, Materials Data, Inc.

Focus is a PC software program that provides quick answers to problems via Boolean queries of the PDF and CDF databases. Several applications of Focus were displayed: stoichiometry search on CDF database, combination density and chemistry search in the design of an X-ray phosphor, and locate space group for PDF material with highest density.

SHOW-ID, a Program for Interactive Phase Identification and Graphical Display of Data Retrieved from PDF and CDF CD-ROM

Gerhard M. Zorn, Siemens AG, Corporate Research, Munich

SHOW-ID is a mouse controlled, graphically oriented DOS program that facilitates interactive phase identification. The program allows the user to overlay "standard" patterns from the PDF-CD, the Crystal Data CD, or data calculated *in-situ* after specification of lattice parameters and space group (or Bravais lattice) by the user. Many examples of applications of the software were displayed. Two examples are noted. First, due to thermal expansion, peaks in measurements shift. The standard patterns can be expanded or contracted isometrically to compensate for the effects of thermal expansion or solid solution. Second,