

Calendar of Meetings	68
Computer Comments	69
Commercial Announcements	70

Regional Correspondents

Australia

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Calendar of Meetings

1993

17–18 March

International Centre for Diffraction Data, Spring Technical Meetings and Annual Meeting, Concordville, Pennsylvania, USA. [Contact: Ms. Josephine Felizzi, JCPDS—International Centre for Diffraction Data, 1601 Park Lane, Swarthmore, PA 19081, USA. Phone (215) 328-9403].

29 March–2 April

British Crystallographic Association Spring Meeting, Manchester, England. [Contact: Dr. B. Beagley, Department of Chemistry, UMIST, P.O. Box 88, Manchester M60 1QD, England].

12–16 April

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

23–28 May

1993 Annual Meeting of the American Crystallographic Association, Albuquerque, New Mexico, USA. [Contact: Allen Larson, LANSCE-89-025, A805, Los Alamos National Laboratory, Los Alamos, NM 87455, USA].

31 May–2 June, Workshop 3–4 June

International Conference for Applied Mineralogy, ICAM'93, Perth, Western Australia. Topics to be covered at this Conference will include Mineralogy in Mineral Processing; Industrial Applications of Mineralogy; Mineralogy in Ceramics and Refractories; Mineralogy in Exploration; Transmission Electron Microscopy and Diffraction; Image Analysis; Quantitative XRD; Forensic Science; Ancillary Techniques—FTIR, TG/DTA, XPS, Mossbauer, Etc.; Gemmology; and Minerals and Disease. [Contact: Secretary, ICAM'93, Congress West, P.O. Box 1248, West

Perth, WA 6005, Australia. International phone: (619) 322- 6909].

June 1993

ICDD Clinic on X-Ray Powder Diffraction, 7–11 June 1993, Fundamentals; 4–18 June 1993, Advanced Techniques, ICDD Headquarters, Newtown Square, Pennsylvania, USA. The ICDD X-Ray Clinics are the continuation of the SUNY Clinics which, for some twenty-five years, were held at the State University of New York at Albany. The ICDD assumed responsibility for these clinics in 1990. The Clinic is presented in two separate week-long sessions, each of which stands alone as a complete course. [Contact: Theresa Maguire, ICDD X-Ray Clinic, International Centre for Diffraction Data, 1601 Park Lane, Swarthmore, PA 19081, USA. Phone (215) 329-9400, FAX (215) 328-2503].

June 1993

ICDD Clinic on X-Ray Fluorescence Spectroscopy, 21–25 June 1993, Fundamentals; 28 June–2 July 1993, Advanced Techniques, ICDD Headquarters, Newtown Square, Pennsylvania, USA. Details and Contact: Same as ICDD Clinic on X-Ray Powder Diffraction (above).

18–23 July

10th International Clay Conference, "Clays Control the Environment," Adelaide, Australia. Themes of the conference are: Soil Mineralogy; Clays in industry and the environment; Clays in geology; Surface and Interlayer reactions; and Structure, chemistry and nomenclature. Symposia scheduled are: Poorly Crystalline Clays; Clay Minerals of Gondwanaland; Methods (relating to the isolation and characterization of clay minerals), Teaching (clay mineralogy), and Clays and the Environment. [Contact: Ellisservice Convention Management, P.O. Box 753, Norwood SA 50067, Australia. Phone: +61.8.332.4068; FAX: +61.8.364.1968].

2–6 August

1993 Annual Denver Conference on Applications of X-Ray Analysis, Denver, Colorado, USA. [Contact: Lynne Bonno, Conference Secretary, Department of Engineering, University of Denver, Denver, CO 80208, USA. Phone (303) 871-3515].

21–29 August

Sixteenth IUCr General Assembly and International Congress of Crystallography, Beijing, People's Republic of China.

31 August–3 September

Satellite Meeting on Powder Diffraction, Hangzhou, People's Republic of China. This is a satellite meeting of the XVI International Congress of Crystallography. [Contact: Professor Rong-guo Ling, Central Laboratory, Hangzhou University, Hangzhou 310028, People's Republic of China].

20–24 September

ICOTOM 10—Tenth International Conference on Textures of Materials, Clausthal, Germany. The conference will address all problems related to crystal orientation in polycrystalline materials of any kind, (e.g., in materials sciences, earth sciences, etc.). Topics to be covered include: Determination of pole figures and individual orientation analysis; Calculation and representation of ODF, MODF and other textural quantities; Experimental studies of texture formation: Texture and directional properties of materials; Mathematical modelling of texture formation and materials properties; Technical applications of texture studies. Although the conference will deal with classical basic metals, particular emphasis will be put on “new materials” such as intermetallics, ceramics, polymers, and composites, including natural materials such as geological and biological ones. Pre- and post-conference workshops will be held on ODF Calculation, Neutron texture analysis and Microscale textures. [Contact: Institute für Metall-

kunde and Metallphysik der TU, ICOTOM 10, Grosser Bruch 23, D-3392 Clausthal-Zellerfeld, Germany].

26 September–2 October

AXAA-93 Solutions to Everyday Problems, University of Queensland, Brisbane, Queensland, Australia. [Contact: The Convenor, AXAA93-Solutions to Everyday Problems, P.O. Box 6198, Upper Mount Gravatt, Queensland, Australia 4122].

12–14 October

International Centre for Diffraction Data Fall Technical Meetings, ICDD Headquarters, Newtown Square, Pennsylvania, USA [Contact: Ms. Josephine Felizzi, JCPDS-International Centre for Diffraction Data, 1301 Park Lane, Swarthmore, PA 19081, USA. Phone (215) 328-9403].

29 November–3 December

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].

1994

28 August–2 September

Fifteenth European Crystallographic Meeting (ECM-15), Leipzig, Germany. [Contact: Professor P. Paufler, Institut für Kristallographie, Universität Leipzig, Scharnhorststrasse 20, 0-7030 Leipzig, Germany].

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].

Computer Comments

SOFTWARE REVIEW

Mathcad ® 3.1 for Windows

X-ray diffractionists should find Mathcad ® to be quite useful as both a computational and graphical tool. It allows one to investigate changes in parameters and immediately see the results graphically.

As is the case with any new program, it takes a little practice to become familiar with its operation, but this is eased with the extensive on-line help provided. For those rare occasions when more detail is needed, a comprehensive 407-page user's manual is included with the software.

The following example of peak profile fitting illustrates only a fraction of the software's capabilities. Intensity values for a diffraction peak were imported from a sequential ASCII file, AL203.PRN, by means of the built-in READ function. (Variable x was associated previously with that

file.) A Gaussian function was used and its parameters were adjusted until the fit to the upper portion of the peak appeared to be optimized. The versatility of this approach is that any desired function can be tried. The user is not constrained by a limited number of built-in functions.

Values are assigned using the “:” key. (This is replaced with “:=” in the output.) For arrays, a range is indicated by typing the “;” key. (This is replaced with “..” in the output.) Subscripts are entered by typing “[,” followed by the subscript, followed by “].” The “*” symbol represents multiplication, as in several computer languages. (This is replaced with a dot in the output.)

Values are carried through in a left-to-right and top-to-bottom manner. After all parameters have been input, the graphics command “Create Graph” produces the