

Regional Correspondents

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Calendar of Meetings

5–7 September 1996

5th Iranian Seminar on Crystallography and Mineralogy. Esfahan, Iran [Contact: Dr. A. Ghazifard, Faculty of Science, Geology Department, University of Esfahan, 81745-158 Esfahan, Iran. Tel: (031) 68 4435; Fax: (031) 68 7396; E-mail: malavi@math.ui.ac.ir].

6–7 October 1996

Introductory Course on Neutron Scattering and Instruments. Villigen (Interlaken), Switzerland [Contact: ECNS '96 Conference Secretariat, Laboratory for Neutron Scattering, CH-5232 Villigen PSI, Switzerland].

8–11 October 1996

ECNS '96 First European Conference on Neutron Scattering. Villigen (Interlaken), Switzerland [Contact: ECNS '96 Conference Secretariat, Laboratory for Neutron Scattering, CH-5232 Villigen PSI, Switzerland].

16–18 October 1996

International Centre for Diffraction Data Fall Technical Meetings. ICDD Headquarters, Newtown Square, PA, USA [Contact: Linda Shertz, International Centre for Diffraction Data, Newtown Square Corporate Campus, 12 Campus Boulevard, Newtown Square, PA 19073, USA. Tel: (610) 325-9814].

7–9 November 1996

54th Pittsburgh Diffraction Conference. Mellon Institute, Pittsburgh, PA, USA [Contact: S. Swaminathan, Department of Crystallography, University of Pittsburgh, Pittsburgh, PA 15260, USA. Tel: 412-692-3517; E-mail: swami@vms.cis.pitt.edu].

2–6 December 1996

Fall Meeting of the Materials Research Society. Boston, MA [Contact: Materials Research Society, E-mail: info@mrs.org].

14–18 April 1997

BCA Annual Spring Meeting. Leeds, England [Contact: M. Thornton-Pett, School of Chemistry, University of Leeds, Leeds LLS32 9JT, England].

21–23 April 1997

EUROMAT 97 5th Conference of the Federation of European Materials Societies. Maastricht, The Netherlands [Contact: EUROMAT 97, P.O. Box 390, NL 3330 AJ Zwijndrecht, The Netherlands. Tel: 31 78 619 26 55; Fax: 31 78 619 57 35; E-mail: bvm@metropolis.nl].

15–21 June 1997

ICC 97 Eleventh International Clay Conference. Ottawa, Canada [Contact: Dr. Jeanne Percival, Geological Survey of Canada, 601 Booth Street, Ottawa, ON, K1A 0E8, Canada. Fax: 1 613 943-1287; E-mail: icc97@gsc.emr.ca].

20–27 July 1997

ACA '97 American Crystallographic Association Annual Spring Meeting. St. Louis, MO, USA [Contact: L. Brammer, Department of Chemistry, University of Missouri/St. Louis, 8001 Natural Bridge Road, St. Louis, MO 63121-4499; Fax: 314-553-5342; E-mail: Lee.Brammer@umsl.edu].

24–28 August 1997

ECM-17 European Crystallographic Meeting. Instituto Superior Técnico, Lisboa, Portugal [Contact: ECM-17 Secretariat, Dept. Engonharia Quimica, Instituto Superior Técnico, Av. Rovisco Pais, 1096 Lisboa, Portugal. Tel: (351-1) 442-6246, Ext. 237/341; Info: <http://alfa.ist.utl.pt/em-17>; E-mail: romao@itqb.unl.pt].

27 August–3 September 1997

APERIODIC '97 International Conference on Aperiodic Crystals. Palais des Sports et des Congres, Alpe d'Huez (close to Grenoble), France [Contact: Aperiodic '97 Secretariat, Attn. Mme. B. Aubert, Institut Laue-Langevin, BP

156, 38042 Grenoble Cedex 9, France. Tel: (33)76-20-70-08; Fax: (33)76-48-39-06; after 18 Oct. 96, Tel: (33)04-76-20-70-08; Fax: (33)04-76-48-39-06; E-mail: aprd97@ill.fr; Info: http://www.inpg.fr/ltpcm/aprd97/aprd97_1.html].

8–15 July 1998

IMA '98 17th General Meeting of the International Mineralogical Association. Toronto, ON, Canada.

4–13 August 1999

18th IUCr General Assembly and International Congress of Crystallography. Glasgow, Scotland [Contact: C. J. Gilmore, Department of Chemistry, University of Glasgow, Glasgow G12 8QQ, Scotland. Tel: 041-339-8855; Fax: 041-330-4418; E-mail: chris@Fcrystal.glasgow.ac.uk or J. A. K. Howard, University of Durham, Department of Chemistry, South Road, Durham DH1 3LE, England. Tel: 091-374-1617, Fax: 091-374-3745; E-mail: j.a.k.howard@uk.ac.durham].

Book Reviews

QUANTITATIVE X-RAY DIFFRACTOMETRY

L. S. Zevin and G. Kimmel
Springer-Verlag, New York 1995, ISBN 0-387-94541-5, 372+XVII pp.

This is a monograph on quantitative determination of the phase composition of polycrystalline materials by X-ray diffraction. It consists of six chapters. In the first chapter, the position of X-ray diffraction phase analysis among other techniques for the determination of phase composition is elucidated and the historical development of the quantitative X-ray powder diffraction (QXRD) phase analysis is described. The second chapter deals with the physical background of X-ray powder diffraction in general with special emphasis on the QXRD. The third chapter is devoted to instrumentation: Various experimental arrangements are reviewed in detail and special interest is paid to the Bragg–Brentano diffractometer. The most valuable, and at the same time the most voluminous, parts of the book are the fourth and the fifth chapters which address the main methodological and practical aspects of the QXRD phase analysis. The internal standard method, the external standard method, standardless methods, the doping method, the dilution method, calibration techniques, diffusion of errors, reference intensity ratios, implementation of calculated powder diffraction patterns, overlapping peaks, the full diffraction pattern approach, combination of X-ray diffraction and chemical data, determining crystallinity of polymers and analysis of low mass samples are discussed in detail in Chap. 4, while more practical aspects of the QXRD phase analysis like intensity measurement, definition and subtraction of background,

counting statistics, detection limit, sample preparation, determination of sample absorption, pattern decomposition and simulation, real structure effects and their suppression are dealt with in the fifth chapter. The last, sixth chapter presents a number of examples illustrating various (mainly industrial) applications of the QXRD phase analysis of ceramics, glass ceramics, minerals, ashes, cement, metals and alloys, thin films and coatings, aerosols, and airborne dusts and pharmaceuticals. The book address all aspects of the QXRD phase analysis in a great detail. The depth of the elaboration as well as the width of the scope (423 references) and the mastery of the presentation are unparalleled in the world scientific literature on this subject and represent an absolute top in this field. The work reassumes a previous work of the first author—L. S. Zevin, L. L. Zavyalova *Quantitative X-ray Phase Analysis* (in Russian), Nedra, Moscow 1974—that was the first and for many years, the only monograph devoted solely to the QXRD phase analysis in the world. The Zavin-and-Kimmel's *Quantitative X-ray Diffractometry* will be an indispensable everyday working manual for all laboratories doing QXRD phase analyses on a professional status and one of the fundamental reference books of the world's crystallographic literature. It is written very carefully so that it will serve well in teaching X-ray crystallography, too, promoting in this way QXRD phase analysis which is beyond any doubt one of the most valuable contributions of crystallography to metallurgy, mineralogy, analytical chemistry, and materials technology.

JAROSLAV FIALA, REVIEWER

Computer Comments

WORLD-WIDE-WEB VIRTUAL LIBRARY

Mark Holomany
Millstar Electronic Publishing Group, 1170 Wheeler Way, Langhorne, PA 19047

The World-Wide-Web is an excellent source of crystal-

lographic information, and the World-Wide-Web Virtual Library is the best starting point for crystallographers. The Crystallography World Wide section of the Virtual Library provides extensive coverage of internet-based information concerning crystallography and of interest to crystallogra-