

# Departments

Ron Anderson, Editor

*Calendar of Meetings:* Organizers of scientific meetings wishing to inform the readers of *Powder Diffraction* of their plans are welcome to submit meeting announcements to the Departments Editor. The announcements may be accompanied by text giving particulars of the meeting and programs. The additional matter in such expanded announcements will be printed on a space-available basis. While we will accept announcements of meetings on topics even remotely related to powder diffraction as a service to our readers, the editors, at their discretion, reserve the right to reject announcements of meetings concerning totally unrelated subjects. The deadlines in the instructions to authors apply to meeting announcements. There is no charge for this service. Meeting organizers wishing to purchase advertisements are invited to contact *Powder Diffraction's* Advertising Manager.

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*Short Courses and Workshops:* This journal will print announcements of short courses and workshops in fields relating to the interests of its readers. Organizers of such programs are invited to send short descriptive announcements to the Departments Editor. See below for the format and size of contributions that will be printed free of charge. The editors reserve the right to determine suitability for printing with regard to course or workshop content.

Calendar of Meetings	277
Meeting Reports	278
JCPDS-ICDD Subcommittee Activities	279
Book Reviews	280
Short Courses and Workshops	281
General Announcements	282
Computer Comments	283
Commercial Announcements	284

# Calendar of Meetings

## 1986

### **5th Europhysics Topical Conference on Lattice Defects in Ionic Crystals**

**September 8–12, 1986**

**Madrid, Spain**

Contact: Mr. F. J. Lopez, Dept. Optica y Estructura Materia, Universidad Autonoma de Madrid, Cantoblanco E-28049, Madrid, Spain.

### **The Silver Jubilee Eastern Analytical Symposium**

**October 6–10, 1986**

**New York, NY U.S.A.**

Contact: Dr. S. David Kline, EAS Publicity, 642 Cranbury Cross Road, North Brunswick, NJ 08902, U.S.A.

### **International Conference on Residual Stress**

**October 15–17, 1986**

**Garmisch-Partenkirchen, Federal Republic of Germany**

In previous national and European conferences, fundamental and applied aspects and problems from the multi-parametric field of residual stresses were emphasized. In accord with the aim of the preceding conferences, ICRS will provide an up to date comprehensive assessment of recent progress and unsolved problems in the field of residual stresses regarding both engineering and materials science aspects. The conference will apply a unified approach to all important areas of residual stresses in metals, ceramics, polymers and composites.

Contact: Conference Secretariat, Deutsche Gesellschaft für Metalkunde e.V., Adenauerallee 21, D-6370 Oberursel 1, Tel: 06171/4081

## 1987

### **Colloquium Spectroscopium Internationale**

**June 22–27, 1987**

**Toronto, Canada**

### **75th Anniversary Convention of the South African Chemical Institute**

**Durban, South Africa**

### **Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy**

**March 9–13, 1987**

**Atlantic City, NJ, U.S.A.**

### **36th Annual Denver X-Ray Conference**

**August 3–7, 1987**

**Denver, Colorado, U.S.A.**

### **XIV General Assembly and International Congress of Crystallography**

**August 12–20, 1987**

**Perth, Western Australia**

### **Geological Society of America**

**October 26–30, 1987**

**Phoenix, AZ, U.S.A.**

### **International Union of Crystallography Satellite Meeting on X-Ray Powder Diffractometry**

**York, Western Australia**

**Thursday August 20–Saturday August 22, 1987**

#### **Scope of Meeting**

The meeting will comprise a symposium on automated data acquisition and analytical procedures in industry with special reference to:

- (i) data acquisition
- (ii) automated profile processing and
- (iii) quantitative studies of materials, including Rietveld methods.

#### **Timing and Proposed Venue**

The satellite meeting is to be held in the town of York, Western Australia, following the International Union of Crystallography (IUCr) Congress in Perth from Wednesday, August 12th to Thursday, August 20th, 1987. Satellite meeting attendees will travel to York after the Congress closing ceremony on Thursday, August 20. The satellite meeting will commence on the evening of Thursday, August 20 and will formally conclude on the evening of Saturday, August 22. It is intended to offer a social program of outdoor and cultural activities on Sunday, August 23 for participants and families who do not return to Perth immediately following the conclusion of the satellite meeting.

York was founded in 1830 during the early days of the Western Australian colony established by Britain. The original character of the town has been retained by preserving various buildings which, together with the emphasis on farming and crafts within the community, makes York a most welcome place for those seeking relief from the pressures of city life. The town is located 97km east of Perth and is reached by a pleasant journey of several hours duration (by car, rail or bus) through the Australian bushland. York has been proposed as the satellite meeting venue in order to give attendees a change of scene following the conclusion of the Congress.

#### **Proposed Schedule for Submission of Papers/Registration**

##### *First Circular*

General details of meeting, including list of keynote speakers and call for papers — distribution March, 1986.

##### *Second Circular*

Detailed meeting plan and call for registration — distribution September, 1986.

# Meeting Reports

## Further Information and Requests for Receipt of First Circular

To be directed to the meeting convener:

Dr. Brian O'Connor  
School of Physics and Geosciences  
Western Australian Institute of Technology  
Kent Street  
Bentley, W.A. 6102  
Australia

Please mark envelope 'Attention SMXPD'

Telephone: (619) 350-7192  
Telex: AA92983

## Summary of a Paper Presented at the Meeting of the International Mineralogical Association, Stanford University

Palo Alto, CA on July 18, 1986

### Application of the 1986 JCPDS-ICDD Mineral Powder Diffraction File Computer Database to Mineralogical Problems

The 1986 update of the Mineral Powder Diffraction File (MPDF), Sets 1-35, is available for lease in computer readable form. Because it contains all of the information on the PDF card, queries of this database can include crystallographic and crystal chemical attributes, specific gravity, optical properties, etc., in addition to *d-I* data. Thus, the range of mineralogical problems that can be solved through application of the MPDF is greatly enlarged.

The database supplied by the JCPDS-ICDD adheres to a fixed format and is 10.5 Mb (132,000 80-column "cards") in size. For efficient use it should be converted into a more compressed format, preferably through a data management system. Implementation of this database using the SAS Institute's *Statistical Analysis System* on an IBM 3081 mainframe will be described. SAS INPUT statements provide conversion of the database fields to an internal storage format. The resulting SAS FILE is then searched on user-specified fields for desired ranges of values using logical relationships ranging from simple to sophisticated. Records matching the selection criteria become available to various SAS statistical and report procedures.

Examples of utilization of the MPDF database include: (1) alphabetized sorts and creation of subfiles of minerals based on chemical, crystallographic and physical properties; (2) statistical analysis of the MPDF for such characteristics as the "top 10 space groups" and the "most popular *d*-spacing for the strongest line in a pattern"; (3) delineation of minerals having particular properties (e.g. pyroelectricity) through selections of space group; (4) finding all minerals having a particular structure type (e.g. spinel) by selection of appropriate space group, *Z* and unit cell parameter range; (5) creation of a smaller searchable database that includes crystallographic data, physical properties and strong lines from the powder pattern.

A full paper based on this presentation will be the subject of a future article in *Powder Diffraction*.

G. J. McCarthy, Departments of Chemistry and Geology and R. G. Garvey, Department of Chemistry, North Dakota State University, Fargo, ND 58105.