



## REPORTS

### Report on the conference - Euroseminar "Integrated Analysis of Defect Structures in Crystalline Materials"

was held at the Freiberg University of Mining and Technology, Germany, November 23-27, 1998

The seminar was organized by the Freiberg University under the auspices of the International Union of Crystallography and the German Society for Crystallography, and sponsored by the JCPDS - International Centre for Diffraction Data, in addition to others.

The target of the seminar was the description and analysis of the defects and real structure of crystalline materials by diffraction and by spectroscopical techniques which is felt to be of huge importance for the materials science and engineering. About 70 attendees from 11 countries enjoyed an extraordinary valuable scientific program composed of 32 lectures and 14 posters. The contributions covered a broad spectrum of techniques including x-ray and neutron diffraction, use of synchrotron radiation, NMR, EPR, IR and Mössbauer spectroscopy, inelastic neutron scattering, Kossel diffraction, positron annihilation and electrical resistivity as well as the magnetic after-effects measurements, among others. In-depth reviews have been presented on both kinematical (Klimanek, Kužel) and dynamical (Polyakov) theories of x-ray diffraction by distorted crystalline materials, on the state-of-the-art powder diffractometry (Louer) and Rietveld analysis (Scardi), on lattice rotations (Barabash) and strain anisotropy (Ungár). Much has been reported on the diffraction analysis of planar defects (Ustinov, Palosz, Ivanov) and thin films (Baumbach, Oettel, Rafaja). The seminar offered a really "integrated", complex view on the structural defects of crystalline materials (Fuess) that will be so useful in the coming age of computational materials design (Snyder). The excellent scientific program has been accompanied with a very carefully prepared, enjoyable social program which included a come-together party, city excursion, concert, visit of Freiberg brewery and a farewell-party. The organizing committee, chaired by professor Peter Klimanek has done a superb job, indeed. The booklet of abstracts was distributed upon registration, the proceedings of the seminar will appear soon.

*J. Fiala*

## FORTHCOMING CONFERENCES

### Aperiodic Crystals

- Structural Analysis of aperiodic Crystals, Bayreuth, Germany, 1st - 4th March 2000.
- Aperiodic 2000, Nijmegen, The Netherlands, 4th - 8th July 2000.

### Biological Macromolecules

- Gordon Research Conference on Colloidal, Macromolecular, and Polyelectrolyte Solutions, Ventura, California, 6th - 10th February 6-10, 2000.
- Royal Society Discussion Meeting on Protein Misfolding and Disease, London, England, 23rd - 24th February 2000 [Contact:discussion.meetings@royalsoc.ac.uk]
- Protein Misfolding and Disease, London, England, 23th - 24th February 2000
- Neutron and Synchrotron Radiation for Biomolecular Structure and Dynamics, Grenoble, France, 27th February - 9th April 2000
- Practical course on Automated Macromolecular Structure Solution, Grenoble, France, 16th to 25th March 2000
- Millennium symposium on Structural Biology, Heidelberg, Germany, 26th - 29th March 2000.
- Modelling Biomolecular Mechanism: From States to Processes at the Atomic Level, York, England, 5th - 8th April 2000.
- YSAC (Young Scientists at Copenhagen) - protein structure research, Copenhagen, Denmark, 22 - 28 May 2000
- Crystallography of Molecular Biology, Erice, Italy, 25th May - 4th June 2000
- Sixth European Symposium on Calcium Binding Proteins in Normal and Transformed Cells, Paris, France, 14th - 17th June 2000.
- International Symposium on Macromolecules (MACRO 2000), Warsaw/Lodz, Poland, 9th - 14th July 2000.
- 18th International Congress of Biochemistry and Molecular Biology, Birmingham, UK, 16th - 20th July 2000
- Seventh BCA (British Crystallographic Association) Protein Crystallography Summer School, Bristol, England, 3rd - 9th September 2000
- MGMS meeting. Structural Genomics: From Gene to Structure to Function, Cambridge, England, 20th - 22nd September 2000
- From Genes to Drugs through Crystallography, Erice, Italy, 21st May - 2nd June 2002

### Charge, Spin and Momentum Densities

- Sagamore XIII Conference on Charge, Spin and Momentum Density, Stare Jablonki, Poland, 3rd - 9th September 2000.



## Computing and Data Analysis

- NOBUGS-III (New Opportunities for Better User Group Software) conference, Chester, UK, 12th - 14th April 2000
- The Fifteenth Dubrovnik International Course & Conference on the Interfaces among Mathematics, Chemistry and Computer Sciences & The Sixth Croatian Meeting on Fullerenes, Dubrovnik, Croatia, 19th - 24th June 2000.
- 7th IEEE International Conference on Image Processing, ICIP 2000, Vancouver, Canada, 10th - 13th September 2000.

## Crystal Engineering

- Inorganic Crystal Engineering, Bologna, Italy, 9th - 11th September 2000

## Crystal Growth and Characterisation of Materials

- Structural Characterization of Amorphous and Nanocrystalline Materials, Ismailia, Egypt, 22-27 January 2000.
- Microscopy and Micro-analysis of Engineering Materials (MMEM2000), Melbourne, Australia, 14-17 February 2000.
- Advances in In Situ Analysis, Luxor, Egypt, 20th - 29th February 2000.
- 30. Jahrestagung der Deutschen Gesellschaft für Kristallwachstum und Kristallzüchtung, Erlangen, Germany, 20th - 22nd März 2000.
- Quantitative Analyse in der Zement-, Kalk-, und Gipsindustrie, Halle, Germany, 3rd - 5th April 2000.
- EMAS 2000: 4th EMAS Regional Workshop on Electron Probe Microanalysis Today, Trest, Czech Republic, 17th - 20th May 2000
- XTOP 2000, 5th Biennial Conference on High Resolution X-Ray Diffraction and Topography, Ustron - Jaszowiec, Poland, 13th - 15th September 2000
- Strukturbildungen in nichtkristallinen Materialien - Phasen- und Glasübergänge, Keimbildung und Kristallisation, Wolfersdorf, Germany, 18th - 21st September 2000.
- 1st International Workshop on Physical Characterization of Pharmaceutical Solids (IWPCPS-1), Lancaster, PA, USA, 24th-29th September 2000.
- ICCG-13/ICVGE-11 International Conference on Crystal Growth 13 in conjunction with Vapour growth and Epitaxy -11, Kyoto, Japan, 30th July - 4th August 2001

## High Pressure

- High Pressure Crystallography, Erice, Italy, 27th May - 8th June 2003

## Industrial and Applied Crystallography

- XVIII Conference on Applied Crystallography, Katowice, Poland, 4th - 7th September 2000.
- 1st Internat. Workshop on Physical Characterization of Pharmaceutical Solids (IWPCPS-1), Lancaster, PA, USA, 24th -29th September 2000.

## IUCr Congress and General Assembly

- IUCr XIX - XIX Congress and General Assembly of the International of Crystallography, Jerusalem, Israel, 4th - 13th August 2002

## Materials

- Microscopy and Micro-analysis of Engineering Materials (MMEM2000), Melbourne, Australia, 14-17 February 2000.
- Microscopy of Composite Materials V, Oxford, England, 3rd - 4th April 2000.
- ICSM2000 - International Conference on Science and Technology of Synthetic Metals, Gastein, Austria, 15th - 21st July 2000.
- Inorganic Materials, Santa Barbara, USA, 13th - 16th September 2000.

## Microscopy

- Microscopy and Micro-analysis of Engineering Materials (MMEM2000), Melbourne, Australia, 14-17 February 2000.
- Microscopy of Composite Materials V, Oxford, England, 3rd - 4th April 2000.
- MICRO 2000, London, England, 11th - 13th April 2000.

## Mineralogy

- Differenzierung von Bindungsverhältnissen in Mineralstrukturen mittels  $^{23}\text{Na}$ ,  $^{27}\text{Al}$  und  $^{17}\text{O}$  Multi-Quanten MAS NMR, (MQMAS), Bochum, Germany 23nd - 24th March 2000.
- DMG Jahrestagung 2000 (German Mineralogical Society), Heidelberg, Germany, 25th - 29th September 2000.

## National and Regional Association

- \* ACA - American Crystallographic Association meetings
- \* BCA - British Crystallographic Association Meetings
- \* DGK - Jahrestagungen Deutsche Gesellschaft für Kristallographie
- \* SCA - Conferences and Seminars in Australia and New Zealand
- \* CSCA - Seminars and Conferences of the CSCA in the Czech Republic and Slovakia
- \* SINCRIS - Conferences and Seminars in France
- \* NVK - Activities in the Netherlands



- \* AIC - AIC list of meetings and Schools
- 21st meeting of the Society of Crystallographers in Australia (SCA), Thredbo, New South Wales, 1st-4th February 2000
- 8. Jahrestagung, der Deutschen Gesellschaft für Kristallographie, Aachen, Germany, 13th - 16th March 2000
- 30. Jahrestagung der Deutschen Gesellschaft für Kristallwachstum und Kristallzüchtung, Erlangen, Germany, 20th - 22nd März 2000.
- BCA British Crystallographic Annual Meeting, Edinburgh, Scotland, 3rd - 6th April 2000.
- The Second National Crystal Chemical Conference, Moscow, Russia, 22nd-26th May 2000
- XIII Scientific Seminar of CNIC, Havana, Cuba, 27th - 30th June 2000
- Denver X-ray Conference, Denver, USA, 31st July - 4th August 2000.
- ACA 2000 - American Crystallographic Meeting, St. Paul, Mn, 22nd - 27th July 2000
- ECM 19 - 19th European Crystallographic Meeting, Nancy, France, 25th - 31st August 2000
- ACA American Crystallographic Association Meeting, Los Angeles, California, USA, 21st - 26th July 2001
- Denver X-ray Conference, Denver, USA, 30th July - 3rd August 2001.
- ECM 20, 20th European Crystallographic Meeting, Kraków, Poland, 25th - 31st August 2001
- ACA American Crystallographic Association Meeting, San Antonio, Texas, USA, 25th - 30th May 2002
- Denver X-ray Conference, Denver, USA, 29th July - 2nd August 2002.
- IUCr XIX - XIX Congress and General Assembly of the International of Crystallography, Jerusalem, Israel, 4th - 13th August 2002

## Neutron Scattering

- Workshop on Monte Carlo Methods for Simulating Neutron Scattering Instrumentation, Oak Ridge, USA, 13th - 14th January 2000.
- Fourth LANSCE User Group Meeting, Los Alamos, USA, 24th - 26th January 2000. [Contact: Audrey L. Archuleta,
- LANSCE User Program Coordinator, Los Alamos Neutron Science Center (LANSCE), Mail Stop H831, Los Alamos, NM 87545 USA 505-665-1010(p), 505-667-8830(f), email: lansce\_users@lanl.gov ]
- International Workshop on Dynamics in Confinement, Grenoble, France, 26th - 29th January 2000
- Neutron and Synchrotron Radiation for Biomolecular Structure and Dynamics, Grenoble, France, 27th February - 9th April 2000
- Neutron and Synchrotron Radiation for Physics and Chemistry of Condensed Matter, Grenoble, France, 27th Feb-9th April 2000
- Polarized Neutrons for Condensed Matter Investigations" (PNCMI-2000), St.Petersburg, Russia, 20th - 25th June 2000.

- International Conference on Neutron Scattering 2001, Munich, Germany 9th-13th September 2001

## Powder Diffraction

- Escuela Lationamericana de Cristalografia, Taller de Difractometría de Polvos I, Mexico, 10th - 14th January 2000.
- Caracterización de Materiales Policristalinos mediante Técnicas de Rayos-X, Mérida, Venezuela, 24th and 28th January 2000.
- Quantitative Analyse in der Zement-, Kalk-, und Gipsindustrie, Halle, Germany, 3rd - 5th April 2000.
- EPDIC-7, 7th European Powder Diffraction Conference, Barcelona, Spain, 20th-23rd May 2000

## Radiation Physics

- Escuela Lationamericana de Cristalografia, Taller de Difractometría de Polvos I, Mexico, 10th - 14th January 2000.
- European Graduate School on Condensed Matter Physics, Dresden, Germany. Part I: The Physics at Surfaces, Interfaces and Thin Films, 7th - 11th February 2000. Part II: Anisotropy Effects in Superconductors and Magnets, 16th - 22nd February 2000
- Practical course on Automated Macromolecular Structure Solution, Grenoble, France, 16th to 25th March 2000
- Seventh BCA (British Crystallographic Association) Protein Crystallography Summer School, Bristol, England, 3rd - 9th September 2000

## Small-Angle Scattering

- Gordon Research Conference on Colloidal, Macromolecular and Polyelectrolyte Solutions, Ventura, California, 6th - 10<sup>th</sup> February 6-10, 2000.
- Second International Workshop SAXS with NanoSTAR, Leoben, Austria, 15th - 17th June 2000.

## Solid State Chemistry

- SSC 2000 - Solid State Chemistry 2000, Prague, Czech Republic, 3rd - 8th September 2000

## Structural Chemistry and Chemical Crystallography

- The Fifteenth Dubrovnik International Course & Conference on the Interfaces among Mathematics, Chemistry and Computer Sciences & The Sixth Croatian Meeting on Fullerenes, Dubrovnik, Croatia, 19th - 24th June 2000.
- Indaba III, Workshop on Symmetry and Structure: Symmetry Breaking, Chirality and Disorder in Molecules



and Crystals ,  
Skukuza, Kruger National Park, South Africa, 6th - 11th  
August 2000

- Strength from Weakness: Structural Consequences of Weak Interactions on Molecules, Supermolecules and Crystals,  
Erice, Italy, 23rd May - 3th June 2001
- From Genes to Drugs through Crystallography.  
Erice, Italy, 21st May - 2nd June 2002
- Polymorphism: Solvates and Phase Relationships.  
Erice, Italy, 26th May - 6th June 2004

### Surfaces Studies

- Réflectométrie de couches minces en incidence rasante,  
Montpellier,  
France, 25th - 26th January 2000
- Advancing and exploring off-specular scattering,  
Abingdon,  
England, 31st January-1st February 2000.
- European Graduate School on Condensed Matter Physics, Dresden, Germany. Part I: The Physics at Surfaces, Interfaces and Thin Films, 7th - 11th February 2000. Part II: Anisotropy Effects in Superconductors and Magnets, 16th - 22nd February 2000

### Synchrotron Radiation

- Neutron and Synchrotron Radiation for Biomolecular Structure and Dynamics,  
Grenoble, France, 27th February - 9th, April 2000
- Neutron and Synchrotron Radiation for Physics and Chemistry of Condensed Matter,  
Grenoble, France, 27th February - 9th, April 2000
- V International School and Symposium on Synchrotron Radiation in Natural Science,  
Jaszowiec, Poland, 12th - 17th June 2000.
- SRI 2000 - 7th International Conference on Synchrotron Radiation Instrumentation,  
Berlin, Germany, 21st - 25th August 2000

### Topography

- XTOP 2000, 5th Biennial Conference on High Resolution X-Ray Diffraction and Topography, Ustron - Jaszowiec, Poland, 13th - 15th September 2000

### XAFS Studies

- XAFS XI: 11th International Conference on X-ray Absorption Fine Structure,  
Ako, Japan, 26th - 31st July 2000

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