Referee Panels

I. Advanced Synthesis & Characterization Techniques of Materials

Chen Wen	Wuhan University of Technology, Wuhan, P.R. China
B. Chowdhury	Matech Associates, Lake Ariel, USA
S. Dann	Loughborough University, Loughborough, UK
M. Drábik	Institute of Inorganic Chemistry, SAS, Bratislava, Slovakia
M. Frumar	University of Pardubice, Pardubice, Czech Republic
T. Grygar	Institute of Inorganic Chemistry, CAS, Řež, Czech Republic
F. Hanic	Institute of Measurement Science, SAS, Bratislava, Slovakia
E. Kendrick	Loughborough University, Loughborough, UK
G. Krabbes	Inst. of Solid State and Materials Research, Dresden, Germany
A. Ray	University of Technology, Sydney, Australia
R. C. T. Slade	University of Surrey, Guildford, UK
V. Šepelák	Institute of Geotechnics, SAS, Košice, Slovak Republic

II. Structure & Electron Structure of Solids

P. D. Battle	Inorganic Chemistry Lab., Oxford, England
R. Boča	Slovak Technical University, Bratislava, Slovakia
F. Hanic	Institute of Measurement Science, SAS, Bratislava, Slovakia
J. Kožíšek	Slovak Technical University, Bratislava, Slovakia
V. Langer	Chalmers University of Technology, Göteborg, Sweden
D. Reinen	Universitat Marburg, Germany
F. Varret	Universite de Versailles, France
M. T. Weller	University of Southampton, Southampton, UK

III. Chemistry of Glases

M. Frumar	University of Pardubice, Pardubice, Czech Republic
M. Hartmanová	Institute of Physics, SAS, Bratislava, Slovakia
M. Jamnický	Slovak Technical University, Bratislava, Slovakia
M. Liška	Trenčín University, Trenčín, Slovakia
L. Němec	Institute of Inorganic Chemistry, CAS, Řež, Czech Republic
T. Nishida	Kinki University, Kayanomori, Japan
P. Slater	University of Surrey, Guildford, UK

IV. Novel Inorganic Materials

B. Chowdhury	Matech Associates, Lake Ariel, USA
M. Drábik	Institute of Inorganic Chemistry, SAS, Bratislava, Slovakia
D. Galusek	Institute of Inorganic Chemistry, SAS, Bratislava, Slovakia
S. Hoste	University of Ghent, Belgium
L. Interrante	Rensselaer Polytechnic Institute, Troy, USA
M. Jamnický	Slovak Technical University, Bratislava, Slovakia
T. Juestel	Philips Research Laboratories, Aachen, Germany
E. Pollert	Institute of Physics CAS, Praha, Czech Republic
G. Plesch	Comenius University, Bratislava, Slovak Republic
A. Ray	University of Technology, Sydney, Australia
R. Riedel	TU Darmstadt, Darmstadt, Germany
P. Schwendt	Comenius Univesity, Bratislava, Slovakia
R. C. T. Slade	University of Surrey, Guildford, UK
J. W. Stucki	University of Illinois, Urbana, USA
P. Šajgalík	Institute of Inorganic Chemistry, SAS, Bratislava, Slovakia
K. G. Varshney	Aligarh Muslim University, Aligarh, India

V. Layered Compounds, Clathrates & Intercalates

Ch. Detellier	University of Ottawa, Ottawa, Canada
E. Jóna	Trenčín University, Trenčín, Slovakia
P. Komadel	Institute of Inorganic Chemistry, SAS, Bratislava, Slovakia
F. Kovanda	Institute of Chemical Technology, Praha, Czech Republic
I. Nerád	Institute of Inorganic Chemistry, SAS, Bratislava, Slovakia
J. L. Perez-Rodrigues	Universidad de Sevilla, Sevilla, Spain
J. W. Stucki	University of Illinois, Urbana, USA
D. Tunega	University of Vienna, Vienna, Austria

VI. Deposites Films & Surface Chemistry

H. Altenburg	University of Applied Sciences, Steinfurt, Germany
S. Chromík	Inst.of Electrical Engineering, SAS, Bratislava, Slovakia
S. Hoste	University of Ghent, Belgium, Belgium
J. Huran	Inst.of Electrical Engineering, SAS, Bratislava, Slovakia
G. Plesch	Comenius University, Bratislava, Slovak Republic
W. S. Rees	Georgia Institute of Technology, Atlanta, USA
G. Wahl	TU Braunschweig, Braunschweig, Germany

Preface

The International Conference on Solid State Chemistry, held in Bratislava from 7 July to 12 July 2002 was already the fifth conference since 1986. The original idea of the first organizers was to bring together the solid-state chemists from the west and east Europe in order to promote the co-operation of both, in that time, divided groups. The first Solid State Chemistry Conference, held in Karlove Vary, Czech Republic was a nucleus, which has grown over the years and resulted in a well established meetings organized biannually, either in Czech or Slovak Republic.

Solid State Chemistry 2002 conference (SSC2002) was organized in six sections. One hundred sixty eight participants from 26 countries of 4 continents listened to 12 plenary, 12 keynote, and 83 lectures. During the conference 117 posters were presented. The International Referee Panels recommended a total 100 papers to be published in this book of the series Solid State Phenomena. The subjects span from the theoretical approaches of the structure and properties of solids through a relatively complete range of experimentally-based papers (incl. advanced characterization techniques, chemical aspects of nano- and functional materials, but also chemistry of oxides, mixed oxides, zeolites, layered compounds and various catalysts, chemistry of glasses and cements, electrochemistry and molten salts) to that with practical applications (mostly ceramics, layered compounds of natural occurrence, deposited films of mixed oxides and light metals production). Grouping of the papers in the book reflects the sections of the conference :

- **Advanced Synthesis & Characterization Techniques of Materials,**
- **Structure & Electron Structure of Solids,**
- **Chemistry of Glasses,**
- **Novel Inorganic Materials,**
- **Layered Compounds, Clathrates & Intercalates,**
- **Deposited Films & Surface Chemistry.**

The sections covered almost all modern branches of solid-state chemistry, which attract the interest of scientists and almost in the same extent the producers of new materials and technologies. SSC2002 was endorsed by the Union of Pure & Applied Chemistry (IUPAC); the representative of IUPAC, Prof. Leonard Interrante, presented the IUPAC activity and delivered the plenary lecture on *Si-based ceramics from polymer precursors*. Further plenary lectures comprised: *Thick films of ceramic materials, superconducting and electro-ceramic materials* (H. Altenburg), *Catalytic conversion of hydrocarbons in zeolites from first principles* (L. Benco), *Ab-initio modeling of catalytic reactions on metallic surfaces (J. Hafner), Non vacuum based decomposition techniques for superconducting ceramic coatings* (S. Hoste), *Engineering and chemistry of glass melting process* (L. Němec), *Hydrothermally treated cement-based building materials - past, present and future* (A. Ray), *Precursor derived nonoxide ceramics* (R. Riedel), *Importance of chemistry in high-tech ceramics design* (P. Šajgalík), *Chemistry and tailoring of mineral-related materials* (R.C.T. Slade), *The effects of iron oxidation state on the surface and microstructural properties of smectites* (J.W. Stucki), *Examples of molecular switching in inorganic solids, due to temperature, light, pressure and magnetic field* (F. Varret). The plenary lectures covered each topic of the conference and were an excellent base for the discussions and certainly served as the hints for the further development in the field. Majority of plenary lectures appeared, as a result of both quality of the lecture and IUPAC sponsorship, in the special (November 2002, web access - www.iupac.org/publications/pac/2002/index.html) issue of Pure & Applied Chemistry, an official journal of IUPAC.

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