

Preface

The Eighth International Conference on High Temperature Materials Chemistry (HTMC VIII) was held in Vienna from April 4-9, 1994. The conference was organised by the Institute of Inorganic Chemistry of the University of Vienna, the Institute of Technology of Inorganic Materials of the Technical University of Vienna and by the Austrian Chemical Society. Financial support was given by the Austrian industry and by the Austrian Government (Bundesministerium für Wissenschaft und Forschung).

The conference was attended by 150 scientists from 20 countries. The organisers were very pleased that a large number of colleagues from the former Soviet Union were able to attend the conference. This was possible with the help of the International Science Foundation (IFS, Washington DC) which sponsored the travel and the stay in Vienna for some scientists. There were 9 invited lectures, 40 oral presentations and more than 100 posters. The plenary lectures are published in this journal and most of the other presentations will be published in the journal of "High Temperature Science".

The main topics of this conference were:

Advanced Materials for High Temperature Application
New Ceramic Materials
Thermodynamics and Kinetics at High Temperatures
Modelling and Data Bases
New Measurements Techniques
Materials under Extreme Environmental Conditions

The plenary lectures presented an interesting overview of the state of the art in high temperature ceramics (Navrotsky, Hoffmann, Metselaar and Rao), production of diamonds from the vapor phase (Lux, Robertson and Spear), optimisation of composite materials (Chang) and the application of thermodynamic data for the production of advanced materials (Gachon). The topics of the oral presentations and the posters covered a wide range in the field of high temperature research. From the optimisation of materials for use under extreme environmental conditions like gas turbines, reactor materials and oxygen sensors, to materials with Perovskite structure (super conductors). New experimental methods for high temperature research and different theoretical models were presented.

The participants of this meeting agreed that it would be important to have another conference in three years. Prof. K.E. Spear volunteered to organise the next conference in 1996. It will take place in College Park, Pennsylvania, USA.

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