



Preface

The Tenth International Symposium on Experimental Mineralogy, Petrology and Geochemistry was organized by the Institute of Mineralogy of the Johann Wolfgang Goethe University in Frankfurt, Germany, and was held in the "Hörsaalgebäude" on the University Campus from 4-7 April, 2004. The EMPG X symposium continued a series of biennial meetings previously held in Nancy, Bochum, Edinburgh, Clermont-Ferrand, London, Bayreuth, Orléans, Bergamo and Zürich. It was attended by 275 scientists, the number of participants well indicating the continuous interest in all aspects of experimentally-based research in Earth Sciences. The scientific abstracts were published in Lithos, vol. 73 suppl. (2004). Most participants were from Europe, with a large number of participants from Russia (15 %), and others from Japan, USA, Canada and Australia (12 %). The attendance of 60 Eastern European and of young researchers was made possible by the generous financial support of the German Science Foundation (DFG), Frankfurt University, "Freunde und Förderer" of Frankfurt University, of several European mineralogical societies and by the European Mineralogical Union.

The symposium was subdivided into 10 themes, presented in two parallel oral and three poster sessions held on consecutive days, each poster session being introduced by a short oral preview. Besides traditional topics like experimental phase equilibria, mineral chemistry and element and isotope partitioning, we have introduced sessions more novel to the Earth Science community like biomineralisation and surface properties of minerals. Further sessions were on redox processes, experiments under extreme conditions and novel experimental techniques, on physical properties of minerals, melts, fluids and rocks as well as on reaction mechanisms and kinetics. The meeting also dealt with deformation processes and with experiments related to the origin of planets, meteorites, solar system material, and planetary interior. The opening plenary lecture was held by B.J. Wood, University of Bristol/UK, on the topic of "Trace element partitioning and defects in perovskites", an excellent overview on the present knowledge on the geochemistry of lower mantle phase perovskite. Further invited talks were given by J. Fein, University of Notre Dame/USA, G. Fiquet, Université Paris 6 et 7/France, R.J. Angel, Virginia Tech/USA, and U. Faul, ANU/Australia providing insight into the broad field of experimental Geoscience, ranging from the properties of the Earth's core to the nanoworld of bacteria-bearing mineral surfaces. To emphasize the equal importance of all contributions, the invited plenary lecture by H. Keppler from Tübingen University/Germany was placed at the end of the meeting. His lively and enlightening talk about "The properties of subduction zone fluids" rewarded the participants for their stamina to stay until the end of the meeting – and they were a great many.

Following a tradition of former EMPG meetings, we encouraged the submission of papers presented at the meeting for publication in a special issue of the European Journal of Mineralogy. A substantial number of contributions were reviewed by the guest editors Alan Woodland and Stephen Foley whose efficiency made the publication of this special issue possible within an extremely short time.

We hope that the diversity of experimental work continues to challenge researchers in Geoscience and that it will help to continue our EMPG meetings, the next to be held at the University of Bristol, UK, in 2006.

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