

## 6<sup>th</sup> European Conference on Mineralogy and Spectroscopy Preface

On 8–11 September 2007, the Swedish Museum of Natural History (NRM) in Stockholm hosted the 6<sup>th</sup> European Conference on Mineralogy and Spectroscopy (ECMS6). The conference was organized jointly by staff members at the Department of Earth Sciences at Uppsala University and the Department of Mineralogy at NRM. The meeting attracted 63 participants, representing scientists from Earth Sciences, Physics and Chemistry, from 18 countries on three continents. The conference programme comprised 31 oral presentations, including seven invited talks, and in addition 38 poster presentations. Abstracts of the presented contributions are available at <http://www.geo.uu.se/mpt/ecms6>. Conference contributions covered a broad range of techniques and applications comprising presentations from recent and planned technical developments at synchrotron radiation facilities via improved laboratory-scale equipment to progress in atomistic computational methods, applied on problems related to, e.g. material science, metallurgy, crystallography, petrology, (bio-) mineralogy, geophysics, radiation damage and health aspects. We appreciate the dedicated work by the Scientific Committee in reviewing and selecting abstracts and the efforts of the Organizing Committee members and museum staff during the event. Financial support provided by the Swedish Research Council (Vetenskapsrådet) is gratefully acknowledged.

We encouraged submission of papers presented at the conference for a thematic issue of the *European Journal of Mineralogy*. In this issue we present a selection of nine papers presented at the conference. Although they cover only a fraction of the conference contributions, we hope that they give an interesting overview of the topics addressed during the meeting.

Whereas Deon et al. and Sundvall et al. investigate the incorporation of hydrogen in synthetic B-bearing coesite and Fe-poor diopside, respectively, by means of IR spectroscopy, Stalder et al. show the applicability of micro-Raman spectroscopy for the analysis of orthopyroxene solid solutions. Advantages and applications of time-resolved gated Raman spectroscopy are presented in a review article by Gaft & Nagli. Another review by Tretiakova is dedicated to the spectroscopic discrimination of untreated vs. artificially coloured yellow natural diamonds. Results of Mössbauer spectra acquired with high velocity resolution from iron-bearing minerals in meteorites are reviewed by Grokhovskiy et al. Krickl & Wildner investigate in their contribution an extremely short, though asymmetric hydrogen bond of the Co-, Ni-members of the natrochalcite group by IR and optical spectroscopy. First results on the speciation of sulphur in sulphate minerals by X-ray absorption spectroscopy are presented by Figueiredo & da Silva. And finally, in the article of Karampelas et al. mixtures of polyenic pigments, responsible for the various colour hues of pearls, are unravelled by optical reflectance and Raman spectroscopy.

We thank all the participants that made the conference an interesting event, as well as the contributors to this thematic issue. We appreciate the dedicated work by reviewers of the submitted papers and the invaluable support by Managing Editor Christian Chopin, and staff of the *European Journal of Mineralogy* and of the Publisher that eased up the publication process.

With the rapid technical and computational improvements related to mineral spectroscopy and the growing range of mineral science applications we look forward to the next ECMS conference that is planned to take place in Potsdam, Germany, in 2011.

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