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planet earth
from core to surface

emc²⁰¹²
2 - 6 September

european mineralogical
conference • frankfurt / main
germany

The First European Mineralogical Conference will be held this year from September 2–6 at the Johann Wolfgang Goethe-University in Frankfurt, Germany. This emc²⁰¹² meeting is intended as the beginning of a biennial series of conferences to be held in different host countries with the goal of furthering the exchange of new results and ideas in the material oriented geosciences at a European level. Ten mineralogical societies are participating in this first meeting:

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| DMG | Deutsche Mineralogische Gesellschaft |
| MinSoc | Mineralogical Society of Great Britain & Ireland |
| MinSocFin | Mineralogical Society of Finland |
| ÖMG | Österreichische Mineralogische Gesellschaft |
| PTMin | Mineralogical Society of Poland |
| RMS | Russian Mineralogical Society |
| SEM | Sociedad Española de Mineralogía |
| SFMC | Société Française de Minéralogie et de Cristallographie |
| SIMP | Società Italiana di Mineralogia e Petrologia |
| SSMP | Swiss Society of Mineralogy and Petrology |

Fourteen symposia themes were agreed upon by these societies under the general conference theme “Planet Earth from Core to Surface”. Together, they cover a broad range of topics in mineralogy. Each theme is comprised of sessions that are listed below together with their designated convenors. The session titles and the support of the convenors fill us with great expectations for an exciting and stimulating conference. Highlights of the scientific programme will be the invited speakers including this year’s IMA award medallist, D.H. Green: “Experimental petrology of peridotites, basalts and C, H, O – a Window on the Earth’s Upper Mantle”; Hilary Downes looks at mantle and core formation from the perspective of meteorites, and the EMU and MinSoc medalists will show us why they are so successful. A public lecture on “Diamonds are forever - but when and where are they formed?” will be given by Thomas Stachel. The conference will close with a few one- or two-day excursions to the world famous Eifel volcanic field and to metamorphic terranes nearby. The social programme includes excursions to Heidelberg and a boat trip along the Rhine Valley with its famous castles, Unesco World Heritage Site.

The local scientific committee: **Gerhard Brey, Heidi Höfer**

Abstract submission deadline: 15 May 2012

THEMES, SESSIONS AND CONVENORS AT EMC²⁰¹²

MANTLE PETROLOGY AND GEOCHEMISTRY

- 1a Nature of the deep lithospheric mantle and interactions at the lithosphere-asthenosphere boundary (Aulbach, Klemme, Tommasi)
- 1b Geochemical evolution of the mantle: from the Hadean to modern signatures (Weyer, Ionov)
- 1c Mantle recesses as revealed by trace elements, phase relations and redox state (van Vestrenen, Woodland)
- 1d Earth’s deep volatile cycle (Keppler, Demouchy, Bromiley)

MAGMATISM AND VOLCANOLOGY

- 2a Magmatic crystals as recorder of pre- and syn-eruptive processes: analysis, modelling and quantification (Troll, Klügel, Wiesmaier)

- 2b Crustal evolution in arc settings: magmatism, geochemical models and field observations (Wörner, Holtz, Müntener)
- 2c Experimental and observational constraints on the abundance and role of volatiles in magmas: from reservoirs to the surface (Ulmer, Scaillet, Slaby)

METAMORPHISM

- 3a Deciphering high grade metamorphic processes: trace elements, accessory minerals and isotopes (O’Brien, Harley, Rubatto)
- 3b Fluid release, fluid flow and mass transfer in metamorphic environments: nature and modelling (Scambelluri, Tropper, John)
- 3c Modelling phase equilibria in metamorphism (Poli, Conolly)

APPLIED MINERALOLOGY

- 4a Mineralogical aspects of CO₂ storage (Soler, Liebscher, Wilkinson)
- 4b Building materials and mineral processing (Pöllmann, de Villiers)
- 4c Medical and Environmental Mineralogy (Fiore, Gualtieri, Posfai, Gieré)
- 4d Natural and synthetic host phases for radionuclides (Patrick, Bosbach, Yudinsev, Gatta)

MINERAL PHYSICS

- 5a Elasticity, plasticity, and rheology of minerals - implications for anisotropy and convection in the Earth (Mainprice, Merkel)
- 5b News from the Earth’s interior: a mineral-physics approach (Boffa-Ballaran, Angel, Fiquet)
- 5c Advances in spectroscopy of Earth materials (Wilke, McCammon, Stalder)
- 5d Computational mineral physics (Winkler, Jahn)

MINERALOGICAL CRYSTALLOGRAPHY

- 6a Handling structural complexity: theoretical and experimental methods applied to unravel structural hierarchies (Balic, Camara, Siidra)
- 6b New minerals, classifications and related issues (Pasero, Galuskin, Pekov)

PLANETARY MATERIALS

- 7a Geochemistry and petrology of meteorites (Palme, Folco, Russell)
- 7b Planetary formation in the Early Solar system (Mezger, Wade)
- 7c Evolution of the continental crust (Storey, Zeh)

MINERAL DEPOSITS AND RAW MATERIALS

- 8a Ore belts in Europe (Alderton, Palinkas, Tornos, Fontboté)
- 8b PGM and related accessory minerals in mafic-ultramafic rocks and unconventional deposits (Ohnenstetter, Zaccarini, Vymazalova)
- 8c Ore-forming hydrothermal processes (Heinrich, Wilkinson)
- 8d Critical raw materials for Europe (Raith, Melcher)

LOW-T GEOCHEMISTRY

- 9a Water-rock interactions in natural and contaminated systems (Bogush, Monnin, Zuddas)

GEOCHRONOLOGY

- 10a Timing and rates of geological processes - geochronology in action (Finger, Gerdes, Dobson)
- 10b Isotope geochemistry: traditional and non-traditional, mass-dependent and non-mass-dependent (Münker, Fiebig, Pack, Staubwasser)

GEOBIOCHEMISTRY

- 11a Biologic mineralization and biomimetic model systems (Schmahl, Rodriguez-Navarro, Benzerara)
- 11b Geobiochemistry and mineralogy of mine waste: perspectives and future goals (Hudson-Edwards, Morales, Majzlan)

ADVANCED ANALYTICAL TECHNIQUES

- 12a Exploring the nanoworld: synchrotron and neutrons advances in environmental geochemistry and mineralogy (Benning, Testemale, Rodriguez-Blanco, Artioli)
- 12b Nano- to micro-scale platform in the geosciences: Advances in analytical techniques (Ahmed, Rollinson, Mugnaioli)

ARCHAEOLOGY, CARE AND PRESERVATION

- 13a Mineralogical sciences and cultural heritage (Greiff, Ionescu, Quartieri)

OPEN SESSION

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