



Program of the “Antragskolloquium” of the SPP 1236

“Structures and characteristics of crystals at extremely high pressures and temperatures“

Familienferien- und Bildungsstätte Eberburg
Bad Münster am Stein, Eberburg

31 March 2009

14:00 **Arrival**

19:00 **Dinner**

1 April 2009

8:00-8:30 **Breakfast**

8:30-9:00 **Review panel**

9:00-10:00 **Oral session**

B. Winkler *Central laser heating facility for the SPP 1236
Coordination of the SPP 1236*

L. Bayarjargal *High (P, T) properties of wide band-gap semiconductors from second
harmonic generation measurements*

B. Mihailova *Pressure/temperature-driven transformation processes in Pb-based
perovskite-type relaxor ferroelectrics*

A. Gurlo *Indium oxide (In₂O₃) under high pressure: rational design of new
polymorphs and characterisation of their physico-chemical properties*

T. Locherer *New high pressure modifications of Group 14-16 compounds*

10:00-10:30 **Coffee break**

10:30-12:00 **Oral session**

A. Friedrich *High-(P, T) synthesis of transition metal carbides and nitrides of the
period 6 elements*

B. Winkler *High (pressure, temperature) synthesis and characterisation of binary
metal borides*

D. Dzivenko *High-pressure high temperature synthesis of novel binary and ternary
superhard phases in the B-C-N System*

N. Dubrovinskaia *B, B-C and B-N compounds at high pressures and high temperatures*

R. Niewa *High-pressure nitride chemistry of geomaterials: Formation, quantum-
chemical prediction and characterization*

C. Braun *High-pressure nitridosilicates, oxonitridosilicates and
nitridophosphates and related binary nitrides*

M. Schwarz *Further research in the system Si-Al-O-N at extreme pressures*
I. Troyan *Ionic and superionic ammonia*
H. Keppler *Noble gases in silicate perovskite: Solubility, dissolution mechanism and influence on the equation of state*

12:00-13:00 **Lunch**

13:00-14:30 **Oral session**

A. Woodland *Crystal chemical behaviour of ferric iron at high pressures and temperatures*
L. Dubrovinsky *Elasticity of iron and iron-based alloys at conditions of the Earth's and planetary cores*
V. Schünemann *Iron dynamics in earth mantle minerals and iron nickel alloys probed by nuclear inelastic scattering*
C. McCammon *Mössbauer Spectroscopy at high P,T*
R. Pentcheva *Magnetic, electronic and structural transitions in iron bearing minerals under pressure: Theory and experiment*
N. de Koker *Combining experimental and computational approaches to determine high P and T thermal conductivity of CaGeO₃ and MgSiO₃ perovskites*
R. Miletich-Pawliczek *Single-crystal X-ray high-pressure crystallography in excess of 1000 °C using new laser and internal heating devices*
M. Koch-Müller *The 410- and 520-km discontinuities in the Earth's mantle: experiments and thermodynamic modelling*
S. Speziale *Single-crystal elastic properties of olivine and serpentine at conditions of subduction zones to 25 GPa and 1000 °C: combining experiments and computations*

14:30-15:00 **Coffee break**

15:00-18:00 **Poster session**

18:00-19:00 **Dinner**

2 April 2009

8:00-9:00 **Breakfast**

9:00- **Departure**