GRC-BGI Workshop on Deep Earth Mineralogy, Bayreuth, 17 – 19 June 2009

Geodynamics Research Center

Poster Presentations

Poster Presentation Thursday, June 18

1	*T. Shinmei*	Facility at Geodynamics Research Center, Ehime University
2	*A. Yamada*	Global COE program "Center for Advanced Experimental and Theoretical deep Earth Mineralogy"

Phase Equilibria and Phase Transformations in the Earth's Mantle

3	*K.N. Matsukage*	Origin of Mg and Si rich cratonic mantle: Does the Earth's deep mantle consist of pyrolite?
4	*A. Escudero, N. Miyajima, F. Langenhorst*	Chemical and microstructural characteristics of TiO_2 in ultra high pressure metamorphic rocks. New insights into the estimation of pressure and temperature
5	*A. Escudero, K. Tsuno, F. Langenhorst*	Phase relations in the Al_2O_3 – TiO_2 system at pressures up to 20 GPa
6	*S. Gréaux, N. Nishiyama, Y. Kono, H. Ohfuji, L. Gautron, T. Irifune*	High pressure and high temperature phase relation of $Ca_3Al_2Si_3O_{12}$ grossular garnet
7	*R. Iizuka, H. Kagi, K. Komatsu, D. Ushijima, T. Nagai, S. Nakano, A. Sano-Furukawa*	In situ observation of the pressure-induced phase transition in $Ca(OH)_2$
8	*S. Odake, H. Kagi, M. Arakawa, A. Ohta and B. Harte*	Micro-XANES study of the oxidation state of chromium in natural ferropericlase inclusions

Mineral Physics

9	*T. Boffa Ballaran, D.J. Frost, R. Pozzobon*	Structure and density of perovskite from subducted oceanic crust in the lower mantle
10	*T. Ishikawa, T. Tsuchiya, J. Tsuchiya*	New algorithm for exploration of crystal structures under high pressure and high temperature: free energy surface trekking
11	*N. de Koker, L. Stixrude*	Self-consistent thermodynamic description of silicate liquids
12	*Z. Tang and G. Steinle-Neumann*	Magnetic and electronic structure of Fe_2SiO_4 ringwoodite from first principles
13	*X. Wu, L. Dubrovinsky, G. Steinle-Neumann, O. Narygina, C. McCammon,*	Structural evolution and iron oxidation state of $FeTiO_3$ at high pressure

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	S. Pascarelli, G. Aquilanti, I. Kantor, V. Prakapenka, V. Swamy	
14	*E. Zarechnaya, L. Dubrovinsky, N. Dubrovinskaia, A. Mikhaylushkin, S. I. Simak, I. Abrikosov*	The ground state properties of orthorhombic boron: Investigation from "first principles"
15	*H. Ni, H. Keppler*	Electrical conductivity of albitic melts at high pressures
16	*C. Weigel, H. Keppler and C. McCammon*	^{57}Fe Mössbauer spectroscopy applied to silicate glasses at extreme conditions
17	*K. Pollok, K. Hellige, D. Harries, S. Peiffer*	Redox processes at the nanoscale: Reactions of dissolved sulfide with iron(oxyhydr)oxides

Silicate Melts and Fluids

18	*S. Machida, H. Hirai, T. Kawamura, Y. Yamamoto, T. Yagi*	Structural changes and intermolecular interactions for hydrogen hydrate under high pressure
19	*A. Shinozaki, H. Hirai, D. Hamane, H. Kagi, T. Kondo, T. Yagi*	Polarization of methane molecule and reaction between released hydrogen and olivine in the Earth's mantle
20	*F. Schiavi, N. Walte, H. Keppler*	The first direct observation of crystallizing magmas with the moissanite cell
21	*L. Lerchbaumer, A. Audétat*	Partitioning of Cu between vapor and brine – an experimental study based on LA-ICP-MS analysis of synthetic fluid inclusions
22	*L.K. Hobbs, H. Keppler*	Partitioning of sulphur dioxide between dacitic melt and aqueous phases
23	*K. Etzel and K. Pollok*	Effects of microstructure on dissolution of sulfides
24	*D. Harries, K. Pollok, K. Etzel, F. Langenhorst*	Structural complexity in pyrrhotites: What are the implications for fluid-mineral interactions?

New Experimental Methods

25	*T. Kawazoe, N. Nishiyama, Y. Nishihara, T. Irifune*	Preliminary experiments using the deformation-DIA apparatus "*MADONNA*"
26	*T. Kunimoto and T. Irifune*	Development of a 6-8-2 type multi-anvil apparatus and its application

Deformation and Rheology

27	*Y. Usui, T. Tsuchiya*	Seismic anisotropy in the D" layer beneath the antarctic ocean
28	*F. Heidelbach and M.P. Terry*	Inherited fabric in a eclogite symplectite: evidence for deformation under ultra-high pressure conditions

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Earth's Core

29	*K. Glayzrin and L.D. Dubrovinsky*	High pressure electronic transition in hcp Fe and $Fe_{0.9}Ni_{0.1}$
30	*G. Steinle-Neumann, K.K.M. Lee and D. Dolejs*	Potassium partitioning in the deep Earth from ab-initio computations

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