



Program

Oral Presentations

Wednesday, June 17

10:15-10:45	WELCOME RECEPTION	
10:45-11:15	T. Irifune, H. Keppler	Welcome

Phase Equilibria and Phase Transformations in the Earth's Mantle

11:15-11:30	<u>N. Miyajima</u> , F. Langenhorst, K. Hirose	Fe $L_{2,3}$ -edge ELNES of high pressure minerals in a K-bearing MORB
11:30-11:45	<u>M. Longo</u> , C.A. McCammon, G. Bulanova, F. Kaminsky, and R. Tappert	Iron oxidation state in (Mg,Fe)O: Calibration of the flank method on synthetic samples and application to natural inclusions in lower mantle diamonds
11:45-12:00	<u>S. Odake</u> , H. Kagi, M. Arakawa, A. Ohta and B. Harte	Micro-XANES study of the oxidation state of chromium in natural ferropericlasite inclusions
12:00-12:15	<u>S. Shcheka</u> , H. Keppler	Argon solubility in aluminous $MgSiO_3$ -perovskite
12:15-14:00	LUNCH	
14:00-14:15	<u>S. Gréaux</u> , 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
14:15-14:30	<u>D. Spengler</u> , Y. Nishihara	Majorite breakdown kinetics during mantle upwelling – significance and experimental strategy
14:30-14:45	<u>V. Stagno</u> and D.J. Frost	The carbon/carbonate equilibria in the Earth's mantle as function of pressure, temperature and oxygen fugacity

Mineral Physics I

14:45-15:10	<u>Y. Kono</u> , T. Irifune, Y. Higo, T. Inoue, A. Barnhoorn	Pressure-scale-independent V_p - V_s -P-V-T relation of MgO derived by simultaneous elastic wave velocity and in situ X-ray measurements
15:10-15:25	<u>R. Iizuka</u> , H. Kagi, K. Komatsu, D. Ushijima, T. Nagai, S. Nakano, A. Sano-Furukawa	In situ observation of the pressure-induced phase transition in $Ca(OH)_2$
15:30	BUS TRANSPORTATION TO BGI	LAB TOURS



Program

after 18:00		<u>Barbecue at BGI</u>
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Thursday, June 18

Silicate Melts and Fluids

09:00-09:25	<u>S. Keshav</u> and G.H. Gudfinnsson	The transition between basaltic and carbonatitic liquids in the Earth
09:25-09:40	<u>E. Bali</u> , A. Audetat, H. Keppler	Mobility of U and Th in subduction zones – a synthetic fluid inclusion study
09:40-09:55	<u>S. Machida</u> , H. Hirai, T. Kawamura, Y. Yamamoto, T. Yagi	Structural changes and intermolecular interactions for hydrogen hydrate under high pressure
09:55-10:10	<u>A. Shinozaki</u> , 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
10:10-10:45	COFFEE BREAK	

Mineral Physics II

10:45-11:10	<u>J. Tsuchiya</u> , T. Tsuchiya	First principles investigation on hydrous wadsleyite under pressure
11:10-11:25	<u>T. Chust</u> , G. Steinle-Neumann, H.-P. Bunge	Integrated modelling of mineral physics and mantle convection
11:25-11:40	<u>N. de Koker</u>	Thermal conductivity of MgO Periclase from equilibrium first principles molecular dynamics
11:40-11:55	<u>M. Mookherjee</u> and G. Steinle-Neumann	Structure and elasticity of hollandite at high pressures
11:55-12:20	<u>K. Komatsu</u>	Neutron scattering experiments in ISIS and ILL – the recent developments for the single crystal diffraction under high pressure
12:20-14:00	LUNCH	



Program

Thursday, June 18

New Experimental Methods

14:00-14:25	<i>C. McCammon, L. Dubrovinsky, O. Narygina, K. Glazyrin, X. Wu, I. Kantor, V. Schünemann, B. Hewener, J. Wolny, K. Muffler, I. Sergueev, A. Chumakov</i>	Mössbauer spectroscopy at high P,T using a synchrotron source
14:25-14:50	<i>Y. Tange</i>	High-pressure techniques using sintered diamond anvils in multianvil apparatus and its applications
14:50-15:05	<i>T. Kunimoto and T. Irifune</i>	Development of a 6-8-2 type multi-anvil apparatus and its application
15:05-15:20	<i>T. Kawazoe, N. Nishiyama, Y. Nishihara, T. Irifune</i>	Preliminary experiments using the deformation-DIA apparatus "MADONNA"
15:20-15:35	<i>N. Nishiyama, Y. Yanbin, T. Irifune, T. Uchida, T. Sanehira, T. Kawazoe, Y. Nishihara, M.L. Rivers, S.R. Sutton</i>	Deformation experiments at high pressure and temperature using DDIA and Drickamer apparatuses with monochromatic synchrotron radiation
after 15:35	POSTER SESSION GUIDED TOURS THROUGH EREMITAGE	



Program

Friday, June 19

Deformation and Rheology

09:00-09:25	<i>Y. Nishihara, K. Funakoshi, Y. Higo, N. Tsujino, T. Kawazoe, T. Kubo, A. Shimojuku, H. Terasaki and N. Nishiyama</i>	Experimental study on the deep Earth rheology: Stress relaxation test of olivine and recent technical developments in deformation experiments under high pressure
09:25-09:50	<i>N.P. Walte, F. Heidelbach, D. Rubie, S. Hunt, D. Dobson</i>	Crystallographic preferred orientation and relative viscosity of upper and lower mantle phases with the deformation DIA
09:50-10:05	<i>Y. Usui, T. Tsuchiya</i>	Seismic anisotropy in the D" layer beneath the antarctic ocean
10:05-10:20	<i>S. Shekhar, N. Walte, D. Frost, F. Heidelbach</i>	Effect of pressure on olivine slip system
10:20-10:45	COFFEE BREAK	

Earth's Core

10:45-11:10	<i>D. Frost, K. Tsuno, D. Rubie</i>	The light element in the Earth's core and reactions at the core mantle boundary
11:10-11:35	<i>T. Ishikawa, T. Tsuchiya, J. Tsuchiya</i>	Exploring crystal structures of iron at Earth's inner core pressure by free energy surface trekking
11:35-11:50	<i>Y. Kuwayama and K. Hirose</i>	Phase relations of iron alloys at high pressure and high temperature
11:50-12:05	<i>O. Narygina, L. Dubrovinsky, N. Miyajima</i>	Phase relations in Fe-Ni-C system at high pressures and temperatures: implication to the Earth's core
12:05-12:15	<i>Irifune/Keppler</i>	FINALS
12:20-14:00	LUNCH	
after 14:00	EXCURSION	