

IRTG Doctoral Seminar, 14.-15. September 2017

Program

Thursday, 14.09.

	0900	Welcome	Frost/Nakamura
1	0900-0920	J. Polednia , K. Marquardt, R. Dohmen	Grain boundary diffusion and its relation to grain boundary segregation of multiple elements in Yttrium Aluminum Garnet (YAG) - an experimental study using the bicrystal setup, TEM and numerical modeling
2	0920-0940	F. Ferreira	Influence of grain boundaries in the diffusion creep of olivine
3	0940-1000	Y. Huang , T. Nakatami, M. Nakamura, C. McCammon	Experimental constraints on the dihedral angle between olivine and multicomponent aqueous fluids in the upper mantle conditions
4	1000-1020	L. Wang	The effect of water on dislocation mobility in olivine
5	1020-1040	J. Immoor	Experimental deformation of (Mg,Fe) O ferropericlaste at conditions of the lower mantle
	1040-1110	Coffee Break	
6	1110-1130	J. Buchen	Single-crystal elasticity of iron-bearing wadsleyite at high pressures and high temperatures: Seismic signals of water in the shallow transition zone
7	1130-1150	K. Schulze	Elastic properties of Ringwoodite and the effect of hydration at transition zone pressures
8	1150-1210	N.-C. Siersch	Elastic wave velocities of Fe- and Al-bearing akimotoite by means of ultrasonic measurements
9	1210-1230	R. Huang	The density of bridgmanite as a function of chemical composition and oxygen fugacity
	1230-1330	Lunch Break	
10	1330-1350	D. Vasiukov	Investigation of the oxidation state of Fe in iron-aluminum-bearing silicate perovskites synthesized in laser heated DACs at conditions of Earth lower mantle
11	1350-1410	J. Yao	Liquid and glass structure of Mg ₂ SiO ₄ and MgSiO ₃ under high pressure
12	1410-1430	F. Maeda , S. Kamada, E. Ohtani, N. Hirao, T. Mitsui, R. Masuda, M. Miyahara, C. McCammon	Mössbauer study of basaltic glass at lower mantle conditions

13	1430-1450	K. Armstrong , D.J. Frost, D.C. Rubie, C.M. McCammon, T. Boffa-Ballaran	The effect of pressure on iron speciation in silicate melts at a fixed oxygen fugacity: the possibility of a redox profile through a terrestrial magma ocean
14	1450-1510	N. Araya , M. Nakamura, S. Okumura	Incubation processes of the historic Plinian eruptions at Sakurajima Volcano inferred from phenocrystic and inclusion magnetite
	1510-1540	Coffee Break	
15	1540-1600	P. Eichheimer , M. Thielmann, G.J. Golabek	Towards modelling of water inflow into the mantle
16	1600-1620	W. Fujita , M. Nakamura	Grain growth-induced fluid expulsion in synthetic quartzite
17	1620-1640	G. Rustioni	Experimental constraints on trace element mobility in subduction zone fluids
18	1640-1700	D. Druzhbin	Low water solubility in wadsleyite at mantle transition zone redox state
	1700-1720	<i>Pierre Cartini</i>	
	1720-1740	<i>Pierre Cartini</i>	
	1740-1800	<i>Pierre Cartini</i>	
		Finish	Frost/Nakamura
		Beer and Bretzel	

Friday, 15.09

19	0900-0920	D. Simonova , E. Bykova, M. Bykov, T.Kawazoe, L.S. Dubrovinsky	High pressure behaviour of δ -AlOOH
20	0920-0940	I. Ohira , J. M. Jackson, W. Sturhahn, G. J. Finkelstein, S. Kamada, T. Kawazoe, F. Maeda, N. Hirao, S. Nakano, A. Suzuki, E. Ohtani	X-ray diffraction and nuclear resonance scattering measurements δ - (B-(Al, Fe)OOH at lower mantle pressures
21	0940-1000	S. Chariton	Looking for carbonates in the deep Earth: An experimental approach at extreme conditions
22	1000-1020	E. Koemets	Synthesis of high pressure iron carbonate from elements above 1 megabar
23	1020-1040	F. Wagle , G. Steinle-Neumann	Electrical resistivity of liquid iron with high concentration of light element impurities
	1040-1110	Coffee Break	
24	1110-1130	L. Yuan , E. Ohtani, D. Ikuta, S. Kamada, H. Naohisa, Y. Ohishi, A. Suzuki	Chemical reactions between Fe and H ₂ O up to megabar pressures and implications for water storage in the Earth's mantle and core
25	1130-1150	G. Aprilis	Chemical interaction of iron with diamond anvils in pulsed and continuous wave laser heated diamond anvil cells
26	1150-1210	S. Khandarkhaeva	Single crystal diffraction above 200 GPa

27	1210-1230	A. San Jose Mendez	Superfast X-Ray diffraction of (MgFe)O across the spin transition under dynamic compression
	1230-1330	Lunch Break	
		Excursion	

Poster:

A		R. Arato	FeTiMM - a simple method to reconstruct magmatic fO_2	
B		L. Eberhard	Fluid-induced decarbonation reactions in subduction zones	
C		H. Guo	Transfer of volatiles and metals from mafic to felsic magmas in composite magma chambers	
D		T. Yoshioka	Nitrogen solubility in transition zone and lower mantle minerals	
E		N. Satta	High pressure elasticity of hydrous minerals	
F		M. Putak-Juricek	Amphibole stability in the mantle	