

Program of the Kick-off meeting for the 2nd phase of the FOR2125

"Structures, properties and reactions of carbonates at high temperatures and pressures"



Thursday, 15th February 2018, DESY Room 48E

time	project	speaker	title
12:00 – 12:45	lunch		
13:00 – 13:30	0	B. Winkler	Introduction
13:30 – 13:50	6	C. McCammon	Prospects for detecting carbonates in the mantle from seismic data
13:50 – 14:10	2	M. Koch-Müller	Structural, electronic and thermodynamic properties of carbonates at high pressures and temperatures by <i>in situ</i> spectroscopy and electronic structure calculations – Achievement in the first period
14:10 – 14:30	7	S. Chariton	Crystal Chemistry of carbonates at Extreme Conditions: what we learned so far
14:30 – 14:50	5	T. Schlothauer	Shock-treatment of carbonates – work over the last three years
14:50 – 15:20	coffee break		
15:20 – 15:35	1	M. Stękiel	F-point anomalies in lattice dynamics of carbonates
15:35 – 15:50	1	C.-J. Fruhner	Phase stabilities of carbonates at high pressures and temperatures studied in the LH-DAC by CARS and TRIFS
15:50 – 16:10	3	C. Sternemann	Electronic structure of Fe/Mg carbonates at conditions of the Earth's lower mantle: First steps
16:10 – 16:30	7	I. Koemets	Chemical reactions between carbonates and pyrolite mantle and the origin of ultradeep diamonds
19:00	dinner		

Friday, 16th February 2018, DESY Room 48E

time	project	speaker	title
06:00 – 08:30	breakfast		
09:00 – 09:20	6	C. McCammon	A new frontier: Oxygen fugacity in the diamond anvil cell
09:20 – 09:40	2	S. Jahn	Structural, electronic and thermodynamic properties of carbonates at high pressures and temperatures by <i>in situ</i> spectroscopy and atomic-scale simulations – What will be done experimentally and using computational calculations
09:40 – 10:00	1	L. Bayarjargal	Phase stabilities of carbonates and reaction between carbonates and mantle minerals at high pressures and temperatures studied in the LH-DAC
10:00 – 10:20	9	S. Speziale	Elasticity and structure evolution of carbonates at upper mantle conditions
10:20 – 10:40	coffee break		
10:40 – 11:00	8	H. Reichmann	Phase relations and melting in the system CaCO ₃ –MgCO ₃ at high pressures and temperatures – Overview and first results
11:00 – 11:20	–	T. Schlothauer	Still open questions
11:20 – 11:40	0	B. Winkler	Final remarks
12:15 – 13:15	lunch		
14:00	guided tour around XFEL		
