

**11th International Conference on the Physics and Chemistry of Ice PCI 2006**  
**Bremerhaven, Germany, July, 23rd - 28th, 2006**  
**tentative Scientific Program**

**Sunday, 23rd**

4:00 pm. - 10:00 pm.	Registration	
7:00 pm. - 10:00 pm.	Icebreaker	

**Monday, 24th**

08:15 am. - 09:15 am.	Opening remarks <b>Oral Session</b>	
09:15 am. - 10:00 am.	V. Walker <i>invited speaker</i>	Selection for 'ice resistance', antifreeze proteins and ice or hydrate inhibitor
10:00 am. - 10:25 am.	D. Nutt	Properties of water around antifreeze proteins from atomistic simulations
10:25 am. - 10:50 am.	S. Zepeda	Diffusion, incorporation, and segregation of antifreeze proteins at the ice/solution interface
10:50 am. - 11:20 am.	<i>Coffeebreak</i>	
11:20 am. - 11:45 am.	J. Devlin	Comparative proton activity at the surface and in the interior of ice nanocrystals: Isotopic exchange rates of D2O isolated in H2O ice particles
11:45 am. - 12:10 pm.	B. Geil	On the mechanism of proton transport in hexagonal ice
12:10 pm. - 12:35 pm.	T. Okuchi	Fast molecular transport in hydrogen-filled ices by high-pressure high-resolution diamond anvil cell NMR
12:35 pm. - 1:30 pm.	<i>Lunchbreak</i>	
1:30 pm. - 3:00 pm.	<b>Poster Session I</b>	
3:00 pm. - 3:15 pm.	Organizers announcements <b>Oral Session</b>	
3:15 pm. - 4:00 pm.	F. Dominé <i>invited speaker</i>	Physical and chemical evolution of dry snowpacks during metamorphism
4:00 pm. - 4:30 pm.	<i>Coffeebreak</i>	
4:30 pm. - 4:55 pm.	F. Flin	The temperature gradient metamorphism of snow: Model and validation using X-ray microtomographic images
4:55 pm. - 5:20 pm.	M. Miedaner	Tomographic characterization of soluble and insoluble impurities and their transport in ice
5:20 pm. - 5:45 pm.	B. Chazallon	Vapour deposited H2O-Ethanol and H2O-formaldehyde gas mixtures investigated by micro-Raman scattering and X-ray diffraction
5:45 pm. - 6:10 pm.	Th. Huthwelker	Uptake processes of nitrous oxide on ice studied with radioactively tracers

**Tuesday, 25th**

08:30 am. - 09:05 am.	Opening remarks <b>Oral Session</b>	
09:05 am. - 09:50 am.	V. Buch <i>invited speaker</i>	Basic concepts of defects in ice
09:50 am. - 10:15 am.	Ch. Salzmann	Two new hydrogen ordered phases of ice: ices XIII and XIV
10:15 am. - 10:40 am.	M. Scheuermann	Deuteron spin-lattice relaxation in high density amorphous ices
10:40 am. - 11:05 am.	J. Tse	X-ray absorption spectra and the structure of ordered and disordered high pressure ices
11:05 am. - 11:40 am.	<i>Coffeebreak</i>	
11:40 am. - 12:05 pm.	I. Brovchenko	Four phases of amorphous water: simulations vs experiment
12:05 pm. - 12:30 pm.	J. Loveday	Annealed high density amorphous ice and the two-liquid model of water
12:30 pm. - 12:55 pm.	M. Koza	On the nature of the amorphous polymorphism of water and its apparent multiple phase transitions.

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**Wednesday, 26th**

08:30 am. - 09:05 am.	Opening remarks <b>Oral Session</b>	
09:05 am. - 09:50 am.	V. Sadtchenko <i>invited speaker</i>	Studies of fundamental physical phenomena in polycrystalline ice near its melting point by fast thermal desorption spectroscopy and microcalorimetry
09:50 am. - 10:15 am.	S. Bauerecker	Small and middle-sized water-ice nanoparticles in thermal equilibrium
10:15 am. - 10:40 am.	S. Xantheas	Quantum mechanical calculations of L(H <sub>2</sub> O) <sub>20</sub> clusters (L=H <sub>2</sub> O, CH <sub>4</sub> , CH <sub>3</sub> OH, H <sub>3</sub> O <sup>+</sup> )
10:40 am. - 11:10 am.	<i>Coffeebreak</i>	
11:10 am. - 11:35 am.	S. Jenkins	Topological transitions between ice phases
11:35 am. - 12:00 pm.	S. Singer	New techniques and results for hydrogen bond order/disorder transitions in ice: understanding known phases and predicting new phases
12:00 pm. - 12:25 pm.	H. Reichert	Observation of the local structure of protons in ices and water using Neutron Compton Scattering
12:25 pm. - 2:00 pm.	<i>Lunchbreak</i>	
2:00 pm. - 2:45 pm.	B. L. Trout <i>invited speaker</i>	Molecular simulations of ice and gas-hydrate nucleation
2:45 pm. - 3:10 pm.	H. Richardson	Ice nucleation on alpha-Al <sub>2</sub> O <sub>3</sub> surfaces
3:10 pm. - 3:35 pm.	B. Murray	Laboratory studies of the formation of cubic ice in aqueous droplets
3:35 pm. - 4:00 pm.	Th. Hansen	Modelling ice Ic of different origin and stacking-faulted hexagonal ice using neutron powder diffraction data
4:00 pm. - 4:25 pm.	P. Plummer	First principles computational studies of hydrogen bonds in ice Ih
4:40 pm. - 6:30 pm.	<b>Poster Session II</b>	

**Thursday, 27th**

08:30 am. - 09:05 am.	Opening remarks <b>Oral Session</b>	
09:05 am. - 09:50 am.	J. Ripmeester <i>invited speaker</i>	Improving our understanding of gas hydrate formation processes – the application of molecular-scale techniques
09:50 am. - 10:15 am.	S. Hashimoto	Fundamental studies for a new H <sub>2</sub> separation method using gas hydrates
10:15 am. - 10:40 am.	J. Schicks	Clathrate hydrate formation and growth: new experimental results versus modelled data
10:40 am. - 11:10 am.	<i>Coffeebreak</i>	
11:10 am. - 11:35 am.	P. Devlin	Rates and mechanisms of conversion of ice nanocrystals to ether clathrate hydrates: Guest-molecule catalytic effects at ~120K
11:35 am. - 12:00 pm.	A. Manakov	Clathrate hydrates of argon, methane and acetone synthesized at 0.5-0.8 GPa. Structures, composition, thermal expansion and self-preservation
12:00 pm. - 12:25 pm.	St. Klotz	Metastable ice VII at ambient pressure: New insights from neutron, raman, and DSC measurements
12:25 pm. - 2:00 pm.	<i>Lunchbreak</i>	
2:00 pm. - 2:45 pm.	S. H. Faria <i>invited speaker</i>	Ice microphysics and ice deformation
2:45 pm. - 3:10 pm.	M. Montagnat	Dislocation patterns in deformed ice and rate-controlling processes in the creep of single crystals and polycrystals
3:10 pm. - 3:35 pm.	F. Wilhelms	Physical properties of ice sheets - implications for, and findings from deep ice core drilling
3:35 pm. - 4:00 pm.	<i>Coffeebreak</i>	

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**Friday, 28th**

08:30 am. - 09:05 am.	Opening remarks	
	<b>Oral Session</b>	
09:05 am. - 09:50 am.	V. Petrenko <i>invited speaker</i>	Ice adhesion and friction: Fundamental aspects and applications
09:50 am. - 10:15 am.	A. Thomas	Structure of thin film water and ice on $\alpha$ -Al <sub>2</sub> O <sub>3</sub> (0001)
10:15 am. - 10:40 am.	L. Vrbka	Molecular dynamics simulations of brine rejection from freezing salt solutions
10:40 am. - 11:10 am.	<i>Coffeebreak</i>	
11:10 am. - 11:35 am.	V. Kempter	Segregation of salt ions at ice surfaces (amorphous solid water)
11:35 am. - 12:00 pm.	H. Kang	Proton transfer at the surface of low temperature (90-140 K) ice
12:00 pm. - 12:25 pm.	Th. Orlando	Geometric and electronic structure effects on stimulated reactions on low-temperature ice surfaces
12:25 pm. - 1:30 pm.	<i>Lunchbreak</i>	
1:30 pm. - 3:00 pm.	<b>Poster Session III</b>	
3:00 pm. - 3:15 pm.	Organizers announcements	
	<b>Oral Session</b>	
3:15 pm. - 4:00 pm.	M. Arakawa <i>invited speaker</i>	Extraterrestrial ice with emphasis on aggregation/interaction with organic matter
4:00 pm. - 4:30 pm.	<i>Coffeebreak</i>	
4:30 pm. - 4:55 pm.	H. Reichert	Interfacial melting of ice at SiO <sub>2</sub> interfaces
4:55 pm. - 5:20 pm.	M. Spannuth	X-ray photon correlation spectroscopy study of ice premelting in powders
5:20 pm. - 5:45 pm.	S. Kirby	Experimental geoscience in a freezer: Ice and icy compounds as useful educational analogues for earth and planetary rocks and minerals