

Exotic Forms of Ice: In the Laboratory and Throughout the Universe

Downtown Marriott, Chattanooga
 Room 11

October 13-14, 2019

Sunday, October 13	
8:00-8:45am	Registration and Breakfast
8:45-9:00am	Welcome, Introduction, and Purpose of Meeting
Session 1	Ice in Space and in the Laboratory – Chris Tulk, session chair
9:00-9:40am	Murthy Gudipati – Jet Propulsion Laboratory, Pasadena <i>Amorphous and Crystalline Ice: From Interstellar Medium to an Evolved Solar System</i>
9:40-10:20am	Dominic Fortes – Rutherford Appleton Laboratory – ISIS Facility <i>Isotope effects in recovered high-pressure phases of ice</i>
10:20-10:40am	Coffee Break
Session 2	Ice/Water at Interfaces and in Minerals – Alexander Kolesnikov, session chair
10:40-11:20am	Larry Anovitz - Oak Ridge National Laboratory <i>The Effects of Ultraconfined Environments on the Properties of Water</i>
11:20-12:00pm	Hsiu-Wen Wang – Oak Ridge National Laboratory <i>Structure and Dynamics of the Surface Water on SnO₂ Nanocrystals</i>

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12:00–12:40pm	<p>Tianshu Li – George Washington University</p> <p><i>Anomalous Stability of Interfacial Ice Unveiled by Water Freezing in Confinement</i></p>
12:40-1:40pm	Lunch and Poster Session (Room 2)
Session 3	High Pressure Crystalline Ice and Mixtures – Dennis Klug, session chair
1:40-2:20pm	<p>Malcolm Guthrie – European Spallation Source</p> <p><i>The 'Ultimate' Phase of Ice: Insights and Mysteries After 30 Years of Neutron Diffraction</i></p>
2:20-3:00pm	<p>Carolyn Koh – Colorado School of Mines</p> <p><i>Investigating Gas Hydrate Formation & Metastability</i></p>
3:00-3:40pm	<p>Marius Millot – Lawrence Livermore National Laboratory</p> <p><i>Making superionic ice with shockwaves</i></p>
3:40-4:00pm	Coffee Break
4:00-4:40pm	<p>John Finney – University College London</p> <p><i>Crocheting, Packing and Beating the Bounds: Unfinished Business in Amorphous Ice and the Ice V Lake?</i></p>
4:40-5:20pm	<p>John Loveday – University of Edinburgh</p> <p><i>Neutron Diffraction Studies of Ices and Ice Mixtures at High Pressure</i></p>
6:00pm	Dinner – TBA

Monday, October 14	
8:00-9:00am	Breakfast
Session 4	Amorphous Ice and Supercooled Liquid Forms - Malcolm Guthrie, session chair
9:00-9:40am	Dennis Klug - National Research Council of Canada <i>Low and High Density Amorphous Ices: Their Connection to Liquid Water and Crystalline Forms of Ice</i>
9:40-10:20am	Chris Tulk – Oak Ridge National Laboratory <i>Recent Experiments in Amorphous Ice Research</i>
10:20-11:00am	Christoph Salzmann – University College London <i>A stroll through the phase diagram of ice: hydrogen ordering, hydrogen disordering and pressure-induced amorphization</i>
11:00-11:30am	Coffee Break
11:30-12:10pm	Thomas Loerling - University of Innsbruck <i>Hydrogen order and disorder in amorphous and crystalline ices</i>
12:10-1:10pm	Lunch
1:10-1:50pm	Ivan Popov - Oak Ridge National Laboratory <i>Dielectric Properties of Crystalline and Amorphous Ice in Wide Temperature and Frequency Ranges</i>
Session 5	Theory, modelling, and computation - Christoph Salzmann, session chair
1:50-2:30pm	John Tse - University of Saskatchewan <i>Ice from the bottom up: Structures and structural transformations into the no man's land</i>

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2:30-3:00pm	Coffee Break
3:00-3:40pm	Niall English – University College Dublin <i>Under the Influence: Exotic Ices in Electric Fields</i>
3:40-5:00pm	Summary and Discussion (Christ Tulk, chair)
5:00pm	Adjourn