



IAPWS Symposium
**“Chemistry and Mass Transport for Steam Generation
and Injection Processes”**

Wednesday October 2nd, 2019
Banff Centre for Arts and Creativity
Banff, Alberta, Canada

1.0		Symposium Opening	
9:00 – 9:10	1.1	Introductory Remarks	Jan Hrubý, (Institute of Thermomechanics, Acad. Sci, Czech Rep.) IAPWS President
9:10 – 9:55	1.2	Helmholtz Lecture & Award Presentation: “ Surface Tension of Supercooled Water, Seawater and Aqueous Binaries at Low Temperatures including Metastable Supercooled Region”	Dr. Václav Vinš (Institute of Thermomechanics, Acad. Sci, Czech Rep.)
9:55 – 10:00	1.3	Welcome to IAPWS and the IAPWS Symposium	William Cook (CNC)
2.0		Equations-of State for Water and Aqueous Fluid Mixtures	
10:00 – 10:25	2.1	Progress in Modeling Thermophysical Properties for H ₂ O and D ₂ O	Allan Harvey (NIST)
10:25 – 10:50	Coffee break		
10:50 – 11:15	2.2	Development of Equations of State for Seawater	Rich Pawlowicz (U of BC)
3.0		Oil and Gas (Steam injection, amine-based gas processing, sour-gas fluids)	
11:15 – 11:40	3.1	Water issues / solutions in O&G – OTSG R&D Overview in Alberta	Basil Perdicakis (Suncor) Sean Sanders (U of Alberta)
11:40 – 12:05	3.2	Water content of sour gases	Rob Marriott (U of Calgary)
12:05 – 12:30	3.3	SMRs for oil extraction processes	Craig Stuart (Canadian Nuclear Laboratories)
12:30 – 13:30	Lunch		

4.0	Modelling hydrothermal fluids for nuclear, thermal and oil & gas applications		
13:30 – 13:55	4.1	Modeling phase and chemical equilibria for carbon capture, transportation and storage	Andre Anderko (OLI Systems Inc.)
13:55 – 14:20	4.2	Speciation of Boric Acid, Borate and Polyborates under PWR Primary Coolant Conditions by AC Conductivity and Raman Spectroscopy: Implications for Modelling Coolant Chemistry and Boron Hideout	Peter Tremaine (U of Guelph)
14:20 – 14:45	4.3	Case Study - OLI Warm Lime Softening Lime and Magox Silicate Reactions Modelling	Subodh Peramanu (CNRL)
14:45 – 15:00	Coffee break		
5.0	Film Forming Substances for Power Cycle Applications		
15:00 – 15:25	5.1	Assessment of FFS technology	Stephen Shulder (EPRI)
15:25 – 15:50	5.2	FFS application for nuclear systems	Jörg Fandrich (Framatome)
15:50– 16:15	5.3	FFS for steam cycle applications	Ivan Morales (Integrated Sustainability)
16:15 – 16:30	5.4	Symposium Closing Discussion	All
Close of IAPWS Symposium			