

PetroPhase 2018

The 19th Annual Conference on Petroleum Phase Behavior
and Fouling

The Chateaux, Deer Valley, UT, USA
July 8-12, 2018



Schedule as of May 9th, 2018 – Book of Abstracts to Follow

Sunday, July 8th

12:00		<i>Registration Opens</i>
17:00		<i>Opening Remarks</i>
17:10		<i>Poster Session I (Odd numbered)</i>

Monday, July 9th

Petroleum Properties I

8:20	PP-K	Insights on the Bulk and Confined Phase Behavior of Crudes from Coarse-Grained Molecular Dynamics Simulations <u>Erich A. Müller</u> , <i>Imperial College London</i>
9:00	PP-01	Selection of Effective Asphaltene Solvent using Molecular Dynamics Simulations <u>Yuki Hidaka</u> , <i>Kyoto University</i>
9:22	PP-02	Application of Digital Oil to Solvent-Based Enhanced Oil Recovery for Heavy Crude Oil <u>Motoaki Iwase</u> , <i>University of Tokyo</i>
9:44	PP-03	Liquid-Phase Neutron Diffraction Study of The Structure of Solvated Asphaltenes: From Molecular to the Cluster Length Scales <u>Michael P. Hoepfner</u> , <i>University of Utah</i>
10:06		<i>Break</i>

Petroleum Properties II

10:30	PP-04	Fast Flow Curve Determination at High Shear Rates by FluidicamRHEO Microfluidic Rheometer <u>Matt Vanden Eynden</u> , <i>Formulation</i>
10:52	PP-05	Enhanced Solvent-Based Organic Deposit Remediation <u>Kamran Akbarzadeh</u> , <i>Shell International Exploration & Production</i>
11:14	PP-06	Inhibition of Asphaltene Deposition by a Surfactant on Carbon Steel: In Situ Monitoring by QCMD <u>Gijo Raj</u> , <i>New York University Abu Dhabi</i>
11:36	PP-07	Progress of Molecular Simulation Efficiency for the Prediction of Petroleum Fraction Thermophysical Properties <u>M. Yiannourakou</u> , <i>Materials Design</i>
12:00		<i>Lunch</i>

Shale Oil & Gas

13:15	S-K	The Chemical and Microstructural Composition of Kerogen <u>Andrew E. Pomerantz</u> , <i>Schlumberger-Doll Research</i>
13:55	S-01	A Study for Using CO ₂ to Enhance Natural Gas Recovery from Tight Reservoirs <u>Jinsheng Wang</u> , <i>CanmetENERGY</i>
14:17	S-02	Microprobe XANES Studies of Sulfur Chemistry of Different Shales <u>Sudipa Mitra-Kirtley</u> , <i>Rose-Hulman Institute of Technology</i>
14:39		<i>Break</i>

Petroleum Chemistry I

15:10	PC-01	Studies of Pipeline Wax Deposits from the Trans Alaska Pipeline System <u>R. Roehner</u> , <i>RCS</i>
15:32	PC-02	Deposit Behavior of Asphaltenes Fractions under Microfluidic System <u>Andrew Yen</u> , <i>Nalco Champion</i>

15:54	PC-03	Asphaltene Adsorption on Graphene <u>Estrella Rogel</u> , <i>Chevron Energy Technology Company</i>
16:16	PC-04	Molecular Dynamics Investigations of the Pyrolysis and Combustion of Organic Ring Molecules <u>Cuiying Jian</u> , <i>Massachusetts Institute of Technology</i>
16:38	PC-05	Comprehensive Mass Spectrometric Evolved Gas Analysis (EGA) in the Context of Petroleomics <u>Ralf Zimmermann</u> , <i>University of Rostock</i>

Tuesday, July 10th

Petroleum Chemistry II

8:20	PC-K	A Brief History of Asphaltenes <u>Michael Moir</u> , <i>Chevron Energy Technology Company</i>
9:00	PC-06	Advances in Asphaltene Petroleomics: Overcoming Limitations in Selective Ionization to Reveal the Structural Continuum of Island and Archipelago Motifs <u>Steven M. Rowland</u> , <i>National High Magnetic Field Laboratory</i>
9:22	PC-07	Revealing the Molecular Structure of Petroleum Asphaltenes with Non-contact AFM at the Atomic Level <u>Yunlong Zhang</u> , <i>ExxonMobil Research and Engineering Co.</i>
9:44	PC-08	Investigation of the Mechanisms of Asphaltene Precipitation and Inhibition Using Ultra Small-Angle Scattering (USAXS) <u>Yuan Yang</u> , <i>University of Utah</i>
10:06		<i>Break</i>

Petroleum Chemistry III

10:30	PC-09	Nano-scale Investigation of Asphaltene Aggregation and Interaction with Surfaces <u>Gina Javanbakht</u> , <i>University of Wyoming</i>
10:52	PC-10	Interfacial Activity of Characterized Middle Eastern Asphaltenes <u>Bastian Sauerer</u> , <i>Schlumberger Dhahran Carbonate Research Center</i>
11:14	PC-11	Oil/Water Partitioning of Two Naphthenic Acid Mixtures <u>Are Bertheussen</u> , <i>Norwegian University of Science and Technology (NTNU)</i>

11:36	PC-12	Comprehensive Gas Chromatography and Thermoanalytical techniques coupled to High Resolution Mass Spectrometry for in-depth Analysis of Crude Oils and Bitumen <u>Ralf Zimmermann</u> , <i>University of Rostock</i>
12:00		<i>Lunch</i>
13:15		<i>Poster Session II (Even numbered)</i>

Wednesday, July 11th

Emulsions I

8:20	E-K	Interaction Mechanisms of Water-in-Oil and Oil-in-Water Emulsions in Oil Production <u>Hongbo Zeng</u> , <i>University of Alberta</i>
9:00	E-01	The Correlation Between Interfacial Elasticity and Droplet Coalescence by the Addition of Demulsifiers to Water-in-Crude Oil Emulsions <u>Craig Davies</u> , <i>Energy Technologies, Croda</i>
9:22	E-02	The Effects of Petroporphyrin Structure and Identity on Interfacial Tension and Elasticity of Asphaltene Stabilized interfaces <u>Peter K. Kilpatrick</u> , <i>University of Notre Dame</i>
9:44	E-03	The Interfacial Tension of the Water-Bitumen Interface at Short Time Scales <u>Sachin Goel</u> , <i>University of Toronto</i>
10:06		<i>Break</i>

Emulsions II

10:30	E-04	Dynamics of interfacial tension in acidic oil model systems: Pendant drops of oil-in-water versus water-in-oil <u>Simon Ivar Andersen</u> , <i>Danish Hydrocarbon Research Centre</i>
10:52	E-05	Interactions and Identification of Surface Active Material at the Asphaltene/Oil Interface and their Influence on both Asphaltene Solubility and Emulsion Stability <u>Shane Morrissy</u> , <i>University of Western Australia</i>
11:14	E-06	Increasing the Chemical Recovery of Light Crude from Carbonates Using Chemical Pre-Flush Followed by Dilute Micellar Solutions <u>Franklin Salazar</u> , <i>University of Los Andes</i>

11:36	E-07	Foams at Elevated Pressures In EOR – An Innovative Method to Analyze Foam Stability and Foam Structure <u>P. Jaeger</u> , Eurotechnica GmbH
12:00		Lunch

Flow Assurance I

13:15	FA-01	Investigation of Potential Asphaltene Deposition in a Gas Injection Project in Deepwater Gulf of Mexico <u>Francisco “Paco” Vargas</u> , Rice University
13:37	FA-02	Enhanced Evaluation of Asphaltene-related Oil Properties to Facilitate Production in Complex Offshore Environment <u>Karsten Karl Krueckert</u> , Wintershall Noordzee
13:59	FA-03	Prediction of Asphaltene Deposition Conditions: A Revisit of ASIST Methodology by Using Fully Immersed Quartz Crystal Sensor <u>Mohamed Saidoun</u> , L'Université de Pau
14:21	FA-04	Effect of Carbon Steel Corrosion on Asphaltene Deposition <u>Mohammad Tavakkoli</u> , ENNOVA LLC
14:43		Break

Upgrading & Fouling

15:10	UF-01	Dual Column On-line Liquid Chromatography Coupled to Ultrahigh Resolution 21 T FT-ICR Mass Spectrometry for the Determination of Molecular-Level Changes in Bitumen Upgrading. <u>Ryan P. Rodgers</u> , National High Magnetic Field Laboratory
15:32	UF-02	Deep Conversion of Vacuum Residue While Limiting Sediment Formation: A Comprehensive Experimental Study <u>M. Dreillard</u> , IFP Energies nouvelles
15:54	UF-03	Effect of Blending on the Fouling Characteristics of Bakken Tight Oil <u>Amaka Waturuocha</u> , University of Tulsa
16:16	UF-04	Destabilized Asphaltenes in Contaminated Crudes Impact Crude Unit Fouling <u>David A. Henning</u> , Phillips 66
16:38	UF-05	Asphaltene Behavior During Partial Upgrading of Bitumen <u>Murray R. Gray</u> , Alberta Innovates

17:00		<i>Break</i>
18:15		<i>Depart for Gala Dinner (by bus)</i>
19:00		<i>Gala Dinner, Red Pine Lodge (Note: Venue is mid-mountain and requires travel by Gondola with potentially uneven/natural surfaces)</i>

Thursday, July 12th

Flow Assurance II

8:20	FA-K	Wax Issues in the Production Environment: A Review of Methods, Management, and Models <u>Scott R. Hickman</u> , <i>ExxonMobil Upstream Research</i>
9:00	FA-05	Experimental and Modeling Study of Gas-Oil Stratified Flow Wax Deposition <u>Yuandao Chi</u> , <i>University of Tulsa</i>
9:22	FA-06	A New Modeling Approach for Investigating Wax Deposition in a Pilot Scale Flow Loop <u>Sheng Zheng</u> , <i>SUEZ Water Technologies and Solutions</i>
9:44	FA-07	Hydrate Blockage Risk in Under-Inhibited Systems <u>Temiloluwa O. Kuteyi</u> , <i>University of Western Australia</i>
10:06		<i>PetroPhase 2019 Announcement</i>
10:15		<i>Break</i>

Flow Assurance III

10:30	FA-08	Oilfield Paraffin Management: Novel Test Method Developments for the Design of Continuous and Remediation Chemical Treatments <u>Christopher Russell</u> , <i>Nalco Champion</i>
10:52	FA-09	Use of a Thixotropic Rheology Model to Predict the Transient Pipe Flow Behavior of Model Waxy Crude Oil Suspensions <u>Yichen Wang</u> , <i>University of Utah</i>

11:14	FA-10	Mechanisms of Wax Deposition on Cold Surfaces <u>Luqman Hakim Ahmad Mahir</u> , <i>University of Michigan</i>
11:36	FA-11	An Interconnected Flow Assurance Challenge: Effect of Waxes and Respective Chemistries on Asphaltene Aggregation and Deposition Phenomena <u>Edris Joonaki</u> , <i>Heriot-Watt University</i>
12:00		<i>Lunch & Departure</i>