



TECHNICAL PROGRAM FOR ISMOS-4

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SUNDAY AUGUST 25

Welcome

Keynote

Dave Valentine (UCSB, USA)
Hydrocarbon chemistry modulated the microbial response to Deepwater Horizon

Session 01 Deepwater Horizon
Janet Jansson (Lawrence Berkeley National Laboratory, USA).
Omics of the Deepwater Horizon oil spill

Gary Andersen (Lawrence Berkeley National Lab., USA)
Evolution of Hydrocarbon-Degrading Microbial Communities
in the Aftermath of the Deepwater Horizon Oil Spill in the Gulf of Mexico

End of session

Opening Ceremony

MONDAY AUGUST 26

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| Session 02a MIC, biocorrosion, souring, monitoring & treatment |
| Paul Evans (Chevron, UK) Reservoir Souring Challenges and Solutions from the Operators Perspective |
| Christopher Hubbard (Lawrence Berkeley National Lab.USA) Using Stable Isotopes to Monitor Reservoir Microbial Souring Processes |
| Jaime Ambrus (ESSS, Brazil) Simulation of Reservoir Souring Considering Multiple Carbon Sources and Environmental Aspects |
| Andy Price (Oil Plus Ltd UK) Pipeline Integrity Monitoring Programs for Monitoring MIC using Molecular Microbiological Methods |
| Coffee Break & posters |
| Session 02b contd MIC, biocorrosion, souring, monitoring & treatment |
| Bart Lomans, (Shell, Holland) Potentials of Chlorate Reduction for Souring Mitigation |
| Renxing Liang (University of Oklahoma, USA) Role of Thiosulfate-Reducing Bacteria and Methanogenic Archaea in the Biocorroion of Oil Pipelines |
| Michael Scheck (Shell Canada Ltd, Canada) Bacteria control in Unconventional Gas developments |
| Lunch/posters |
| Session 03a MMM |
| Anna Lewin (NTNU, Norway) Comparative metagenomics of deeply buried oil reservoirs suggests very slow rates of evolution in the deep biosphere |
| Bruce Fouke (University of Illinois, USA) Halomonas sulfidaeris-dominated Microbial Communities Inhabit 1.8 km-deep Subsurface Cambrian Sandstone Reservoirs |
| Timothy Tidwell (Champion Technologies Inc., USA) Evaluation of Flow Cytometry as a Tool for Biocide Efficacy Testing and Monitoring as Compared to Classical Culturing Methods and ATP Photometry |

Session 03b MMM contd

Jan Sunner (Oklahoma University, USA)

Advanced Mass Spectrometric Approaches to and Metabolomics
Characterization of Oil-Field Samples with Emphasis on
Biocorrosion Monitoring and Diagnostics

Nicolas Tsesmetzis (Shell)

MIMESH, Metagenomics Standards for the Cataloguing
and Analysis of Hydrocarbon Environments

Jane Fowler (University of Calgary, Canada)

Metagenomics of a methanogenic toluene degrading enrichment culture

Sandra Wilson (University of Calgary, Canada)

In Search Of An Oil Sands Tailings Pond Core Microbiome

End of session

TUESDAY AUGUST 27

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| Session 04a Hydrocarbon biodegradation |
| Xiaojun Zhang (Shanghai Jiao Tong University, China) Enrichment of crude oil degrading microbial consortia and the production of 25-norhopane by microbial metabolism. |
| Irene Davidova (Oklahoma University, USA) A Methanogenic Consortium Capable of Large Molecular Weight Paraffin Biodegradation |
| L. Cheng (Key Laboratory of Development and Application of Rural Renewable Energy, China) Methanogenic degradation of crude oil alkanes under different temperature conditions |
| Ben Folwell (Essex University, UK) Are Diamonds Forever? Biodegradation Of Diamondoid Naphthenic Acids By Microbial Consortia |
| Coffee Break & posters |
| Session 04b contd Hydrocarbon biodegradation |
| Rainer Meckenstock (Helmholtz Zentrum, Germany) Anaerobic degradation of polycyclic aromatic hydrocarbons in oil |
| Luiza Andrade (Newcastle University, UK) Sulphate-Dependent Anaerobic Hydrocarbon Degradation In Estuarine Sediments |
| Ian Head (Newcastle University) The paradox of "aerobic" bacteria in the petroleum reservoir microbiome |
| Lunch/posters |
| Session 05a Prospects for MEOR/ Biodesulfurization/ biofuels |
| Kate Boccadoro (International Research Institute of Stavanger) MSP microorganisms in Oil Reservoirs: Microbial Selective Plugging Technology for Enhanced Oil Recovery. |
| Chris Hubbard (Lawrence Berkeley National Lab., USA) Mechanistic Modeling and Advanced Monitoring of Microbially Enhanced Oil Recovery and Souring Processes |
| Jian-Jun Le (PetroChina) Progress in pilot tests of microbial enhanced oil recovery in Daqing oilfield |
| End of session |

WEDNESDAY AUGUST 28

Session 05b contd Prospects for MEOR/ Biodesulfurization/biofuels

Bozhong Mu (E. China University, China)
Approaches for the Detection of Signature Metabolites and
Functional Microorganisms Implicated in the Anaerobic

Haruo Maeda (INPEX CORPORATION, Japan)
Subsurface Bio-Electrochemical Conversion of Carbon Dioxide
into Methane by using Indigenous Microorganisms

Jin-Feng Liu (E.China University of Science & Technol, China)
Comparative analysis of microbial communities in water samples from
oil fields ever subjected to CO₂-flooding and thoroughly
water-flooding using 16S rRNA gene

Jeppe Jensen (DTI, Denmark)
Sequencing as a Diagnostic Tool in Microbiological Enhanced
Oil Recovery (MEOR) and Characterization of
Bacterial Communities in Oil fields

Coffee Break & posters

Session 06 Microbes in Extreme Operating Conditions

Michail Yakimov (IAMC-CNR, Italy)
Calm and Frenzy, Feast and Famine of Marine PAH-Degrader

Raeid Abed (Sultan Qaboos University, Oman)
Bioremediation of oil-polluted sites under extreme environmental
conditions: a case study from the Sultanate of Oman

Pamela Souza (Labio/INT, Brazil)
Study of microbial diversity in hyper saline environment

Lunch/posters

Casey Hubert (Newcastle University, UK) (offered paper 3)
Extreme heat resistance of spore-forming
thermophilic sulfate-reducing bacteria in cold sediments

Martin Liebensteiner (Wageningen University, Holland)
Biological (Per)chlorate Reduction In Oil Reservoirs

Julia De Rezende (Newcastle University)
Monitoring of Germination, Growth and Sporulation
of Physiologically Diverse Thermophilic Bacterial
Populations from a Cold Marine Sediment

Coffee/Poster Session

Close of ISMOS-4
See you at ISMOS-5