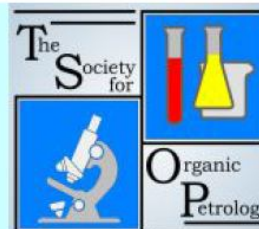




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Program Schedule for TSOP Halifax 2011

All events (except TSOP Council meetings) will be take place in the
World Trade and Convention Centre
1725 Market Street, Halifax, Nova Scotia

Technical & Program Committee Members

Chair

Dr. Prasanta K. Mukhopadhyay (Muki)
Global Geoenergy Research Ltd.
Halifax, NS, Canada
(902) 401-0061; muki@global-geoenergy.com

Co-chairs

Michael P. Avery
GSC Atlantic, Dartmouth, NS, Canada
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David E. Brown
CNSOPB, Halifax, NS, Canada
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Field Trip Leaders

Steven Hinds
NBDNR, Fredericton, NB, Canada
Steven.Hinds@gnb.ca

Dr. David Keighley
UNB, Fredericton, NB, Canada
keig@unb.ca

Registration

Nelly Koziel
GSC, Atlantic, Dartmouth, NS, Canada
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General Registration

3rd Floor (near top of escalator)

Sunday, July 31st, 2 - 7 pm; **Monday**, Aug 1st, 7:30 – noon; **Tuesday**, Aug 2nd, 8 – noon

Saturday, July 30, 2011

TSOP Council Outgoing Council Meeting: 5 -8 pm
Prince George boardroom (directions available at front desk)

Sunday, July 31, 2011

Short course: 8:30 – 5 pm, Room 301

Topic:

**Geochemistry, Maturation, and Petroleum System Modelling Related to Shale Gas
Resource Evaluation**

Topic	Instructor	Affiliation
Shale Gas Geochemistry	Dan Jarvie	Worldwide Geochemistry, Humble, Texas
Shale Gas Modelling	Thomas Hantschel and Bjorn Wygrala	Schlumberger Inc, Aachen, Germany

Coffee Breaks: Fifteen minute at 10 am and 3 pm

TSOP Lunch (for the participants and the instructors): 12 - 1:00 pm

Speaker Ready Room

3rd Floor, Room 307 (on your left at top of escalator)
Sunday, July 31st, 2 - 7 pm
Monday, August 1st, 7:30 – noon

Icebreaker: Sunday, July 31st, 7 – 10 pm

3rd Floor, Atrium (turn to your left at top of escalator)

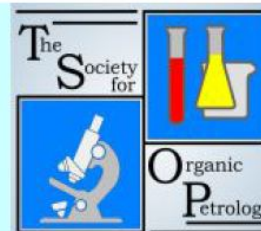
All are welcome to our special opening event (Spouses/partners must have separate ticket)



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Schedule of Oral Presentations

Monday, August 1, 2011

Morning **Session 1: 8:15 - 12:00, Room 301**

Petroleum Systems of the Unconventional Resources (Shale Oil and Shale Gas, Coalbed Methane, Gas Hydrate, and Hydrogen)

Session Chairs: **P.K. Mukhopadhyay (Muki)** and **Dan Jarvie**

- 8:15 Opening Introduction – **Prasanta Mukhopadhyay (Muki)** (Global Geoenergy Research Limited, Halifax, NS, Canada)
- 8:25 Opening Keynote Talk – **'Skip' G. Warfield Hobbs** (American Geological Institute, Washington, DC, USA): *Future of the Global Oil Industry: the resources and challenges*
- 9:05 Keynote Talk – **Dan Jarvie** (Energy Institute at Texas Christian University, Fort Worth, TX, USA): *Evolutionary Understanding of Shale Resource Systems*
- 9:45 Keynote Talk – **Bjorn Wygrala** (Schlumberger Aachen Technology Center, Aachen, Germany) and Thomas Hantschel: *Modeling of Unconventional Petroleum Systems: current and future developments and applications*
- 10:15 Keynote Talk – **David Mosher** (Geological Survey of Canada, Dartmouth, NS, Canada): *Gas Hydrate Resources on Canada's East Coast: fact or fiction*
- 10:45 Special Presentation – **Quinn R. Passey** (ExxonMobil Upstream Research Co., Houston, TX, USA) K.M. Bohacs, W.L. Esch, R.E. Klimentidis, and S. Sinha: *My Source Rock is now my Reservoir: geologic and petrophysical characterization of shale-gas reservoirs*
- 11:15 **Tom Bowman** (Za Za Energy, Houston, TX, USA): *Cretaceous Eagle Ford Shale: lessons learned for future shale plays*
- 11:40 **Questions and Answers**
- 12:00-2:00 **TSOP Annual General Meeting and Lunch**, Rooms 302 & 303
(This lunch is included in your registration fee and all are strongly encouraged to attend.)

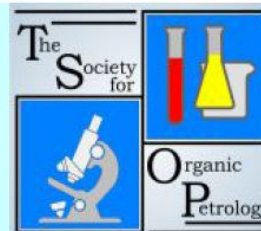
Note: Due to time constraints there will be no scheduled Coffee Break during the sessions but coffee/tea and snacks will be available anytime at the back of the room.



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Monday, August 1, 2011

Afternoon **Session 2: 2:00 – 5:35, Room 301**

Petroleum Systems of the Unconventional Resources (Shale Oil and Shale Gas, Coalbed Methane, Gas Hydrate, and Hydrogen)

Session Chairs: **Nicki Atkinson** and **Bjorn Wygrala**

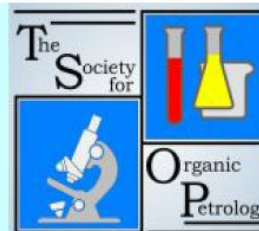
- 2:00 **Brian Cardott** (Oklahoma Geological Survey, Norman, OK, USA): *Application of organic petrology to shale oil and gas potential of the Woodford Shale*
- 2:25 **Thomas Gentzis** (Core Laboratories, Houston, TX, USA): *Characteristics and production potential of the Barnett Shale in the oil window of the Fort Worth Basin*
- 2:50 **Maria Mastalerz** (Indiana University, Bloomington, IN, USA) and Arndt Schimmelmann: *Microbial gas in the Illinois Basin: Pennsylvanian coals versus Devonian/Mississippian shales*
- 3:15 **Robert Milici** (U.S. Geological Survey, Reston, VA, USA): *Assessment of the Devonian gas shales of the Appalachian Basins: a critique*
- 3:40 **Tom Martel** (Corridor Resources Inc., Halifax, NS, Canada): *Large scale mineralogical and organic changes within the lacustrine Frederic Brook Shale of the New Brunswick Moncton Basin*
- 4:05 **Jim C. Pol** (Southwestern Energy, Houston, TX, USA) A.H. Silliman, R. Sassen, C.X. Allison, and **N.J. Atkinson**: *Geochemical assessment of the resource potential of the Albert Formation (Frederic Brook Shale Member), Maritimes Basin, New Brunswick, Canada*
- 4:30 **Peter Hill** (Triangle Petroleum Corporation, Denver, CO, USA): *A review of the resource potential of the Maritimes Horton Bluff Group within the Windsor Sub-Basin and the challenges facing commercial production*
- 4:55 **Lila W. Gurba** (University of New South Wales, Sydney, Australia): *Potential Risks and Challenges to Shale Gas Explores in the Sydney-Gunnedah Basin, New South Wales, Australia*
- 5:20 **Questions and Answers**
- 5:45 **Group Photo** (Details TBA)
- 6:00-8:00 **TSOP incoming Council Meeting**, Prince George boardroom (directions available at front desk)
- No scheduled TSOP programs for the evening**



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Tuesday, August 2, 2011

Morning **Session 3a** (Parallel): 8:30 - 12:00, Room 301

Petroleum Systems of the Unconventional Resources (Shale Oil and Shale Gas, Coalbed Methane, Gas Hydrate, and Hydrogen)

Session Chairs: **Dave Brown** and **Tom Gentzis**

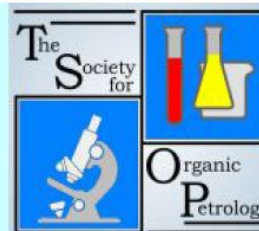
- 8:30 Opening Keynote Talk – **John B. Curtis** (Colorado School of Mines, Golden, CO, USA): *North American Shale Gas Resources, Reserves, and Production: a geological and geochemical perspective*
- 9:05 **Ahmed Chaouche** (Anadarko Petroleum Corporation, Houston, TX, USA) *Paradox of low CO₂ Production in Shale Gas Plays*
- 9:30 **Bernd Krooss** (RWTH Aachen University, Germany) A. Amann-Hildenbrand, M. Gasparik, Y. Gensterblum, A. Ghanizadeh, and P. Weniger: *Transport Processes in Coals and Gas Shales: an experimental perspective*
- 9:55 **Gareth Chalmers** (University of British Columbia, Vancouver, BC, Canada) R.M. Bustin, and A.M.M. Bustin: *Lithological controls on hydrocarbon saturation, total porosity, pore size distribution, and matrix permeability of Devonian strata of the Horn River Basin*
- 10:20 **Mark E. Curtis** (University of Oklahoma, Norman, OK, USA): R.J. Ambrose, C.H. Sondergeld, and C.S. Rai: *Investigating the Structure of Gas Shales on the Nanoscale by FIB/SEM Tomography and STEM Imaging*
- 10:45 **Thomas Gentzis** (Core Laboratories, Houston, TX, USA): *A Review of CBM production data from the Horseshoe Canyon coals in the Alberta Plains, with an emphasis on their productibility in the vicinity of the Ermineskin First Nations acreage*
- 11:10 Special Presentation – **Roger Sassen** (Texas A & M University, Texas, TX, USA): *Seafloor gas vents, gas hydrate, chemosynthetic communities, oil mats, and oil slicks: consequences of poorly-sealed petroleum system in the northern Gulf of Mexico Slope*
- 11:40 Special Presentation – **Arndt Schimmelmann** (Indiana University, Bloomington, IN, USA) and M. Mastalerz: *Hydrogen Fuel: technical opportunities and challenges*
- 12:10 **Question and Answers**
- 12:30-2:00 **Lunch with Poster viewing**



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Tuesday, August 2, 2011

Morning **Session 3b** (Parallel): 8:30 - 12:00, Room 302

CO₂ Sequestration and Environmental Research on Coal and Petroleum Use

Session Chairs: **Hamed Sanei** and **Michael Kruge**

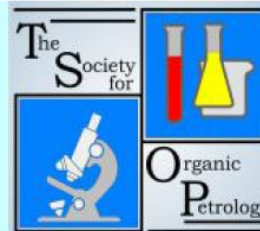
- 8:30 Keynote Talk - **William (Bill) D. Gunter** (G BACH Enterprises Inc. Edmonton, AB, Can): *CO₂ Carbon Capture and Storage in the 21st Century: Pore Space to Commerciality - An Alberta Perspective*
- 9:05 Keynote Talk - **Robert Milici** (U.S. Geological Survey, Reston, VA, USA): *Forecasting U.S. peak coal production: the need for probabilistic assessments of U.S. coal Reserves*
- 9:40 Keynote Talk - **Michael Kruge** (Montclair State University, Montclair, NJ, USA): *Oil Pollution in Coastal Waters*
- 10:15 Special Presentation - **Margo Corum** (U.S. Geological Survey, Reston VA, USA) Kevin B. Jones, and Peter D. Warwick: *State of Knowledge Regarding CO₂ Sequestration Potential of Unmineable Coal*
- 10:45 **Sharon M. Swanson** (U.S. Geological Survey, Reston VA, USA), Mark A. Engle, Leslie F. Ruppert, Kevin B. Jones, and Ronald H. Affolter: *Characterization of Coal Combustion Products from Power Plants Burning High- and Low-Sulfur Coals in the United States*
- 11:15 Alexandra Golab, **Colin Ward** (University of New South Wales, Sydney, Australia), Asep Permana and Paul Lennox: *High-resolution three-dimensional imaging of coal samples using microfocus X-ray computed tomography, with special reference to modes of mineral occurrence*
- 11:45 **David Fanning** (Carbon Capture and Storage Research Consortium of Nova Scotia): *The Technical and Economic Feasibility of Geological Sequestration of CO₂ in Nova Scotia*
- 12:15 **Questions and Answers**
- 12:30-2:00 **Lunch with Poster viewing**



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Tuesday, August 2, 2011

Afternoon **Session 4a** (Parallel): 2:00 – 4:50, Room 301

Petroleum Systems of the Unconventional (Shale Oil and Shale Gas, Gas Hydrate, and Hydrogen)/Conventional Resources

Session Chairs: **Tom Martel** and **Brian Cardott**

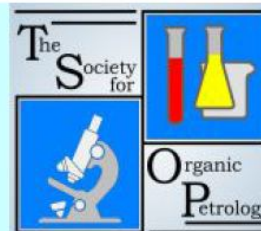
- 2:00 **Wolfgang Kalkreuth** (Instituto de Geociências, UFRGS, Porto Alegre, RS, Brazil), M. Holz, J. Levandowski, P. Weniger, and B. Krooss: *CBM and Shale Gas Potential in Brazil: example from the Santa Terezinha Coalfield, Rio Grande do Sul*
- 2:25 Mao Jingdong and **J.E. Birdwell** (USGS, Denver, CO, USA), Xiaoyan Cao, M. Chappell, and Yuan Li: *Characterization of oil shale, isolated kerogen, and post-pyrolysis residues using advanced ¹³C solid-state nuclear magnetic resonance*
- 2:50 **Jinxing Dai** (PetroChina, Beijing, China), Yunyan Ni, Xiaoqi Wu, Shipeng Huang, and Fengrong Liao: *Stable Carbon Isotopes of Coal-derived Alkane Gases in China*
- 3:15 **Dave Keighley** (University of New Brunswick, Fredericton, NB, Canada): *Early diagenetic controls on the inorganic composition of shale and oil shale from the upper Green River Fm. (Mahogany Oil Shale Zone — Uinta Fm. boundary), Uinta Basin, Utah, USA*
- 3:40 **Roger Sassen** (Texas A & M University, TX, USA): *Fingerprinting of the comparison of oil shows at Birdfoot Delta and oil spill of recent BP MC 252 well at the Louisiana Coast, GOM*
- 4:05 **Prasanta Mukhopadhyay (Muki)**: (Global Geenergy Research Ltd, Halifax, NS Canada): *Unconventional (Shale Oil or Gas) Petroleum Systems of the Eastern Canadian Paleozoic Sedimentary Basins: Organic facies and Related Organic Pores, Organic-Mineral Network, and Maturation (unconventional)*
- 4:30 **Questions and Answers**
- 5:00 **Closing and Award ceremonies** (See next page)



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Tuesday, August 2, 2011
Afternoon **Session 4b** (Parallel): 2:00 - 5:00, Room 302

CO₂ Sequestration and Environmental Research on Coal and Petroleum Use

Session Chairs: **John Calder** and **Sharon Swanson**

- 2:00 **Carrie Jesse** (University of Manitoba, Winnipeg, Canada), Hamed Sanei, Gary Stern: **Standardisation of Rock-Eval Analyses for the Analysis of Recent Sediments and Soils**
- 2:30 **Harvey E. Belkin** (U.S.Geological Survey, Reston, VA, USA) and Susan J. Tewalt: **Bromine in United States coals**
- 3:00 Ashwini K. Srivastava. and **Deepa Agnihotri**, (Birbal Sahni Institute of Palaeobotany, Lucknow, India): **Coal seam correlation of Indian Gondwana coalfield: a palaeobotanical perspective**
- 3:30 **Please join the remainder of parallel session still in progress in Room 301.**

Closing and Award Ceremonies

5:00 **Everyone** attending TSOP Halifax 2011 is requested to join us for this special event.

Presentations by TSOP President and Council members will be made for **Best Student Oral & Poster Presentations** and **Longest Distance Traveled**



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Banquet

A special evening with guest speaker Dr. Richard Hoover

Astrobiologist, NASA / Marshall Space Flight Center, Huntsville, Alabama, USA

World Trade and Convention Centre
Main Ball Room 200C, 2nd Floor (Near base of escalator)

Tuesday, August 2nd, 2011

Schedule: 6:30 – 10 pm

Cash bar for networking and drinks opens at 6:30

Main Lobster supper begins at 7:15

Music: 8 – 8:30

Mandolin / Singing with Dr. Michael Kruge
Guitar / Piano recital by Brian Cardott

8:30

Main presentation by Dr. Richard Hoover
“Life in the Cosmos”

Questions and discussions closing by 10 pm



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Field Trip

Wednesday, August 3rd & Thursday, August 4th, 2011

New Brunswick, Shale Gas sites and Joggins World Heritage Bay of Fundy site

Leaders

New Brunswick: **Steven Hinds** and **Dr. Dave Keighley**

Nova Scotia: **Dr. John Calder** and **Matt Stimson**

Wednesday, August 3rd

Departure: Bus will leave from Prince George at 8 am sharp. Please be ready to start boarding the bus at 7:50 by having an early breakfast, all your bags with you and being checked out of your hotel room.

Bus will mainly travel along highways 102 & 104 to Joggins World Heritage fossil cliffs site, Nova Scotia (approx 2 ½ hrs).

Bay of Fundy fossil cliff sections: 10:30 – noon

Lunch: noon - 12:45 pm

Visit To Fossil Museum: 12:45 - 1:30 pm

Leave Joggins between 1:30 - 1:45 pm

Arrive: Albertite Mines, New Brunswick: 3: 30 p.m.

Albertite Mines stop: 3:30 - 5:30 pm

Supper in nearby Hillsborough Restaurant: 6 pm

Travel to Best Western Hotel, Moncton: 7:30 - 8 p.m.

Thursday, August 4th

Depart: Best Western Hotel, Moncton (with luggage): 8 am

Outcrop sections: 9 - noon

Lunch: noon - 1 pm

Outcrop sections: 1 - 4:00 pm

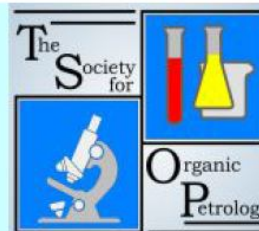
Return to Halifax International Airport/downtown Halifax: between 6 - 7 pm



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Poster Presentations

Monday, August 1st (9 am - 5 pm) and **Tuesday, August 2nd** (9 am - 5 pm)

Rooms 304, 305 and 306

Main Viewing and Discussions: Tuesday, August 2nd, 1 - 2 pm

1. **Amann-Hildenbrand, Alexandra** (RWTH Aachen University, Germany), Andreas Busch, Pieter Bertier, Ines Rick, Philipp Weniger, Bernhard M. Krooss: *Transport and Sealing Properties of Clay-rich Lithotypes Exposed to CO₂*
2. **Drobnik, Agnieszka** (Indiana Geological Survey, Bloomington, IN, USA) and Maria Mastalerz : *Gallium and Germanium in Indiana Coals*
3. **Freeman, Melissa** (University of Calgary, Alberta), Chris Clarkson, Hamed Sanei: *Lithological controls on permeability variations in the Lower Triassic Montney Formation, Pouce Coupe AB (Unconventional)*
4. **Hackley, Paul C.** (U.S. Geological Survey, Reston, VA, USA), Frank T. Dulong, Brett J. Valentine: *Preliminary results of artificial maturation experiments on a subbituminous Wilcox coal*
5. **Hackley, Paul C.** (U.S. Geological Survey, Reston, VA, USA), Carla V. Araujo, Ángeles G. Borrego, Brian J. Cardott, Alan C. Cook, Mária Hámor-Vidó, Kees Kommeren, João G. Jane Newman, Mark Pawlewicz, Judith Potter, Isabel Suárez-Ruiz: *New ASTM standard test method D7708-11 for determination of the reflectance of vitrinite dispersed in sedimentary rocks*
6. **Hiroyuki, Saito** (Hokkaido University, Sapporo, Japan), Noriyuki Suzuki and Koji U. Takahashi: *Resource potential of thermogenic coalbed methane in Paleogene coals, Hokkaido, Japan*
7. **Hu Guoyi** (PetroChina, Beijing, China), Zhangshuichang, Zhangmin, Liwei: *The geochemical and organic petrological characteristics of coal and associated mudstone of Xujiahe formation in the Sichuan basin, China*
8. **Huang, Pin-Ru** (National Oceanography Centre, Southampton, UK), John Marshall, Philip Scotney: *The relationship between heavy metals and sedimentary organic matter in the Oxford Clay (Jurassic) of the southern UK*
9. **Lemus, T.M. Juliao**, (ECOPETROL-ICP, Columbia): *Coal Seams from Paleocene Marcelina Formation: Possible Petroleum Source Rock? Evidences from Organic Petrography. Western Venezuela*
10. **Li Jian** (PetroChina, Beijing, China), Han Zhongxi, Yan Qituan: *Distribution characteristics of mercury content in natural gas and its origin*
11. **Jean-Frank Mayagilo** (Tanzania Petroleum Development Corporation, Dar Es Salaam, Tanzania): *Spore Colour Index as a Tool in Solving Tectonic Problems in Petroleum Exploration? A Case Study of Tanzanian Coastal Basin*



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12. **Mosaddegh, Hossein** (Damghan University, Iran), Ali akbar Hassannezhad, Mahmoud Memariani, Nader Dabestani, Hamed Dabestani: *Organic Geochemical Investigation on Lower Carboniferous Organic Rich Sediments (Mobarak Formation) in Eastern Alborz, Iran*
13. **Mukhopadhyay, Prasanta K.** (Global Geenergy Research Limited, Halifax, NS, Canada):
14. **Ni Yunyan** and Jinxing Dai: *Geochemical characteristics of biogenic gases in China: Geochemical characteristics of biogenic gases in China*
15. **Plata, Angelo** (NATFRAC Corporation, Columbia), T. Juliao², C. Parra³, D. Torres: *Changes of Kerogen through the Hydrous Pyrolysis Process, Optical and Morphological Evidences*
16. **Ricardo, Ruiz M** (Centro de Investigación Gmas, Bogotá, Colombia), Gomez M, Daniel; Blandón M, Astrid; Jaramillo M, José: *Comparison of the thermal maturity of organic matter in sediments of the Late – K in the Upper Magdalena Valley, Colombia; obtained by several methods and their impact on the exploration of conventional oil resources and unconventional ones.*
17. **Rodrigues, Sandra** (Universidade do Porto, Portugal), Isabel Suárez-Ruiz: *Evolution of Optical properties during graphitization of unburned carbons from fly ash*
18. **Ruppert, Leslie F.** (U.S. Geological Survey, Reston, VA, USA), Richard Sakurovs, Tomasz P. Blach, David F.R. Mildner, Lilin He, Yuri B. Melnichenko: *A USANS/GP-SANS Study of the Accessibility of Pores in Gas Shale to Methane, Water, and Brine*
19. **Takahashi, Koji U.** (Hokkaido University, Sapporo, Japan), Noriyuki Suzuki, Hiroyuki Saito: *Hydrocarbon and nonhydrocarbon gases obtained by the pulverization of Hokkaido Eocene coal*
20. **Trippi, Michael H.** and Susan J. Tewalt: *GIS data of the coal- and lignite-bearing areas of India and Bangladesh*