



THE SOCIETY FOR ORGANIC PETROLOGY



NEWSLETTER

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Mark your calendars for...

34th TSOP Annual Meeting

**September 21 – 27, 2017
Calgary, Canada**



TSOP Annual Meeting

September 21 – 27, 2017
Calgary, Canada



Stay tuned for more information!



The Society for Organic Petrology

TSOP is a society for scientists and engineers involved with coal petrology, kerogen petrology, organic geochemistry and related disciplines. The Society organizes an annual technical meeting and field trips; sponsors research projects; provides funding for graduate students; and publishes a web site, a quarterly Newsletter, membership directory, annual meeting program and abstracts, and special publications. Members may elect not to receive the printed Newsletter by marking their dues forms or by contacting the Editor. Members are eligible for discounted subscriptions to the Elsevier journals *International Journal of Coal Geology* and *Review of Palaeobotany and Palynology*. Subscribe by checking the box on your dues form, or using the form at www.tsop.org. Contact Paul Hackley phackley@usgs.gov if you do not receive a bill or have any other problems with a subscription. For the best prices on subscriptions to AGI's *Earth*, see their web site at www.geotimes.org/current.

TSOP is a Member Society of AGI and an AAPG Associated Society.

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GUIDELINES:

The TSOP Newsletter welcomes contributions from members and non-members alike. Readers are invited to submit items pertinent to TSOP members' fields of study. These might include meeting reports and reviews, book reviews, short technical contributions including those on geologic localities or laboratory methods, as well as creative works such as poems, cartoons and works of fiction. Photos, graphs and other illustrations are welcomed. Low-resolution images are discouraged, as they cannot be reproduced well in print. Articles are preferred in Microsoft Word, RTF or plain text formats.

Contact the Editor:

Rachel Walker
e-mail: drachelwalker@gmail.com

Address Changes

Please report any changes in address or contact information to: Paul Hackley, TSOP Membership Chair,
phackley@usgs.gov

Members can update their own information by logging into the secure TSOP website:
www.tsop.org/mbrsonly/

The TSOP Newsletter is published quarterly by The Society for Organic Petrology and is distributed to all Society members as a benefit of membership.

Membership in the Society is open to all individuals involved in the fields of organic petrology and organic geochemistry. For more information on membership and Society activities, please see:

www.tsop.org

For purposes of registration of the TSOP Newsletter, a permanent address is:
The Society for Organic Petrology,
c/o American Geological Institute,
4220 King St., Alexandria,
VA 22302-1520 USA

Newsletter Submission Deadlines

March Issue: March 5th, 2017

June Issue: June 5th, 2017

September Issue: Sept. 5th, 2017

December Issue: Dec 5th, 2017

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 **AGI** american
geosciences
institute
connecting earth, science, and people

Institutional/Corporate Memberships



We'd like to make members aware that membership in TSOP is also open to any organization having an active scientific interest in organic petrology or related fields. TSOP especially encourages institutions to join at the special **institutional rate of \$75/yr** and help support the goals of the Society. See the website for details: www.tsop.org/join_TSOP.html

Please note that credit card payment processing is via PayPal and you don't need a PayPal account to use it. If you want to use a dues form, a copy of this year's form can be downloaded from the website by following the 'Members only->Dues' links from the main page (www.tsop.org).

Thank you for your interest and support of TSOP and we look forward to a renewal of your TSOP membership.



is on



www.facebook.com/OrganicPetrology

Annual Meeting Programs, Abstracts and Photos Available on the TSOP website

TSOP DUES REMINDER!

It's that time of year again! TSOP dues payments are due on or before **January 1st** each year so we encourage you to make your payment now so that you can continue your TSOP membership and support the society and its work. Our Dues Prepayment Incentive can save you time and the hassle of arranging your yearly payment. When you prepay your dues four years in advance at the regular rate of \$25/yr we will give you the fifth year free!

We encourage members to use our convenient online dues payment system. You can use it to pay by credit card, check (US Members), money order or credit card. You can login at www.tsop.org/mbrsonly and select 'Online dues payment' or go to www.tsop.org/dues and access the online form without logging in.

Members only - Annual Meeting Program & Abstracts

Notes: Abstracts volumes are available for all meetings while group photos are available for most.

The 1985 Group photo is reported to have been lost due to technical problems with the camera or film. The 2010 meeting photo was taken at the Banquet and does not represent the full meeting attendance. Photo indexes are missing for years 1990-91, 2004-08. Any contributions to filling in missing photos or indexing of the photos are welcome.

Step 1: Select a meeting

2015 Yogyakarta

Reminder: Depending on your internet connection and time of day etc. Items greater than 2Mb may take a significant amount of time to download.

Step 2: Select an item to be displayed

Abstract volume

Vol32 2015 Yogyakarta.pdf (6.3 Mb)

Group photo

Vol32 2015 Yogyakarta Field Trip.JPG (1.6 Mb)

Vol32 2015 Yogyakarta Mtg.JPG (4.9 Mb)

Field trip

Vol32 2015 Yogyakarta Guidebook.pdf (7.9 Mb)

Hint: When you finish viewing the item use the back button (top left of browser) to get back to this page. Also, to see the HiRes version of larger JPG files you might have to click on the image with zoom (+) pointer provided by the JPG viewer.

The abstracts, photos and field trip guide from many past TSOP meetings are all now available on the TSOP website. Just login to the Members Only section of the website and select '**Ann Mtg Documents**' from the left hand menu. A dropdown box will allow you to choose which meeting you are interested in. Select the item of interest and click '**Display!**'

New TSOP Members



Xiao Li

Xiao Li participated in several research projects as part of her PhD research including studies of germanium-rich coal of Inner Mongolia and Yunnan Lincang, the newly discovered polymetallic deposit in Chongqing and Yunnan of southwestern China, and chemical and mineralogical composition of tonsteins in the late Permian coals from the Xuanwei of China. The major direction of her research is focused in geochemistry, including coal geochemistry, mineralogy and environmental geochemistry. Currently she is studying the usefulness and toxicity of elements in coal and coal combustion disposal.



Lingyun Kong

Lingyun is a PhD student in the Department of Petroleum Engineering at the University of North Dakota. He holds undergraduate and MSc degrees in sedimentology and reservoir geology, mainly focusing on reservoir characterization. His interests in organic petrology are with a focus on oil and gas exploration and development, and upscaling from the microscope to reservoir properties.



Xiangchun Chang

Dr. Chang received BSc, MSc and PhD degrees from Jiangnan Petroleum Institute, China University of Petroleum (Beijing), and Shandong University of Science and Technology, respectively. He has conducted research on the organic geochemistry of oil-bearing basins in China for more than 16 years and is now the vice dean and professor of the College of Earth Science and Engineering, SDUST, at Shandong University. His current research interests are in petroleum organic geochemistry, especially reservoir geochemistry and molecular organic geochemistry.





Chunxiao Li

Ms. Li earned her BSc and MSc degrees (China Univ. of Petroleum) in 2013 and 2016 respectively. Currently she is studying for her PhD in petroleum engineering at the University of North Dakota where her research focuses on the geochemistry and petrology of the Bakken Shale.



Sandra Pawelec

Sandra received her undergraduate and MSc degrees in Mining and Geology from AGH University of Science and Technology, Poland, in 2014 and 2015, respectively. The titles of her studies were “Copper deposits in the North Sudetic Trough” and “Economic parameters and quality assessment of the lignite in the Szczercow deposit”. She currently is pursuing

doctoral studies in geology at AGH where her interests also include study of the languages English and Spanish.

Organic Petrology Paper in Nature Communications

Recently an organic petrology and geochemistry paper was published in Nature Communications:

<http://www.nature.com/articles/ncomms13614>

“*Secondary migration and leakage of methane from a major tight-gas system*” by James Wood and Hamed Sanei.

Abstract:

“Tight-gas and shale-gas systems can undergo significant depressurization during basin uplift and erosion of overburden due primarily to the natural leakage of hydrocarbon fluids. To date, geologic factors governing hydrocarbon leakage from such systems are poorly documented and understood. Here we show, in a study of produced natural gas from 1,907 petroleum wells drilled into a Triassic tight-gas system in western Canada, that hydrocarbon fluid loss is focused along distinct curvilinear pathways controlled by stratigraphic trends with superior matrix permeability and likely also structural trends with enhanced fracture permeability. Natural gas along these pathways is preferentially enriched in methane because of selective secondary migration and phase separation processes. The leakage and secondary migration of thermogenic methane to surficial strata is part of an ongoing carbon cycle in which organic carbon in the deep sedimentary basin transforms into methane, and ultimately reaches the near-surface groundwater and atmosphere.”

**Report on the 2016 Joint Meeting of
TSOP-AASP-ICCP
Houston, TX USA
September 16th-24th, 2016**

Over 170 attendees participated in the five-day historic joint meeting of these three societies. The venue for this meeting was The Magnolia Hotel in downtown Houston. The meeting organizers included Dr. Thomas Gentzis (Core Laboratories, Houston), Dr. Jen O'Keefe (Morehead University, Kentucky), Dr. Joe Curiale (Consultant, Houston) and Dr. Thomas Demchuk (RPS, Houston). This is the first time these three specialist geology and botany societies gathered together to discuss various aspects of palynology, organic petrography and organic geochemistry.

The meeting started on the Friday prior to the technical sessions with a 2+ day fieldtrip to the Eagle Ford Formation outcrops of west Texas. The Eagle Ford is a world-class unconventional/source-rock reservoir play in south-central Texas. The fieldtrip was organized and led by Barry Wawak and Thomas Gentzis (Core Laboratories, Houston). Twelve people took part in the fieldtrip. Saturday prior to the formal start of the meeting was a full-day Short Course by Dr. Richard Tyson (Getech, UK): the course was entitled, "Integration of Microscopy and Geochemistry in Petroleum Source Rock Evaluation". Almost 60 scientists attended the course that was held in classroom fashion at the Hotel. The following Sunday was a full day of registrations, and Board Meetings for both ICCP and TSOP.

The five-days of technical sessions were divided into several Theme Sessions and Symposia for TSOP and AASP, as well as concurrent research sessions for ICCP and their Working Groups. Several high-profile invited Keynote Speakers started each of the technical sessions. The highlight of the week was a full-day Symposium on Wednesday entitled, "Multi-modal Characterization of

Source Rocks, including Source-Rock Reservoirs". Throughout the week, session topics revolved around the integration of palynology, organic petrography, organic geochemistry and other aspects of sedimentology and stratigraphy. During the course of the week, 129 abstract submissions resulted in a full schedule of extremely high-quality oral and poster presentations.

To facilitate discussion around the poster sessions, Happy Hours were held on both the Tuesday and Thursday. Beverages and finger food were provided to promote activity and talk around the posters. The Icebreaker was held on the Monday with discussions and renewed friendships continuing well into the late evening hours. A Conference Dinner was held on the Wednesday evening at the nearby Sambuca Restaurant, a venue in revitalized downtown area known for its excellent live music scene. Along with dinner, awards were presented for the TSOP Best Student Paper, and AASP-TPS presented awards to distinguished members. The Friday brought the end of the technical sessions, as well as the Incoming Board Meeting for AASP-TPS and the final closing remarks from ICCP.

Over the course of the meeting and at the Business Luncheons, several awards were presented recognizing significant contributions to the sciences of organic petrography and palynology. At the TSOP Business Luncheon on Tuesday, the John Castaño Award was presented to Dr. Joe Curiale for his service and dedication to TSOP and to the sciences of organic petrography and geochemistry. Fifty people participated in the luncheon to honor Joe, to enjoy the festivities, and to hear about the upcoming meeting to be held in Calgary next year. The AASP-TPS Business Luncheon on Friday allowed for the recognition of several in the palynology scientific community. The Medal for Excellence in Teaching was presented to Dr. Vaughn Bryant, the Medal for Scientific Excellence was presented to Dr.

Geoff Clayton, AASP-TPS Honorary Membership was presented to Dr. Norm Norton, and Distinguished Service Awards were presented to both Dr. Jim Riding and Dr. Fred Rich (who received his award earlier at the Conference Dinner). All of these recipients were more than worthy of these awards and achievements for their contributions to the society and science.

Student awards were also given out through the course of the meeting. The TSOP Best Student Paper Award was presented to Dane Synott (U. of Calgary) for his presentation, "The effect of bacterial degradation on bituminite reflectance" and the TSOP Best Student Poster Award was given to L. P. Lauridsen (Greenland Geological Survey) for her poster entitled, "The Upper Jurassic source rock potential in the Danish central graben". The AASP-TPS L.R. Wilson Best Student Paper was given to Vera Korasidis (U. of Melbourne) for her presentation, "Cyclic floral succession and fire in a Cenozoic wetland/peatland system".

Saturday saw over 30 participants enjoy the post-meeting fieldtrip to the Paleocene-Eocene outcrops of southwest Texas. The fieldtrip was led by Dr. Chris Denison and Dr. Jen O'Keefe, and investigated these significant outcrops whose time-correlative strata are important exploration targets in the deepwater Gulf of Mexico.

The Organizers would like to thank all who participated in the meeting, either through the submission of an abstract, or simply by being part of the overall experience renewing friendships and participating in the scientific discussions. The meeting was a great technical and financial success, well beyond the expectations of the Organizers. We look forward to seeing everyone at the 2017 meetings for TSOP in Calgary (Canada), AASP-TPS in Nottingham (UK) or ICCP in Bucharest (Romania).

Please visit the TSOP website photo gallery to see photos from the Houston Meeting:

www.tsop.org/photos.html

If you have photos to share from the Houston Meeting, please send them to our Webmaster Agnieszka Drobnik at agdrobni@indiana.edu.

Applications of Confocal Laser Scanning Microscopy (CLSM) to Organic Petrology Working Group Report 2016

A working group (WG) to investigate applications of confocal laser scanning microscopy to organic petrology was established within ICCP Commission II in 2015 at the Potsdam meeting. The WG is open to all interested persons. During 2015-2016, potential members of the WG were solicited for activity and asked to complete a survey describing instrument access and available instrument parameters, e.g., type of lasers, detectors, objective lens, etc. Participants also compiled a list of confocal applications which they are interested to pursue within the context of the working group. At the 2016 Houston joint meeting of ICCP-TSOP-AASP the members of the WG and their interests were presented as:

- Dragan Životić, Univ. Belgrade, Belgrade, Romania: 3-D imaging of sedimentary organic matter.
- Mark Curtis, Univ. Oklahoma, Norman OK, USA: imaging of hydraulic fracture networks and proppant embedment.
- Bill Schopf, UCLA, Los Angeles CA, USA: 2-D and 3-D imaging of sedimentary organic matter for cellular morphology and preparatory selection for detailed study location, also investigation of fluorescent minerals, e.g. REE substitution in apatite.

- João Graciano, UFRJ, Rio de Janeiro, Brazil: imaging and fluorescence properties of palynological concentrations.
- Angeles Borrego, INCAR, Oviedo, Spain: improved imaging for maceral identification and characterization of morphology and microstructure, quantitative spectroscopy of autofluorescent macerals.
- Katrin Ruckwied, Shell, Houston TX, USA: thermal maturity applications.
- Ingrid Romero, Univ. Illinois, Champagne IL, USA: palynomorph ultrastructure imaging, assessment of fluorescence properties for kerogen type differentiation.
- Jolanta Kus, BGR, Hannover, Germany: improved imaging for maceral identification and characterization of morphology and microstructure, distribution of fluid inclusions, quantitative spectroscopy of autofluorescent macerals.
- Paul Hackley, USGS, Reston VA, USA: thermal maturity applications, relation of autofluorescence to variation in chemical composition and structure.

During 2016-2017 the members of the WG will decide on consensus study objective(s) and select a common set of sample(s), if applicable. The intention of the WG is to function as a multi-year interlaboratory study, trading common perspectives and approaches within confocal laser scanning as applied to sedimentary organic matter and to organic petrology in general.

Potential outcomes may include a 'white paper' reviewing techniques and applications, or research paper(s) describing consensus objective(s) from interlaboratory study. Indirect outcomes also are anticipated as collaborative efforts develop between individual participating laboratories. Interested parties are encouraged to contact WG conveners Paul Hackley (phackley@usgs.gov) and Jolanta Kus (j.kus@bgr.de) to participate.



Student night at the 33rd TSOP Annual Meeting in Houston, Texas, USA was held at the Flying Saucer Draught Emporium, just around the corner from the conference venue. We had a group of 15 student members hailing from TSOP, AASP, and ICCP and from various locations across the globe. I only saw one familiar face from last year's TSOP meeting, but it was great to meet so many new people.

We enjoyed a meal, some tasty beverages (with some difficulty choosing from the bar's massive selection of beers!), and spent a few hours trading stories about our home towns and discussing science of course.

The bonds formed that evening must have been strong, as the students gravitated towards each other to form a table at the conference dinner the next night. We are grateful to SEPM for generously sponsoring this event and to Thomas Demchuk for facilitating the organization of it.

Please contact me at danielle.kondla@univ.ox.ac.uk if you have any suggestions or ideas for student night at the next meeting, TSOP 2017 in Calgary. I look forward to seeing you all there and showing you the highlights of my home town.

Danielle Kondla
Student Affairs Committee

CALENDAR OF EVENTS



2017



Please send in meeting, short course and special event announcements to the Editor.

See more at: <http://www.tsop.org/events.html>



April 2-5

[AAPG 2017 Annual Convention & Exhibition](#) - Houston, TX, USA



June 26-30

[10th ICCP Course on Dispersed Organic Matter](#) – Potsdam, Germany



August 13-18

[Goldschmidt Conference](#) - Paris, FRANCE



September 3-9

[69th ICCP Annual Meeting](#) - Bucharest, ROMANIA



September 5-8

[2017 Pittsburgh Coal Conference](#) - Pittsburgh, PA, USA



September 11-15

[World Multidisciplinary Earth Science Symposium \(WMESS\)](#) - Prague, CZECH REPUBLIC



September 21-27

[34th TSOP Annual Meeting](#) - Calgary, CANADA



October 15-18

[AAPG-SEG 2017 International Convention & Exhibition](#) - London, UK



October 22-25

[2017 GSA Annual Meeting](#) - Seattle, WA, USA