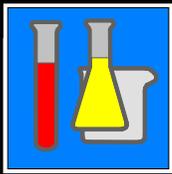




THE SOCIETY FOR ORGANIC PETROLOGY



NEWSLETTER

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31st TSOP Annual Meeting Sydney, Australia



Photo courtesy of Colin Ward

September 27th to October 3rd, 2014

TSOP 31st Annual Meeting September 27th – October 3rd, 2014

Registration available now!

We are pleased to announce that arrangements are well underway for the 31st Annual Meeting of the Society for Organic Petrology which will take place in Sydney, Australia, from 27th September to 3rd October 2014.

The meeting provides an opportunity to showcase international research on different aspects of organic petrology and related fields in a relaxed and welcoming atmosphere.

Details for the meeting can be found on our website at <http://wp.csiro.au/tsop2014>. Registration forms can now be submitted. Feel free to advertise this event widely and don't hesitate to contact us if you have any questions.

We look forward to welcoming you to Sydney!

Kind regards,
TSOP 2014 Organising Committee



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 *Geotimes*, 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.

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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

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Newsletter Submission Deadlines

September Issue: September 5th, 2014
December Issue: December 5th, 2014
March Issue: March 5th, 2015
June Issue: June 5th, 2015

President's Letter

Dear Members,

It is Spring here in Calgary and Spring is a time of new growth, life and expectation. Growth is not just happening in the natural world, it is happening in TSOP too. Our membership grew again this year and it is especially encouraging to see an increase in the number of students applying for membership in TSOP.

As our member base grows and becomes more international, and in anticipation of the annual meeting in Sydney, Australia, Council feels it is important that student participation in these meetings should not be impacted by the financial constraints of attending meetings in exotic and exciting venues. We have therefore taken steps to promote and facilitate student participation with a number of new initiatives. With inspiration from the Sydney Organizing Committee and the help of a generous donation from Core Laboratories, we established four student awards to assist with registration and international travel costs to the 2014 Annual Meeting in Sydney, Australia and, hopefully we will continue to do this on an annual basis. Secondly, we are actively promoting the development of the TSOP student chapter, beginning with the appointment of our new Chair of Student Affairs, Danielle Kondla from the University of Calgary, Canada. Student members can communicate and organize activities and events through our Facebook page and also the section of the TSOP Website dedicated to student members.

While it is always a great pleasure to welcome new members to TSOP, it is extremely difficult to say "Goodbye" to those departed. It is with great sadness, that we must bid "Adieu" to Professor William Spackman who passed away in North Carolina, USA, on March 13, 2014. Professor Spackman founded the formidable Coal Research Section at Penn State University spawning a great variety of landmark paleobotanical and coal petrological studies not to mention many highly-

regarded Coal Scientists and many TSOP members. He was a founding member of TSOP and our very first Honorary Member. Also, in recognition of his significant contributions to TSOP and to coal research in the U.S.A, Professor Spackman was duly honored with the naming of our graduate student research grant, the Spackman Award. He leaves the world of Coal Science a great legacy and will be greatly missed! Please defer to this issue of the newsletter and to the website for tributes to Professor Spackman.

Elections! Having elected a new Treasurer and a new Councilor, TSOP Council will also be seeing some revitalization. According to TSOP tradition, the handover will take place officially at the Annual Business Meeting in Sydney but I am very pleased to announce that Margo Corum of the US Geological Survey will be our next Treasurer; and Kaydy Pinetown, CSIRO will be your new Councilor.

For the 31st Annual TSOP Meeting, Kaydy Pinetown, Colin Ward and their formidable organizing committee will be welcoming us to Sydney from Sept 27 - October 3rd, 2014. If you are planning to attend, it is a great help to the organizing committee to submit your abstracts for posters and oral presentations and complete your registration as soon as possible; please continue to check the TSOP website (<http://www.TSOP.org>) for information and updates.

Finally, if you would like to consider hosting a TSOP annual meeting, have issues you wish to raise, suggestions to make or creative ideas to impart, Council would love to hear from you...and don't forget to check what's new on the AGI website (<http://www.agiweb.org>).

I look forward to seeing many of you in Sydney.

With best wishes,

Judith Potter
TSOP President 2013-2015

31st Annual TSOP Meeting Sydney, Australia

September 27 – October 3, 2014

Planning is now well advanced for the 31st Annual Meeting of the Society, which will be held in Sydney, Australia, from September 27 to October 3, 2014. The meeting will be held at the Rydges World Square Hotel, in the city's entertainment precinct, located close to restaurants, theatres, museums and other attractions, including Darling Harbour and Chinatown. As well as the hotel itself, a range of other accommodation options is also available nearby.

This meeting intends to cover themes that include:

- Organic petrology for unconventional gas
- Microbiology of organic-rich rocks
- Fugitive emissions and CO₂ storage
- Coal behaviour during utilisation
- New techniques in organic petrology and geochemistry

The program is intended for people from a broad spectrum of areas in organic petrology and organic geochemistry, including researchers and practitioners in both the coal and petroleum industries as well as those with more academic interests in natural organic matter. Participation by students is especially encouraged.

As with other TSOP meetings, authors will also be invited, after the meeting, to submit full papers covering their work for publication in a special issue of the International Journal of Coal Geology devoted to the conference.

The full meeting program includes:

- **Saturday, September 27:** Short course on "Application of Organic Petrology", presented by Claus Diessel and Walter Pickel.
- **Sunday, September 28:** Pre-meeting field trip covering coal and coal seam gas geology in the Southern Coalfield of the Sydney Basin. As well magnificent coastal scenery, this trip will allow participants to visit a coal seam gas extraction plant, examine outcrops of Late Permian coal seams and

associated strata, and travel over the spectacular engineering structure of the Sea Cliff Bridge.

- **Monday, September 29:** Short course on "Digital Core Analysis - Theory and Applications for Unconventional Reservoir Assessment", presented by Alexandra Golab (Lithicon) and Andrew Fogden (ANU). This will focus on three-dimensional X-ray micro-CT imaging of coal, shale and organic-rich rocks, and its integration with other systems to evaluate features such as porosity and fracture networks.
- **Tuesday, September 30 and Wednesday, October 1:** Technical sessions, along with the traditional TSOP Business Lunch and the Conference Dinner.
- **Thursday, October 2 and Friday, October 3:** Field trip covering the Early Permian strata of the Hunter Coalfield, in the northern Sydney Basin, including a visit to an open-cut coal mine, inspection of a coal seam gas analysis laboratory, and a visit to one of the world-renowned wineries in the region.

Sydney has a number of attractions apart from the meeting to make the trip worthwhile. A special Partners' Program is also included, with visits to the Royal Botanic Gardens, the Sydney Opera House, and a cruise across Sydney Harbour to the beach-side area of Manly, as a further encouragement for spouses and family groups.

Further information is available from the meeting website at <http://wp.csiro.au/tsop2014/> or through the TSOP website at <http://www.tsop.org>. Alternatively, contact:

- Kaydy Pinetown – kaydy.pinetown@csiro.au
- Colin Ward – c.ward@unsw.edu.au



TSOP DUES

Due to the increasing cost of postage related to the black and white printed version of the newsletter, TSOP Council recently voted to increase the cost of membership with the printed newsletter to \$35 per year. The membership dues for the e-newsletter will remain at \$25 per year.

We encourage members to use our convenient online dues payment system. You can use it to pay by check/cheque (US Members), money order, wire or credit card. Login at www.tsop.org/mbrsonly and select 'Online dues payment' or go to www.tsop.org/dues.

A copy of this year's dues form can be downloaded from the website by following the 'Dues' link 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.



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** (with e-newsletter or \$85/yr with printed newsletter) and help support the goals of the Society. See the website for details: <http://www.tsop.org/join.htm>

TSOP Election Results

TSOP Council elections were conducted in April this year. Many thanks are due to the Members who did their duty and submitted their votes. TSOP encourages all members to participate in TSOP yearly elections – it doesn't take much time and it lets you have your say about how TSOP is run.

The following positions were up for election this year: Treasurer, Editor and one Councillor. The following TSOP members were elected and are due to take up their positions as of October 1st, 2014.

TSOP Treasurer: Margo Corum

TSOP Councillor: Kaydy Pinetown

TSOP Editor: Rachel Walker

This year TSOP Council also asked members to vote on two Bylaw changes aimed at making the term of service for the Editor 2 yrs in length, matching the other TSOP Council positions. The bylaw changes were approved by voters.

WHAT LIES BENEATH: Researchers Turning Attention to Underground Coal Fires

Adapted from a WUKY Radio article by Mike Lynch, the Kentucky Geological Survey and UK Center for Applied Energy Research at: <http://wuky.org/post/what-lies-beneath-researchers-turning-attention-underground-coal-fires>

Click on the link to listen to the story!

Coal is mined and burned as a fuel all around the world. And wherever it's mined, there is at least a chance that underground coal fires start...and sometimes burn for a very long time. Researchers at the UK Center for Applied Energy Research are gathering information on such fires in Kentucky.

Greg Copley and Jim Hower arrive at a steep cliff on the side of a mountain in Perry County. Smoke and the smell of burning coal occasionally waft from natural vents in the ground around them and a student assistant. An underground coal fire is burning here...it's one of about 30 known in Kentucky. People living nearby first reported this one.

A number of things can start the fires, from forest and grassland fires igniting exposed coal beds, to arson...even spontaneous ignition under some conditions. According to Hower, thousands of uncontrolled coal fires are burning beneath the surface around the world.

The research team unloads equipment at the Perry County site - called the Lott's Creek fire - preparing steel canisters for gas samples, tools to gather soil for lab analysis, and digital heat sensors. Some of the coal fires in the U.S. have been burning for decades, even centuries. And they're tough to put out.

Long-lasting fires can impact people and communities. From smoke that reduces visibility to the release of harmful gases, causing respiratory issues and weakening of the ground that can cause collapses. An abandoned town in Pennsylvania - once home to 2,700 people - is an infamous example.

The research at Lott's Creek also helps with work done by East Georgia College scientists studying how coal fires affect insect life. UK Master's student Michelle Johnston says participating in this project adds experience to her education. Hower fills several vacuum canisters with gases from vents at the site before packing up. He's been investigating these fires since 2007, and says conditions like the amount of smoke and ground temperatures change from one visit to the next.

New TSOP Members



Dangyu Song

Dr. Song received his PhD in 2003 from the China University of Mining and Technology for studies in geochemistry of coal and the geology of coalbed methane. He completed postdoctoral studies in geochemistry of coal at Huazhong University and is a professor in the School of Resources and Environment at Henan Polytechnic University where he researches the geology of coalbed methane.



Jienan Pan

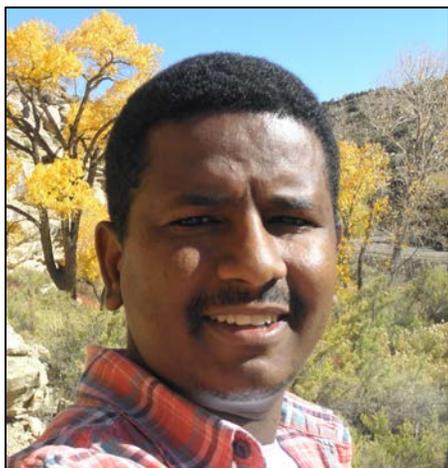
Dr. Pan received his PhD in 2006 from the China University of Mining and Technology for studies in geological resources and engineering. He is now at Henan Polytechnic University where his research has focused on coal geology and coalbed methane

including coal pore structure and macromolecular structure, and sorption of methane to coals including tectonically deformed coal.



Yidong Cai

Yidong Cai's PhD research at the China Univ. Geosciences includes geological controls on coalbed methane including resource and prospect evaluation, simulation of coal-gas—water interactions, reservoir characterization, and research on coal-to-gas processes. Mr. Cai received his BSc in 2008 from the China Univ. Geosciences for studies in petroleum engineering.



Seare Ocubalidet

Mr. Ocubalidet received his MSc in geology in 2013 from Southern Illinois University in Carbondale and BSc in geology in 2002 from the University of Asmara, Eritrea. He is an organic petrologist with Core Laboratories in Houston where he works on the petrology and thermal maturity of shale petroleum systems.



Sophia Bratenkov

2014 Spackman applicant Sophia Bratenkov earned her BSc. in 2010 from Technion Israel Institute of Technology in biochemical engineering and her MA in 2012 from the University of Haifa, Israel, in archaeology, focusing in palynology and climate reconstructions. Currently, she is engaged in a PhD study in organic geochemistry under Prof. Simon George at Macquarie University, Australia.



Brett Valentine

Mr. Valentine joined the USGS in 2009 after completing his BSc in 2004 at Virginia Technical University in forestry-environmental management and several years at the Virginia Soil Conservation District. His interests in organic petrology include thermal maturity studies and basin analysis as well as bringing the discipline to a broader audience through online photomicrograph atlases and databases.

In Memoriam
Obituary for Dr. William Spackman
(1919-2014)

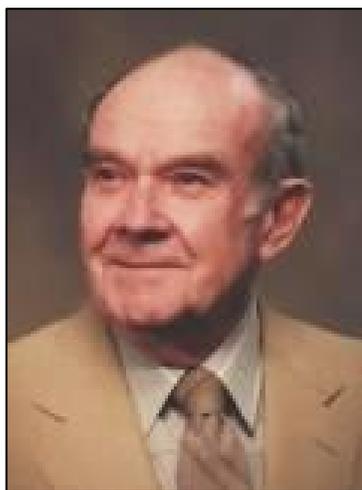
Frederick J. Rich¹, Lynn A. Brant², Gareth D. Mitchell³, James C. Hower⁴

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² Department of Earth Science, University of Northern Iowa, Cedar Falls, Iowa 50614 USA

³ The EMS Energy Institute, The Pennsylvania State University, University Park, Pennsylvania 16802 USA

⁴ Center for Applied Energy Research, University of Kentucky, 2540 Research Park Drive, Lexington, Kentucky 40511 USA (james.hower@uky.edu; 1-859-257-0261)



William Spackman, known internationally for his work in the characterization of peat and coal deposits, and the utilization of coals of all types died on March 13, 2014, in Wilmington, North Carolina.

Dr. Spackman, Professor Emeritus at The Pennsylvania State University, began his post-secondary education at North Park College in Chicago, where he received the Associate of Arts degree in 1940. He graduated with a Bachelor's degree in botany from the University of Illinois in

1942. During World War II he served at the Philadelphia Naval Shipyard applying biological research to marine wood preservation. In 1949 he earned his PhD in biology with a major in paleobotany from Harvard University, where he worked under the guidance of Dr. E.S. Barghoorn, investigating the peculiar characteristics of the Brandon Lignite; Vermont certainly is not known for its coal deposits, but the Brandon ended up being most significant from a paleobotanical point of view. Dr. Spackman spent his entire, and very illustrious career at Penn State, where he developed the Coal Research Section of the College of Earth and Mineral Sciences into an internationally acclaimed research facility.

According to a history of the Coal Research Section, written in the Penn State Geosciences newsletter by Dr. Spackman, summer 2003, the academic program took root from 1949-1951. Following establishment of classes in paleobotany, palynology, and coal petrology, there came a call from U.S. Steel Corporation in 1951 to assist in the analysis of metallurgical coke production; coke is used in iron ore reduction, and is produced entirely from suitable grades and compositions of bituminous coal. Thus began a decades-long and productive association between US Steel and the coal research group at Penn State. In 1955, the Coal Research Section became a reality, and proceeded to develop ties with Bethlehem Steel, Jones & Laughlin, Inland Steel, Youngstown Sheet and Tube and a variety of other corporations and agencies.

These U.S. steel companies embraced Dr. Spackman's maceral concept that sought to organize coal by rank and composition and employed the knowledge to improve coke and iron making operations. Industrial support, and more than 25 years of funding from the National Science Foundation led to a wide spectrum of research efforts, ranging from defining the petrographic characteristics of coking coals, to understanding the association of uranium minerals with lignites, to appreciating the historical development of peat deposits within the Okefenokee Swamp and the Everglades.

Among his many accomplishments Dr. Spackman helped to establish the Catalog of Fossil Spores and Pollen, a research aid that included 44 volumes of illustrations and detailed descriptions of the known fossil taxa of spores and pollen; the Catalog was published at Penn State from 1957 to 1985. He also served as Chair of the Paleobotanical Section of the Botanical Society of America; Chair of the Coal Geology Division of the Geological Society of America; and was a member of the International Commission of Coal Petrology, serving from 1964 to 1975 as President of its Nomenclature Committee. Most notably, in 1980 he became the founding editor of the first research journal devoted to coal geology, the *International Journal of Coal Geology*.

Dr. Spackman was probably best known to most coal technologists as a petrographer and organic geochemist. His publications in periodicals such as *Fuel*, *Energy Sources*, and the *International Journal of Coal Geology* reflect his long association with studies of coal characteristics and utilization. To many others, he is most associated with his work in the Florida Everglades. He was long a proponent of using those wetlands as a modern analog to environments of coal accumulation. In 1964, for example, he was senior author on "Environments of Coal Formation in Southern Florida", a pre-meeting field guide published in association with the annual meeting of the Geological Society of America (Spackman et al., 1964).

Later, a widely referenced publication appeared in a GSA Special Paper. That contribution, entitled "Geological and Biological Interactions in the Swamp-Marsh Complex of Southern Florida" (Spackman et al., 1969) helped to establish the 'glades as a model wetland for understanding peat accumulation. This effort was expanded in 1974 when, once again in affiliation with GSA, and with the considerable assistance of Dr. Spackman's former student, Dr. Arthur Cohen, and colleagues Drs. P.H. Given and D.J. Casagrande, a field guide was written and entitled "A Field Guidebook to Aid in the Comparative Study of the Okefenokee Swamp and the Everglades-Mangrove Swamp-Marsh Complex of Southern Florida".

Dr. Spackman's love of the Everglades never abated, and for many of us the image of him standing at the helm of the *Mariscus* as it sped across Florida Bay toward the Everglades is most enduring.

References cited:

Spackman, W., D.W. Scholl, and W.H. Taft, 1964, Environments of Coal Formation in Southern Florida: Geological Society of America pre-convention field guidebook, Miami University Institute of Marine Science Press, 67 p.

Spackman, W., W.L. Riegel, and C.P. Dolsen, 1969, Geological and biological interactions in the swamp-marsh complex of southern Florida, in Environments of Coal Deposition, E.C. Dapples and M.E. Hopkins (editors): Geological Society of America Special Publication 114, 204 p.

Spackman, W., A.D. Cohen, P.H. Given, and D.J. Casagrande, 1974, A Fieldguide to Aid in the Comparative Study of the Okefenokee Swamp and the Everglades-Mangrove Swamp-Marsh Complex of Southern Florida: Geological Society of America pre-convention field trip #6, 265 p.

This article is a reprint of the obituary originally published online at the International Journal of Coal Geology website in May 2014. The full Bibliography accompanying this obituary is available at:

www.sciencedirect.com/science/article/pii/S016651621400072X

Announcement and Call for Abstracts 34th Oil Shale Symposium October 13-17, 2014

You are invited to participate in the 34th Oil Shale Symposium, to be held October 13-15, 2014 at the Colorado School of Mines in Golden, Colorado. This annual meeting is the premier global

opportunity to learn about technical and non-technical developments in the oil shale industry. Technical sessions cover such topics as oil shale processing; geology of oil shale deposits; organic and inorganic geochemistry of oil shale and related products; analytical methods; sustainability and environmental impacts of oil shale development; and many others. For those interested in submitting an abstract, the submission deadline is July 8, 2014.

The Symposium website can be reached here: <http://csmospace.com/events/oilshale2014/>

The site provides information about the Symposium and the associated Field Trip to visit oil shale localities and facilities in Utah and Colorado on October 16 and 17, 2014. Links to the registration and abstract submission web pages can also be found there.

Please note that registering for the Symposium and registering to submit an abstract are separate functions, and registering for one does not register you for the other. If you have additional questions about the Symposium or wish to be added to our contact list, please send an e-mail with your request to jboak@mines.edu, jbirdwell@usgs.gov or washburn@ingrainrocks.com

Jeremy Boak
Justin Birdwell
Kathryn Washburn
Co-Chairs, 34th Oil Shale Symposium

2014

June 23-27: ICCP Dispersed Organic Matter Course, Potsdam, Germany.

www.iccop.org/2014-iccp-training-courses/

August 26-31: 9th European Palaeobotany Palynology Conference, Padova, Italy.

www.palynology.org/upcoming-aasp-meetings/14

September 16-19: ICCP Organic Petrology in Industrial Applications, Dhanbad, India.

www.iccop.org/2014-iccp-training-courses/

September 20-26: 66th Annual ICCP Meeting, Kolkata, India. www.iccop.org

September 27 – October 3: 31st Annual TSOP Meeting, Sydney, Australia.

<http://wp.csiro.au/tsop2014>

September 28 - October 4: 47th AASP-TPS Meeting, Mendoza, Argentina.

www.palynology.org/upcoming-aasp-meetings

October 6-9: Pittsburgh Coal Conference, Pittsburgh, Pennsylvania, USA.

www.engineering.pitt.edu/pcc/

October 13-17: 34th Oil Shale Symposium, Golden, Colorado, USA.

<http://csmospace.com/events/oilshale2014/>

October 19-22: Geological Society of America Annual Meeting, Vancouver, BC, Canada.

www.geosociety.org/meetings/2014/

For more geology event information, see:

<http://calendar.agiweb.org/index.html>

CALENDAR OF EVENTS

www.tsop.org/cal.htm





THE SOCIETY FOR ORGANIC PETROLOGY



31st Annual Meeting

Organic Matter Down Under II

Sydney, Australia

27 September – 3 October 2014



Conference Themes

- Organic petrology for unconventional gas
- Microbiology of organic-rich rocks
- Fugitive emissions and CO₂ storage
- Coal behaviour in utilisation
- New techniques in organic petrology and geochemistry

Papers on other aspects of organic petrology and geochemistry are also welcome



Short Courses

Applications of coal petrology
Digital core analysis

Field Trips

Southern Sydney Basin
Hunter Coalfield



Register to Attend Now!



Details: <http://www.tsop.org>