



THE SOCIETY FOR ORGANIC PETROLOGY



NEWSLETTER

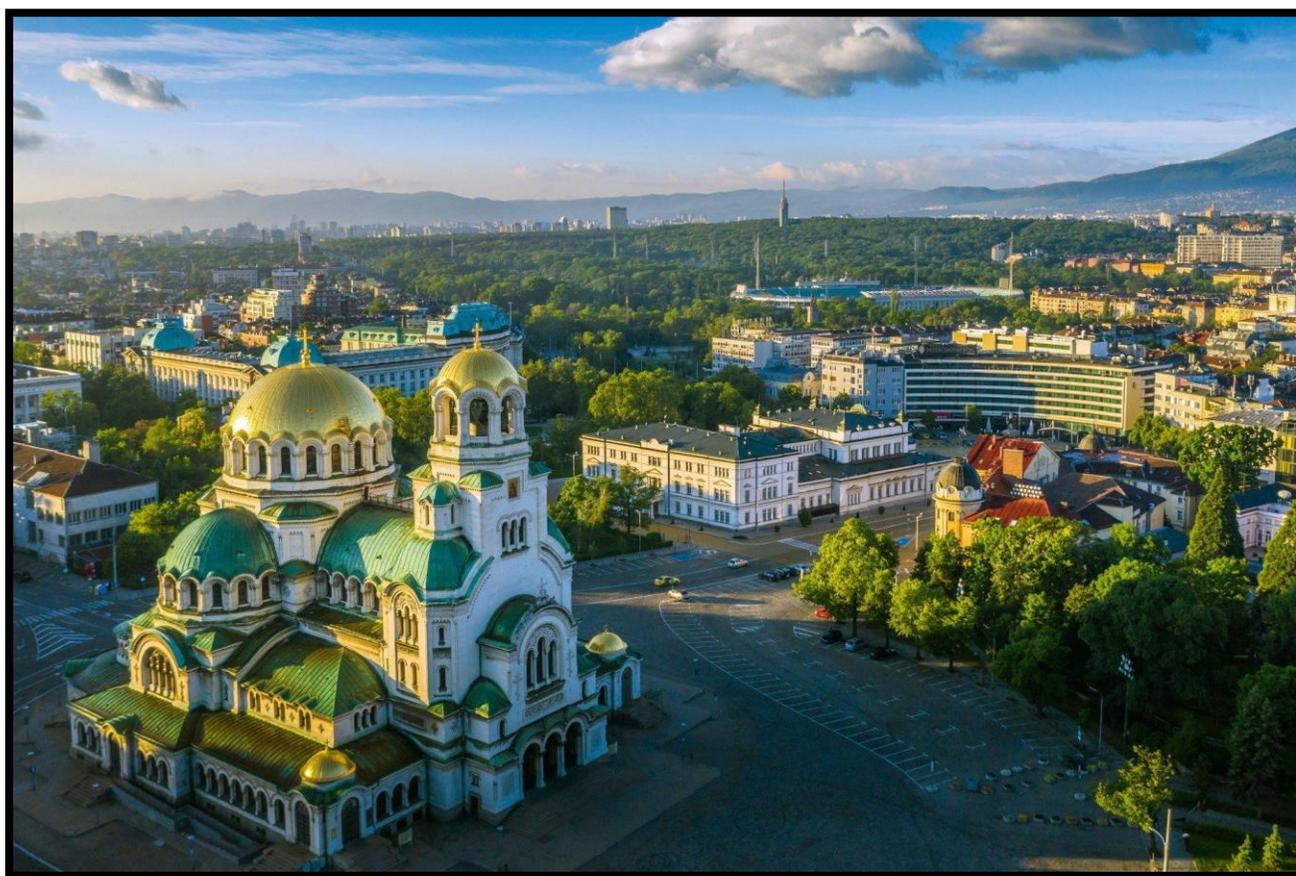
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The 37th TSOP Annual Meeting in Xuzhou, China has been cancelled due to COVID-19

The next TSOP meeting will be in Sofia, Bulgaria, 2021



The Alexander Nevsky Cathedral in Sofia (photo by AWL)

The 37th TSOP Annual Meeting in Xuzhou, China has been cancelled due to COVID-19

The 38th Annual TSOP Meeting will be held in Sofia, Bulgaria in 2021.

Stay Tuned for more details!



The Society for Organic Petrology

TSOP is a society for scientists and engineers involved in 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 website, Facebook Page, quarterly newsletter, annual meeting program and abstracts and special publications. Members are eligible for discounted subscriptions to Elsevier journals *International Journal of Coal Geology* and *Review of Palaeobotany and Palynology*.

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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 editor@tsop.org

Membership Information:

Please report any changes in address or contact information to Brett Valentine, TSOP Membership Chair:

bvalentine@usgs.gov

Members can also 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

June Issue: June 10th, 2020
September Issue: Sept. 10th, 2020
December Issue: Dec. 10th, 2020
March Issue: March 10th, 2021

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TSOP President's Letter

Dear TSOP Members,

I hope this issue of TSOP News finds you all in good health and practicing safe social distancing in these unprecedented times of the global COVID-19 pandemic. At home in northern Virginia, I have been working from a cozy spot on my couch in the family room for the last two weeks since the USGS transitioned to a telework-only status.

Regrettably, the 2020 joint meeting with ICCP in Xuzhou has been cancelled due to coronavirus concerns; this decision was taken with the health and safety of the TSOP-ICCP communities first in mind. I want to extend my deepest gratitude and appreciation to Shifeng Dai and the other members of the 2020 meeting organizing committee for their hard work in all of the planning that went into this meeting to-date, and now for all the work they will have to undo those plans. Although we are yet six months out from the planned meeting, its cancellation is necessary in anticipation of travel restrictions that many of us will undoubtedly still encounter leading up to then, for example, the necessity to obtain visas and travel clearance from our respective institutes sometimes takes months in advance.

I think for all of us this news will come as no surprise, but it's nonetheless disappointing. I look forward to the annual meetings as a chance to catch up with old friends and make new ones and I will miss all of you this year. There is a silver lining—the organizing committee for the cancelled 2020 meeting has agreed to instead host the 2025 meeting of TSOP in China. As this is now over five years away, the specific meeting location and dates have yet to be determined. Again, I would like to thank Shifeng and the other members of the organizing committee for their service to TSOP and for putting the health and safety of our members as first priority.

So, I will miss you this year but see you in 2021 in Sofia, Bulgaria, where we'll be hosted by Irena Kostova-Dineva. Then Bogotá, Colombia, hosted by Tim Moore, Jillian Pearse and Maria Del Carme Huguet in 2022, followed by Patras, Greece, hosted by Stavros Kalaitzidis in 2023. Plans are taking shape for 2024, then China in 2025.

Please look for the TSOP ballot in the coming months and make sure your vote is counted in this year's election and for Bylaws changes. And, please stay safe and healthy until the world returns to normal.



Paul Hackley, TSOP President 2019-2021

TSOP Membership Dues

TSOP dues payments are due on or before **December 31st each year**. We encourage you to check your dues status and make your payment so that you can continue your TSOP membership and support the society and its work.

TSOP dues are currently set at:

Individuals:

- \$25 per year or
- \$100 for 5 years (5 years for the price of 4!)

Students:

- \$15 per year

Institutional/Corporate:

- \$75 per year

You can use our convenient online dues payment system to pay dues by credit card, check (US Members), or money order.

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.

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



www.facebook.com/OrganicPetrology



TSOP is an AAPG Affiliated Society. Abstracts from annual meetings are available through [AAPG Datapages](http://www.aapg.org/datapages).

THE JOHN CASTAÑO HONORARY MEMBERSHIP AWARD



Call for Nominations for 2020
Deadline: May 31, 2020

TSOP members are invited to nominate the scientist of your choice for the 2020 John Castaño Honorary Membership Award, The Society for Organic Petrology's highest honor. The award acknowledges distinction in a scientific discipline of significance to the Society, in recognition of contributions in research, service to TSOP, or education. The John Castaño Honorary Membership Award conveys life membership in the Society. It is named in honor of John Castaño, one of our most active Houston-based founding members. John served as inaugural Vice-President, and later, as President of TSOP. He was an organizer of three TSOP meetings in the Houston area, and was made an Honorary Member in 1995. John served TSOP in many capacities until his death in 1997; a memorial article was published in the June 1997 issue of the TSOP Newsletter.

If you would like to nominate a candidate for the 2020 Castaño Honorary Membership Award, please submit a letter of recommendation and a brief vita of the nominee to Kaydy Pinetown, Chair of the Committee at kaydy.pinetown@csiro.au by **May 31, 2020**.

It is strongly suggested that supporting letters of recommendation from colleagues and other scientists accompany the nomination package. Emphasis should be placed on the significance of the nominee's research and contributions.

Nominations will be reviewed by the Castaño Award Committee and results will be announced at the Annual Meeting to be held in Xuzhou in September 2020. The selection process is confidential, and nominees do not have to be former or current TSOP members.

The committee evaluates research, service and educational impact based on the following criteria:

1. Research contributions include work that demonstrates a high degree of originality and serves to advance the science of organic petrology or related disciplines. Nominees must possess a sustained international record of professional publication and achievement.
 2. Nominees recommended for service must demonstrate significance contributions to TSOP (the Society) in a leadership role. Their service must have enabled the Society to stimulate interest and promote innovative research in coal geology. Contributions include educational activities, administrative duties, or the development of the Society.
 3. Nominees recommended for education must demonstrate a high degree of dedication and significant impact as a teacher of organic petrology or related disciplines.
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SPACKMAN AWARD

Graduate Student Research Grants

Call for Nominations for 2020

Deadline: May 31, 2020

PURPOSE

The Spackman Award, formerly known as the TSOP Student Grants Program (originally patterned after the 1998 AAPG Grants In Aid Program), supports graduate thesis research in organic petrology. Research must demonstrate the utility and significance of organic petrology (which includes coal petrology, kerogen petrology, organic geochemistry and related disciplines) in solving the thesis problem.

ELIGIBILITY

The Spackman Award supports qualified graduate students from around the world who are actively seeking advanced degrees. Applicants who have previously been granted a Spackman Award are not eligible to apply for a second grant under the scheme.

AWARDS

Usually two monetary awards, of U.S. \$1,000 and \$750 are granted. All applicants, whether successful or unsuccessful, are eligible to apply for one year of TSOP Student Membership at no cost.

CONDITIONS

Monetary awards are to be applied to expenses directly related to the student's thesis work, such as field expenses, laboratory analyses, etc. A portion (not to exceed 25%) of the award funds may be used to attend a TSOP Annual Meeting. Funds should not be used to purchase capital equipment, to pay salaries, tuition, room, or board during the school year.

Funds must be spent by the end of the calendar year following granting of the award, and an account of expenditure with copies of receipts should be provided by the end of that year (December 31, 2021 for awards granted in 2020).

APPLICATION DEADLINE

Completed applications must be e-mailed by **May 31, 2020** to:

Leslie (Jingle) Ruppert, Chair of TSOP
Spackman Committee at
jingleruppert@gmail.com

Amber: Carboniferous Coalfield, Sydney, Nova Scotia, Canada

Erwin L. Zodrow Professional Engineer (ret.)

503 Coxheath Road, Sydney, Nova Scotia,
Canada
e-mail address: zzodrovii@gmail.com

Amber, Greek for electron, is best known from the Baltic Sea, Eocene age of 44 million years. It is the fossilized sap of conifers and known the world over for its quality, but also for its outstanding preservation of insects. Canada, too, has amber deposits in Manitoba of Cretaceous age, twice or more as old as the Baltic amber, which are richer in insect diversity. Amber of Carboniferous age, ~ 300 million years old, from Canada is unknown.

I report the discovery of 2-3 mm amber droplets from the Carboniferous (Late Pennsylvanian) Coalfield of Cape Breton Island, Nova Scotia, Canada. Two physically distinct varieties are involved: a sparkling kind light-brown color, and a massive pitch-black kind.

The significance of the discovery is summarized by mentioning that unlike the Carboniferous amber goblets reported by Bray

and Anderson (2009) from an Illinois coal seam, the Cape Breton specimens are entombed in the mud rocks that form the roof of the Hub Seam (D'Angelo and Zodrow, 2020, fig. 1). In addition, the Cape Breton specimens are in physical association with unmistakable seed-fern remains, suggesting a second biological source for amber, other than conifers.

References

Bray, P.S., and Anderson, K.B. 2009. Identification of Carboniferous (320 million years old) class Ic amber. *Science* 326, 132-134.

D'Angelo, J.A., and Zodrow, E.L. 2020. Preservation of *Neuropteris ovata* in roof shale and in fluvial crevasse-splay facies (Late Pennsylvanian Sydney Coalfield, Canada). Part I: An infrared-based chemometric model. In press.

Letter to the Editor

Concerning the Use of Wood Pellets in Power Plants

Recent newsletters of TSOP and ICCP have referred to petrographic working group studies of wood pellets. I am writing to offer a perspective on the wood pellet industry from someone who lives in North Carolina which produces more wood pellets than any other U.S. state, and in the city of Wilmington, a port city from which wood pellets are shipped to the U.K and the rest of Europe. North Carolina is poised to become the world's largest exporter of pellets.

Between 2010 and 2018 the quantity of wood pellets exported from the southeastern U.S.A. increased thirteenfold to 6.5 million metric tons; most of this has gone to the U.K. where

it is co-fired with coal in power plants. A major reason for this trend has been the 2009 E.U. renewable energy directive requiring by law that 20% of its energy be obtained from renewable sources by the year 2020, a goal which was increased to 32% by 2030. The E.U. also has declared wood pellets to be a “carbon-neutral” choice of fuel on the assumption that the planting of new trees would absorb the CO₂ emitted by the burning of an equivalent amount of harvested wood. Other countries may follow suit. The U.S.A. does not have to meet such a goal because it has not ratified the Kyoto Protocol; consequently, there is little incentive at present for U.S power plants to burn wood pellets. Europe encourages wood pellet usage by offering subsidies to energy companies, and the E.U. has been paying over eight billion dollars a year in this regard. However, in 2018 the U.K. announced a policy which sets a lower limit on CO₂ emissions from biomass in order for power plants to qualify for subsidies; this trend, if broadened, could have a significant damping effect on the wood pellet industry in the future.

Some editorials have been appalled at the designation of “carbon-neutral” to wood pellets, referring to this as “fictitious” and “a scam.” Others have decried the burning of American forests to electrify Europe. There have been significant benefits to the upswing in the wood pellet industry in the U.S. Some communities have experienced economic booms after the leaner years of a drop-off in the production of paper. Local tax bases have improved. At the power plants, less ash with fewer toxic metals is generated.

A focus of the wood pellet industry is on the southeastern coastal U.S. states from Virginia to Texas. Although it had been thought that sawdust and other waste would provide the source for pellets, it is now apparent that standing trees are also being utilized for pellet manufacture in addition to their use in the lumber, paper and wood pulp industries.

Bottomland swamps are being cleared of trees including bald cypress and hardwoods such as poplar, sweet gum, oak, elm and ash; some trees are estimated to be as old as 2000 years. In a decade, North Carolina has lost 120,000 acres of bottomland forest with hardwoods. The vast majority of forests in North Carolina are privately owned.

There are greatly varying estimates as to the proportion of softwood to hardwood that goes into pellet manufacture. At some plants which manufacture pellets destined for U.K. power generation more than 85% is reported to come from hardwoods. It is in the interest of all parties, including those of landowners and foresters, to replant harvested forests. However, there is no legal obligation to do so in the U.S. even though the rationale of the E.U. carbon-neutral policy depends upon replanting. Replanting in plantations after clearcutting is typically done with softwood alone, such as loblolly and yellow pine. An estimate for the time for softwoods like pine to reach maturity is 20-30 years; that for hardwood is typically about 50 but can over a hundred years.

Some reported heat values per unit weight of wood relative to coal are in the range of 54 to 66%. A more critical comparison of fuels is that of the CO₂ emitted during the production of the same amount of energy. Some data published for the emissions from the combustion of various fuels give kg/kWh of CO₂ from wood to be in the range of 13 to 35% higher than that of bituminous coal. The higher value has been disputed by another source which claims 9% to be a more realistic number. One U.K. power plant has reported that its emission from pellet burning is only three percent higher than that of coal.

In terms of time frames, one modeling study has calculated that hardwood pellets would produce 2-1/2 times more pollution than coal over a 40-year period, and nearly 3-1/2 times

as much over a century, this particular study employed life cycle analysis, a model which takes into account emissions from tree cultivation, harvesting, processing (including drying) and transportation. According to an M.I.T. study, replacement of coal with forest wood would require 80 years for the emitted carbon to be recaptured. Environmentalists have growing concerns over possible tipping points in our climate system, and it has been noted that the situation is too critical to have to wait decades for forests to re-grow and re-sequester the carbon released from biomass.

The clear-cutting of bottomland hardwood forests not only eliminates their role in the absorption of CO₂. It also results in the loss of water filtration and buffering against extreme weather, raises the potential for flooding and brings about the loss of unique ecosystems and biodiversity. Many of our colleagues have worked extensively in and come to value such environments; organic petrology and science in general has benefited from their work.

Organic petrologists are accustomed to working, directly or indirectly, to aid the exploration, extraction and utilization of fossil fuels. We are aware that these industries today are the subjects of mounting environmental concerns. Indeed, some petrographic studies have focused on improving efficiencies and minimizing deleterious effects. However, some of the organic petrology community may not have known the implications of the burning of wood pellets that I have outlined. I hope that this perspective may be informative.

Alan Davis

Call for Participation in the ICCP Accreditation Programs

2020-2021 Exercise

The International Committee for Coal and Organic Petrology (ICCP) is pleased to invite you to participate in the 2020-2021 Accreditation round. The ICCP provides three Accreditation Programs:

Single Coal Accreditation Program (SCAP) for both maceral group and vitrinite random reflectance analyses. In this Program, the ability of an analyst to identify and quantify the maceral groups and to measure the vitrinite reflectance of coal samples according to ISO standards is tested. Organizer: Kimon Christanis christan@upatras.gr

Dispersed Organic Matter Vitrinite Reflectance Accreditation Program (DOMVR). In this Program, the ability of an analyst to identify and measure the reflectance of vitrinite occurring as dispersed vitrinite in rocks such as carbonaceous shales or hydrocarbon source rocks is tested. Organizer: Joao Graciano Mendonca Filho graciano@geologia.ufri.br

Coal Blends Accreditation Program (CBAP). In this Program, the ability of an analyst to identify the number of coals in a blend and their petrographic characteristics such as vitrinite reflectance and maceral group composition according to ISO standards is tested. Organic petrology is the only technique able to yield information of the individual component coals within a coal blend. Organizer: Małgorzata Wojtaszek mwojtaszek@ichpw.pl

The ICCP has established a procedure to facilitate payments, in which a single invoice will be produced.

This requires that participants fill in the registration form available in the following link:

www.iccop.org/accreditation/accreditation-form

before **April 30, 2020** in order to expedite the procedures. In addition, the detailed schedule of the Accreditation Programs has been established to provide reasonable distribution of workload from all activities and to accommodate the timelines for the evaluation process. The expected schedule is summarized in **Table 1**.

Table 1. General schedule proposed for 2020-2021 ICCP Accreditation Programs.

	SCAP	DOMVR	CBAP
Announcement and call for participation	February to April 30, 2020	February to April 30, 2020	February to April 30, 2020
Invoicing	till May 31, 2020	May 31, 2020	May 31, 2020
Sample distribution	April to June 2020	May to June 2020	December 2020
Reception of results	September to October 2020	September to October 2020	January to March 2021
Evaluation, Certificates and Web	November to December 2020	November to December 2020	April to June 2021
Certificates Validity	01.01.2021 to 31.12.2022	01.01.2021 to 31.12.2022	01.07.2021 to 30.06.2023

Different number of samples are to be analysed in the Accreditation Programs depending on your previous participation. Participants entering SCAP or DOMVR Accreditation Programs or having lapsed for a round, have to analyse six samples, whereas continuation in the Accreditation Program requires the analysis of two samples. For CBAP, new entrants are expected to analyse two samples and continuation requires the analysis of a single sample. No participation of automated systems will be allowed in any of the Accreditation Programs.

The samples for the Accreditation Programs will be distributed shortly after registration. The evaluation of results and certificate of accreditation will be issued upon the reception of the corresponding fee. The fee structure for the 2020-2021 Accreditation Round is summarized in **Table 2**. In addition, for participation in CBAP Accreditation Program and any other of the Programs, there will be a **20% discount for CBAP Accreditation program only**. No additional discounts are applied to any other combination of the Accreditation Programs.

Table 2. Fee structure for the 2020-2021 ICCP Accreditation Programs.

	SCAP		DOMVR		CBAP	
	Entry	Continuation	Entry	Continuation	Entry	Continuation
Non-Members, €	126	84	100	66	200	168
Members, €	63	42	50	33	100	84

Further details on the Accreditation Programs, evaluation procedures, and screening method to limit outliers in the accreditation database can be found on the ICCP website (www.iccop.org) and can be also received by contacting the respective program organizers. The ICCP Accreditation Programs have grown up and consolidated over the years and are now an efficient instrument for checking the ability and method of an analyst for petrographic analysis. If you are interested in joining the programs, please contact the corresponding organizers.

Magdalena Misz-Kennan
Chair of the Accreditation Subcommittee





CALENDAR OF EVENTS 2020



Please send in meeting, short course and special event announcements to the Editor
<http://www.tsop.org/events.html>

	<p>June 7 - 10, 2020 <u>AAPG Annual Conference & Exhibition</u> – Houston, TX, USA</p> <p>Still scheduled as of 3-31-2020</p>
	<p>July 21 - 26, 2020 <u>Goldschmidt Conference</u> - Honolulu, HI, USA</p> <p>Still scheduled as of 3-31-2020</p>
	<p>September 14 - 18, 2020 37th Annual TSOP Meeting - CANCELLED</p>
	<p>September 16 – 23, 2020 <u>ICCP Conference</u> – CANCELLED</p>
	<p>October 25 - 28, 2020 GSA Annual Meeting - Montréal, Québec, Canada</p> <p>Still scheduled as of 3-31-2020 – registration/abstracts submittal delayed until June 2020</p>