



THE SOCIETY FOR ORGANIC PETROLOGY



NEWSLETTER

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The 2023 39th Annual TSOP Meeting

Joint Meeting with ICCP

September 17-24, 2023

Patras, Greece



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Thank you to all who attended the 2022 38th Annual TSOP Meeting!

<https://www.tsop.org/TSOP2022/index.html>

Thank you to the Organising Committee:

Tim Moore, Kaydy Pinetown, Sandra Rodrigues, Tianjiao Yu, Marvin Moroeng, Alex Wheeler, Paul Hackley, Leslie Rupert, Hendra Amijaya, Greg Lis, Jillian Pearse, Carol Sule, Hamed Sanei, Andreas Busch, Shifeng Dai, Pelayo Tomillo Garcia



TSOP is an AAPG Affiliated Society.
Abstracts from annual meetings are available through [AAPG Datapages](#)



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<https://www.linkedin.com/groups/12634595/>

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:

Fu Biao: 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

December Issue: Dec. 10th, 2022
March Issue: March 10th, 2023
June Issue: June 10th, 2023
September Issue: Sept. 10th, 2023

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Dear TSOP Members,

September is an exciting and busy month for us as it is usually our annual meeting period, and this year was no exception. For those who were not able to attend, the 2022 TSOP Annual Meeting, which took place during 12-16 September, was a highly successful and enjoyable virtual event. The meeting started with a fantastic short course showcasing the latest developments in techniques and applications of organic petrography presented by experts from the US Geological Survey: Paul Hackley, Aaron Jubb, Ryan McAleer, Brett Valentine and Justin Birdwell. The course was attended by a record number of participants by TSOP short course standards. Two excellent keynote speakers, Dr Linda Stalker from CSIRO Energy and Dr Debra Willard from the USGS, provided broad perspectives on the future of geoscience and the climatic implications of analysis of sedimentary organic matter, setting the scene for a wide range of interesting technical talks that followed.

Our first ever roundtable discussion panel on “The role of fossil fuels in a net zero emissions energy sector” was moderated by Prof Hamed Sanei, and our panellists Prof David Rutledge, Ms Carolina Gutiérrez Hernandez, Mr John Kessels, Prof Shu Jiang, Mr Mike Teke and Dr Dietmar Tourbier, provided their insights on regional and global trends in energy and what the future may hold for fossil fuel geoscience. In a nutshell, the road ahead will require a balanced and realistic approach to meeting energy supply and demand, while addressing environmental impacts.

I wish to thank all the contributors listed above, our sponsors (the University of Johannesburg, the US Geological Survey, Cipher Consulting and Dr Xingjin Wang), our engaged delegates, and all the presenters who enlightened us with their novel research findings. I was excited about the high student participation and would like to commend all students for their excellent presentations both as orals and posters.

During our annual awards ceremony we could celebrate achievements by several peers. I wish to congratulate Dr Bob Finkelman as the 2022 John Castaño Honorary Membership Award recipient, the society's highest honour, the Ralph Gray award recipients (Faiz et. al.), the Dal Swaine award recipients (Arbuzo et. al.), and our outstanding student award winners (Rafaela Lenz for best oral and Morgana Carvalho for best poster).

Finally, my sincere thanks to Tim Moore and his organising committee whose efforts made the event the success. Tim has invested significant professional and personal time into the organising of TSOP 2022, and we appreciate his support as well as that of his family.

This year we also welcomed a new Editor, Biao Fu, and councillor, Carolina Fonseca, on TSOP Council. Many thanks to our retiring editor, Rachel Walker, who has served in this role with absolute dedication and diligence for longer than I have been a TSOP member. Thanks also to outgoing councillor, Stavros Kalaitzidis, for his active participation and contributions to TSOP during his term.

As for some personal news, by now many of you would be aware that I have taken up a new role with the New South Wales Government as a Senior Scientist in the Department of Planning and Environment. The team I am part of focusses on modelling emissions projections across all IPCC reporting sectors and is closely involved in tracking progress for the government's Net Zero Plan for the state. It is certainly an interesting time to be a geoscientist and I wish to close with something I firmly believe as we navigate the anticipated changes in our profession: Opportunity awaits!

Best wishes,
Kaydy Pinetown, TSOP President 2021-2023



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

Join or Renew Your Membership



You can use our convenient online dues payment system to pay dues by credit card. You can login at the [Members Only TSOP](#) website 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.

THE RALPH GRAY AWARD

Best Refereed Paper in Coal and Organic Petrology



This is a TSOP award for the best refereed paper in coal and organic petrology was approved by Council in early 2009. With the permission of the Gray family, the award was named after Ralph Gray (1923-2009), a petrologist with wide-ranging experience and interests, particularly well-known for his work in industrial applications.

The 2022 winner of the Ralph Gray Award is:

Elemental composition of dispersed vitrinite in marine Jurassic source rocks of the Vulcan Sub-basin, Australia: Implications for vitrinite reflectance suppression by M. Faiz, N. Sherwood, R.W.T. Wilkings.

Marine and Petroleum Geology 133 (2021) 105278.

<https://doi.org/10.1016/j.marpetgeo.2021.105278>

THE DAL SWAINE AWARD

Best Refereed Paper in Coal and Hydrocarbon Source Rock Geochemistry



The Dal Swaine Award for Best Published paper is presented to the authors of the paper judged to be the best for the year in inorganic or organic geochemistry and/or mineralogy of coal or hydrocarbon source rocks.

The 2022 winner of the Dal Swaine Award is:

Geology, geochemistry, mineralogy and genesis of the Spetsugli high-germanium coal deposit in the Pavlovsk coalfield, Russian Far East by S.I. Arbuzov, I.Yu Chekryzhov, D.A. Spears, S.S. Ilenok, B.R. Soktoev, N.Yu Popov.

Ore Geology Reviews 139; 104537.

<https://doi.org/10.1016/j.oregeorev.2021.104537>

Organic petrography of the Cretaceous black shale in Mamfe Basin, Southwest Cameroon

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The Mamfe basin is part of the lower Benue Trough and the West Central African Rift System that is intimately associated with the opening of the South Atlantic Ocean and the formation of the Gulf of Guinea. Black shales which are important hydrocarbon source rocks are outcropping at the eastern part of the Mamfe basin. Organic petrography was done on the black shale with the objectives to determine the types of macerals present and their relative abundance as well as their hydrocarbon generative potential and paleo-depositional environment. Also, to determine the thermal maturity of these organic component as well as their relationship between hydrocarbon generation and maturity.

The results of this investigation reveal that the black shales of the basin contained telovitrinite subgroup macerals with a total of 4.9 % and the macerals identified include collotelinite (4.1%) and telinite of 0.8 %. Maceral vitrodetrinite (1.7 %) of the detrovitrinite subgroup were also present. Other macerals such as desmocollinite of detrovitrinite subgroup, gelocollinite and corpocollinite of the gelovitrinite subgroup are rare. The relative abundance of vitrinite macerals in the samples may indicate that the basin is a site of high vascular plant influx and more anoxic conditions. However, oxic conditions could have been present at the site of burial in which inertinite maceral such as fusinite (4.1%) and semifusinite (0.3%) of the telo-inertinite subgroup were deposited. The macerals inertodetrinite, micrinite and macrinite of the gelo-inertinite and detro-intertinite subgroup respectively are absent in the Mamfe basin. The occurrence of the inertinite macerals in the samples may give an impression of organic matter contribution from vascular plants which have undergone severe oxidation. The Mamfe basin sediments may be of sub-aerial provenance since the black shale from the basin express relatively poor composition and distribution between the primary and secondary liptinite subgroup with only alginite (0.5%) present.

The poor composition of liptinitic macerals compared to the other groups of macerals (inertinite and vitrinite) in the sediments can be attributed to the fact that liptinitic macerals are of aquatic provenance while inertinite and vitrinite are of sub-aerial (terrestrial) provenance. The vitrinite reflectance measurement in the samples ranges from 0.55% Ro to 0.82% Ro. They are, thus, indicated to be in the oil window. The source rocks in question are mature to peak mature for hydrocarbon generation and the thermal maturity of the sediments could be related to the climate in the basin during the Cretaceous which was arid due to deposition of highly soluble halite. It is therefore implied that the black shale was buried to depth between 3 km and 4 km assuming a geothermal gradient of 30° C km⁻¹. The presence of organic matter suitable for hydrocarbon generation was verified by the nature and abundance of the macerals in the sediments.

The relative abundance of both vitrinite and inertinite as a proportion of the dispersed organic matter show that the black shales of the basin are rich in gas-prone organic matter. It can therefore be suggested that the Mamfe basin source rocks contained type III kerogen rich in vitrinite and inertinite (mainly fusinite and semifusinite) to type IV kerogen. Given the prevalence of humic type III kerogen and their maturity, it can be concluded that the basin source rock facies have potential for gaseous hydrocarbon which have not yet been generated at the present-day outcrop levels and could be an important gas source where buried down-dip. The Type III kerogen from higher plant can be associated with terrestrial input into lacustrine settings. Therefore, the Mamfe basin source rocks facies could have been deposited in an anoxic bottom lake.



**14th ICCP Course
General Coal and Organic Petrology
Patras, Greece
October 24-28, 2022**

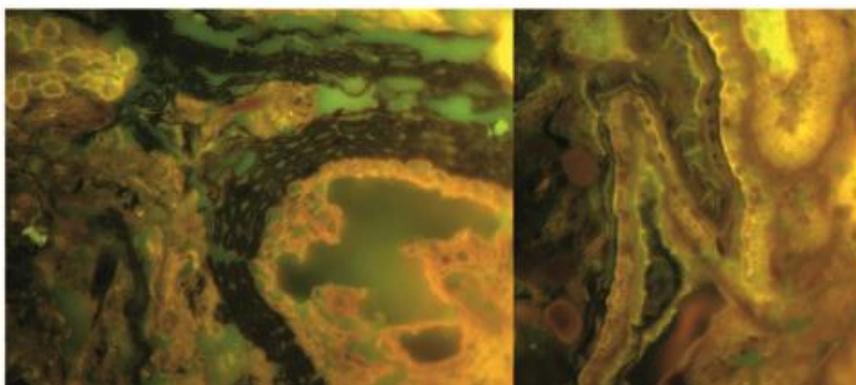
ICCP is delighted to welcome you to the 14th ICCP Course in General Organic Petrology to be held in Patras, Greece, from 24–28th October 2022.

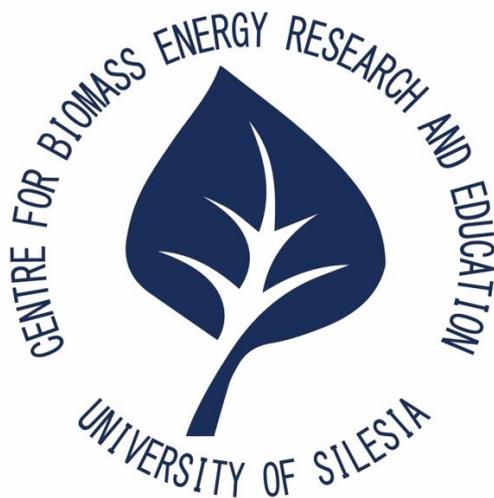
The course is organised by ICCP in conjunction with the Department of Geology, University of Patras, and is designed for professionals and students, and is not exclusively targeting organic petrologists but also those, who rather deal with petrographic data. Instructors will be Dr Walter Pickel and Dr Stavros Kalaitzidis.

Please visit the [Course webpage](#) for more information or contact Dr. Stavros Kalaitzidis (skalait@upatras.gr)



**14th ICCP Training Course – General Organic Petrology
Patras, October 24 – 28, 2022**





www.biomass.edu.pl

The Centre for Biomass Energy Research and Education invites everyone to join an

**INTERLABORATORY STUDY:
TESTING REPRODUCIBILITY OF BIOMASS FUELS COMPONENT IDENTIFICATION
USING REFLECTED LIGHT MICROSCOPY**

1. Materials containing introduction to solid biomass component identification using reflected light microscopy will be sent to participants in early to mid-November 2022
2. Pilot study – component identification using photographs (November-December 2022)
3. Results analysis and participant discussion (January 2023)
4. Petrographic analysis on solid biomass samples (February-April 2023)
5. Results analysis and presentation (TSOP 2023 Annual Meeting in Greece)

Interested in participating??

Please email Agnieszka Drobniak at agdrobni@iu.edu

The project is co-financed by the Polish National Agency for Academic Exchange within Polish Returns Programme, the National Science Center of Poland, funds granted under the Research Excellence Initiative of the University of Silesia in Katowice, Poland and the Green Horizon Program, Poland.



POLISH NATIONAL AGENCY
FOR ACADEMIC EXCHANGE



**INDIANA GEOLOGICAL
& WATER SURVEY**
INDIANA UNIVERSITY

CALENDAR OF EVENTS

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

2022

 THE GEOLOGICAL SOCIETY OF AMERICA®	<p style="text-align: center;"><i>October 9-12, 2022</i> GSA Annual Meeting - Denver, CO, USA</p>
	<p style="text-align: center;"><i>October 24-28, 2022</i> 14th ICCP Course – Patras, Greece</p>

2023

 geochemical society	<p style="text-align: center;"><i>July 9-14, 2023</i> Goldschmidt Conference – Lyon, France</p>
 The Society for Organic Petrology	<p style="text-align: center;"><i>September 17-24, 2023</i> 39th Annual TSOP Meeting – Patras, Greece</p>
	<p style="text-align: center;"><i>September 7-24, 2023</i> 74th ICCP Annual Meeting – Patras, Greece</p>
 THE GEOLOGICAL SOCIETY OF AMERICA®	<p style="text-align: center;"><i>October 15-18, 2023</i> 2023 GSA Annual Meeting - Pittsburgh, PA, USA</p>