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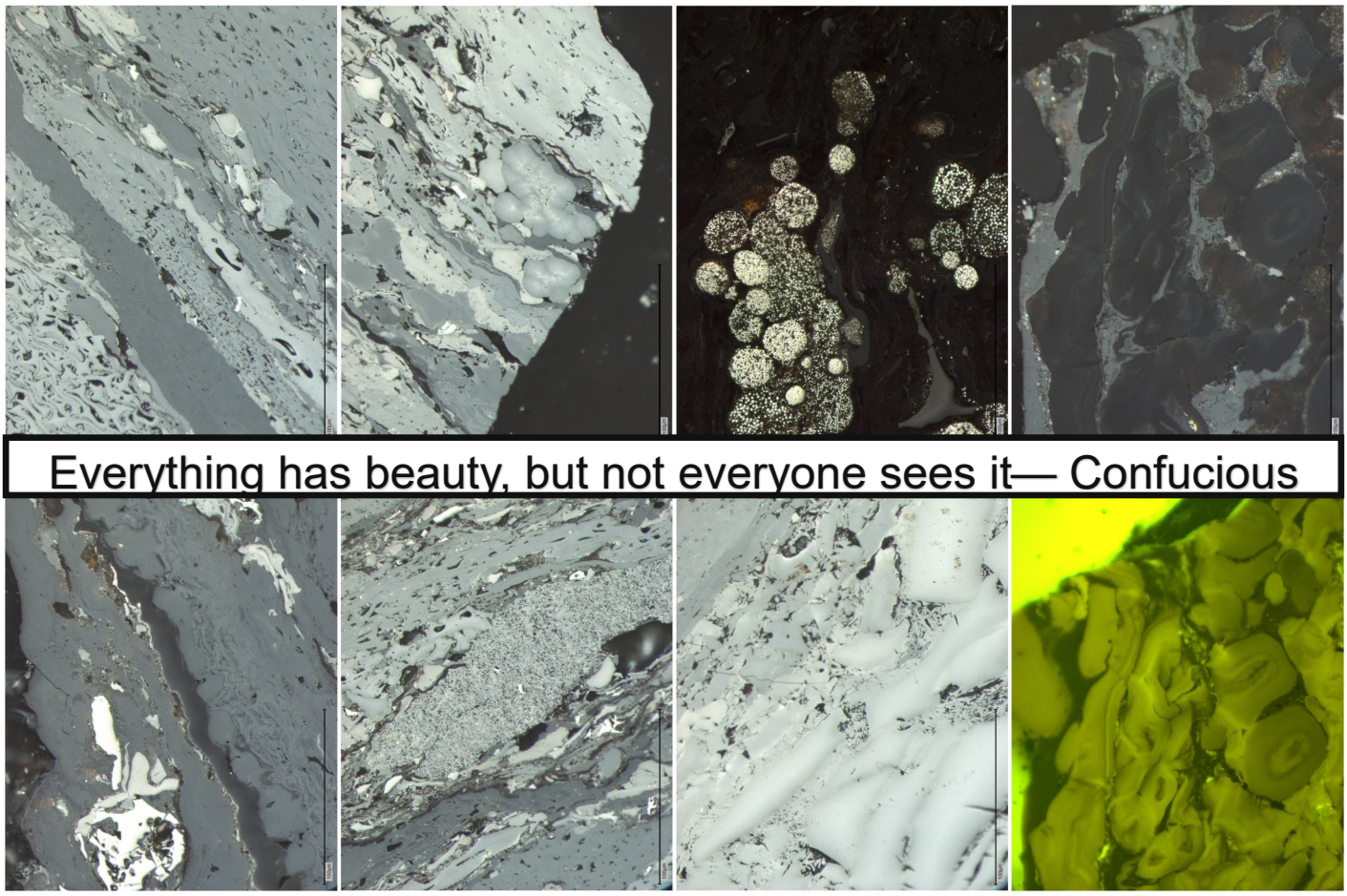
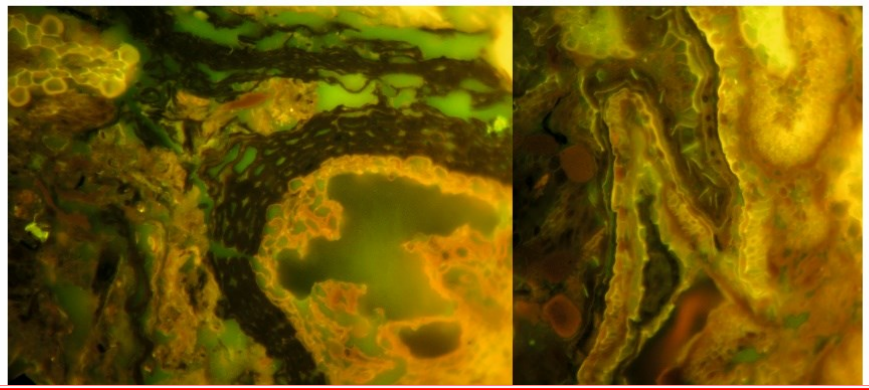


Everything has beauty, but not everyone sees it— Confucious

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



IN THIS NEWSLETTER

EDITORS COLUMN

Dear All,

Easter period, change of season period, greetings to you all. As most of the world began to actively pursue a degree of normality due to the better understanding of the COVID-19 virus and global pandemic, we again face disruption due to the ongoing Ukraine-Russia situation. Due to globalization, I think we are all feeling the effect of the war (increased fuel process, potential grain shortage, and so on), but I am certain it is nothing compared to those citizens within Ukraine and the immediate surrounds. My thoughts and prayers remain for a quick resolution to prevent further suffering and loss.

This morning I read a concerning article: Anglo American Platinum (Amplats) had offered to make a donation to the Red Cross to assist humanitarian work in Ukraine. The donation was declined on the grounds that Amplats is a mining company and hence the money is 'tainted'. Accepting the money would apparently go against the values of the Red Cross. To me, this is a clear case of society not understanding the need for mining in our daily lives; none of societal realities we live daily would be possible without mining. As stated by Mark Cutifani (Anglo's previous CEO): '… mining simply makes life possible on this planet', as in modern life. And space exploration for that matter too. And wars. Admittedly, the mining industry itself has caused this negative perception due to the hundred of years of health, safety, environmental decimation without due regard for consequences, or understanding of the consequences. These days we know a whole lot more, and the mining industry is scrutinized by watchdogs, stakeholders, and civil society, with ESG at the forefront of discussions these days. Certainly, there is always room for improvement. And certainly, investors and shareholders probably should be chasing the triple bottom line more obviously than simply the financial one. Lars Schernikau speaks vocally in reminding people that we need geological commodities, especially coal, to achieve a low carbon economy as well as energy security. A transition to a green economy is simply not possible without carbon and mining – and far more mining than currently in progress as demand for copper, for example, will grow by at least 600%. Banks, global and local funders, some governments, and mining companies, have abandoned coal in attempts to achieve net-zero emissions. Rather than forcing the industry to clean up its act and implement the cleaner, safer mining and conversion technologies that do already exist. Somewhat short-sited in my opinion.

Turning to this Newsletter, the ICCP continues to attract a few (1 so far this year) young people. The ICCP Course in Patras (September 2022) is a welcome revival, with thanks to Walter Pickel and Stavros Kalaitzidis. The ICCP Meeting in India in 2022 will be a hybrid event, but we all hope the 2023 Meeting scheduled for Patras will be in person. The ICCP Working Groups have been active, and the Accreditation program registration is in progress. So our activities continue smoothly despite the world around us.

Those who have the opportunity to view coal under a microscope will certainly agree: "Everything has beauty, but not everyone sees it." Confucious. Best wishes, Nikki Wagner

STATEMENT FROM THE ICCP COUNCIL

The International Committee of Coal and Organic Petrology (ICCP) would like to express our deepest concerns and disappointment regarding the war situation in Ukraine. For another time in human history war is initiated in a resource rich area. The Donbass region is a coal mining region and therefore is very close to the heart of the ICCP.

ICCP, born within the deepest hours of the Cold War, as a true Global Organization managed for more than half a century to bring together scientists from all over the world, with the aim to provide means for a prosperous and friendly society, beyond nationalities and religion. Therefore, we feel close to the people and our colleagues in Ukraine, who are suffering aggression to their lives.

Moreover, we constantly condemn any hostilities that jeopardize the core values of a peaceful and collaborative world. We also express our sympathies to our colleagues in Russia, and the whole Russian People, who in this dark hour for Europe, are also victimized.

We call upon the Russian Government to listen to the voices of the International Community and stop hostilities to allow international cooperation, under the standards of peace and respect, which are needed for the scientific and technological progress.

We call upon the International Leaders to consider that no citizen in any country in the 21st Century shall experience the futility of war.

Signed by the ICCP Council

ICCP COURSE, PATRAS, 2022

https://www.iccop.org/course/14th-iccp-course-general-coal-and-organic-petrology-patras_2022/

ICCP WEBSITE

https://www.iccop.org

Please send any feedback, comments, and uploads to Stavros Kalaitzidis

mailto:skalait@upatras.gr

INSTITUTIONAL MEMBER

SERVICIO GEOLÓGICO COLOMBIANO

Images on front page: variety of macerals taken from a single coal sample, Permian Karoo Basin, South Africa (scale bar: 100 µm; reflected white light, oil immersion; blue light fluorescence bottom image). Supplied by N. Wagner

PRESIDENTS COLUMN

Dear ICCP Members,

At another season change and still facing the difficulties derived from the Covid-19 pandemic. Another opportunity to see how unbalanced is our world and how much difficult is life in some places compared with others. We have also a war in Europe which is devasting Ukraine. My thoughts are with all Ukrainians suffering this terrible aggression.

You have in your hands a new issue of the newsletter with updated news of the working groups and information on Master Thesis, thanks for continue your work under these circumstances. There are three activities which are major players in this issue: a new accreditation round has been launched, the ICCP course will happen again and we have updated information for our forthcoming meeting in New Delhi. I know how difficult it is for all those who are in charge of these activities, organizing them with the uncertainties linked to the attendance, the travelling limitations and the security measures. Therefore, I would like to thank very specially the Accreditation Subcommittee in full with special mention to the organizers of the exercises, the trainers and organizers of the course and the chair of the organizing committee for the meeting in India. Thanks a lot for your extraordinary contribution to the ICCP.

I am also pleased to see an active section on the liaisons with TSOP. Both organizations are facing similar threats and surely, we will find benefits on a constructive dialogue for the future. I hope that you can find the way to travel to India, it is already a long time without meeting each other.

Best wishes, Ángeles.

ICCP Kolkata, 2014

From the General Secretary

Attention ICCP members – there is a call for nominations for the Council positions of President, Secretary of Commission II, and Chair of Commission III, to be received by the time of the 2022 ICCP meeting in New Delhi. Only full members can vote for the office of President, as per the ICCP statute: *Only FULL MEMBERS of the ICCP shall be eligible to vote in elections for the offices of President, the Vice President, the General Secretary, the Treasurer and the Editor.*

So please, with haste, apply to become a full member.

Also per the statutes: *To attain Full Membership candidates must demonstrate their level of experience by sending to the General Secretary a curriculum vitae comprising a candidature letter, a list of their publications and the name of one sponsoring Full Member. The Council of the ICCP shall consider the proposal together with sponsor's statement, and then, on behalf of the General Assembly, determine whether it is to be accepted or rejected.*

So, please immediately send your CV and sponsor letter to hackley_paul@yahoo.com and become a full member! And then start thinking about whom you will nominate to stand for election to the ICCP Council.

Please also send to me hackley_paul@yahoo.com any updates to your affiliation or email so that these records may be kept.

REMINDER: HAVE YOU PAID YOUR MEMBERSHIP DUES?

Update your details online—but please let the Editor have your new email address—otherwise you will miss the next edition of the ICCP Newsletter. Contact Joan Esterle for all membership payments (j.esterle@uq.edu.au).

CONTRIBUTIONS TO THE NEXT ICCP NEWS BY

30 JULY 2022

Dispersed organic matter in sedimentary rocks WG_2022_News

Dear **ICCP Commission II Members**,

Please follow the link and download the Information provided by the conveners of the **Dispersed organic matter in sedimentary rocks WG.**

Link to the post: https://www.iccop.org/documents/dispersed-organic-matter-in-sedimentary-rocks-wg_2022_news.docx/

In the Dispersed Organic Matter in Sedimentary Rocks WG, the Convenors discussed extensively the structure and content of the white paper on Dispersed Organic Matter (DOM) in Sedimentary Rocks – Classification, Identification and Thermal Maturity, based on the last available manuscript and published data. The conclusion reached pointed out that aims and goals set out in 1995 dealing with classification, identification and thermal maturity are by now already covered in length in a high number of different publications. The recurrence of these plentiful statements, data and conclusions made by the numerous authors and regarding so many aspects would go beyond the normal pre-scheduled plan of activities in our WG. Thus, such a compilation would not be successful and its scope and content would not adequately reflect the merits of scientifically reached reports.

Instead, the Convenors identified a new worthy activity. Instead of reiterating the already set standards in organic petrology and the acquired knowledge, the idea is to prepare a Review Publication focusing mainly on the application studies of Dispersed Organic Matter (DOM) in Sedimentary Rocks – Classification, Identification and Thermal Maturity. The application studies may focus on a number of different subjects such as: regional based studies, stratigraphically based studies, thermal maturity, geobiology, fossilization, petroleum exploration/ exploitation, organic matter type based studies, etc. This review publication can provide a relevant platform for academia and industrial activities such as HC exploration and development, shallow and deep geothermal energy systems, deep geological disposal programs, coastal hydrogeology, and others. In order to incorporate the relevant topics prepared in the last version of the "DOM in Sedimentary Rocks" manuscript and to back up these topics by current and appropriate citations, the Review Publication will also enclose one chapter condensed to several pages focusing very heavy with references to the published studies: sample preparation, polished pellet preparation, ICCP DOMVR Accreditation Program, calibration procedure, reflectance standards, ISO/ASTM norms for microscopic analyses. The convenors retain the predecessors of the WG as co-authors.

As this discussion and the approval for a change in the formerly established goal for the WG should be discussed by the Commission II members during the ICCP Meeting, and as the Convenors do not want to wait until the next ICCP Meeting the suggestion is to gain here and now your support and comments for the new and above presented approach.

Please send in your comments and suggestions by the 15th of July, 2022, to J.Kus@bgr.de.

The idea for a review publication focusing on application studies of DOM has been discussed with the editors of Int. J. Coal Geol. who have responded that they will welcome this contribution.

Thank you,

Convenors: Dr. Jolanta Kus, Dr. Paul C. Hackley, Dr. Paula Alexandra Gonçalves.

The ICCP Newsletter provides a forum for students, young and advanced researchers, petrologists, petrographers, and any one else, to present results, submit short reviews or articles, post notifications, request assistance, announce relevant conferences / workshops / courses. Please submit all documents for inclusion into the next ICCP Newsletter.

The ICCP Newsletter, ISN 1445-4793 (1445-4858 online) is distributed 3 times a year, & welcomes contributions from members & non-members. The minutes of the Annual Meeting are published in the final issue each year, & the program for the Annual Meeting is included mid-year. The Newsletter is distributed to all members & is available on the open area of the webpage. This enables anyone interested in the science to obtain exposure to the ICCP activities. ICCP application details are available on the website, or contact the General Secretary Paul Hackley hackleypaul@yahoo.com.

Members who can supply suitable bulk, single coal samples, for the SCAP Program, please contact Kimon: christan@upatras.gr.

Finalization of the Confocal Laser Scanning Microscopy (CLSM) Working Group

Paul C. Hackley, U.S. Geological Survey, USA; Jolanta Kus, BGR, Germany

A working group in Commission II to investigate applications of confocal laser scanning microscopy (CLSM) for organic petrology investigations has finalized with publication of the manuscript "Characterization of bituminite in Kimmeridge Clay by confocal laser scanning and atomic force microscopy" in the International Journal of Coal Geology.

The manuscript is available via Open Access from https://doi.org/10.1016/j.coal.2022.103927 and also from the Commission II working group (WG) webpage https://www.iccop.org/workinggroup/confocal-laser-scanning-microscopy-clsm/.

A report detailing the full history and results from the WG also is available from the Commission II WG webpage. The working group investigated the application of CLSM to an organic-rich (44 wt.% TOC), thermally immature sample (VR_o 0.42%) of the Kimmeridge Clay Formation. CLSM imaging and spectroscopy and atomic force microscopy (AFM) were used to characterize bituminite.

Key findings from two- and three-dimensional CLSM imaging included:

- incomplete blocking of reflected laser light from low-absorbing sulfide and fusinite inclusions in bituminite;
- halos of decreased fluorescence intensity around radioactive minerals in bituminite;
- the presence of sporinite and *Botryococcus* (interpreted identification) as particulate constituents of bituminite;
- and the red-shift of sulfide reflectance and bituminite fluorescence emanating from below the sample surface as compared to light from its surface.

Key findings from CLSM spectroscopy included:

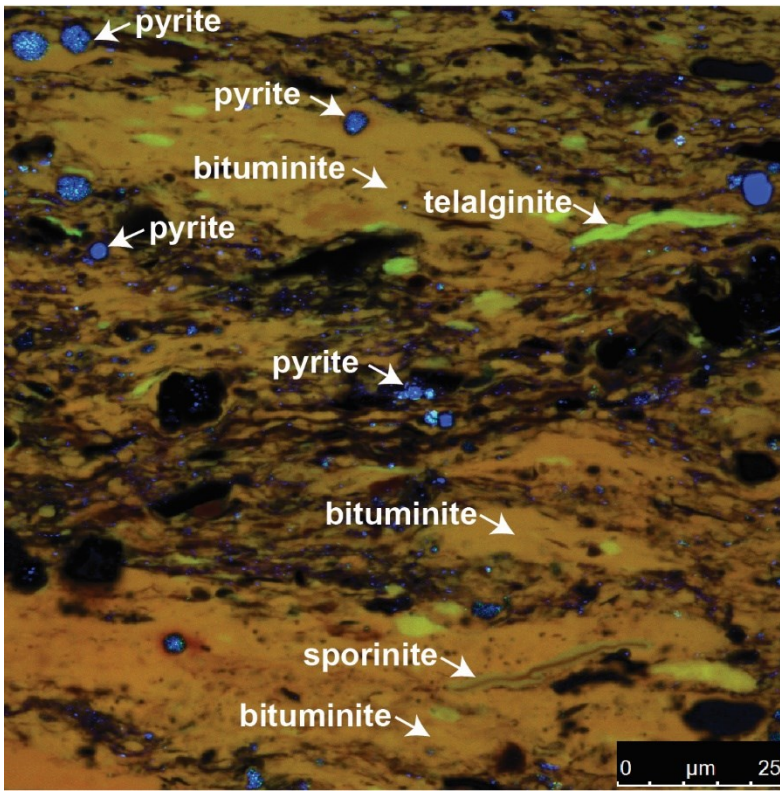
- color blue-shift from positive alteration via laser-induced photo-oxidation of bituminite;
- blue-shift associated with higher fluorescence intensity regions in bituminite, probably due to differences in composition, e.g., related to particulate constituents or degradation products thereof;
- differences in spectroscopic data collection procedures and reported fluorescence emission parameters for bituminite, highlighting the need for standardization in fluorescence spectroscopy;
- and the prediction of solid bitumen reflectance via calibration to an extant dataset.

WG members also applied AFM to bituminite in the Kimmeridge Clay sample, from which the key findings were:

- increased surface flattening from broad ion beam (BIB) milling which resulted in higher reflectance of bituminite;
- the differential erosion of bituminite during BIB milling compared to harder micro- and nanoscale quartz and sulfide inclusions;
- the exposure by BIB milling of nano-sulfides embedded in bituminite which resulted in decreased surface flatness.
- and the magnitude of bituminite surface deviation from perfect flatness was dependent on the scale of observation.

The findings illustrate the utility of CLSM (and AFM) as research tools in organic petrology, and suggest that future workers could leverage the investigative properties of both approaches in combined AFM-CLSM studies of sedimentary organic matter.

Persons interested in CLSM and AFM applications to sedimentary organic matter are encouraged to contact Paul Hackley phackley@usgs.gov and Jolanta Kus Jolanta.kus@bgr.de.



CLSM composite photomicrograph of bituminite in Kimmeridge Clay Formation showing inclusions of pyrite, telalginite, and sporinite.

Please encourage all active organic petrologists to apply for ICCP membership. And, if you are eligible, please apply for full membership. All membership information can be located on the webpage. Only Full Members may vote.

Identification of Thermal Maturity -Relevant Organic Matter in Shale Working Group Report 2021

Paul Hackley, Javin Hatcherian, Jennifer Rivera, Margaret Sanders, Brett Valentine

U.S. Geological Survey, Reston, USA, phackley@usgs.gov

The Identification of Thermal Maturity-Relevant Organic Matter in Shale Working Group of the ICCP was established in 2008 to provide guidelines for identifying and measuring the reflectance of the population of dispersed organic matter that is relevant to thermal maturity determination. Information products published by the working group include ASTM D7708 Standard Test Method for Microscopical Determination of the Reflectance of Vitrinite Dispersed in Sedimentary Rocks (ASTM, 2014) and two interlaboratory studies (ILS) to determine precision statistics for this ASTM test method (Hackley et al., 2015, 2020). Poor reproducibility of solid bitumen and vitrinite reflectance measurements in the second ILS (Hackley et al., 2020) suggested that further work is required to standardize the identification of thermal maturity-relevant dispersed organic matter for reproducible reflectance measurements. Thus, at the 2019 ICCP meeting in The Hague, Netherlands, the working group decided to pursue additional ILS via image-based approaches to improve reproducibility.

Working group activity in 2021 included a pilot-scale, imaged-based study to identify organic matter types in six shale samples from the North American Bakken, Woodford, Eagle Ford, Marcellus, Haynesville, and Barnett unconventional resource plays. A total of fifty incident white light photomicrographs taken at 500x magnification under oil immersion were selected from images which had been previously collected during characterization of these six samples for the second ILS (Hackley et al., 2020). The images were collated into a Microsoft PowerPoint file and marked with two or three arrows each pointing to a maceral (Figure 1) to be identified by the organic petrographer in an accompanying Microsoft Excel file.

The Excel file also contained a minimal amount of supporting information including formation name, total organic carbon (TOC) content, T_{max} (°C), and solid bitumen reflectance (BR_o, %). The PowerPoint and Excel file (with instructions) were circulated between the five active U.S. Geological Survey organic petrographers (Paul Hackley, Javin Hatcherian, Jennifer Rivera, Maggie Sanders, and Brett Valentine) as a pilot-scale study prior to planned wider distribution amongst the ICCP community. The instructions directed the petrographer to identify the selected maceral from a multiple-choice list of potential identifications, which included solid bitumen (sb), vitrinite (v), inertinite (i), micrinite (m), can't determine (?), or other (for which the petrographer could submit a different answer).

The exercise took the petrographers between thirty minutes to two hours to complete, depending on the level of petrographic experience with identifying dispersed organic matter. Perfect agreement (i.e., all five petrographers selected the same identification for a particular location) of organic matter identification was positively correlated with increasing TOC content (Figure 2).

Perfect agreement decreased in order from Woodford (78%), Bakken (50%), Eagle Ford (45%), Marcellus (45%), Haynesville (19%), to Barnett (13%) (Figure 2a). The same order was followed for perfect plus good agreement (i.e., four of five petrographers selected the same identification for a particular location) for the top three samples: Woodford (83%), Bakken (75%), and Eagle Ford (69%). The Woodford and Bakken samples with the highest TOC had the lowest thermal maturity, suggesting that the level of agreement for organic matter identification is affected both by abundance of organic matter and its relative thermal maturity. A high level of agreement for organic matter identification in the Eagle Ford is thought to be due to the common occurrence of void-filling solid bitumen occupying the spherical chambers of planktic *Globigerina* foraminifera, which was almost always correctly identified.

Based on the answers submitted by the petrographers, the selected maceral was sometimes identified as vitrinite if it was larger or visually different than the network or groundmass solid bitumen in the same photomicrograph. This tendency was previ-

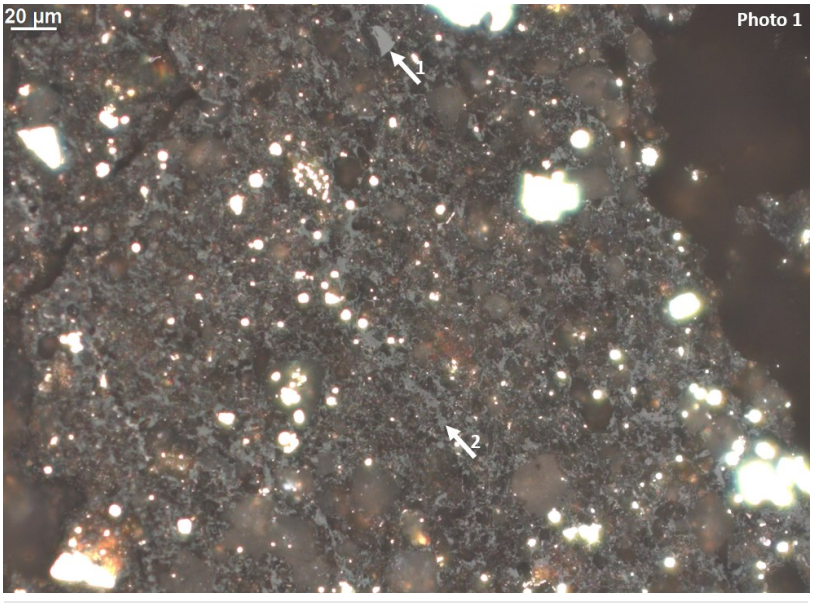


Figure 1. Example image from Bakken shale with two locations requested for organic matter identification.

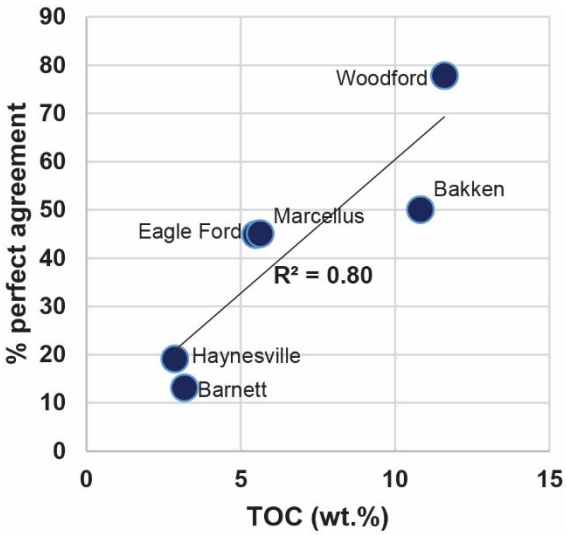


Figure 2. Graph illustrating the percentage of perfect agreement (5 of 5 petrographers) versus total organic carbon (TOC) content.

ously noted by Hackley et al. (2020). If the selected maceral was a small but discrete inertinite fragment it was sometimes identified as micrinite. This identification is perhaps due to the ASTM petrographic standard for metallurgical bituminous coals (D2799, ASTM, 2021) in which the term micrinite is assigned if the inertinite fragment is “generally nonangular, exhibiting no relict plant cell wall structure, smaller than 10 µm and most commonly occurring as particles around 1- to 5-µm diameter.” Conversely, the selected organic maceral was sometimes identified as inertinite instead of micrinite if micrinite granularity was not clear in the image. This discrepancy may be due in part to image quality and the inability to resolve granularity. Similarly, if solid bitumen contained a granular texture, it was sometimes identified as micrinite.

Some of the comments provided by the participants suggested a low confidence level in maceral identifications related to distinguishing solid bitumen from vitrinite, which is the main issue examined by this working group. Participants cited a training bias to look for vitrinite, possibly leading to the observation noted above where vitrinite was identified if the selected maceral was larger or visually different than the network or groundmass solid bitumen in the same photomicrograph. Participants also noted differences in white balance among the fifty reflected light images of the exercise (which were collected over the course of about a year), suggesting that improvements could be made to image-based approaches by collecting images under similar microscope working conditions. Participants noted the image-based approach added an additional layer of difficulty in that the sample could not be scanned to locate additional macerals for comparison. To improve the image-based approach, the participants suggested including 1) a higher magnification image of the selection (e.g., 1000x), 2) a reflectance measurement image of the same brightfield image, 3) a comment field in the answer sheet to indicate level of confidence in identification or other general comments, and 4) guidance that not all maceral types are present in every image.

The working group is also engaged in the effort to update and ballot ASTM for the renewal of the D7708 test method, which will be withdrawn if it is not updated in 2022. The ICCP user community has been solicited for comments since 2019 and many suggestions have been received for ballot. Some of these include the explicit disallowance of sample preparation via ion milling, a note on inaccurate calculation of the reflectance of translucent standards by their refractive index, expansion of calibration methodology, removal of the preparation grading scheme (which is almost universally ignored by users), and many other suggestions. Please do not hesitate to contact Paul Hackley (phackley@usgs.gov) if you have thoughts to contribute on updating ASTM D7708. ASTM will ballot modifications suggested by the user community in July 2022.

References

ASTM, 2014. D7708-14 Standard test method for microscopical determination of the reflectance of vitrinite dispersed in sedimentary rocks: Petroleum products, lubricants, and fossil fuels; Gaseous fuels; coal and coke, sec. 5, v. 05.06. ASTM International, West Conshohocken, PA.

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I am sure we all miss these days!
Looking forward to dancing together in India (2022) or Patras in 2023. Stavros, hoping you can show us how it’s done!
Photograph left : 1999, Bucharest ICCP Meeting; right Kolkata, 2014.

73rd ANNUAL ICCP MEETING NEW DELHI, INDIA — VIRTUAL AND IN-PERSON EVENT; 18—23 SEPTEMBER 2022

The 73rd International Committee for Coal and Organic Petrology (ICCP-2022) meeting will be hosted by CSIR-Central Institute of Mining and Fuel Research (CSIR-CIMFR), Dhanbad, New Delhi, India in September'2022. The Meeting theme is towards advancements on basic and applied research in coal petrology involving talented researchers in this field across the globe. ICCP-2022 event will be organised in hybrid mode between **18-25 September 2022.** Physical participation of delegates is preferred. Commission/Committee meetings and Council meetings are as per the detailed tentative programme below, followed by a symposium on ***"Recent trends on coal utilisation for sustainable development and energy security"*** (tentative topic) on 23rd September 2022. The field trip is planned to NTPC Dadri, U.P., India, where a coal and biomass blending facility will be visited combined with site-seeing at Mathura and Agra; filed-trip dates are 24-25 September 2022. The main focus of the ICCP meetings is the deliberations / discussions of different Commissions on standardisation processes/procedures, new techniques, etc. on Organic Petrological aspects of coal and lignite. The outcome of this meeting will be dissipated to different standardisation agencies, industrial and academic institutions for judicious use by the concerned experts.

Editor: Please contact Dr Ashok Singh (singh_ak2002@yahoo.co.in) for further information, and keep abreast of developments on the ICCP Meetings webpage https://www.iccop.org/meetings/forthcoming-meetings/

Tentative Program of ICCP events from 18-25 September 2022 (To be hosted at New Delhi)

Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	18-Sep	19-Sep	20-Sep	21-Sep	22-Sep	23-Sep	24-Sep	25-Sep
08:30-09:00								
09:00-09:30	ICCP Registeration							
09:30-10:00	ICCP Welcome	ICCP Welcome	ICCP Commission Meeting	ICCP Commission Meeting	ICCP Commission Meeting	Symposium		
10:00-10:30								
10:30-11:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break		
11:00-11:30								
11:30-12:00	ICCP Council Meeting	ICCP General Assembly	ICCP Commission Meeting	ICCP Commission Meeting	ICCP Commission Meeting	Symposium		
12:00-12:30								
12:30-13:00	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break		
13:00-13:30								
13:30-14:00								
14:00-14:30	Council Meeting	ICCP Commission Meeting	ICCP Commission Meeting	ICCP Commission Meeting	ICCP Commission Meeting	Symposium		
14:30-15:00							Field Trip	Field Trip
15:00-15:30	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break		
15:30-16:00								
16:00-16:30		ICCP Commission Meeting	ICCP Commission Meeting	ICCP Council Meeting	Closing Plenary Session	Symposium		
16:30-17:00								
17:00-17:30								
17:30-18:00								
18:00-18:30								
18:30-19:00								
19:00-19:30								
19:30-20:00	Welcome Dinner	Dinner			Symposium Dinner			
20:00-20:30								
20:30-21:30								

NTPC, Dadri, Power Plant near New Delhi for technical tour to see coal-biomass blending facility.

Venue Vigyan Bhawan for ICCP events

India habitat Centre, Venue for Dinner

Relevance of Rock Eval data in assessing the depositional environment of the bio-sedimentary rocks in the Bikaner -Nagaur Basin, Rajasthan, India

Dinesh Kumar[a,b], Santanu Ghosh[a,c], Balram Tiwari[a], Tushar Adsul[a], Atul Kumar Varma[a]*

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[c]Department of Earth Sciences, Indian Institute of Technology-Bombay, Powai, Mumbai-400076, India
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The present investigation aims to reestablish the relevance of the Rock Eval data, such as the S1 (free hydrocarbons), S2 (thermally cracked hydrocarbons), S3 (amounts of CO and CO_2 released from kerogen) curves, and the total organic carbon (TOC) content in interpreting the depositional environment of organic matter. Rock Eval parameters are widely employed to trace the type of kerogen, its thermal maturity, and to assess the hydrocarbon generation efficiencies of the source rocks. Meanwhile, a few authors (Abouelresh and Slatt, 2012; Fang et al., 1993; Samad et al., 2020; Slatt and Rodriguez, 2012) had assigned these Rock Eval parameters to the syn-depositional redox state of the organic matter deposition. The relative hydrocarbon potential calculated by dividing the summation of the S1 and S2 parameters by the TOC values (RHP = (S1 + S2)/TOC) was applied along with the acyclic isoprenoid distributions and geophysical logs to reconstruct the marine transgression and regression events. Marine transgressions were marked by an increase in the RHP values and shift from oxic to the anoxic redox state, while the regression events were represented by the environmental shifts towards the oxidizing condition and, therefore, low RHP values. Meanwhile, the Paleogene lignite, shale, and carbonaceous shale deposits of the Palana Formation from the Bikaner-Nagaur Basin, Rajasthan, India, were reported to be deposited in a marginal marine/coastal environment (Kumar et al., 2021a). Most of the lignite and shale samples comprised a low to moderate amount of sulfur, while the carbonaceous shale samples consisted of low sulfur content. These may suggest a marginal marine or costal depositional environment (Sachsenhofer et al., 2003). So, the RHP may be used here to illustrate any influences of marine transgression and regression cycles on these organic sedimentary deposits. Meanwhile, the *n*-alkane parameters suggested the fluctuations in the vegetation sources due to periodic climatic shifts between dry and wet conditions (Kumar et al., 2021b). Therefore, the authors proposed the application of the RHP parameter in tracing the redox fluxes induced by the groundwater level variations due to climatic oscillations. Additionally, they found a good correlation (r = 0.94; Fig. 1) between the RHP and the S2/S3 ratio and thus, applied this ratio along with the RHP to determine the palaeoredox shifts for the first time. The S2/S3 ratio was termed as the palaeoredox factor (PRF) (Kumar et al., 2021a). Additionally, from these parameters, they assigned the ranges and defined the boundaries among the oxic, sub-oxic and anoxic fields. The RHP values >4, , 2–4, and <2 represented the anoxic, suboxic, and oxic conditions, respectively (Fig.1), while the PRF values >12, 5–12, and < 5 pointed towards the anoxic, suboxic, and the oxic conditions, respectively (Fig.1). So, elevation in the RHP and PRF values may indicate an anoxic depositional environment during the high groundwater level at the wet/humid period (heavy rainfall). The organic matter was mostly preserved at this time. Alternatively, low RHP and PRF values may suggest an oxic environment during low groundwater level in the mire at the dry/arid period (low rainfall). It was observed that the lignite deposition occurred mostly under the suboxic condition, while the depositions of the carbonaceous shales took place under the suboxic to anoxic environment. On the other hand, the shale samples were possibly deposited under the sub-oxic to oxic redox condition. These results were mostly consistent with the acyclic isoprenoid distributions among the samples (Kumar et al., 2021a). However, the RHP and the PRF values exhibited some small variations in depicting the palaeoredox conditions of the samples. These small discrepancies may ascend from almost persistent or small-scale shifts in the groundwater table, which would have minimal influence on the redox state of the depositional environment (Kumar et al., 2021a). Hence, from this study, the authors have established the relevance of the Rock Eval data in portraying the fluctuating environment of organic matter deposition due to climatic oscillations. They would like to suggest that besides its applications in the sequence stratigraphic studies, the RHP can be employed in association with the PRF parameter to elucidate the redox fluctuations in the depositional center caused by the oscillating palaeoclimatic paradigms.

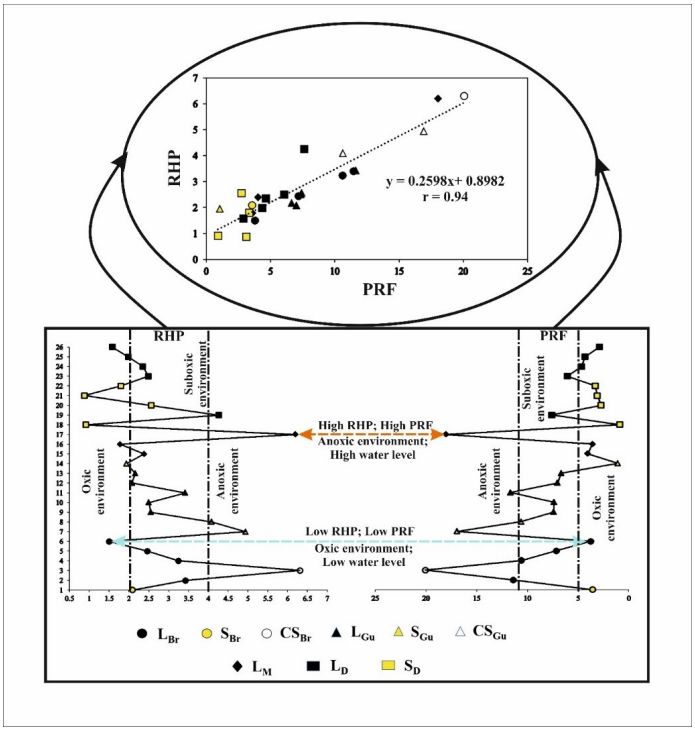

Fig.1. Relative hydrocarbon potential (RHP) and Palaeoredox factor (PRF) values depicting fluctuations in redox state of the depositional environment (after Kumar et al., 2021a; reuse of this figure is permitted by the Elsevier and Copyright Clearance Center; License Number: 5186430056510; dated: 12th November, 2021)

Explanations: *L_{Br} = Barsingsar lignite; L_{Gu} = Gurha lignite; L_M = Matasukh lignite; L_D = Diyatra lignite;*
CS_{Br} = Barsingsar carbonaceous shale; CS_{Gu} = Gurha carbonaceous shale; S_{Br} = Barsingsar shale; S_{Gu} = Gurha shale; S_D = Diyatra shale.

References: (CONTIN PAGE 12)

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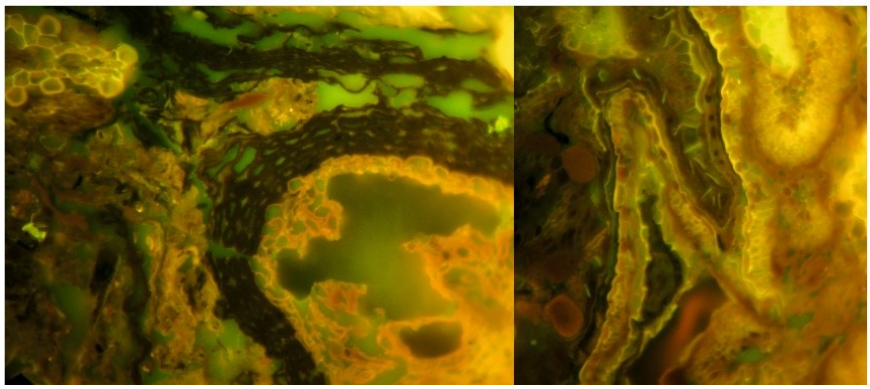
14th ICCP Training Course – General Organic Petrology
Patras, October 24 – 28, 2022



Introduction

The International Committee for Coal and Organic Petrology (ICCP), in conjunction with the Department of Geology, University of Patras, is pleased to announce a training course in **general organic petrology** to be held in Patras, Greece between 24-28th October 2022.

The course 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.

Course outline

The course will be held daily (24-27th October) from 9:00 a.m. until 5:00 p.m., with breaks for morning and afternoon coffee/tea, and lunch.

Theory:
Coal and other organic sediments genesis (geology, petrology and geochemistry), composition, type, rank/maturity and rank parameters.
Petrographic analyses: fundamentals of the optical microscope and sample preparation, maceral and microlithotype analyses, vitrinite reflectance analysis and the use of fluorescence mode.
Basic factors controlling quality and technological behaviour of coal, oil shales, source rocks. Overview of industrial and environmental applications of organic petrology.

Practical:
Practical exercises constitute a significant part of the course. They include macroscopic and microscopic characterisation of components of fossil and modern particulate organic matter, their quantification and the assessment and the interpretation of data.
The exercises will be held on microscopic identification of fossil organic matter components, point-counting analysis, reflectance analysis, the use of fluorescence mode on various samples of different type and rank/maturity and grade. For this purpose, images of pre-scanned samples on screen with the group or on the participant's individual laptops will be used – Windows only. Analysis software will be provided to the participants.
A practical session on the use of an incident light microscope will be held with at a research microscope.

Field Trip: A one-day field trip is scheduled for Friday, 28th October to visit the active mire of Keri on Zakynthos Island. More details will follow after registration.

Registration and fees

Costs for the course include course notes, lunches and coffee-breaks. Cost for the course excludes travel, accommodation and meals other than during the course.

The number of participants is limited to 20.

Registration is now available. https://www.iccop.org/registration-form-for-the-14th-iccp-course-in-patras-2022/

Due date for registration and payment is **August 30th, 2022**. A detailed outline of the course will be available on the website closer to the course.

Company / Professional		1300 €
Government / Non-Profit		750 €
Student		250 €

Pay either by Bank Transfer to:

Bank Name: Commonwealth Bank of Australia
Address: 48 Martin Place, Sydney, NSW 2000, Australia
Account Name: International Committee for Coal and Organic Petrology; BSB: 064107
Account Number: 10409339
Swift Code: CTBAAU2S

Reference: your surname and 14th ICCP Course.

Or Contact ICCP's Treasurer Dr. Joan Esterle j.esterle@uq.edu.au for Credit card payments.

Receipt will be sent upon payment.

Accommodation

Participants will have to arrange their own accommodation. However, the organizers arranged special prices with the following Hotels:

- Castello Hotel (https://www.castellohotel.gr/) in walking distance to the Venue (single 59 Euros, double 75 Euros plus 1.5 Euros Tax; please quote code ICCP).
- Astir Hotel (http://www.hotelastirpatras.gr/patras-hotel/index.html), in city center (single 55 Euros, double 58 Euros, Triple 78 Euros, plus 3.0 Euros Tax; please quote code ICCP).
- Moxy Patra Marina (https://moxy-hotels.marriott.com/; reservations@moxypatra.com) in city center (please quote code ICCP).

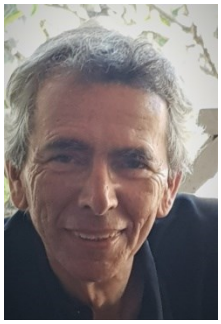
For any assistance please contact Dr. Stavros Kalaitzidis (skalait@upatras.gr)

Venue

Conference and Cultural Centre, University of Patras
University Campus, 26504Rio-Patras
Please note the University Campus is located about 7 km from the city center. There are regular buses and the cost of a taxi is about 8 Euros one way (about 15-20 min drive).

Trainers

Dr. Walter Pickel



Walter Pickel received his PhD from the Rheinish Westfälische Technische Hochschule (RWTH) Aachen, Germany in 1991.He taught and worked at RWTH from 1987 until 1998. Afterwards he joined CSIRO Petroleum in Sydney, Australia as a senior research scientist. In 2003 he joined Harold Read & Associates and co-founded Coal & Organic Petrology Services P/L in Sydney in 2004, a company of which he was the managing director.

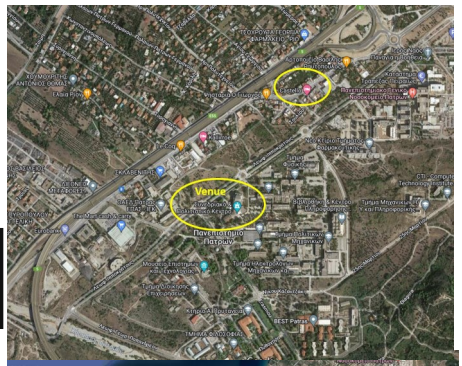
He is now the owner and director of this company, trading as Organic Petrology Services P/L. His company applies organic petrology to conventional and unconventional gas exploration, petroleum exploration, metallurgical coal exploration and quality assessment, fossil fuel contamination in environmental samples. Apart from teaching at Aachen University, he has been giving classes and workshops at Cologne University, in Chile, Indonesia, Iran and Australia. He is author/co-author of some 80 reviewed papers and abstracts. He is a member of the ICCP since 1991.

Dr. Stavros Kalaitzidis

Stavros Kalaitzidis received his Ph.D. degree in the scientific field of "Peatlands and Peatification Processes" from the Department of Geology, University of Patras, Greece, in 2007. As postgraduate student he worked in several research programmes at the University of Patras in collaboration with Universities and Institutions in Germany, UK, and The Netherlands, but also for the Greek Institute of Geology and Mineral Exploration (IGME), and the Institute for Solid Fuels Technology and Applications (ISFTA) in Athens.

From 2008 to 2014 he served in various positions in the Australian mining industry, initially in the exploration and mining sectors of BHP Billiton, and later as Senior Geologist at Integral Resource Consulting Ltd. based in Brisbane, Queensland. Currently he holds an Associate Professor position in the field of Economic Geology at the University of Patras. He is a member of the ICCP since 1999.

For further Information: https://www.iccop.org/course/14th-iccp-course-general-coal-and-organic-petrology-patras_2022/
or please contact
Dr. João Graciano Mendonça Filho at graciano@geologia.ufrj.br
or
Dr. Walter Pickel at walter.pickel@organicpetrology.com



Students: note below—see page 18

ICCP TRAVEL GRANT APPLICATIONS NOW OPEN

https://www.iccop.org/iccp-student-travel-grant-patras-2022-applications-are-now-open/

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SOMETHING NEW BELOW —NEW STANDING ITEM

TSOP—ICCP LIAISON

Paul Hackley, TSOP-ICCP liaison

For some years there has been an official liaison relationship between the TSOP and ICCP organizations. From the TSOP side there has a recent rejuvenation of the liaison committee activity, which is now chaired by Joe Curiale from Houston, USA. Paul Hackley is a member of the TSOP liaison committee and is the appointed TSOP-ICCP committee member as he holds current or past leadership roles in both organizations. The objective of the TSOP-ICCP liaison is to serve as a communication conduit between the two societies. This is intended to share news and information between organizational leadership or to the relevant persons within both organizations.

Information to be shared at this time from the TSOP side includes the planning for the all-virtual TSOP 2022 meeting, of which the organizing committee (OC) is chaired by Tim Moore. The members of the OC are a global cast and have been meeting regularly every 4-6 weeks via Zoom since last year to plan the 2022 event. The meeting theme is “Organics in the Geological Cycle” and will be held on the virtual Webex platform September 12-16. The meeting will include a pre-meeting short course on “Spatially resolved techniques and applications of organic petrography in shale petroleum systems” and also a roundtable panel discussion on “The role of fossil fuels in a net zero emissions energy sector.” The meeting and short course will be free to TSOP members with only a nominal fee for non-members. Abstracts will be due June 30—please make plans now to attend the virtual meeting. The meeting website is live from https://www.tsop.org/TSOP2022/index.html.

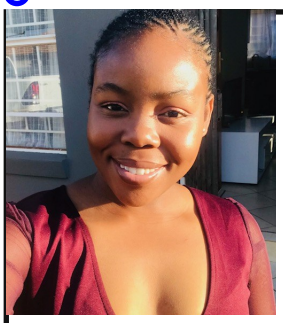
Also of note is a “Workshop on TSOP’s future” which was held online March 11, 2022. The workshop was for TSOP Council and invited participants to provide their views on the TSOP’s future, relevance, marketing strategy, and pathways that researchers are considering in response to the changes in energy, fossil fuels and organic petrology applications. TSOP has experienced a sharp decline in membership over the last

years as a result of the global covid-19 pandemic as well as from renewable pressures in the energy sector.

The workshop included a series of short ‘lightening talks’ designed to stimulate discussion on, e.g., identification of new applications of organic petrology (outside of the traditional fossil fuel focus areas) that could appeal to new members, or stimulate interest from students. The workshop also included discussion and review of TSOP’s objectives, opportunities for online seminars from TSOP luminaries, and opportunities for student seminars. Please stay tuned for a summary and wrap-up of the workshop discussion.

Another announcement is the recent effort from within TSOP to prepare a proposal for the relevant space agencies to acquire future samples returned from Mars, with the goal to study their organic petrology. Public information and news of the future planned Mars Sample Return Missions can be found from the webpage: https://en.wikipedia.org/wiki/Mars_sample-return_mission. If you are interested in the future of potential work on the organic petrology of Mars samples(!) you can contact Mike Avery tsop.mavery@gmail.com and Prasanta Mukhopadhyay (Muki, prasantamuki4@gmail.com) who are forming the working group and proposal from within TSOP.

MEMBER'S CORNER



Ms Itumeleng Matlala
Department of Geology, University of Johannesburg, South Africa
ivmatlala@gmail.com
+27 (0)82 540 2164
Commissions: 1, 2

Ms Matlala completed her MSc under the supervision of Dr Marvin Moroeng and Prof Nikki Wagner in 2021, and has commenced her PhD studies. She is a competent organic petrologist looking forward to active participation in the ICCP.

THIESSEN MEDAL AWARD NOMINATIONS

Dr. Walter Pickel FAusIMM

Organic Petrology Services P/L

Units 3&4, 328 – 330 Darling Street

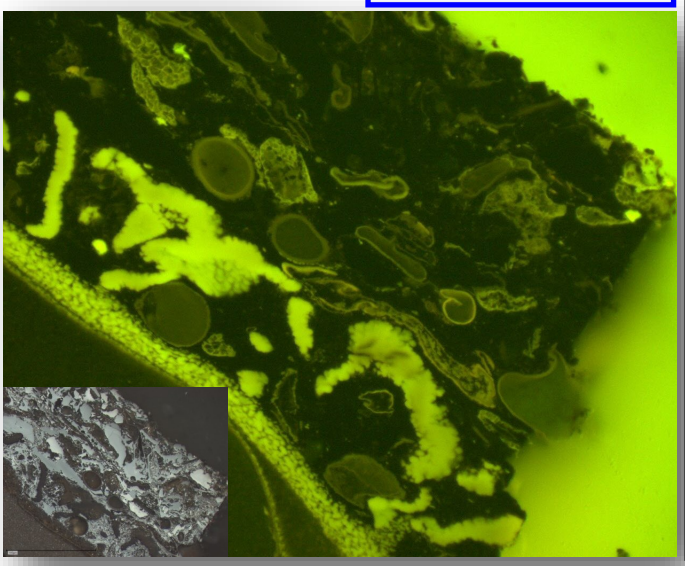
Balmain, NSW 2041

Tel.: 0410418756/043978056

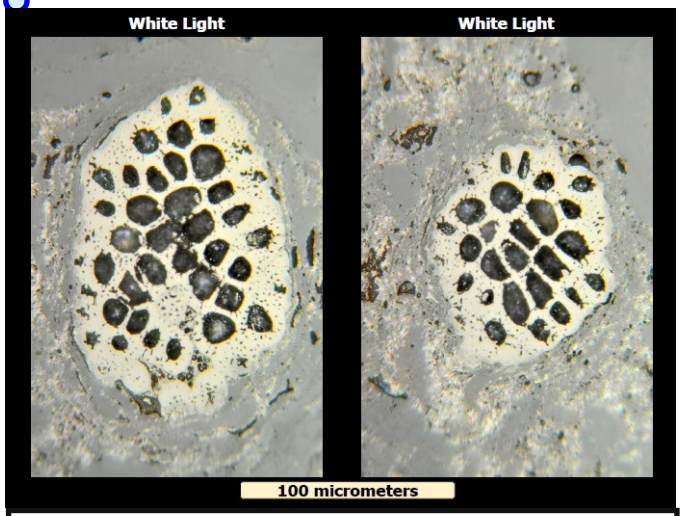
Although not a current ICCP member, I am sure Prof Jim Hower (CAER, University of Kentucky) is well known to us all—

happy retirement Jim!

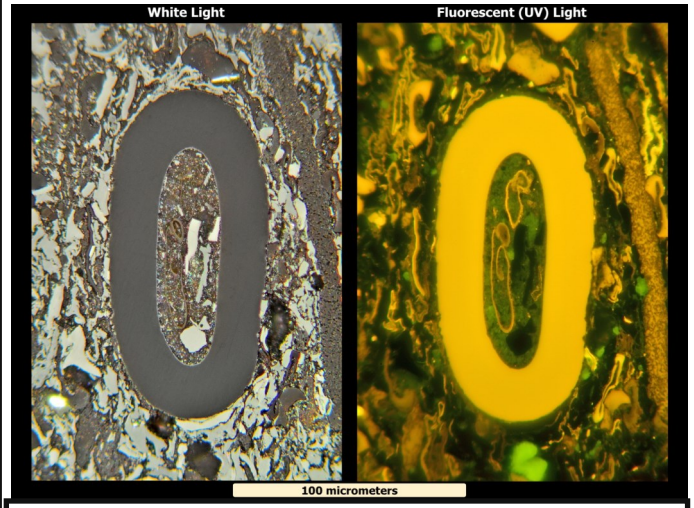
Such a wide variety of liptinite in 1 particle! South African Permian Karoo coal. Image provided by N. Wagner



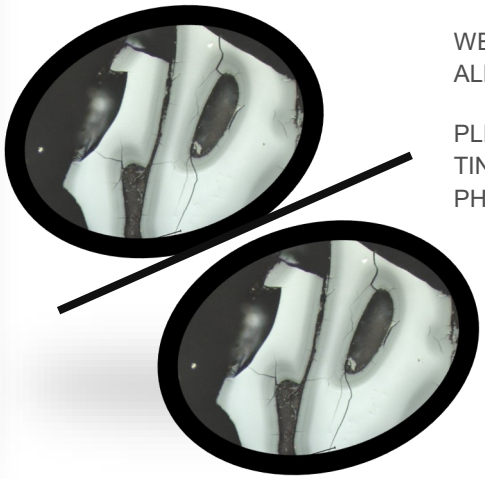
LET'S SHARE PETROGRAPHIC IMAGES!



Caption
Unusually large funginite from a recent collection of the Fire Clay coal in eastern Kentucky - fungal sclerotia or secretinite? Supplied by Cortland Eble.



Caption: reflected light image is from an Early Middle Pennsylvanian (lower Duckmantian, Westphalian B) coal from NEKY, located just above the Mississippian/Pennsylvanian (unconformable) boundary. Although it is probably a megaspore I am calling it "donutite", just to keep the maceral terminology folks at ICCP on their toes! Supplied by Cortland Eble.



WELL DONE ALL !

PLEASE CONTINUE TO SEND PHOTOGRAPHS

THE EFFECT OF A DOLERITE INTRUSION ON COAL STRUCTURE: INSIGHTS FROM XRD, NMR, AND RAMAN SPECTROSCOPY

MSc Candidate: Ms Itumeleng V. Matlala

Supervisors: Dr Ofentse M. Moroeng; Prof Nicola J. Wagner

DSI-NRF CIMERA, Department of Geology, University of Johannesburg, South Africa

email: ivmatlala@gmail.com

Currently, South African coal mining companies discard coals near igneous intrusions; however, there is limited information on changes in the quality of the intruded coals. An enhanced understanding of changes in coal quality and macromolecular structure resulting from rapid heating in South African coals is thus required. Manungu Colliery is located in the Witbank Coalfield, Main Karoo Basin. Within the boundaries of the colliery, a 14 m thick dolerite sill (''main sill') is emplaced above the uppermost No. 4 Seam; this has led to the devolatilization of this seam (Figure 1). The main sill has also developed igneous fingers that intrude into the lower coal seams, including into the productive No. 2 Seam. Thirteen (13) coal samples were collected from the No. 2 seam (Figure 1), with six (6) samples collected from both sides (western and eastern) of a ~0.4 m dolerite dyke (igneous finger) at 0.25 m intervals (Figure 2). An unaltered coal sample (the 13th sample, referred to as Un-C) was collected much further away from the intrusion and was used as the control.

The investigation was carried out to understand the effect of rapid heating on coal quality and macromolecular structure. Petrographic analyses was carried out to quantify maceral composition and thermal maturity (reflectance analysis). The coal samples were also characterized using proximate, ultimate, and calorific value (CV) analyses to understand changes in coal quality. Changes in coal macromolecular structure were determined by Raman Spectroscopy, Nuclear Magnetic Resonance (NMR), and X-Ray Diffraction (XRD).

All the coal samples studied, including the Un-C, were dominated by inertinite (66.6 – 100 vol. %, mmf). The western side recorded a lower proportion of liptinite and vitrinite, ranging from 0.0 to 2.5 vol. % compared to the eastern side (0.8 – 33.3 vol. %). Given the very low vitrinite content of the coal samples (Figure 3), mean random total reflectance was used to quantify thermal maturity. Mean random total reflectance (%RoTmr) values range from the background value of 1.57% (determined using Un-C) to a maximum of 2.80% for the sample at the western coal-dolerite contact (0 m). On the eastern side, a maximum of 2.98% thermal maturity of was reached at 0.75 m, decreasing to 2.35% at the coal-dolerite contact (0 m) (Figure 4). Thus, the alteration halo appears to be more than three times the dyke thickness, which is curious since the intrusion is only ¬0.4 m. Proximate analysis revealed that volatile matter decreases and fixed carbon increases approaching the dolerite contact. Coal samples from the western side have higher H/C atomic ratios than counterparts on the eastern side. Similarly, the CV suggests that coals from the eastern and western sides differ in quality, with coals from the eastern side being poorer quality coals (high ash).

The structural parameters obtained using Raman Spectroscopy, XRD, and NMR were found to change with increasing maturity. Raman Spectroscopy revealed that the Full-Width Half Medium (FWHM) for graphitic and disordered bands (G and D bands) decreased with an increase in coal maturity on the western side, consistent with a significant increase in crystalline carbon structures and structural ordering. The FWHM for the G and D bands trends are less clear for samples from the eastern side. For samples from the western side, the fraction of aromatic carbon (*f*a; determined using NMR) increases from 0.92 (1.25 m) to 0.96 at the coal-dolerite contact (0 m). On the eastern side, *f*a first increased to 0.94 (0.75 m), then decreased to 0.91 at the coal-dolerite contact (0 m). The sample from the coal-dolerite contact on the western side is more aromatic (*f*a=0.96) than the sample from the eastern contact (*f*a=0.91). XRD showed that the interlayer spacing (d_{002}) of thermally altered coals decreased relative to Un-C, and the crystallite height (L_c) increased. The results suggest that rapid heating caused the inertinite-rich coals to become even more aromatic than initially.

The trends observed for the two sets of samples (west vs. east) are dissimilar. This variation in properties may be related to the circulation of hydrothermal fluids and the general emplacement dynamics of the igneous body. The differences observed in the properties of the two sets of coal samples suggest they may have suffered different degrees of heating or rates of thermal energy input. However, the consideration of magma flow dynamics was beyond the scope of the study and requires further investigation. Finally, the general rule applied in most South African mines, discarding coal up to 2 times the thickness of an intrusion, may not apply.

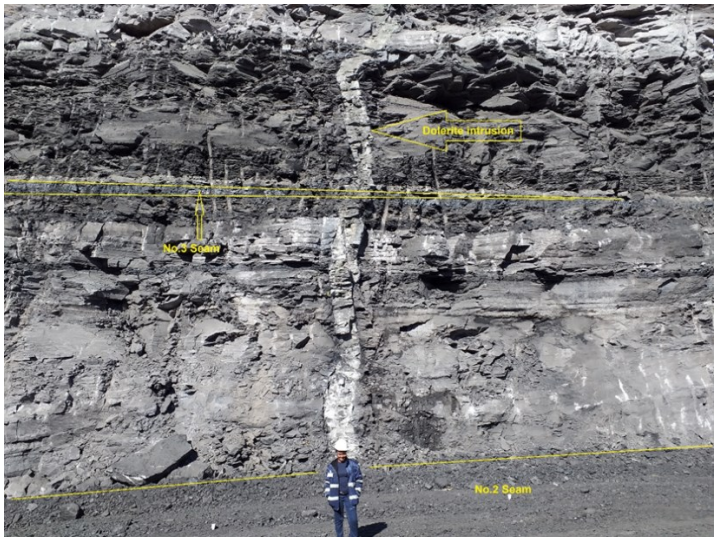


Figure 1: The ~0.4 m dolerite off-shoot cross-cutting the coal seams.

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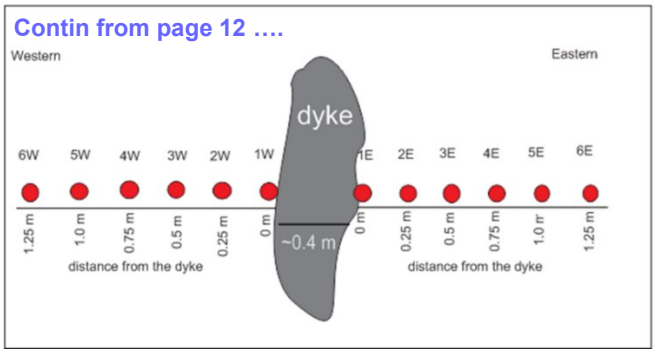

Figure 2: Illustration of the sampling methodology. Samples were taken from both sides of the intrusion at 0.25 m intervals. Dyke not drawn to scale.

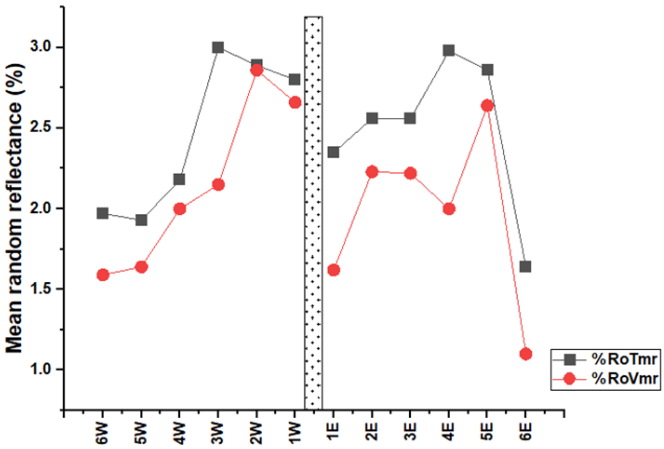

Figure 3: Mean random total (%RoTmr) and vitrinite reflectance (%RoVmr) values for the thermally altered coals from the western (W) and eastern (E) sides of the dyke. For the unaltered coal (Un-C), mean random total reflectance = 1.57 % RoVmr, and mean random vitrinite reflectance = 0.74 %RoVmr. Bar (not drawn to scale) denotes position of dyke.

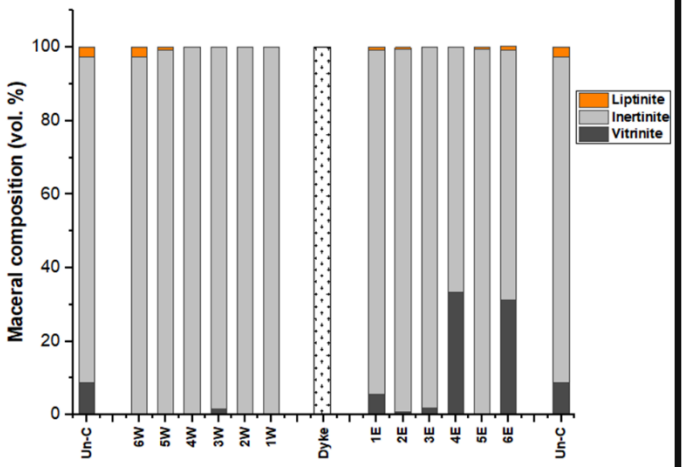

Figure 4: Maceral group composition (vol.%) for the unaltered (Un-C) and the thermally altered coals from the western (W) and eastern (E) sides of the dyke; reported on a mineral-matter-free basis. Note that the unaltered coal (Un-C) was collected further away dyke. Dyke not drawn to scale.

ASTM D7708 Test Method Review

Date: April 5, 2022
To: Subcommittee D05.28/Main Committee D05 members
Tech Contact: Paul Hackley, phackley@usgs.gov, 301-606-0926 (teleworking)
Work Item #: WK80505
Ballot Action: Revision of D7708 Standard Test Method for Microscopical Determination of the Reflectance of Vitrinite Dispersed in Sedimentary Rocks
Rationale: This test method needs to be reapproved prior to the end of 2022 or it will be withdrawn. The technical contact has surveyed the user community for comments and the balloted items reflect the changes posed by users.
Standard Test Method for Microscopical Determination of the Reflectance of Vitrinite Dispersed in Sedimentary Rocks.

Dear ASTM D7708 user,

The ASTM D7708 test method for dispersed vitrinite reflectance analysis needs to be revised and updated in 2022 or it will be withdrawn.
Updates to the ASTM D7708 have been received to-date from the user community. The potential changes will be balloted through the ASTM process beginning in July. The potential changes to be balloted address comments received from Maria Mastalerz, Willem Swanepoel, Ali Karayigit, Brett Valentine, Walter Pickel, Jolanta Kus, Jen O'Keefe, Nikki Wagner, Ricardo Ruiz, Abbas Seyedolali, Julito Reyes, Brian Cardott, Rich Pearson, and Paul Hackley.
These changes are not final - they have to be approved by you, the user community. Not replying to Paul will constitute your approval to the potential changes. The changes will also need to be formally approved through a voting process by the ASTM D05 committee on coal and coke.
Significant updates include: revisions to terminology, inclusion of language for modern solid-state reflectance systems, Romax measurement through use of a rotating polarizer, addition of K&B standards and caution on calculation of calibration standard Ro, explicit forbiddance of deviation from final mechanical polish stage, removal of the sample preparation grading scheme, recommendation of s.d.<0.15*Ro, and addition of several relevant new references.
Please contact Paul Hackley directly to obtain the document under review with suggested changes. And respond to Paul if you disagree with the potential changes, have further comments or wish to make other suggested revisions to ASTM D7708.
Thanks for your support to maintain this consensus test method.
Best Regards, Paul <phackley@usgs.gov>

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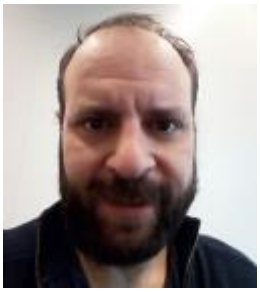

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Call for Participation in the ICCP Accreditation Programs 2022-2023 Exercise

The International Committee for Coal and Organic Petrology (ICCP) is pleased to invite you to participate in the 2022-2023 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.ufrj.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-Kalaitzidi (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 May **31, 2022** 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.

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 2022-2023 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.

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 an efficient instrument for validating 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 Sub-committee

	SCAP	DOMVR	CBAP
Announcement and call for participation	February to April 30, 2022	February to April 30, 2022	February to April 30 2022
Invoicing	till May 31 2022	till May 31 2022	till May 31 2022
Sample distribution	May to June 2022	May to June 2022	January - February 2023
Reception of results	October to December 2022	October to December 2022	March-July 2023
Evaluation, Certificates and Web	January to February 2023	January to February 2023	August to September 2023
Certificates Validity	01.03.2023 to 31.12.2024	01.03.2023 to 31.12.2024	01.10.2023 to 30.06.2025

Table 1. General schedule proposed for 2022-2023 ICCP Accreditation Programs. (ABOVE)
Table 2. Fee structure for the 2022-2023 ICCP Accreditation Programs. (BELOW)

NOTE NEW DEADLINE 31 MAY 2022

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

ICCP Student Travel Grant

Purpose: The ICCP Student Travel Grant is designed to support student attendance at the ICCP Training Courses.

Eligibility: The ICCP Travel Grant supports qualified MSc and PhD students from around the world, who are active in fields related to the Themes of ICCP. Applicants who have previously been granted an ICCP Travel Grant are not eligible to apply for a second grant under the scheme. The ICCP Travel Grant is open to students who express interest to attend the ICCP Training Courses.

Grants: One Grant up to Euros 1,000.00 plus the course fees will be granted for any course.

Conditions: Monetary awards shall be spent solely for the purposes of travelling to attend an ICCP Training Course, including Accommodation. Funds should not be used to fund research, purchase capital equipment, to pay salaries, tuition, etc.

Students receiving the award will be required to provide receipts detailing travel spending to ICCP Treasurer after the course has concluded. Maximum period for providing the receipts will be 30 days after the course.

Copies of travel receipts should be sent to Dr. Joan Esterle at: j.esterle@uq.edu.au

The ICCP Travel Grant should be referred to in any following publication of the MSc or PhD Thesis.

Application Deadline: 31st May 2022.

Completed applications should include:
1. Cover letter requesting travel funds and stating how attending the ICCP Training Course will assist with their research
2. Filled out Application Form (see attached)
3. MSc or PhD research summary
4. Letter of support from their primary faculty advisor
5. Curriculum Vitae

Applications will be reviewed and ranked by the Grant Subcommittee appointed by the Council.

The selection of the grant awardee winner will be based on:
Merit of MSc or PhD research proposal
Potential impact in the scientific fields of the three ICCP Commissions: General Coal and Organic Petrology, Applications in Geology, and Applications in Industry

Application materials should be sent electronically to the Chair of the Subcommittee,
Dr. Stavros Kalaitzidis skalait@upatras.gr.

(https://www.iccop.org/iccp-student-travel-grant-patras-2022-applications-are-now-open/

ICCP Student Travel Grant Application Form		
Family Name:		
Given Name(s):		
Date of birth:		Phone:
Nationality:		
Current address (university or home):		
City:	State:	ZIP Code:
Email:		
Academic Information		
Present Institution, Location:		
Department or Discipline:		
Degree now being sought:		
MSc or PhD research summary (max. 1000 words) :		
Signature of applicant:		Date:
Please attach: *1. Cover letter requesting travel funds and stating how attending the ICCP Training Course will assist with your research (max. 500 words)* *2. MSc or PhD research summary* *3. Letter of support from your primary faculty advisor* *4. Curriculum Vitae*		

UPCOMING EVENTS

4—6 May 2022. 17th Annual Southern African Coal Conference, Cape Town, South Africa. coal.events@opisnet.com.

15—20 May, 2022. 10th International Freiberg Conference on IGCC & Xtl Technologies; Marriot Hotel, Shanghai, China. www.gasification-freiberg.com; gasification@iec.tu-freiberg.de

16—19 May, 2022. The World of Coal Ash (WOCA). Northern Kentucky Convention Centre, Covington, KY, USA. World of Coal Ash 2022

17-18 May, 2022. European Conference CO2 Capture, Storage and Reuse 2022. Copenhagen, Denmark. IN PERSON EVENT. CO2 Capture, Storage & Reuse 2022 (fortesmedia.com)

23—24 May, 2022. International Conference on Coal Resources and Coal Geology. Montreal, Canada. https://waset.org/coal-resources-and-coal-geology-conference-in-may-2022-in-montreal

2—3 June, 2022. International Conference on Coal Processing and Utilization, San Francisco, USA. https://waset.org/coal-processing-and-utilization-conference-in-june-2022-in-san-francisco

10—15 July, 2022. Goldschmidt2022, Hawaii, USA. https://2022.goldschmidt.info/goldschmidt/2022/meetingapp.cgi

11-12 July, 2022. 9th Annual International Conference on Geology & Earth Science. Athens, Greece. Virtual and in-person. Geology & Earth Science – Athens Institute for Education & Research (atiner.gr)

12—16 Sept, 2022. 38th TSOP Annual Meeting. Online. Abstract deadline: 30 June; 12-13 September workshop; 14-16 September technical sessions https://www.tsop.org/events.html; tsop2022@ciphercoal.com. FREE TO ALL TSOP MEMBERS

18—23 Sept, 2022. 73rd ICCP Annual Meeting. New Delhi, India**.** https://www.iccop.org/meetings/forthcoming-meetings/

19 –22 Sept, 2022. 39th Annual International Pittsburgh Coal Conference (virtual). ipcc@pitt.edu ; http://www.pccpitt.org

19-20 Sept, 2022. Global Conference on Geology and Earth Science, Paris, France . theme Global View of Down-To-Earth Geological Advancements for Reaching Sustainable Goals. Virtual. geology@scientific-meetings.com https://geology.magnusconferences.com/submit-abstract ;

9—12 Oct, 2022. GSA Annual Meeting. Denver, Co, USA. Home - Connects 2022 (geosociety.org)

10-13 Oct, 2022.. XX International Coal Preparation Conference 2022, Gold Coast, Australia. acpsnational@acps.com.au; https://www.acps.com.au/

9—14 July, 2023. Goldschmidt Conference. Lyon, France. https://www.geochemsoc.org/events/goldschmidtconference

Sept 2023. TSOP and ICCP Meeting, Patras, Greece

Also refer to the World Coal website https://www.worldcoal.com/events/

PLEASE NOTE

ALL MEMBERS ARE RESPONSIBLE FOR MAINTAINING THEIR CONTACT DETAILS ON THE WEBSITE

Should you wish for new contact details to be published in the newsletter, please do forward these to the Editor (nwagner@uj.ac.za). Should you require your login details, please contact the General Secretary (Hackley_paul@yahoo.com).

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DEADLINE FOR CONTRIBUTIONS TO THE NEXT ICCP NEWS:

30 JULY 2022