ICCP NEWS

NO 78
DEC 2020

Newsletter of the International Committee for Coal and Organic Petrology (ICCP). Founded 1953. http://www.iccop.org

On-Line ISSN 1445-4858

"WHAT WE SEE DEPENDS MAINLY ON WHAT WE LOOK FOR" JOHN LUBBOCK

IN THIS NEWSLETTER

INSTITUTIONAL MEMBER

SERVICIO GEOLÓGICO COLOMBIANO

ICCP WEBSITE

https://www.iccop.org

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

mailto:skalait@upatras.gr

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, Mária Hámor-Vidó hamorvido@gmail.com

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

IMAGES ON FRONT COVER:

Top left: real (fusinite) clouds (contribution by Peter Crosdale);

Bottom left: diamonds (fusinite) (contribution by Magdalena Zielinska)

Images on right: fusinite (provided by Nikki Wagner).

EDITORS COLUMN

Dear All,

The 3rd lockdown Newsletter; who would have predicted this a year ago as we now head into the 2020 festive season for many countries. South Africa is experiencing a second wave, and many coastal beaches have been closed for the festive season, putting a dampener on the summer holidays. I sincerely hope you all remain safe and healthy; unfortunately I am currently awaiting a COVID-19 test result as I had direct exposure to a sick person (who I didn't know was sick at the time, and I don't currently have any symptoms).

On a brighter note, several colleagues have submitted photographs of interesting and unusual petrology. Magdalena Zielinska found 'diamonds' in fusinite. And Peter Crosdale took a break from the microscope, but still found fusinite in the clouds in Tasmania (front cover). I found the quotation "What we see depends mainly on what we look for' (by John Lubbock, turn of the last century) most apt. Organic petrologists spend a lot of time observing material under the microscope, and, whilst correct analyses are vitally important, we often come across things that lets our imagination wander Please do continue to submit photographs and captions, and in time, should we have a suitable pool of contributions, we will take George Siavalas up on his offer to run a competition.

Thank you to Angeles for providing the student thesis summary submissions. The students assessed organic matter and organic matter maturity in samples from the Neuquen basin, Argentina, and are based at INCAR-CSIC and the University of Oviedo, Spain. As usual, please do engage with the contributions and post any questions to the students. University students globally face an uncertain future in tertiary education, especially those studying degrees with physical, hand-on components. We managed to get our Honours class into the field in November, enabling them to complete their degree requirements. My postgraduate students worked hard to complete laboratory work and microscope time these last few months, before our second corona wave. I wish all the ICCP affiliated students all the very best with their ongoing studies.

The 2021 meeting in Prague will go ahead, either as a virtual or physical, or blended meeting, which is great news – please note the dates in the newsletter; further information will follow.

Please encourage your students and colleagues to join the ICCP in order to benefit from being a member of this organization. Visit the ICCP website for further information (**https://www.iccop.org**).

Best wishes, and stay safe and well into 2021.

nikki

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 Peter Crosdale for all membership payments (peter.crosdale@energyrc.com.au).

CONTRIBUTIONS TO THE NEXT ICCP NEWS BY

30 MARCH 2021

PRESIDENTS COLUMN

Dear Colleagues,

This ICCP News issue comes when many of our countries are in the middle of the second coronavirus wave and a third one is announced after the season celebrations. The world is suffering an unbearable amount of deaths and we all have felt the impact in our daily life and our work. Luckily vaccination has started and will follow in many other countries and this represents the hope of overcoming this pandemic very soon. As you will see in this issue we keep our plans for our forthcoming meeting in Prague in September and thank the organizers for continuing with the plans in these uncertain circumstances. The working groups continue their activities although the work has slow down due to limitations in attending the labs. I very much appreciate the courage of conveners and participants that under these difficult conditions continue progressing in the objectives. We are also immersed in DOMVR and SCAP Accreditation exercises and have extended the validity of certificates to allow participants to accomplish the analysis. We have also good news to celebrate as the Thiessen Medal Award of Maria Mastalerz. I would like to finish with a more optimistic message wishing you quiet and nice season celebrations and looking forward to meet everyone of you in Prague.

Best wishes,

Angeles

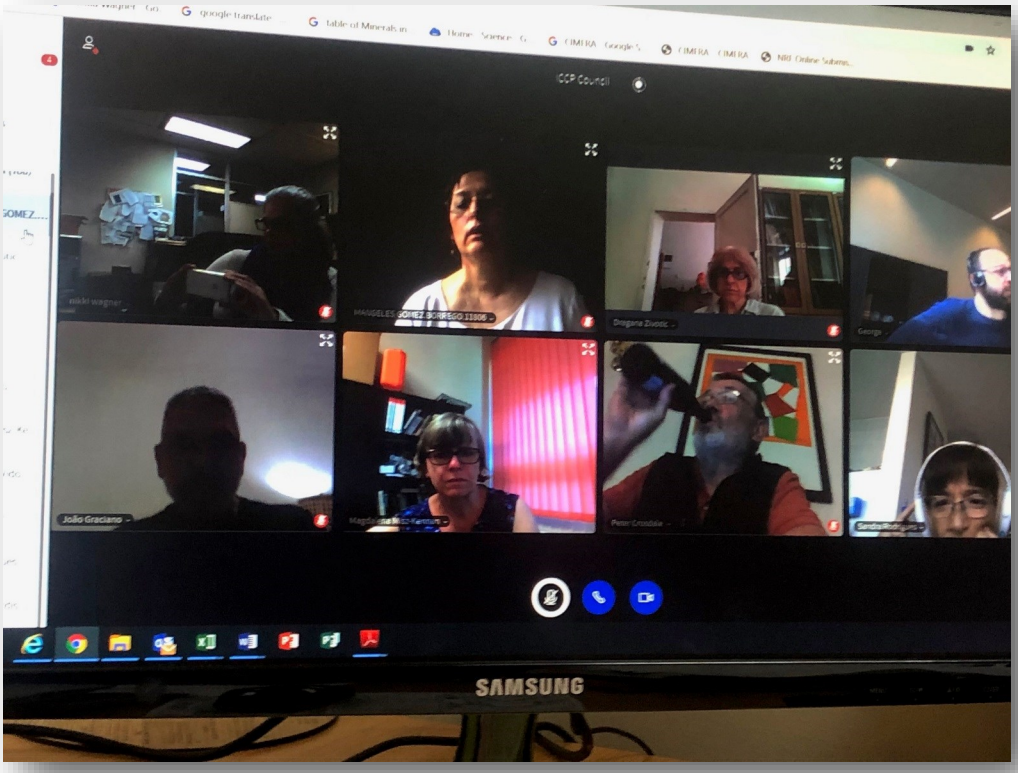
Dear Participant of SCAP, DOMVR,

Unfortunately the worldwide situation connected with the COVID pandemic also has impacted on the schedule of the present round of accreditation programs, especially Single Coal Accreditation Program (SCAP) and Dispersed Organic Matter Vitrinite Reflectance (DOMVR). The schedule was already modified in the (Northern Hemisphere) autumn of 2020 but now we are forced to change it again due to problems with sample distribution (that is partially related to post restrictions in individual countries) and incoming reception of results that is related to limited access of individual participants to their laboratories. In that situation the planned reception of results from SCAP and DOMVR is February 28, 2021 and evaluation of results March-April, 2021. The certificates will be valid May 1, 2021 - April 30, 2023. At the moment the shedule for CBAP remains unchanged. Untill the new certificates will be issued, the validity of the present certificates is extended.

In case of any further comments or questions, please contact the Chair of Accreditation Subcommittee Magdalena Misz-Kennan (magdalena.misz@us.edu.pl).

Best regards,

Angeles Gomez Borrego, President of ICCP
Magdalena Misz-Kennan, Chair of of Accreditation Subcommittee



On-line ICCP Council meeting.

Council members met for a short on-line discussion in August 2020. All ICCP discussions and decisions will be rolled over to the 2021 meeting.

The time zones were a challenge — late at night in Australia, hence Peter's need for his refreshment. And early morning in South America.

It was great to chat to colleagues from all over the world, but such a pity we could not physically meet together for refreshments. Hopefully we can meet each other in Prague.

The COAL COMBUSTION AND GASIFICATION PRODUCTS JOURNAL

has a revamped website, and is ready to receive new content via the new publisher, Scholastica.

All content can be accessed at ccgpjournal.org.

Please submit your research articles to this free, international peer-reviewed, online journal.

A contribution accepted for publication should be novel, original, concise, and a well-written advance with a focus on the science and engineering of applications and sustainability of worldwide coal combustion products, and similar materials, as well as gasification products. Types of contributions published are papers describing original research results; proceedings of symposia; surveys; case studies; reviews; book reviews; overviews of recent literature; and letters to the editor.

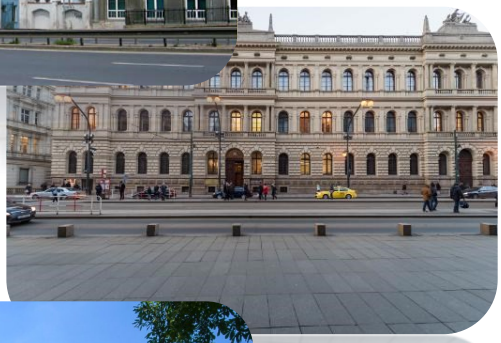
NEXT ICCP MEETING: 2021, Prague, Czech Republic

Prague, 2021

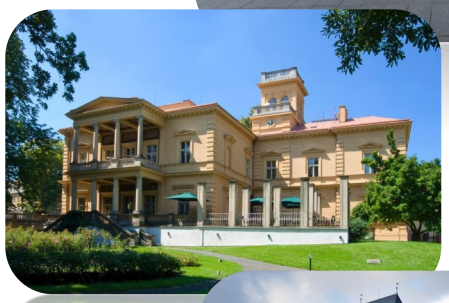
Date: 19 to 25 September, 2021

Meeting Venue: Institute of Rock Structure and Mechanics of the Czech Academy of Sciences
V Holešovičkách 94/41, Prague 8 Czech Republic
https://mapy.cz/zakladni?x=14.4637267&y=50.1181017&z=17&source=addr&id=8992449

Ice Break Party: Czech Academy of Sciences
Národní 3, Prague 1 Czech Republic
https://mapy.cz/zakladni?x=14.4142314&y=50.0815823&z=17&source=addr&id=8940048

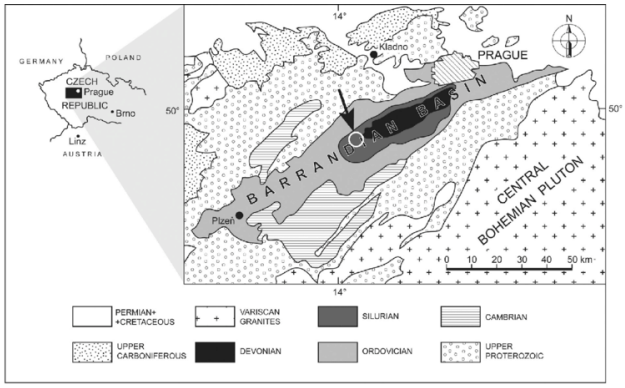


Conference Dinner: Vila Lanna (representative residence of the Czech Academy of Sciences) V Sadech 1, Prague 6 Czech Republic
https://mapy.cz/zakladni?x=14.4072618&y=50.1025269&z=17&source=firm&id=731428



Others: Prague is city with many possibilities and trips to a wide variety of destinations

Field Trip: Possible excursions is Barrandian Basin and Karlštejn Castle or North Bohemian Basin and Karlovy Vary (or other places)



NEW MEMBERS:

Applications being assessed: Rets Taole (SA) and Tsolmon Adiya Ass

PLEASE REMEMBER TO SUBMIT ADVERTS FOR CLASSIFIEDS, OBITUARIES FOR ICCP MEMBERS, SNIPPETS OF INFORMATION, OR ANYTHING THAT MAY BE OF INTEREST TO THE MEMBERS.

UPDATED CONTACT DETAILS

Name: Telma Ataíde dos Santos
Company: TAS - Consultoria & Auditoria Petrográfica
Address: Av. Profª Dª Lilica Albeny, 194,
Belvedere Coronel Fabriciano, Minas Gerais, Brazil
CEP: 35.170-126
Tel: 55 31 99654-3926
Email: telmaataide@hotmail.com

Study of the organic matter maturity from well JCR-1 cuttings (Cuyo Group, Neuquén Basin, Argentina)

Jordy Anthony Capurro Rubio
INCAR-CSIC & University of Oviedo, Spain.
Degree: Thesis in Geology.

The Neuquén Basin is one of the most important hydrocarbon producing basins in Argentina, with 42% oil and 55% gas production according to Casadío el al. (2015). The study comprised 18 samples from a well in the Pliensbachian-Callovian Los Molles and the overlying Lajas formations (Cuyo Group). Previous studies have suggested a significant control by the basement paleorelief on the type of organic matter (García Sánchez, 2018) and the abundance of organic matter from terrestrial origin (Martinez et al., 2008). An organic petrographic study determined the type of organic matter, its association to lithologies and the degree of maturity. The well is located on a paleohigh and a predominance of humic organic matter was observed, associated to both sandstones and mudstones. Samples with large organic matter particles were observed in the upper part of the well (*Fig.1*) corresponding to the Lajas Fm. In these samples, abundant vitrinite is observed, commonly preserving the integrity of the tissues (telovitrinite). Also fusinite and semifusinite interlayered with clay minerals are observed. In the middle and lower parts of the succession (Los Molles Fm.), the organic particles are of smaller size (<20µm) and are oriented parallel to lamination (*Fig. 1*). Inertinite predominates over vitrinite in these samples, and distinguishing a vitrinite population for determining the maturity was not an easy task. It is important to note that autochthonous marine organic matter that at the present degree of maturity could be seen as micrinite (a carbonaceous residue left by the evolution of liptinite; Pickel et al., 2017) is rarely observed.

The size and abundance of organic particles in the uppermost Lajas Fm samples indicates a proximity to land where peat accumulated (delta plain), whereas the small particles of homogeneous size observed in Los Molles Fm. suggest a more distal location from the source area.

In general, the maturity of the samples is high and random reflectance ranges from values close to 2.45%, in the uppermost samples to 3.51% in the deepest ones (*Fig. 2*) with a reflectance gradient of 0.11Rr/100 m (*Fig. 2*), which fits with those reported in previous studies (García Sánchez, 2018; Sales et al., 2014). From the point of view of hydrocarbon generation, samples fall within the over mature stage, related to dry gas generation, coinciding with the existing knowledge of the thermal maturity of the basin (Sales et al., 2014).

Deeper, from 4400 m, a higher rank anthracite is observed, often associated to anisotropic fine mosaic coke. The formation of higher rank anthracites without evidence of flow structures suggests that contact metamorphism occurred once a relatively high rank was reached and melting ability was significantly reduced. The abundance of relatively large vitrinite particles was high enough in some of the samples to allowing bireflectance measurements to find out the Reflectance Indicating Surface (RIS) following Kilby's (1988) method. This shows a biaxial negative character that is accentuated in the high range anthracites (*Fig. 2*) as shown by the high values of the deformation parameter after Wei et al. (2017).

References

-Casadío, S. et al. (2015). Geología de la Cuenca Neuquina y sus sistemas petroleros: una mirada integradora desde los afloramientos al subsuelo. - 1a ed. - Ciudad Autónoma de Buenos Aires: Fundación YPF; Viedma: Universidad Nacional de Río Negro

-García Sánchez, A. (2018) Estudio petrográfico de la materia orgánica del Grupo Cuyo (Jurásico, cuenca Neuquina, Argentina) en ripios de sondeo. Trabajo Fin de Máster. Máster en Recursos Geológicos e Ingeniería Geológica, Universidad de Oviedo, 87 pp

Kilby W.E. (1988) Recognition of vitrinite with non uniaxial negative reflectance characteristics. Int. J. Coal Geol. 9, 267 285.

Martínez, A., Prámparo, M., Quattrocchio, M., Zavala, C., (2008); Depositional environments and hydrocarbon potential of the Middle Jurassic Los Molles Formation, Neuquén Basin, Argentina: palynofacies and organic geochemical data. *Revista Geológica de Chile,* 35 (2), 279–305

Pickel, W., Kus, J., Flores, D., Kalaitzidis, S., Christanis, K., Cardott, B.J., Misz-Kennan, M., Rodrigues, S., Hentschel, A., Hamor-Vido, M., Crosdale, P., Wagner, N., ICCP, 2017. *Classification of liptinite*—ICCP system 1994. Int. J. Coal Geol. 169, 40–61.

Sales, Th., Giusiano, A., Gutiérrez Schmidt, N., Alonso, J.C. y Muñoz, O., 2014. Controles estratigráficos sobre propiedades de la roca en los shales de la Formación Vaca Muerta, cuenca Neuquina, provincia de Neuquén. *IX Congreso de Exploración y Desarrollo de Hidrocarburos, Simposio de Recursos No Convencionales: Ampliando el Horizonte Energético*, IAPG, 427-446.

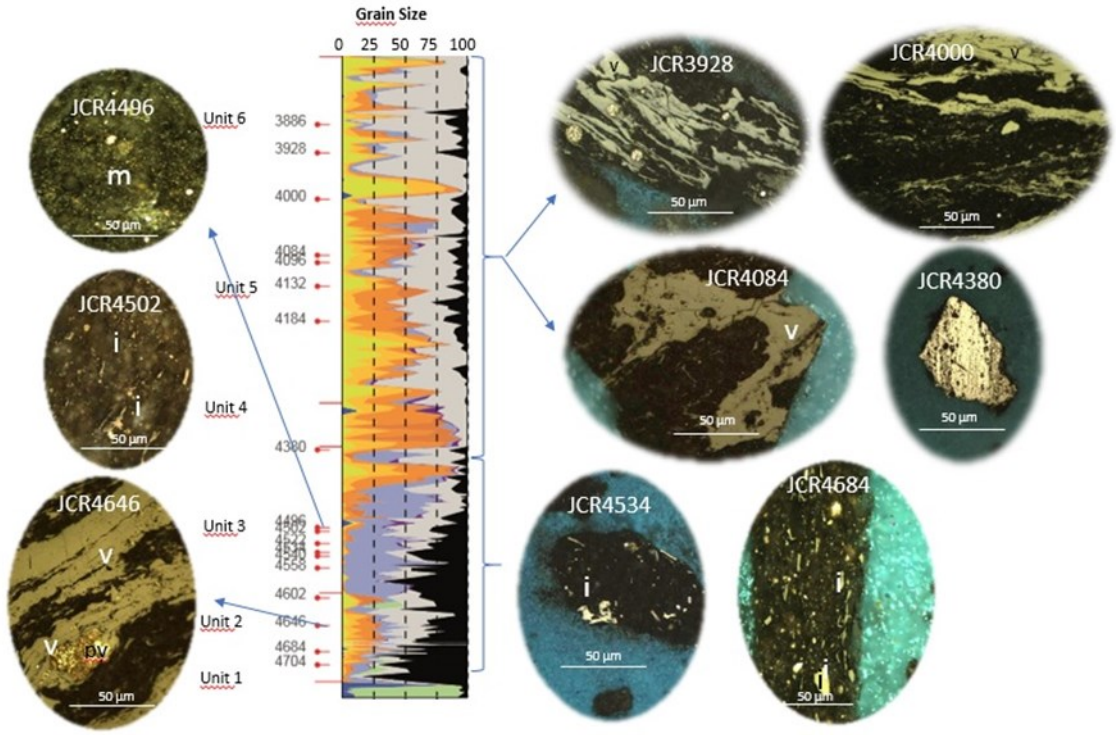


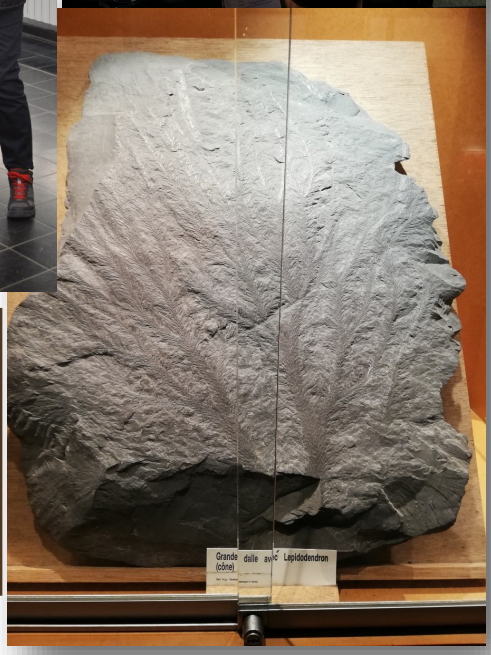
Figure 1.

Stratigraphic column showing images of the organic components and pyrite (py) in the well-cuttings: vitrinite (v), inertinite (i), micrinite (m).

Sample JCR4380 is a high rank anthracite (contact metamorphism is possible at this depth).

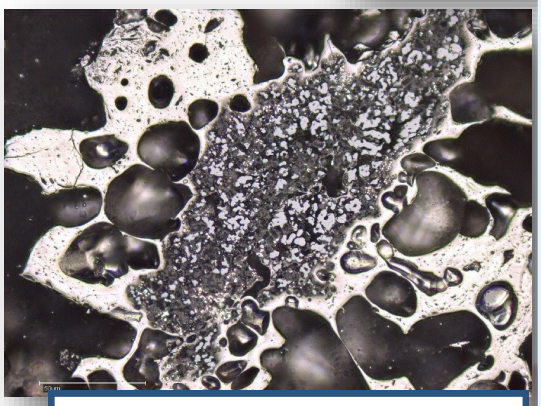
Images taken with reflected light oil immersion objectives

…. SEE PAGE 6 FOR FIGURE 2 ….



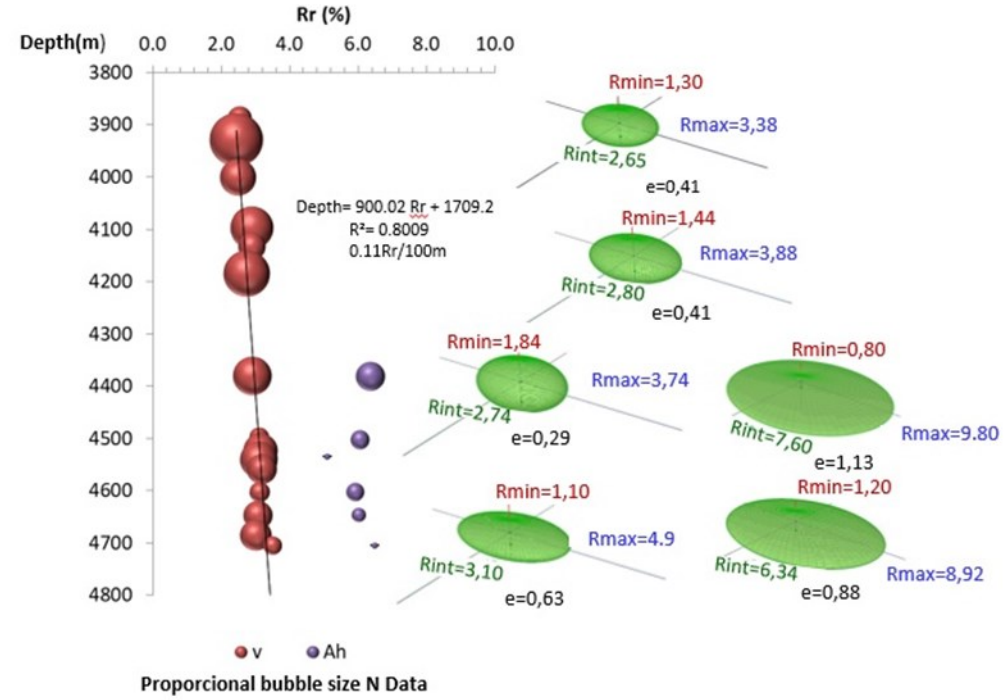
Some memories from the field trip at The Hague meeting, 2019.

Photographs supplied by Georgeta Predeanu, with thanks. (and one from Peter Crosdale, of Georgeta)



Butterfly, submitted by Nikki Wagner

As we will not have a microscope session this year (due to the cancellation of the ICCP Meeting), please do send any images for discussion to the Newsletter. And prepare samples for discussion in 2021.



FROM PAGE 5

Figure 2. Bubble diagram for the variation of vitrinite random reflectance with depth:

v = vitrinite that reflects maturity and Ah = high-ranking anthracite. The bubble size is proportional to the number of data obtained. RIS ellipsoids indicate the values of Maximum, minimum and intermediate true reflectances calculated following Kilby (1988) and the deformation parameter (e) after Wei et al. (2017). Ellipsoids for samples JCR3928, JCR4184, JCR4380, JCR4646 are plotted.

Study of the organic matter from well JGC-1 cuttings (Cuyo Group, Neuquén Basin, Argentina)

Javier García Campa
INCAR-CSIC & University of Oviedo, Spain.
Degree Thesis in Geology.

The Neuquén Basin (Argentina) has a sedimentary record of ca 6000 m, in which the Cuyo Group stands out due to its oil potential. This basin evolved through three stages from a rift stage that progressed into a passive margin stage, when the Cuyo Group was deposited and, finally, to a compressional stage (*Howell et al., 2005)*.

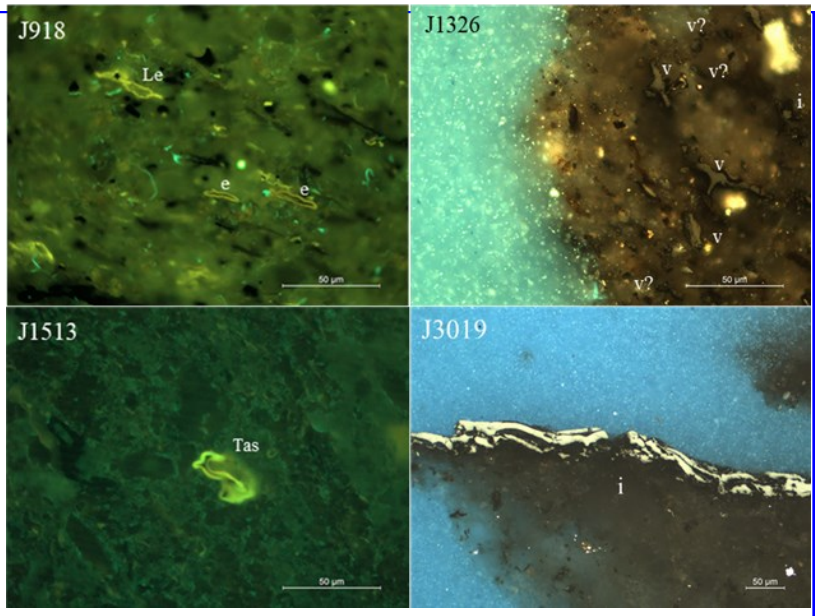


Figure 2. Main organic components identified in Cuyo Group samples. Tas= Tasmanites; Le= Leiosphaeridia; e= sporinite; v= vitrinite; i= inertinite. Images taken with reflected light oil immersion and fluorescence mode (left) and white light (right).

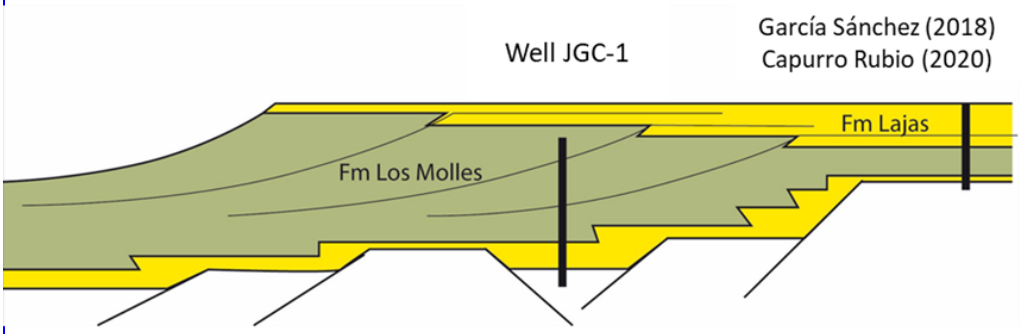


Figure 1. Scheme of the basin showing the well studied and the position of wells from previous studies (García Sánchez, 2018 and Capurro Rubio, 2020)

The Sinemurian–Middle Callovian Cuyo Group (*Dellapé et al., 1978)* records the first marine transgression in the basin with a poorly developed thin transgressive sequence and a well-developed thick regressive sequence, and consists of the Los Molles, Lajas, and Challaco Formations. In the studied well JGC-1 a sandstone-rich lower part is followed by a mudstone-rich interval mostly representing the lower transgressive cycle (Figure 1).

A petrographic study was carried out following ICCP nomenclature (Pickel et al., 2017) and the vitrinite reflectance was measured following the guidelines indicated in ASTM, D7708-11.

Two main organic-matter assemblages have been identified. The upper part of the well shows a type II-III kerogen assemblage, formed of marine components such as *Tasmanites* and *Leiosphaeridia* and also lamalginite accompanied by small vitrinite and inertinite particles, sporinite and resinite (Figure 2). The lower part is mainly composed of type III-IV kerogen characterized by larger particles than in the upper part, which are associated to sandstones, suggesting more proximal deposits.
The vitrinite reflectance measurement was difficult since in addition to vitrinite scarcity multiple vitrinite populations were observed. In the upper part a vitrinite population coexisted with a suppressed vitrinite population, whereas in the lower part a reworked population was present in the high energy (sandstone) deposits showing signs of transport such as rounded shapes, alteration rims and cleats at the borders.

Vitrinite reflectance varies between 0.4% and 1.97% Rr resulting in a gradient of 0.04 Rr/100 m (determination coefficient R^2=0.93) after rejecting the outliers. The reflectance gradients were compared with those of previous studies.

Sales et al (2014) obtained a similar value derived indirectly through Tmax of Rock-Eval (0.04 Rr/100 m), whereas in wells located to the north higher gradients were obtained (García Sanchez, 2018; 0.08 Rr/100 m; Capurro Rubio 2020, 0.11 Rr/100 m), as the samples approach to the centre of the dry gas window in the isoreflectance map.

References

ASTM (2011). D7708-11 *Standard test method for microscopical determination of the reflectance of vitrinite dispersed in sedimentary rocks.* Annual book of ASTM standards: petroleum products, lubricants, and fossil fuels; gaseous fuels; coal and coke, sec. 5, v. 5.06. ASTM International, West Conshohocken, PA, pp. 823–830 http://www.astm.org/Standards/D7708.htm. doi:10.1520/D7708-11.

Capurro Rubio, J.A. (2020). *Estudio de la madurez de la materia orgánica contenida en ripios de sondeo en el pozo JCR-1 (Grupo Cuyo, ceunca Neuquina-Argentina).* Trabajo Fin de Grado. Grado en Geología, Universidad de Oviedo, 20 pp.

Dellapé, D.A., Pando, G.A., Uliana, M.A. y Musacchio, E.A. (1978). Foraminíferos y ostrácodos del Jurásico en las inmediaciones del arroyo Picún Leufú y la ruta 40 (Provincia del Neuquén, Argentina) con algunas consideraciones sobre la estratigrafía de la Formación Lotena. *7° Congreso Geológico Argentino*, p. 489-507.

García Sánchez, A. (2018). *Estudio petrográfico de la materia orgánica del Grupo Cuyo (Jurásico, cuenca Neuquina, Argentina) en ripios de sondeo.* Trabajo Fin de Máster. Máster en Recursos Geológicos e Ingeniería Geológica, Universidad de Oviedo, 87 pp.

Howell, J.A., Schwarz, E., Spalletti, L.A. y Veiga, G.D. (2005). The Neuquen Basin: an overview. *Geological Society, London, Special Publications 2005*; v. 252; p. 1-14.

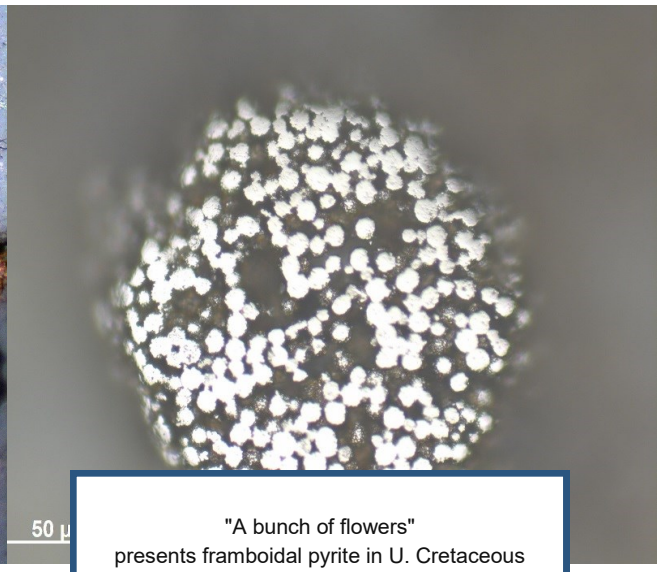
Sales, Th., Giusiano, A., Gutiérrez Schmidt, N., Alonso, J.C. y Muñoz, O. (2014). Controles estratigráficos sobre propiedades de la roca en los shales de la Formación Vaca Muerta, cuenca Neuquina, provincia de Neuquén. *IX Congreso de Exploración y Desarrollo de Hidrocarburos, Simposio de Recursos No Convencionales: Ampliando el Horizonte Energético*, IAPG, 427-446.

LET'S SHARE PETROGRAPHIC IMAGES!

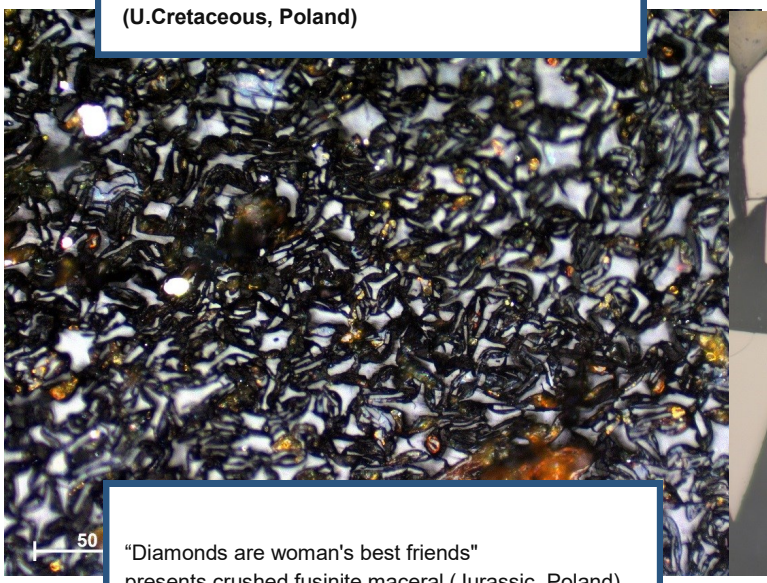
Photographs below submitted by Magdalena Zielinska

"Two shades of grey": two organic particles (collodetrinite) "sticking" together.

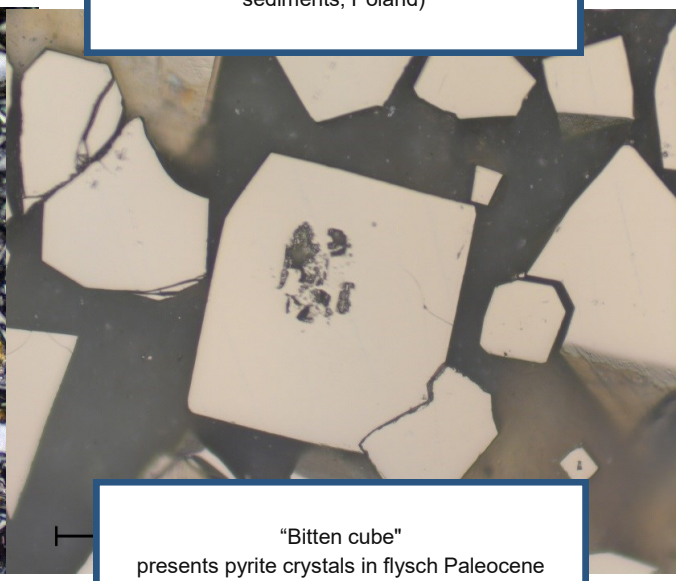
(U.Cretaceous, Poland)



"A bunch of flowers"
presents framboidal pyrite in U. Cretaceous sediments, Poland)



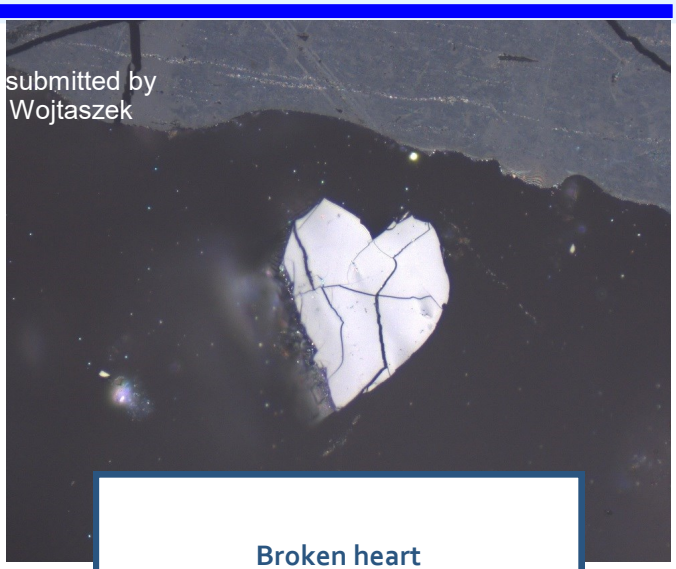
"Diamonds are woman's best friends"
presents crushed fusinite maceral (Jurassic, Poland)



"Bitten cube"
presents pyrite crystals in flysch Paleocene sediments, Poland

Photographs submitted by Malgorzata Wojtaszek

Lizard



Broken heart

Council of the International Committee for Coal and Organic Petrology (ICCP)

President
(2015— 2023)
Dr M Ángeles Gómez Borrego
Instituto Nacional del Carbón (INCAR-CSIC)
Carbón, Energía y Medio Ambiente
Ap 73, 33080 Oviedo, Spain
Telf: +34985119090
mailto: angeles@incar.csic.es

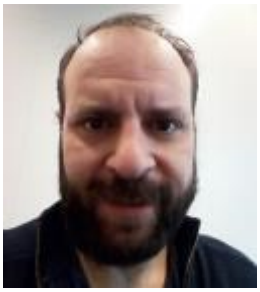
Vice-president
(2019—2022)
Dr João Graciano Mendonça Filho
mailto:graciano@geologia.ufrj.br

General secretary
(2019—2023)
Dr Mária Hámor-Vidó
mailto:hamorvido@gmail.com

Commission I Chair
(2012-2020)
Dr Stavros Kalaitzidis
mailto:skalait@upatras.gr

Commission I Secretary
(2016-2020)
Dr Dragana Zivotic
mailto:dragana.zivotic@rgf.bg.ac.rs

Commission II Chair
(2019—2023)
Dr Jolanta Kus
mailto:jolanta.kus@bgr.de



Commission II Secretary
(2019—2023)
Dr George Siavalas
mailto:georgios.siavalas@shell.com

Commission III Chair
(2015—2023)
Dr Magdalena Misz-Kennan
mailto:magdalena.misz@us.edu.pl

Commission III Secretary
(2016—2020)
Dr Sandra Rodrigues
mailto:s.rodrigues@uq.edu.au

Treasurer
(2019—2023)
Dr Peter Crosdale
mailto: peter.crosdale@energyrc.com.au

Editor
(2015—2023)
Dr Nikki Wagner
mailto:nwagner@uj.ac.za

Immediate past president: ..... Dr Petra David ..... mailto: petra.david@wintershall.com
Returning Officer: ..... Dr Rudi Schwab ..... mailto: r.m.schwab@btinternet.com

Reinhardt Thiessen Award Committee: Contact the General Secretary..... mailto:hamorvido@gmail.com
Organic Petrology Award Committee: Magdalena Misz-Kennan ..... mailto:magdalena.misz@us.edu.pl
Webmaster (http://www.iccop.org): .....Contact Dr Stavros Kalaitzidis, ... mailto:skalait@upatras.gr
Archives: .....Contact Dr Deolinda Flores, ... mailto:dflores@fc.up.pt
Membership Enquiries: ..... General Secretary .Dr Mária Hamor-Vidó mailto: hamorvido@gmail.com
.....or visit the website http://www.iccop.org
ICCP Publications & Training Material:... Dr Nikki Wagner ..... mailto: nwagner@uj.ac.za

UPCOMING EVENTS

01—03 March, 2021: 5th International Conference on Fossil and Renewable Energy (F&R Energy-2021); Houston, TX, USA. https://energy-conferences.com/featured-speakers; https://energy-conferences.com/about; energy@uniscigroup.net

21—26 March, 2021. 10th International Freiberg Conference on IGCC & Xtl Technologies; Marriot Hotel, Shanghai, China. Originally scheduled for 20—25 September, 2020. POSTPONED TO 2022. 2021 REGISTRANTS WILL BE RE-FUNDED. Abstract submission July 2021 New abstract submissions are due by 15 October 2020. www.gasification-freiberg.com; gasification@iec.tu-freiberg.de

17—20 May, 2021. World of Coal Ash (WOCA), Northern Kentucky Convention Centre, USA. Abstract submission until 31 December, 2020. http://worldofcoalash.org/.

01—03 July, 2021: International conference on Mining and Mineralogy (ICMM), Munich, Germany. The conference theme: Exploring Modern Technologies and Challenges in Mining & Minerals. http://immnetworks.com/ ; mining_conf@immcong.com

2021, 38th Annual TSOP Meeting; Sofia, Bulgaria
25—29 September, 2021, 72nd ICCP Meeting, Prague, Czech Republic

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

Take time to look through your photographs and submit your most comical, unusual, imaginative, or beautiful. Perhaps we can even consider a competition?????

George Siavalas has volunteered to run a competition—but we need submissions please.

Send all photographs and short caption to nwagner@uj.ac.za.

SHOULD YOU WISH TO ADVERTISE A SPECIFIC EVENT / WORKSHOP / CONFERENCE / SEMINAR / COURSE, PLEASE CONTACT THE EDITOR.

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.

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 (hamorvido@gmail.com).

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.

Membership Enquiries

General Secretary mailto: hamorvido@gmail.com
Or visit the website: http://www.iccop.org
ICCP NEWS Enquiries
Editor: Nikki Wagner / mailto: nwagner@uj.ac.za
President of the ICCP: Dr M Ángeles Gómez Borrego mailto: angeles@incar.csic.es

DEADLINE FOR CONTRIBUTIONS TO THE NEXT ICCP NEWS:

30 March 2021