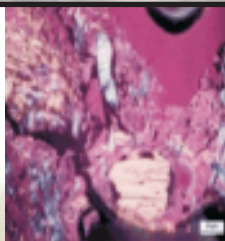
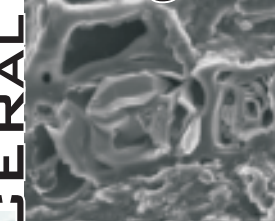


COKE



Reflectance
fluorescence

Kerogen



MACERAL



Char

61st ICCP Meeting, Gramado, Brazil - 19-26 September 2009



Joint 61st ICCP/26th TSOP Meeting
Gramado / Brazil
September 19-26, 2009



SunCoke Energy



the petroleum system experts



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From the Editor

Congratulations to Wolfgang and his team for an impressive effort in organising the ICCP / TSOP joint meeting. For those who have never been involved it is an immense undertaking, partly because the needs of the two organisations are quite different. It is a real credit to the organising team that all ran so smoothly. My only regret is that I had to leave the meeting early and so missed out on some of the sessions and the dinners.

Not only was the meeting well organised but the location proved to be somewhat of a surprise as well. An eclectic mix of Bavaria meets Brazil, where it was just as easy to buy a cuckoo clock as to enjoy a caipirinha.

In Australia we are now entering the holiday season. Many people like to buy a thick book, put their feet up and enjoy some light reading. This issue of ICCP News should solve the dilemma of many of my Australian colleagues of what to buy to read. Many thanks must go to those of you who contributed to this bumper ICCP News issue. And also many thanks to those who have had an opportunity to proof parts of it. Unfortunately in such a large issue there are likely to be some small errors and perhaps even omissions.

Nevertheless, there is a lot going on in ICCP as shown by reports of the commissions. It is also exciting to see the development of new working groups as well as the commencement of the ICCP training programme. It looks as if the to be done work will never end!

Peter

Institutional Members of ICCP



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From the President

Dear colleagues,

This issue of the ICCP News will provide a lot of information of progress and discussions of the last ICCP meeting in Gramado. Again I am impressed by the activities and results of the working groups through the year. Many thanks to those who organize working groups and also those participating in working groups. ICCP identity and reputation depends largely on this.

It is not always easy to clearly define the objectives and deliverables of the working groups but it is crucial for the overall success. Over the year the issue on how to organize a working group comes up from time to time. It is also important to refresh the memory. It was noted at the closing plenary session that new members very often don't know how they can participate in the working groups, or how to initiate new working groups. Therefore we have in this issue again some guidelines for establishing a new working groups.

While writing this column, the first ICCP training course is ongoing in Potsdam Germany. 21 participants (which is currently the maximum number) from 17 different countries attend the meeting. As well people from industry, NGO's and university students are interested to get more information on Organic Petrology. They can benefit from the great knowledge and experience of the teachers Alan Cook and Claus Diessel who have worked hard to compile this one week training course. Carl Hilgers was so kind to provide his microscope system for the course. The Potsdam organizers Andreas Küppers and Antje Treutler are assuring a smooth meeting. An extended report will be published in the next ICCP News.

With best regards
Petra David
<mailto:petra.david@tno.nl>

From the General Secretary

The last developments in the ICCP webpage are summarized below as a continuation of the information published in the last ICCP News issue (#47). Since the last year Meeting in Oviedo the ICCP has a selected crew of people with rights and

skills to update the information of our webpage. In the last months significant advances have occurred in updating information of the working groups (WGs) and utilization of the secure part of the webpage to make information available to the ICCP membership and for the round robin exercises. Two new sections have been created to provide information on the ICCP training activities and to bring closer the information of the ICCP archives. Short after the meeting the section “Application and fees” has been updated to show the fee structure of the ICCP and to allow for an easier application. Also information on the procedures for Institutions to apply for membership and associate members to become full members is shown.

The ICCP webpage has reached a basic level of updating which has an enormous potential for improvement and conveners and officers of the commissions are strongly encouraged to use the secure part of the webpage as much as they can, because this will allow the membership unable to attend the meetings to be informed about the main activities and developments. Documents and presentations will always provide a more detailed picture of the activities than the short summary compiled in the minutes. In addition contributions to the activities will be easier through the web.

Ralph Delzepich, Dirk Prinz, Taíssa Menezes, Igor Viegas and Dongyong Li have made and excellent work in the implementation of changes in the content. The major achievement has been no doubt providing the membership with usernames and passwords to have access to the secure part. Improvements in “forget your password” and “change your password” sections are in progress to make friendlier the use of the webpage.

ICCP webpage is the webpage of all members, so please make use of it and contact the general secretary with ideas for improvement. We will search for the best way to implement them.

Angeles G. Borrego
ICCP General Secretary
mailto:angeles@incar.csic.es

Procedure to Establish a Working Group

Identify a problem which need to be solved or a subject that deserves attention

- Suggest a way to address the problem or question

- Make a preliminary working plan. Ideally no longer than four years (including objectives, working plan and deliverables)
- Contact the chair and/or secretary of the Commission
- Present it at the next Meeting

When suggesting a WG please keep in mind:

- It should deal with a subject in which petrographic analysis or petrographic composition are directly or indirectly involved
- It should be related to some extent to nomenclature, classification or analytical techniques (Commission I), geological problems (Commission II) or industrial applications (Commission III) of organic petrology
- It should be a subject in which the ICCP expertise is needed. Local or regional studies are more appropriated for individual work.

Participants do not need to be necessarily ICCP members

- Results from annual exercises should first be presented to the participants of the working group before presenting it to the public at annual meetings.

In relation to the publication of WG ICCP Council has established a number of guidelines for presentation of data.

Resolved ICCPC01/9/7. Normally, material arising from Working Groups should be published first within the ICCP Newsletter.

Resolved ICCPC01/18/1. Council approved a normal policy whereby publications of material from Working Groups should include contributing members of the Working Groups as co-authors. The convenor of the Working Group shall be first author and the remaining members shall be listed in alphabetical order; it being noted that the convenor will have editorial control over any manuscript arising from the work of that group.

Resolved ICCPC01/18/2. Council specifically drew attention to the inclusion of the word “normally within the previous resolution and noted that individual Working Groups may agree to vary this practice.

Resolved ICCPC01/18/3. Council resolved that prior to undertaking publication, Working Groups should seek advice from the Editor and that the Editor in preparing advice should have regard to the overall work of the ICCP, the work of other Working Groups and to copyright-related issues.

Minutes of the Joint 61st ICCP / 26th TSOP Meeting Advances in Organic Petrology and Organic Geochemistry 19-26/09/ 2009

http://www.ufrgs.br/iccp_tsop_2009

Host: Instituto de Geociências, Universidade Federal do Rio Grande do Sul, PortoAlegre, Brazil

GENERAL COURSE OF THE MEETING

The 61st meeting of the ICCP was a joint ICCP-TSOP meeting and took place in Gramado (Brazil) from 19-26 September 2009. The chair of the organizing committee was Wolfgang Kalkreuth from the Instituto de Geociências of the Federal University of Rio Grande do Sul (UFRGS). The organizing committee comprised also members of different departments of the UFRGS, other Universities of Brazil such as Federal University of Rio de Janeiro and Federal University of Rio Grande do Sul and Brazilian companies and institutions as Petrobras and CIENTEC. Many of the members of the Organizing committee are well known ICCP members who actively participate in Council and working groups.

The activities started on Saturday 19 September at 13:00 h with the Council Meeting in room Di Cavalcanti at the Centro de Eventos FAURGS in Gramado. Prior to the initiation of the sessions a Short-Course: Palynofacies and Organic Facies: Principles, Methods and Applications was offered by Prof. João Graciano Mendonça Filho. The course comprised talks with excellent graphic material and practical sessions. Commission meetings took place on three successive days, followed by a one day ICCP/TSOP symposium and one day TSOP technical sessions. The minutes of the Commission meetings are given in Appendix 1. 33 Members of ICCP and 68 guests attended the meeting representing a total of 22 countries (Appendix 2).

The audience was welcomed by the Chair of the Organising Committee, Dr. Kalkreuth, followed by an opening address by the Director of the Instituto de Geociências, UFRGS Prof J. Frantz. Two key note lectures were presented: the first one entitled *The Contribution of Organic Geochemistry and Organic Petrology to Petroleum Exploration in Brazil* was given by Dr. L.A. Trindade from Petrobras who presented an exciting picture of the oil productive sequences in Brazil and the new discoveries and; the second one was given by Prof.

Wolfgang Kalkreuth on *Coal in Brazil* describing the main coal basins and the characteristics of Brazilian coals.

After the coffee break, the first Plenary Session opened with the President Dr Petra David in the Chair. As published in the ICCP News # 47, the schedule for the 61st Meeting of the ICCP General Assembly in plenary session was as follows:

1. Apologies for Non-attendance
2. Minutes of Previous Meeting
3. Arrangements for Gramado Meeting
4. Future Meetings
5. Membership
6. Elections
7. ICCP Status - Registration
8. Revision of Statutes
9. ICCP Training Activities
10. Financial matters
11. Editor's Report
12. ICCP Accreditation program
13. Website
14. New Handbook
15. Short reports from the Commission Meetings
16. Short report from the Council Meeting
17. Awards
18. Arrangements for 2010 Meeting
19. Other

Topics 1 to 13 were covered in the Opening Plenary Session and topics 14 to 19 in the Closing Plenary Session

1. APOLOGIES AND OTHER ATTENDANCE MATTERS

Jennifer Pearson, *Canada*; Georgeta Predeanu, *Romania*; Dave Pearson, *Canada*; Duncan Murchison, *UK*; Diego Alvarez, *Spain*; Helmut Jacob, *Germany*; Gerd Bieg, *Germany*; Gisela Bieg, *Germany*; Rosa Menéndez, *Spain*; Stephanos Papazisimou, *Greece*; Heike Eickhoff, *Germany*; Paddy Ranasinghe, *Australia*; Aivars Deepers, *Australia*; Elizabeth Gawronski, *Australia*; Jim Hower, *USA*; Slawka Pus, *Poland*; Nikki Wagner,

South Africa; Angelika Vieth, *Germany*; Harold Smith, *UK*; Kees Kommeren, *The Netherlands*; Werner Hiltmann, *Germany*; Javier G. Prado, *Spain*; Ricky Pinheiro, *South Africa*; Matthew Todd, *Australia*; Dongyong Li, *Germany*; Harold Read, *Australia*; Antonis Bouzinos, *Greece*; Roberto Heemann, *Brazil*.

As the Secretary of Commission III was unable to attend the meeting, Jolanta Kus was appointed to act as Secretary of Commission III and she kindly accepted. Paul Hackley, elected for the position of Secretary of Commission II acted in this position.

2. MINUTES OF THE OVIEDO MEETING

The President asked the Plenary Session for confirmation of the minutes of the 60th ICCP Meeting held in Oviedo, Spain, September 21-27, 2008 as published in the ICCP News #45. Wolfgang Kalkreuth required an amendment of the minutes. In ICCP News #45 p.6 where it reads "Wolfgang Kalkreuth noted that in his view, two of the new members do not have a substantial background in organic petrology" it should read "Wolfgang Kalkreuth noted that in his view background in organic petrology does not exist with these two new members". Noting the previous amendment, the minutes were approved as an accurate record of the meeting.

3. ARRANGEMENTS FOR GRAMADO MEETING

The arrangements for Gramado Meeting were presented by Wolfgang Kalkreuth in the opening remarks.

4. FUTURE MEETINGS

2010 - Belgrade, Serbia

The meeting will be held from 26th September to 2nd October 2010 in the Serbian Academy of Science and Arts in the city centre of Belgrade. A presentation was made at the Closing Plenary Session by Dragana Životic.

2011 - Porto, Portugal

Deolinda Flores will host the 63rd ICCP meeting,

which will be held from 11-17 September 2011. The meeting will take place at the Department of Geology in the Campo Alegre pole of the University which is a privileged area of the city. The hotels will be at a distance of 5-10 minutes walking and facilities for lunch will be available at the "Circulo Universitario do Porto". The field trip is expected to visit the Jurassic of the Lusitanian Basin. More information on this meeting will be provided at the next meeting in Belgrade.

2012 - Beijing, China

An invitation to host a joined ICCP-TSOP meeting in China was received from Prof. Jin. ICCP and TSOP have agreed to hold separate meetings which are connected by a 2 days joined field trip. More detailed information will become available in the next years.

5. MEMBERSHIP MATTERS

Twelve applications for associate membership, one re-admission and one advancement to Full Membership have been received during the year. All applications were recommended for acceptance and have been approved by the General Assembly. Three members have resigned.

5.1 Associate membership

The following colleagues were elected to Associate Membership of the ICCP:

- Dr. Hendra **Amijaya** (A 2) Indonesia (already introduced in Newsletter #47)
- Ms. Trudie **Brittz** (A 1 3) South Africa (already introduced in Newsletter #47)
- Mr. Vongani **Chabalala** (A 1, 2, 3) South Africa (introduced herein)
- Dr. Ian **Glasspool** (A 1), USA (introduced herein)
- Mr. Carl **Hilgers** (A1, 2, 3) Germany (introduced herein)
- Ms. Petra **Matysová** (A 1, 2) Czech Republic (introduced herein)
- Ms. Joana **Ribero** (A1, 3) (introduced herein)
- Ms. Sandra Mónica Paulo **Rodrigues** (A1, 3) (introduced herein)
- Mr. Pascal **Semkiwa**, (A 2) Tanzania (already introduced in Newsletter #47)
- Mr. **Wang** Shaoquing (A 2, 3), USA (already introduced in Newsletter #46)
- Dr. Ashok Kumar **Singh** (A 1, 2, 3) India

(already introduced in Newsletter #46)

Dr. Daniel **Vanniekerk**, (A 1 3) South Africa

(already introduced in Newsletter #47)

A short introduction of the new associate members based on their applications and CV was given to the audience. Some of the new members have already been introduced to the membership in previous ICCP Newsletters, as indicated in the list above. A summary of the six members which have not previously introduced is given in Appendix 3.

5.2 Full membership

The following Associate Members were elected to Full Membership of the ICCP

Johan **Joubert**, South Africa

5.3 Honorary Membership

The following Members were awarded with Honorary Membership of ICCP in 2009.

Prof. Zuleika Carreta **Correa da Silva**, Brazil

Prof. Marko **Ercegovac**, Serbia

Zuleika and Dragana Životic, on behalf of Marco, thanked the ICCP for this honour.

5.4 Re-admissions

Costel **Nedelcu** (F 1, 2, 3), Romania (introduced herein)

5.5 Institutional Membership

No application for Institutional Membership of the ICCP was received in 2009 but some request of information was received. The benefits for institutional members were discussed in Council (see Council Minutes in this issue) and the resolutions were presented to the General Assembly for approval.

5.6 Resignations

The following member submitted resignations during the year:

Krystyna **Tokarska**, UK

Janet **Dehmer**, Germany

Manuel João **Lemos de Sousa**, Portugal

5.7 Expiring Membership

Three members have lost their membership during the year 2009 (last year paid 2006)

5.7 Other Losses

Three members of the ICCP and a Thiessen Medallist passed away during the year:

Prof. Dr. Stefan **Jasienko** (R,A 1,3). In

Memorian by B. Kwiecinska (ICCP News # 46)

Prof. Dr. Nicolae **Ticleanu** (A 1,2,3) In Memorian by G. Predeanu (ICCP News # 47)

Dr. Rolf **Wartmann** (RF 1, 2, 3) In Memorium by Monika Stella (ICCP News #48)

Mr. Ralph **Gray** (Thiessen Medallist; ICCP News # 46)

5.8 Student Fee

The General Assembly has approved a new student fee that has been proposed by council to encourage students to join the ICCP.

Students will require a letter of their supervisor stating their student status to benefit of the student fee. The student fee was established in 13 € per 1 year and 30 € per three years. Student membership and can be maintained for a maximum of 3 years.

5.9 Application Form

A new application form for ICCP Associate Membership was approved by the General Assembly. The changes include the signature of an agreement to join the organization, the need to present a payment document along with the application and a list with the accompanying documents required. Discounts apply for the year of application. The application form is already available for download in the ICCP webpage and is published in Appendix 4.



Election of Prof. Zuleika Carreta Correa da Silva (left) to Honorary Member was warmly received.

6. ELECTIONS

6.1 Elections in 2009

Elections for Secretary of Commission II took place during the year. Three candidates stood for election. Voting ballots were sent to 146

Commission II members on 15/01/2009 and the deadline was established on 31/03/2009. The information provided was voting instructions, 2 pages information about each of the candidates including a brief Curriculum Vitae and his/her view about commission II. Harold Smith was acting as returning officer and provided a report published in the ICCP News #46. Valid returns were 54% of eligible members and the three candidates had close results being the elected candidate Paul Hackley with 39% of the valid votes.

6.2 Future Elections

No nominations for elections were called in 2009. It was announced that in 2010 nominations for the positions of President, Vice-president, Honorary treasurer and Chair of Commission III will be called.

7. REGISTRATION OF ICCP

No advances occurred regarding accreditation during the year 2009. The compilation of the information in an intelligible manner to make possible the selection of a country for registration is the main priority for the next year

8. REVISION OF THE STATUTES

Council notes the continuing need for revision of the Statutes and for co-ordination with the registration process.

9. ICCP Training Activities

Lopo Vasconcelos, coordinator of the ICCP training activities, presented the main developments during the year regarding the organization of the first ICCP training course. The presentation covered the historical background, the main decisions taken during the year regarding duration of the course, dates, selection of teachers, topics to be covered, infrastructure and fees.

The ICCP membership has been informed about the existence of the course and the information is regularly updated in the webpage. The first ICCP training course has been favourably received and will have a high number of attendants, which reflect the need of training in organic petrology. This activity is very well fitting the aims and scope

of the ICCP.

It was suggested from the floor to contact Industry to support the training activities of the ICCP.

10. FINANCIAL MATTERS

The treasurer was not able to attend the Meeting and the President presented the report on her behalf in the closing plenary session. The report is shown in Appendix 5. ICCP accounts are in good shape although significant expenditures are still expected from DOMVR and CBAP programs from which invoices have not been received.

11. EDITORS' REPORT

The Editor presented a summary of the 2009 report which is shown in Appendix 6. Members and in particular conveners of the working groups are encouraged to provide progress reports and contribute further to the ICCP News.

12. ACCREDITATION

Deolinda Flores, chair of the Accreditation Subcommittee, presented an overview of the Accreditation activities in the year 2009. The 2008-2009 Accreditation round was finished at the time of the presentation only pendant of expiring the appealing period for CBAP. In summary the participation in all the programs increased compared to the previous round and also the proportion of participants in multiple programs. The participants passing the test were at least 95% in each program, which is according to the expected figures for the type of test. No appeals have been received in the 2008-2009 round. Two requests were received in the accreditation subcommittee: one regarding the use of images of ICCP accreditation coats which was denied because it is expected that the ICCP make use of this material for the images database. The other request related to obtaining detailed information about stratigraphy, dates, basin, etc of the DOMVR accreditation samples. This information is not always available and therefore it will be difficult to provide.

Further work of the Accreditation Sub-committee during the year was related to the treatment of outliers and screening procedures for beginners which was later on discussed in a

meeting of the Accreditation Subcommittee in Gramado. The Accreditation Sub-committee was renovated at the end of Oviedo Meeting and a smooth transition has occurred allowing the continuation of the work of the sub-committee.

The Accreditation Programs are a major activity of the ICCP. The success of the programs relies on the excellent work performed by their organizers: Kimon Christanis for the SCAP, Alan Cook for the DOMVR and Isabel Suárez-Ruiz for the CBAP. The ICCP would also like to show gratitude to: Paddy Ranansinghe, who has created the three programs in Access 2003 that runs the ICCP accreditation programs. Alan Cook for his support during the evaluation of the data of the 2008-2009 exercises, especially during the assessment of CBAP results. Jen Pearson, the treasurer, for the prompt answer on the invoicing issues. The members of the Accreditation Subcommittee (Carla Araújo, Georgeta Predeanu, Kees Kommeren and Deolinda Flores) that have promptly replied to the needs of the organizers and Angeles G. Borrego, past chair of the accreditation sub-committee, for all her support and suggestions.

13. WEBSITE

The General Secretary presented to the plenary the main progress regarding the ICCP webpage during the year. At the Meeting in Oviedo the following persons were appointed to assist in the update of webpage information: Taissa Rêgo Menezes, Igor Viegas and Dongyong Li. These persons together with the General Secretary have become familiar with the webpage during the year and progressed in the implementation of information. The main advances in the webpage updating have been i) continue updating of accredited petrographers list, ii) continue release of newsletters and news; iii) update of future and past meetings, iv) update of awards including awardees, v) update of officers, vi) update of Commissions information, vii) increase the level of implementation of the secure part of the web. Tasks in progress at the time of the presentation were assignment of usernames and passwords, establishment of links between pages and implementation of forgot my password section.

The following distribution of tasks has been agreed:

- General>Council>Statutes>Directory of Members>Newsletters and Application (Responsible for the Information (RI):

General Secretary/Editor. Responsible for updating (RU) Taissa/Igor).

- Activities>News>Calendar>Forthcoming Meetings>Previous Meetings>Publications (RI: General Secretary. RU: Dongyong)
- Accreditation (RI: Chair Accred Subcommittee. RU: Taissa)
- Commission I (RI: Chair/Sec Comm I. RU Igor)
- Commission II (RI: Chair/Sec Comm II. RU Taissa)
- Commission III (RI: Chair/Sec Comm III. RU Dongyong)
- Links (RI: Editor. RU Ralph Delzepich and Dirk Prinz)
- Providing passwords and usernames and general maintenance of the webpage: Ralph Delzepich and Dirk Prinz

Significant progress has been achieved during the year in updating and exploiting the webpage facilities. For an acceleration of the development further assistance is needed, besides the activities of officers and convenors. Any suggestion for improvement of the webpage facilities should be addressed to the General Secretary. The incorporation of member's profiles was suggested from the floor.

14. NEW HANDBOOK

The President summarized the draft structure of the ICCP Handbook convened at present by Ivana Sýkorová, Kimon Christanis, Isabel Suárez-Ruiz. The existing chapters are: 1. Introduction, 2. Definitions, 3. Lithotypes, 4. Microlithotypes, 5. Macerals, 6. Coal Classification, 7. Classification of dispersed organic matter, 8. Methods, 9. Coal Utilization, 10. Other terms, 11. ICCP services, 12. Glossary of terms, 13. References.

The contribution of those who up to now have participated in the revision of the handbook is gratefully acknowledged.

15. REPORT FROM THE COMMISSION MEETINGS

Many officers were new in their positions this year: in Commission I Deolinda Flores started her duties as Chair after two turns as Secretary and Stavros Kalaitzidis started as Secretary; in Commission II Carla Araújo started her turn as Chair after one year

as Secretary of the Commission and the elect Secretary of Commission II Paul Hackley was acting in this duty; in Commission III Jolanta Kus kindly accepted to act as Secretary due to the absence of Georgeta Predeanu.

Reports of the meetings of the Commissions were presented during the Closing Plenary Session on Wednesday, 23 September by Deolinda Flores (Chair of Commission I), Carla Araujo (Chair of Commission II) and Isabel Suárez Ruiz (Chair of Commission III). The minutes of the Commissions are presented in Appendix 1.

The President congratulated Chairs, Secretaries, and Convenors of the 3 Commissions for their continuous work. Again, they performed extremely well and the results achieved during the year are remarkable. The president noted that this is only possible because members actively participate in the round robin exercises and especially encouraged the new members to take part in the different Round Robin exercises. Many thanks to all who are participating in the working groups.

16. REPORT FROM THE COUNCIL MEETINGS

The President summarized the council discussions and decisions most of which were already presented when the corresponding subjects were discussed. A summary of the council minutes is given in Appendix 7.

17. AWARDS

17.1 Thiessen Medal Award

The Thiessen Medal has not been awarded in 2009

17.2 Organic Petrology Award

No nominations were called for the Organic Petrology Award in 2009

18. ARRANGEMENTS FOR 2010 MEETING

Dragana Životić presented the arrangements for the 2010 meeting in Belgrade. The meeting will be held from 24th September to 2nd October 2010, in the Serbian Academy of Science and Arts (SANU) in the city centre of Belgrade. The Academy has 2 meeting rooms, one with 500 seats, and a second with 70 seats. Hotels (10) of different prices and quality will be offered in the vicinity of congress

meeting (about 10-15 minutes by walking.) and at the same riverside. This is convenient to avoid heavy traffic at peak hours. It will be a 5 day ICCP meeting, followed by a field trip on Saturday. Post meeting excursion will go to the Kostolac lignite mine and Kostolac or Drmno Power Plant followed by a visit to the archaeological site Viminacium which is a Roman camp and town from the I-V Century BC.

19. OTHER

Archiving System. It was suggested to change the archiving system of the ICCP to adapt it to the new technologies because it is expected that in some years CD readers may disappear.

The ICCP activities in **Coal Bed Methane and CO₂ Sequestration** were discussed in the Plenary session. It was noted that working groups dealing with CBM and CO₂ storage are active in different commissions, i.e. the WG Improved Image Analysis in Commission III and the Coal Seam Methane and CO₂ Sequestration WG in Commission II. It was suggested to combine all activities related to CBM and CO₂ Sequestration in only one Working Group and redefine objectives and activities. A proposal for a new WG is expected for the next year.

Participation of New Members in ICCP activities.

It was suggested to explore procedures to invite and encourage new members to take part in the ICCP activities and WGs.

The attendants to the closing Plenary Session were **surprised with a raffle**. Zeiss, which participated in a successful microscopy session, transporting and insuring the João's microscope gave as gift to João a Zeiss Monocular which was kindly donated to the ICCP. The monocular was raffled between those attending to any of the ICCP Commissions. The innocent hand was the new Honorary Member and the fortunate attendant Peter Crosdale. Both Zeiss and João were thanked by their generosity and courtesy.

The Closing Plenary Session of the ICCP General Assembly finished thanking Wolfgang Kalkreuth and the organizing committee for a perfectly organized meeting, which run smoothly throughout the week.

SOCIAL PROGRAMME AND FIELD TRIPS

The Icebreaker took place at the entrance hall of the Centro de Eventos FAURGS in Gramado on Sunday, September 20, 2009 from 16:30 to 21:00 h, in the same building in which also the meetings took place. We had a good time with a lot of local wine from the nearby vineyards and snacks. An additional ice-break party was organized on Wednesday, September 23 from 19:00 to 21:00 to welcome TSOP members to the symposium on "Advances in Organic Petrology and Organic Geochemistry". Again nice wine, also beer this time and snacks were available.

On Wednesday, it was scheduled a visit to the Caracol Park including lunch. The heavy rain impeded the visit to the Park and an alternative program with lunch at Café Colonial took place.

For the Conference Dinner on Thursday, 24 September 2009 we were picked up by a bus, which brought us to Restaurant Garfo e Bombacha on the way to the Caracol Park. This was a typical "Churrascaria" with options for different meats and salads to be tried. The meat was directly grilled in front of us. The waiters were dressed with traditional "Gaúcho" dresses and a show with folk music, dance and a performance with the handling of "boleadeiras" (a primitive hunting and defensive arm utilised by the Brazilian cow boys) took place. At the end the dancers invited the attendants to join them for dancing and many ICCP members showed their abilities with the Brazilian folk music.

Two excursions were offered, which took place simultaneously on Saturday, September 26.

Fieldtrip 1: Excursion to the Leão-Butiá Coalfield, Rio Grande do Sul, Brazil

The field trip to Leão-Butiá was conducted by Maristela Bagatin Silva from the Oceanographic Institute of the Federal University of the Rio Grande (IO-FURG) and Eduardo Osório from the Geosciences Institute of the Federal University of the Rio Grande do Sul (UFRGS). We left Gramado at 8.00 am (30 minutes later than scheduled) and we went directly to Porto Alegre and then to Recreio/B3 Mine (Butiá-Leão Coalfield), COPELMI Mining, Ltd. There we were greeted by Alexandre Grigorieff and Gustavo Antônio Bastiani the Mining Engineer and the Geologist of the mine, respectively.

After the coffee-break, A. Grigorieff made a presentation pointing out the location and regional distribution of coal mines operated by the Company and their reserves as well as the methods used for

the environmental reclamation of mined areas. Afterwards G. Bastiani presented the geology of the southern part of Paraná Basin, where the most important coal deposits in Brazil are located and the lithostratigraphy of the coal bearing strata of Rio Bonito Formation.

COPELMI Mining Ltd is a coal mining company founded in 1883. It has the following production units and coal reserves located in the state of Rio Grande do Sul: Grande Recreio (130.1Mt), Faxinal (10.9Mt), Cerro (99.6Mt), Seival (368.9Mt), Charqueadas (1826.6Mt), Guaíba (320.7Mt), Gravataí (413.6Mt) and Arroio dos Ratos (9.12Mt). Grande Recreio, Faxinal and Cerro are in operation, Seival and Charqueadas are in standby, and Guaíba, Gravataí and Arroio dos Ratos are mines in planning stage. The company operates by opencast strip mining methods, being a pioneer in the environmental reclamation of mined areas, developing reclamation activities that enable the use of these areas after mining has been completed.

The coal-bearing strata belong to the Carboniferous-Early Triassic Sequence of the Paraná basin, a large intracratonic basin located in the central-eastern part of the South American Platform. The coal seams are associated to the Rio Bonito Formation, at the base of the third sequence of Carboniferous/Early Triassic age, which forms the thickest sedimentary sequence of the basin (2800 m thick at depocentre). Rio Bonito Formation is linked to a fluvial to marine sandstone and shale-prone unit of Artinskian-Kungurian age. The coal seams were originated in fluvial settings, but the most important coals were deposited in a lagoon-barrier system. The rank of the coals from Butiá-Leão Coalfield is approximately sub-bituminous to high volatile C bituminous coals. Coal resources are about 4.876×10^6 t. There are up to nine coal seams which are exploited in open-cast mines (Recreio, B3-COPELMI Mineração Ltda) and in an underground mine (Leão II, Companhia Riograndense Mineração-CRM).

After the presentation we went to visit the mine B3 which is located in an area called Grande Recreio, near the city of Butiá-RS. It is an opencast mine, using strip mining methods. We did a first stop for an over-view of the mine and after we went to the front of the exploitation to see the coal, take photos as well as to collect samples.

Lunch took place at Churrascaria Sto Antônio, Butiá, where an excellent Brazilian barbecue (churrasco) was served. After lunch, we went to Arroios dos Ratos to visit relicts of the first coal power plant in Brazil and the Coal Museum. Coal

was discovered in the area of Arroio dos Ratos in 1853 by the English engineer James Johnson, and coal mining activities started in 1856 at Serra do Herval (today Faxinal Mine). The Imperial Government licensed James Johnson in 1866 to explore and mine the coal, and in 1872 the Imperial Collieries Company Limited was founded for this proposes. In 1908 Princess Isabel visited the region on behalf of the Imperial Government. In 1924 the first Brazilian coal-fired power plant was constructed at this site, which operated until 1956, when activities shifted to a new modern power plant that was built in nearby Charqueadas. During the history of the underground mining operations, the mine was flooded in 1936 and was closed for one year. In 1952 it was decided to close the mine definitively.

The Coal Museum, founded in 1986, has a collection of historical photos, tools and artefacts, illustrating the conditions in the subsurface mine that provided coal at the time the power plant was operational. It was a very well organized and interesting field trip, the weather was excellent and we enjoyed it very much. Thanks were given to organizers and hosts for the support.

Field Trip Nr. 2. Excursion to examine the relationship of soil type and climate to champagne and wine quality in the region of Vale dos Vinhedos, RS

Originally the excursion was foreseen to examine the relationship of soil type and climate to champagne and wine quality in the region of Vale dos Vinhedos, North of Gramado. But due to unforeseen circumstances, the guide that should explain about this relationship was not present, so the excursion resumed to a tasting of the good wine and the sightseeing of a magnificent region.

We left Gramado around 8:00 o'clock and followed a road passing by Nova Petrópolis, Feliz, São Valentino and Carlos Barbosa, and around 10:00 o'clock we stopped in Garibaldi to visit the Peterlongo Cellars, where the 1st Champagne from Brazil is produced. Peterlongo and the neighbor George Aubert, are the only places in the world allowed to produce Champagne out of France. Here we visited the caves and saw the process of producing Champagne. We had the chance to see the young sommelier (wine steward) performed the sabrage which is the act of opening the champagne bottle with a saber. After this we tasted some champagne and other wines.

Then, we left Garibaldi and headed to Bento Gonçalves region, a little more to the north of

Garibaldi. Here we visited the 2nd cellar, called Valduga where a similar protocol was followed. The main difference between both type of production was that in Valduga the processes of champagne and wine making were more automated. Also some wine tasting and again the sabrage, which had to be performed three times before it worked.

In Valduga, we had a magnificent lunch with typical Italian cuisine, and we were presented by the acting of a folkloric group of dances and songs. We left there around mid-afternoon and arrived back in Porto Alegre at 6:00 pm and afterwards we were offered a big rain.

We thank Wolfgang Kalkreuth and his wife, Lúcia, for the guidance through the Vineyards, which make the excursion a very good and tasteful one.

SUMMARY OF APPENDICES

- Appendix 1** Minutes of the Commission Meetings
- Appendix 2** List of participants
- Appendix 3** New Members
- Appendix 4** New Membership Application Form
- Appendix 5** Treasurer
- Appendix 6** Editor
- Appendix 7** Council



Chairs and secretaries of the ICCP Commissions enjoy a relaxing moment. Photo by Sandra Rodrigues

Appendix 1 - Commission Minutes

Minutes of Commission I **General Coal and Organic Petrology** **61st ICCP Meeting Gramado** **21st and 22nd September, 2009** *Chair: Dr. Deolinda Flores* *Secretary: Dr. Stavros Kalaitzidis*

Opening remarks

The commission I meeting was held on Monday afternoon and Tuesday morning and attended by 24 and 39 members, respectively. The Chair outlined the programme for the sessions and presented the opening remarks.

The working groups and items presented and discussed in the meeting were:

- SCAP - Single Coal Accreditation Program
- Degradinite Working Group
- ICCP Training Program
- Peat Petrography Working Group
- Standardization Working Group
- New Handbook Editorial Group
- Liptinite Editorial Group
- New Techniques & Methodologies WG
- Temporal variations of coals
- Proposal of new Working Groups
- The new advances on the Discus Fossil System - presentation
- Microscope session

SCAP - Single Coal Accreditation Program - Kimon Christanis

The Convenor presented the results of the 2008 Exercise. A description of last year's activities follows.

The 2008 SCAP exercise began by end of February 2008 when Angeles Gómez Borrego, the former Chair of the Accreditation Sub-Committee, invited by e-mail all potential participants to take part in the Accreditation Programs of ICCP. The exercise was also announced in ICCP NEWS 37 and TSOP Newsletter 25/1 both published in March 2008.

The participants

At the beginning, about 87 analysts (67 continuations, 20 entries) expressed their willingness to participate in the 2008 exercise. However, only 80 participants (60 continuations, 20 entries) replied on time, while 7 other participants (all continuations) declared that they would be able to submit their results by the end of 2008.

The high number (7) of late submissions and the queries (5) received in the meantime by analysts interested in participating in SCAP exercise, as well as the requests by failed participants for a repeat of the exercise (5), led the Convenor to propose to the ASC to announce a supplementary round for the 2008 exercise. In this round 15 participants (6 continuations, 3 entries, 6 repeated) submitted results.

Summing up in both rounds, 89 petrographers (66 continuations, 23 entries) submitted results; half of them (45) were ICCP members.

From the 80 participants of the first round, 77 asked for VR and VC accreditation, 2 for VR only and 1 for VC only. The analysts who submitted late results, as well as the beginners in the supplementary round, requested accreditation in both VR and VC, while from the analysts who repeated the exercise, 4 asked for VR and 2 for both VR and VC accreditation.

The geographic distribution of the participants was as follows:

- 24 from Australia (10 labs),
- 4 from Brazil (1 lab),
- 3 from Canada (2 labs),
- 3 from Colombia (2 labs),
- 1 from Czech Republic,
- 2 from Denmark (1 lab),
- 11 from Germany (6 labs),
- 4 from India (1 lab),
- 4 from New Zealand (1 lab),
- 2 from Poland (1 lab),
- 1 from Portugal,
- 1 from Serbia,
- 6 from South Africa (3 labs),
- 2 from Spain (1 lab),
- 5 from The Netherlands (2 labs),
- 6 from United Kingdom (2 labs) and,
- 10 from the United States of America (7 labs).

The timetable

After registration and invoicing, by the end of April-early May two polished blocks were sent to each analyst continuing the exercise and six coal samples were sent to each beginner or failed participants in the 2006 round.

The return of data was completed by mid of October. Typing and calculation errors found in the data received from the analysts were corrected by the end of the same month.

The assessment of the VR and VC data was completed by early December and the participants were informed about their performance. The certificates were dispatched before the turn of the year. Since January 2009 the list of the accredited petrographers with all their contact details is available on ICCP's webpage.

The supplementary round was announced by end of December 2008. The blocks were sent to the beginners and the participants repeating the exercise by the end of February 2009. In early June the assessments were mailed to the participants and the certificates were dispatched to the accredited analysts. The list of the accredited petrographers on ICCP's webpage contains now the contact details of the analysts awarded accreditation in both 2008 SCAP exercises.

The assessment

The calculations of the GMs and the SDs for each coal, as well as of the UMSD, SMSD, AUMSD and ASMSD values for each participant were carried out manually using Microsoft EXCEL.

The results

The results of the 2008 main exercise are as follows:

- Out of 79 VR candidates, 72 participants were awarded accreditation (VR failure 8.9%),
- Out of 78 VC candidates, 73 participants were awarded accreditation (VC failure 6.4%).

The results of the 2008 supplementary exercise are as follows:

- Out of 15 VR candidates, 11 participants were awarded accreditation (VR failure 26.7%),
- Out of 11 VC candidates, 11 participants were awarded accreditation (no VC failure).

The failure percentage in the VR exercise appears higher than in the previous exercise, especially this in the supplementary round, obviously due to the great number of new entries this year.

No appeal was submitted to the Accreditation Sub-Committee.

Remarks & Suggestions

- Thanks to several ICCP members, the SCAP sample bank can secure the running of the exercises in the near future on a bulk-samples basis.
- In the VC exercise many participants continue to stop counting when they achieve the magic number of 500 counts, although it is clearly stated in the instructions that they have to finish the traverse.
- Due to the high number of requests for participation and late submission of results arrived after the deadline of the main exercise, the Convenor proposed to the ASC the running of the supplementary round. However, it has been agreed that this cannot be applied after every main exercise.
- One difficulty during the last main exercise concerned the contact details of the participants, as well as their mobility after registration. In the future we have to make somehow clear that the participants have: (a) to pay attention to their contact details provided with the invoice; and (b) to keep the Convenor informed about any change in the contact details after registration and payment.

Next exercise

The next exercise will be announced in February 2010. It is requested to keep strictly the deadlines and no supplementary round will run.

Acknowledgements

For the continuous and sound support in running both rounds of the 2008 exercise Kimon expressed his gratitude to the following colleagues: all the members of the former and the current Accreditation Sub-Committee, especially the former and the current Chairs, Angeles and Deolinda, respectively, and the Treasurer, Jen. Noteworthy to mention that the transition from the former to the current ASC was very smooth, obviously due to the harmonic collaboration of all the members. He also thanks his students Tanya Chantziapostolou and George Siavalas for their help with the programme logistics.

Commission I acknowledges the efforts of Kimon for the successful exercise.

Degradinite Working Group – *Peter Crosdale*

Peter presented the Final Report of the Degradinite WG. This WG has been established in 2002 during the 54th ICCP with the aim to: (1) Provide a recommendation to Commission I as to whether or not the term degradinite and its associated microlithotype hydrite should be formally reinstated into the ICCP classification system; (2) If reinstatement is recommended, then to advise if the maceral belongs to the vitrinite group, liptinite group or elsewhere, and (3) If reinstatement is recommended, to provide sheets for the Handbook. Peter presented background information about the usage and the various references on the terms Degradinite and Hydrite and a summary of the 2002 – 2008 activities. Two exercises have been performed.

In the first coal samples were provided from the Jurassic Surat Basin of SE Queensland (2 grain mounts) and the Miocene North Wanganui Basin of New Zealand (1 grain mount and 2 whole coal mounts). Participants were asked to examine the specimens and then answer a questionnaire and provide photomicrographs of what they saw. In the second round polished thin sections of coal samples from the Miocene North Wanganui Basin of New Zealand were prepared by a commercial laboratory (unfortunately the sections turned out to be very poorly made). A series of photomicrographs of the same field were made in transmitted, reflected and fluorescence modes from 4 different areas (set A, B, C and D) and distributed to participants. A selection of 20 points was made on one of the photomicrographs (set B) and participants asked to identify all macerals – giving as much information as they thought useful. The results of these exercises have been published in ICCP News.

From these exercises it is obvious that the *Members of the WG clearly have differing views as to the usefulness and veracity of a maceral called 'degradinite'. It is clear that the material is difficult to work with and various individuals see different discriminating features for the same field. It is therefore clear that reproducibility of degradinite in analysis would be very poor.*

This observation was confirmed during the Commission I Session when the audience has been asked to identify macerals on the photomicrographs.

The consensus opinion of the WG is that, with

the use of better of optics and optical techniques than available to Assai and Tanno in 1956, the material known as degradinite can be assigned to other liptinite group macerals.

Following the discussion it was decided that:

- Degradinite should be discarded as an ICCP recognised term. The primary reason is that degradinite appears to represent other macerals in various stages of degradation and the material can be usually referred to such macerals or to liptodetrinite;
- Hydrite should be discarded as an ICCP recognised term. Since degradinite is the primary constituent of hydrite, acceptance of recommendation 1. makes hydrite untenable as a microlithotype;
- There appears to be much confusion surrounding definitions and identification of the macerals suberinite and bituminite. Working groups should be established to re-examine both of these macerals;
- The current ICCP vitrinite classification needs to be revised to remove any reference to 'degradinite'.
- The Final Report of the Degradinite WG will be soon distributed to the WG members: **Wan Abdullah, Alan Cook, Jane Newman** and **Walter Pickel** and will be uploaded on the ICCP webpage.

Commission I would like to thank Peter for his valuable efforts convening the WG.

ICCP Training Program – *Coordinator: Lopo Vasconcelos,* *Convenor: Nikki Wagner*

Lopo Vasconcelos presented an overview of the WG and the detailed content of the ICCP Training Course for 2009 in Potsdam in Germany. The course will take place on 16-20 of November and the topic will be General Coal Petrology. Claus Diessel and Alan Cook will be the instructors and up to now almost 17 people have shown interest to attend. The 2nd Flyer will be circulated immediately after the Meeting.

The contents of the course will include:

1. Coal origin and formation including peat-forming environments
2. Coalification
3. Sedimentary environments of coal
4. The tectonic setting of coalfields

5. Coal Classification, sample preparation
6. The petrographic microscope
7. History of organic petrology, macerals, microlithotypes, lithotypes, minerals, rank
8. Reflectance standards
9. Standardization of analyses, ICCP Accreditation Programs
10. The application of organic petrology to mineral, oil and coal exploration
11. Petrographic aspects of coal utilization - coking
12. Petrographic aspects of coal utilization – gasification, hydrogenation

The Course includes also a one day field trip to the Tertiary Brown Coal Deposits of Lower Lusatia (Niederlausitz), where the participants will have the opportunity to study the brown coal lithotypes in detail and to discuss the application of coal petrography in the planning of large scale mining activities in an open-cast mine under operational conditions.

After the presentation a discussion took place concerning the future courses. The questions addressed by Lopo included:

1. Should this be an annual course or should it be every 2-3 years?
2. One course per annum or more than one per annum?
3. Contents of future courses: the same and/or other subjects.
4. Find out hosts for the future courses
5. Possibility to associate the Course with the ICCP meetings - If yes shall the organizers have a common excursion?

It has been decided that for this year it will be only one course and Petra David proposed that the frequency of the ICCP Courses should be adjusted to the needs. That means having one per year and if needed a second one might take place. The need could be governed by the number of interested parties.

Concerning the content of the courses, it has been agreed that a course with the topic General Coal Petrology should take place at least every 2 years and cover 4-5 days with a one day field-trip. An issue concerning the contents of the course has been raised by Alan Cook, mentioning that macerals are referring quite late in this year's course. He proposes for the future to force for more practical applications of organic petrography.

Additional topics for the courses have been proposed: Alan suggested a course on maceral

identification; Carla Araújo and Jolanta Kus suggested having a separate course on dispersed organic matter of marine sediments. These specific courses could be of a short duration (e.g. 2-3 days).

It has been also discussed that the Notes of the Courses should be ICCP's possession.

Concerning location and hosts for future courses the possibility of having the courses adjacent to the ICCP Meetings has been discussed. This would give the opportunity to cover training needs in different countries. Deolinda and Angeles raised the issue that there is a need for the potential host to know the cost of the course, although as pointed out the courses should be self-financed. Jolanta suggested contacting German Companies about the courses, so that they might contribute.

Deolinda agreed to explore the possibility of organizing a course during the ICCP Meeting in 2011.

Any interested body to host an ICCP Course or members willing to supply with training material and interesting polished blocks should contact the Vice President.

Lopo acknowledges the efforts of Nikki Wagner, Petra David, Angeles G. Borrego and Peter Crosdale for their commitment to the Course, as well as Claus Diessel and Alan Cook for the course preparation.

Commission I thanks Lopo and Nikki, Petra, Angeles, Peter, Alan and Claus for their commitment to this demanding ICCP initiative.

Peat Petrography Working Group - *Kimon Christanis and Stavros Kalaitzidis*

Peat petrography WG had no activities this year. Stavros reported the work done within the WG until now with the addition of two replies from the 2008 exercise. The outcome if the WG is that there is very good agreement among the participants in group and sub-group maceral level (>80%). For this year Kimon and Stavros will prepare a draft Final report and recommendation that will be circulated among the WG members for comments and will be presented in Beograd Meeting.

All the relevant documents from this WG are available on the ICCP webpage.

Standardization WG –

Walter Pickel, Ivana Sýkorová

The purpose of this WG is to provide round robins for actual ‘problems’ to check on ICCP definitions and according to the results to revise and/or modify the definitions. Walter Pickel presented the results of the Standardization RIC2008 Round Robin Exercise.

Many previous round robins have shown that, a satisfactory level of agreement between analysts and laboratories is normally only achieved on a maceral group level. The RIC 08 round robin was set up with a focus on the distinction between **Telo- and Detrovitrinite** on the maceral sub-group level and between **Semifusinite and Fusinite** on the maceral level.

Participants in the Round Robin Exercise RIC08 were asked to perform Maceral (sub-group) analysis (n=500+) according to ISO 7404-3 and the strict application of the ICCP Vitrinite and Inertinite Classifications.

The supplied round robin sample was a Permian bituminous coal from Queensland (Australia) of medium rank B-C (ISO 11760), formerly also known as high volatile bituminous coal. The sample is from Gregory, Bowen Basin, German Creek Formation, Late Permian.

22 members participated in the RIC08. The evaluation of the results shows that the agreement on maceral level is very satisfied. Vitrinite values ranged between 75.2-82.9% with mean value 79.4 ± 2.32 , those of inertinite between 12.4-20.1% (mean 16.4 ± 2.13), and for liptinite 2.1-6.9% (mean 4.3 ± 1.4).

On the contrary, the agreement on subgroup level was problematic. Values for Telovitrinite ranged between 0.8-77.2%, Detrovitrinite between 2.2-55.1% and Gelovitrinite between 0-78.2%.

The results were fairly better concerning the distinction between fusinite and semifusinite. Values for fusinite ranged between 1-7.6% (mean 3.6 ± 1.97) and for semifusinite 5-12.8 (mean 9.2 ± 2.23).

Walter presented photomicrographs of the same fields but under different brightness intensities, suggesting that the various microscopes the participants use can affect significantly the outcome. During the discussion that followed different criteria to distinguish between telo- and detrovitrinite have been mentioned, e.g. size criteria. Alan also discussed the fact that in high

rank coals it is difficult to distinguish between telo- and detrovitrinite.

For the next 2009 exercise it has been decided to circulate a CD with photomicrographs, in which the participants will have to identify the signed macerals. This way it is expected to identify better if there is a problem in distinguishing among the different macerals. The sample will be an inertinite-rich coal from the Bowen Basin in Australia. Whoever wants will also get a sample for maceral analysis. Already 17 members expressed their willingness to participate, and those who would like to participate please contact Walter Pickel (mailto:walter.pickel@organicpetrology.com). The CD and samples will be sent out soon with detailed instructions.

All the relevant material from the WG exercises is available on the ICCP webpage.

Commission I thanks Walter for his efforts within the Standardization WG.

New Handbook Editorial Group –

*Ivana Sýkorová, Isabel Suárez-Ruiz,
Kimon Christanis*

Ivana reported on the progress done on the New Handbook Editorial Group. The structure of the New Handbook Edition was defined and most of the chapters have been prepared and revised, as summarized in ICCP News No 45, 2008.

The Structure of New Handbook Edition is defined as follows, (*status of each chapter*):

1. Introduction (*Final draft for approval*)
2. Definitions (*Final draft for approval*)
3. Lithotypes (*Final draft for approval; Hard coal lithotypes: in progress, Peter Crosdale and Walter Pickel will prepare draft documents*)
4. Microlithotypes (*Minor editorial changes required*)
5. Maceral groups (*Vitrinite, Huminite and Inertinite published; Liptinite: in progress*)
6. Classification of dispersed organic matter (*approved by the ICCP GA in 2002*)
7. Methods (*In progress; for sample preparation the ISO 7404-2 (2009) will be incorporated when published; Lila Gurba will prepare the draft document of the New Methodologies*)
8. Coal Utilization and conversion (*Products of conversion: revised, prepared for publication; Pyrolytic carbon: Barbara will contact Costel*)

Nedelcu as he had previously done a lot of work in this area; Coke and char: in progress)

9. Other terms (*Graphite, semi-graphite, natural coke, natural char: published; Bitumens: in progress, Walter will prepare the draft document; DOM: in progress; Oxidation: in progress, Jolanta Kus and Magdalena Misz-Kennan will prepare the draft document)*
10. ICCP services (*In progress*)
11. Glossary of terms (*In progress*)
12. References (*Editorial changes*)

For 2010 the activities will include:

- Changing the format of the Handbook to this of DIN A4.
- Reviewing of the revised version of the text; proposed to include also a section for Coal Classification.
- Compiling a list of terms to be changed (e.g. brown coal, hard coal). This list will be discussed in 2010 during Beograd meeting.
- To move the references of every chapter to the end of the relevant chapter. References should be cited as in the International Journal of Coal Geology.
- To advance in the revision and to implement the pending material.
- Adopt specifications about the resolution of the photomicrographs. Photomicrographs should have scale bar and any related data should be provided in the captions.

The Editorial Group would like to request the ICCP members to provide appropriate photomicrographs of macerals in order to choose the best ones. The text and the chosen photomicrographs will be uploaded on the webpage, in order for members to comment.

The deadlines for the forthcoming activities have been defined as follows: until the end of 2010 all the material to be uploaded on the webpage and until the end of 2011 to prepare the hard copy.

Com I would like to thank Ivana, Isabel and Kimon, as well as all the contributors to the New Handbook Editorial Group.

Liptinite Editorial Group – *Walter Pickel*

The Convenor presented the Liptinite sheets for the Editorial group. He also discussed the definition of Bituminite. It has been agreed to upload all the

information on the ICCP webpage so that members can review/revise the text. The deadline is 6 months, and an email will be circulated to remind the deadline. Members that have photomicrographs are welcome to contribute. Any material can be send to Walter or the Editorial Group, Ivana Sýkorová, Isabel Suárez-Ruiz and Kimon Christanis.

The Editorial Group will start the editing after the deadline.

After all comments received and incorporated in all sheets, they have to be approved by the General Assembly.

New Techniques & Methodologies WG– *Lila Gurba*

Lila presented the activities of the WG since its establishment at the 52nd ICCP Meeting in Rio. The purpose of this WG is to provide an update on novel and new methods and techniques that can be applied to Coal and Organic Petrology.

All the relevant documents and presentations of the previous year's activities, including the first version of the New Methodologies and Techniques in Organic Petrology White Paper have been uploaded on the ICCP webpage.

For 2009 Meeting Lila gave a presentation on Clean Coal Technologies as part of the New Methodologies and Techniques in Organic Petrology WG. The focus of the presentation was towards the identification of opportunities to implement organic petrography and other new Methodologies in Coal quality requirements and/or environmental issues.

The Technologies that were presented included:

- Pulverised coal combustion (PCC)
- Oxy-fuel combustion
- Circulating fluidised bed combustion (CFBC)
- Integrated gasification combined cycles (IGCC)
- CCS Technologies (CO₂ geological storage)

An overview of the state of art of these technologies in different countries has been discussed. Additionally potential research opportunities have been proposed regarding the impact of the coal quality, in terms of rank, maceral content, mineral matter content and type, in optimizing the performance of the various Clean Coal Technologies.

Commission I would like to thank Lila for her presentation.

Temporal variations of coals – *Lopo Vasconcelos*

Lopo presented the Database (Excel file) that has been created during the activities of this WG. The database includes 9311 data from 20 Gondwana and 45 North Atlantic countries.

There are still 907 data to be controlled, and the convenor asked for assistance in accessing the literature sources (58 papers/theses/articles/reports).

The working group will start to evaluate the database, e.g. elaborating VLI diagrams to see if any differences can be found between coals of different ages and will prepare presentations to Commission I and publications.

Lopo thanks the participants of the WG: Walter Pickel, Alan Cook, Ivana Sýkorová, Henrik Petersen, Miloš Markič, Michel Frank and Eduardo Siquela. Additionally he acknowledges the help of Taissa Menezes and Igor Viegas for the webpage updating, as well as Ralph Delzepich and Dirk Prinz for solving problems with internet links.

The Database is available on the ICCP webpage for members to use. For any comments or suggestions contact Lopo (<mailto:lopovasconcelos@gmail.com>).

Commission I thanks Lopo for creating a really very useful and user-friendly database.

White Light Illumination Working Group – Dave Pearson

The WG was created last year in Oviedo and the main objective is to investigate the differences for analyses of different light sources, esp. LED versus halogen. Unfortunately no activities were carried out during this year.

Proposal of New Working Groups

Two new Working Groups have been established and will start their activities within Com I. The WG and Conveners are:

Petrographic Images Database - Johan Joubert and Trudie Brittz

The purpose of this WG will be to establish and

maintain a database of photomicrographs for supporting the ICCP Classification, Teaching and Training Organic Petrology.

The actions that will be undertaken will include:

- establishing the requirements and structure of the database;
- define specifications for the quality size and format of photomicrographs;
- incorporating the images of the maceral sheets and the images of the WGs;
- start to implement training material from Diskus system.

Paddy (upon confirmation) will develop the database based on material available from the Accreditation program.

Alan Cook, Petra David and Angeles Borrego will also participate within the WG.

Anyone interested to participate please contact Johan (<mailto:johannes.joubert@sasol.com>) or Trudie (<mailto:trudie.brittz@sasol.com>).

Suberinite WG - Peter Crosdale

The purpose of this WG will be:

- to investigate the various forms of suberinite in coal, and
- to establish if the present ICCP definition is adequate.

For the forthcoming year unmounted coal samples (1 or 2) from the Jurassic Surat Basin of SE Queensland will be distributed to the interested members and the participants will be asked to point count the samples and provide comments. Photomicrographs, fluorescence images / data and vitrinite reflectance would be useful additions.

Anyone interested in participating please contact Peter (<mailto:peter.crosdale@energyrc.com.au>).

Commission I would like to thank Johan, Trudie and Peter for their willingness to convene these WGs.

Presentation of the new advances on the Discus Fossil System – Carl Hilgers

During the Session of Com I, Carl Hilgers presented the Discus Fossil System for reflectance measurements. He presented images of the Light emitting diodes (LED) incorporated in the microscope as well as a rotating polarizer for

maximum reflectance measurements.

The advanced system can automatically scan a field and create a mosaic of 36x48 tails, with each tail being 575 x 433 µm in size. The operator can afterwards measure the reflectance in any point of this mosaic. This system can also be a valuable training tool.

Whoever is interested in the system please contact Carl (mailto:info@hilgers.com).

Commission I would like to thank Carl for his presentation but also for his valuable support in the ICCP Training Programme.

Microscope Session

The Joint Microscope session of Com I and II took place in Botticelli Room, and it was attended by 35 participants. Microscopy facilities were provided by João Graciano.

Polished blocks have been provided by Walter Pickel, Peter Crosdale and Alan Cook.

The first coal sample was a Permian bituminous coal from Queensland (Australia) of medium rank B-C (Rr 0.87-0.91%) and aspects of Telo- and Detrovitrinite differentiation were extensively discussed. Surprisingly and in contrast to the Standardization WG results the level of agreement within the room was very satisfactory.

The second coal sample was from the Jurassic Surat basin in Australia (Rr 0.5%) and the participants had the opportunity to discuss on the identification of suberinite and bituminite.

The last sample was a marine rock originated from the Jurassic of Europe, and participants discussed on the identification of macerals of the liptinite group, particularly bituminite.

Commissions I and II would like to thank João and ZEISS Brazil for providing all the support and the technical assistance for the microscope session.

As a final remark, Commission I would like to remind the ICCP members to start using the Webpage since a lot of data and information have been uploaded.

Com I Secretary and Chair would like to thank Walter, the previous Chair, for all his support on this first year acting in their positions.

Minutes of Commission II

Geological Applications of Coal Petrology

61st ICCP Meeting Gramado

22nd and 23rd September, 2009

Chair: MSc Carla Araujo

Secretary: Mr Paul Hackley

Tuesday - 22nd September

15:00-15:15 - Opening address – *Carla Araujo, Commission II Chair, Paul Hackley, Commission II Secretary*

Commission II started with a presentation of the commission schedule and review of the last six years activities by the Chair. The material currently available for training as derived from the work performed over the years in Commission II was also presented. This material consists at present of the Atlas of Anthropogenic Particles, the training kit (samples and CD) for identification and measurement of vitrinite particles in dispersed organic matter, and the training samples for spectral fluorescence measurements. This material is available upon request to Commission II. In particular, the accomplishments of the Qualifying Vitrinite for Reflectance Analysis working group are responsible for the success of the Dispersed Organic Matter Vitrinite Reflectance Accreditation Program, which is one of the preeminent activities within Commission II.

15:15 - 15:45 - Coal Seam Gas and CO₂ Sequestration working group – *Conveners: Peter Crosdale and Lila Gurba:*

Peter Crosdale reviewed the activities of the Coal Seam Gas and CO₂ Sequestration working group over 2008-2009. The work was a comparative study of methane adsorption isotherms, with the objectives of seeing how results would compare and what should appear in a report to clients. Participants included Peter's laboratory, Cristina Rodrigues, and Dirk Prinz. In 2008, the working group analyzed a high volatile bituminous Permian coal from the Bowen basin in Australia. The instruction given to the participants was to measure the isotherm according to their normal laboratory procedures and protocols at a temperature of 31°C.

The working group received a 100 percent return, including a result that arrived only the evening before. The laboratories reported several parameters, including data such as particle size, moisture, ash, density, etc, as well as the isotherm results. One of the laboratories reported modelled data, rather than experimental data and there are some differences in the units used in data reporting. The isotherm results showed some small differences with the Langmuir volumes varying by several cc/g, but all three isotherms were remarkably close to a desorption value for the coal, and remarkably close for the lack of standardization. Future directions include discussion amongst the participants to better coordinate the exercise, such as agreement on a standardized procedure and reporting. There is some activity on isotherm standardization outside of the working group and it may also be a good idea to contact these workers for their input. Commission II thanks Peter and congratulates him for his effort in leading this working group forward.

15:45 - 16:00 - Thermal Indices working group – Convener: Carla Araujo:

Carla Araujo presented the activities of the Thermal Indices working group for the last year, which were none, because the working group has not identified or created a suitable set of samples. Instead, Carla presented the results of the working group for the years 2007-2008. The previous exercise investigated a maturation series comprised by a set of three samples from the Neuquén Basin, Argentina. Vitrinite reflectance, spectral fluorescence and Rock-Eval analysis were performed. Results for Rock-Eval showed a strong correlation amongst the participants and values for elemental analysis of carbon content tended to be higher than the TOC of Rock-Eval. The results for spectral fluorescence presented a good agreement - in particular, those of participants which had calibrated the equipment recently with the ICCP lamp. The vitrinite reflectance results were very poor, especially for a calcareous sample with very low vitrinite content. In 2008, Carla proposed a new exercise based on an artificial maturation series produced by hydrous-pyrolysis, as it has proven difficult over the years to obtain a natural maturation series. A Posidonia Shale sample will be

artificially matured via hydrous pyrolysis, hopefully by the end of 2009, unless a natural series can be obtained, in collaboration with Wolfgang Kalkreuth for the pyrolysis. Alan Cook suggested a possible maturation series in the Neuquén Basin, or the Gippsland Basin, or in the North Sea; Deolinda Flores also may have an appropriate sample series from Portugal, and Wolfgang has some friends in Nova Scotia who may have some appropriate samples. A deadline of one month to obtain the appropriate samples was suggested. Commission II thanks and congratulates Carla for her efforts at leading this working group.

16:00 - 16:30 Coffee break

16:30 – 18:30 - Joint Meeting of ICCP Commissions I, II and III in the ICCP Microscope Session:

Following the afternoon coffee break, the attending General Assembly engaged in the microscope session on the Zeiss instrument brought to the meeting by João Graciano (from the Federal University of Rio de Janeiro). About forty participants packed into the microscope room for a lively discussion of the identification of telovitrinite versus detrovitrinite in a Bowen Basin coal led by Walter Pickel. Then Peter Crosdale illustrated the bituminite versus suberinite controversy in a Jurassic Surat Basin coal which will be used in the first exercise of the new Suberinite working group of Commission I. Several attendees suggested that the new Suberinite working group should instead be called the Bituminite working group. Finally, Alan Cook showed a marine shale of clandestine provenance which he eventually admitted was from the Jurassic of Europe. Alan also admitted that the bituminite in his European sample was nothing like the bituminite in Peter's Australian sample. Commission II and all the ICCP Commissions would like to thank Walter, Peter, and Alan for leading the microscope session and especially to thank João for arranging that his microscope system could be used for the meeting. Deolinda Flores and Joalice Mendonça also helped in the microscope session by navigating across the examined samples.

Wednesday – 23rd September **Meeting of ICCP Commission II**

09:00 - 09:40 – Dispersed Organic Matter Vitrinite Reflectance (DOMVR) Accreditation Program - *Convenor: Alan Cook:*

Commission II reconvened on Wednesday morning and Alan Cook presented a summary of the successful 2008-2009 DOMVR program. There were 38 analysts participating and everyone passed the program to receive accreditation, although there was some variation in the results. The samples were somewhat challenging – a lower rank sample contained a higher rank coal contaminant and some analysts identified the contaminant coal as indigenous vitrinite. This is an issue that needs attention as contaminant recognition should be standard protocol in DOMVR work for well cuttings. The other somewhat higher rank sample generated some measured values that were significantly low relative to the group mean. Alan interrogated some of the petrographers to figure out the reasons for the discrepancies, but it is still a mystery. Nonetheless, there were no failures. Alan suggested that future ICCP meetings should include closed sessions for the accreditation convenors to meet with the participants for discussion of problematic results. Alan appealed to the assembly for more samples – the DOMVR program is accepting all suitable samples – please contact Alan (<mailto:acc@ozemail.com>) to contribute your sample. Commission II congratulates Alan for the work that has been done and the continuing success of the DOMVR accreditation program.

09:40 - 10:10 - Identification of Dispersed Organic Matter working group - *Convener: Jolanta Kus:*

Jolanta presented a review of the efforts of this working group which included in 2008-2009 a questionnaire to have participants identify bituminite and alginite in images, and to state the reasons for the identification. The exercise did not include prescriptively labelled fields for identification and instead asked petrographers to identify areas of the slide where they thought there would be problems with identification, or where

identification was clear. Jolanta used forty-six samples in blue and white light from worldwide localities. Telalginite was usually positively identified except in cases where small or where the resolution of the photograph was low; lamalginite was also usually positively identified except where coalesced into thicker bands, anastomosing, diffuse or indistinct, or where mixed with mineral matter. Bituminite can be distinguished from lamalginite only in cases where the relative fluorescence intensity is very distinct. However, Alan Cook did not think that bituminite was present in any of the sample images because they have different precursor materials (green vs. blue-green algae). Angeles Borrego suggested that the ICCP definitions need to be checked and see if they perhaps need to be updated. Jolanta would like to propose an ICCP catalogue as a training manual for the distinction of these macerals with the best and worst case scenarios presented. Jolanta will provide a report of her working group and a PowerPoint presentation which will be uploaded to the ICCP Commission II webpages. Commission II congratulates and thanks Jolanta for her work.

10:30 - 11:00 Coffee break

10:10 - 10:30 – Reappraisal of the Information from Past Commission II Activities and Identification of Opportunities for New Working Groups and Web Content from Commission II – *Convener: Angeles Borrego:*

Angeles Borrego presented a summary of past ICCP decisions which resulted in the idea to make available older documents generated over the years in Commission II. Angeles presented the reports which were generated over the past years by the various working groups, including many reports presented in the past Newsletters, primarily on ring analyses of unfigured organic matter in shales. Angeles presented a detailed statistical analysis of the past results, and presented a comparison to the precision and bias statements in coal standards. The reproducibility of vitrinite reflectance measurements for dispersed organic matter is clearly lower (s.d. of about 0.14) than specified for coals in the ISO and ASTM standards (s.d. of about 0.03). The analysis is very strong and could be

directly incorporated into a precision and bias statement for a new standard without generation of new data. Commission II would like to thank Angeles for her efforts at consolidating and summarizing the past work of Commission II and for making the results more useful to ICCP.

11:00 - 11:30 – Identification of Primary Vitrinite working group - Convener: Paul Hackley:

This working was formed at the Oviedo meeting in 2008 to help to better utilize results of past Commission II working groups, and in particular, the identification of primary vitrinite. The efforts of this working group over 2008-2009 included a questionnaire designed to collect information about how petrographers identify and measure primary vitrinite in shales and how to distinguish primary vitrinite from similar macerals such as bitumen, bituminite, recycled vitrinite, and low reflecting semifusinite. The questionnaire was answered by twenty-two participants and included a number of suggestions about how to identify vitrinite, as well as suggestions for future directions of the working group. These include: creation of a consensus standard (which is ongoing through the ASTM and open to all interested persons), workshops and training courses dedicated to this topic, round robin exercises on samples and images, and creation of an image database. Discussion included the need to receive permission from Commission II prior to submitting this work as a new ASTM standard, and perhaps to move the work forward as an ISO standard as well. Commission II congratulates and thanks Paul for his work.

11:30 - 12:00 - Dispersed Organic Matter in Sedimentary Rocks working group - Conveners: Maria Hamor-Vidó and Wolfgang Kalkreuth:

Maria Hamor-Vidó was not able to attend the meeting and Wolfgang Kalkreuth presented the status of the white paper on the DOM in Sedimentary Rocks Classification, Identification and Thermal Maturity. Wolfgang indicated that he needs to be replaced as a co-convener of the working group due to time limitations. In

2008-2009 João Graciano submitted work related to the concentration of organic matter to the white paper. A schedule for forthcoming work on the white paper was presented by Wolfgang, and the preliminary white paper will be uploaded to the secure ICCP webpages. This should help to better identify the sections which still need attention and to move this work forward. The intended outcome will ultimately be a paper in the International Journal of Coal Geology. ICCP Commission II thanks Maria and João for their work and thanks Wolfgang for presenting the results of the working group.

12:00 - 12:30 - Classification of Dispersed Organic Matter working group - Convener: Lavern Stasiuk et al. including Carolyn Thompson-Rizer:

On behalf of the conveners Julito Reyes, presented the status of the Dispersed Organic Matter Atlas which is based on the organic matter classification approved in 2003. There are still some images missing which will require finding appropriate samples for images to be taken such as pyrobitumen. Carolyn has solicited help on the editing of the text of the Atlas and has sent the preliminary atlas on a CD-ROM with a request for additional images to Lavern Stasiuk, Adrian Hutton, P. Mukhopadhyay, Jack Burgess, and Paul Hackley. There has been some work completed by these persons (Paul Hackley and Adrian Hutton) including minor editing and contribution of some images but much work remains to be done. P. Mukhopadhyay has promised that he will have time to make a contribution before the end of 2009 and Paul Hackley intends to work some more on this before the end of 2009 as well. The Atlas requires images in both whole rock preparations, strew mounts, and kerogen concentration pellets and therefore a lab must be identified which has this capability (although Carolyn has said that she will accept all images of suitable quality). Still there is a lot of labeling work required. It was intended to have a first version during the year 2008-2009 to be available from the ICCP webpages to allow members and persons from TSOP involved to make suggestion for improvements. This would be a good idea to make available via secured access so that interested persons can help. ICCP has contributed some financial support to help in the arrangement

and publication of the atlas. Discussion centered on the need to finish the work of the DOM Atlas as quickly as possible. ICCP Commission II thanks Julito for presenting on behalf of the conveners and thanks all those involved in the creation and editing of the Atlas.

12:30 - 14:30 – Lunch

14:30 - 15:15 - Concentration of Organic Matter working group - Convener: João Graciano Mendonça Filho:

João Graciano presented the results of the previous years work on the Concentration of Organic Matter working group. In 2008-2009 this included a round robin exercise for vitrinite reflectance and spectral fluorescence measurements of two samples of different maturity with predominantly marine organic matter (Type II). Both of them were carbonaceous shales; one from Asturias, Spain, and the other from Portugal. Both kerogen concentrate and whole rock samples were distributed to the fourteen analysts who participated. In general, good agreement was obtained among the participants in vitrinite reflectance of the whole rock and kerogen concentrate; only one analyst was outside of 1.5 AUMSD. There was no apparent influence of the kerogen concentration procedure on vitrinite reflectance. Eight analysts provided spectral data; lambda max values were reported higher in the kerogen concentrate, suggesting that the concentration procedures may impact fluorescence properties. A nice correlation was obtained between lambda max and equivalent vitrinite reflectance for the whole rock samples. Alan Cook speculated that reservoir bitumens may be mistaken for vitrinite in the higher rank sample and that some of the fluorescing material may be an oil inclusion – Alan felt that the presence of bitumen may significantly impact the vitrinite reflectance values reported by the analysts. A suggestion for new work was to compile images from the exercise with identified fields that were measured. The working group would like to move forward to examining a Type I rock and a request for an appropriate sample was made to the general assembly. Commission II congratulates João Graciano for his effort in this relevant work.

15:15- 15:45 - Environmental applications of Organic Petrology working group - Convener: Hamed Sanei:

Hamed Sanei reviewed the activities of the working group over the years and made some proposals to the members about how to proceed with future activities. Among the options given in previous years was to test the applicability of the classification of the Atlas of Anthropogenic Particles to study environmental samples, or focus on the study of unconsolidated sediments, among others. A decision was made to develop further the Atlas of Anthropogenic Particles and some progress has been made in this regard. Some suggestions were made to develop the presentation of inorganic metallogenic particles in particular in the Atlas, and to increase the application of the Atlas to differentiate anthropogenic versus geogenic particles.

15:45-15:45 - Commission II Closing Remarks: Carla Araujo and Paul Hackley

The Chair reviewed the presentations of Commission II from the 2009 meeting and presented a brief discussion of the ways forward for the various working groups into the next year. The Chair and Secretary thank all of the working group conveners in Commission II, and all of the participants in the working groups who make the Commission so active.



Former Comm III secretary, Henrik Petersen, instructs current Comm I secretary, Stavros Kalaitzidis in modern methods of taking minutes. Photo by Deolinda Flores in the Coal Museum, Arroio dos Ratos.

Minutes of Commission III

Industrial Applications of Coal Petrology

61st ICCP Meeting Gramado

22nd and 23rd September, 2009

Chair: Dr Isabel Suárez-Ruiz

Secretary: Dr Georgeta Predeanu

Acting Secretary: Jolanta Kus

The sessions of Commission III were held on Monday 21st September, 2009, from 9:00 to 17:00. The Chair presented the Activity Report of Commission III developed in 2008/2009, **and briefly presented an update** about the current situation of the 9 Working Groups and the Coal Blend Accreditation Program operating in this Commission.

Then the acting Chair started with the presentation of the activities of the WGs of the Commission III.

1. Coke Petrography W.G. (Convener: H. Eickhoff with C. Barriocanal and A. C. Cook acting as supporters).

Taking into account that the Convener of this working group was not attending the Meeting it was the Chair of the Commission who presented the corresponding report based on the information received from the Convener of the Coke Petrography W.G. Thus, the Chair reminded the attendees to the Meeting that the current objective of this group was to establish a reproducible classification of coke textures. Moreover, this classification should be able to predict the technological properties of cokes. Taking into account that in 2008 the Convener suggested: *“to make an inventory of the existing classifications in different countries to see which kinds of classification are used; to use a method what is actually working and not to experiment something completely new and unproven. It was pointed out the need of starting with an easy Round Robin exercise (e.g.) with a coke sample made by a single coal – medium volatile”*, the activities developed by this W.G. in 2009 have been mainly focused on the compilation of various existing classifications and the corresponding information related to the equipments used. After the presentation those present made some few suggestions such as:

- i) a new classification on coke would not be appropriate as the existing classifications are limited to specific coals. Claus Diessel was proposed as a good contact person on this issue;
- ii) because an automated system might be a problem it was suggested that a manual method might be more effective and;
- iii) in terms of sample preparations Alan Cook was willing to provide the Convener with scans of coke blocks (4 to 5 cm in diameter) which might also be useful in the identification of the structures beyond the textures.

2. Coal Blends Accreditation Program. (Convener: I. Suárez-Ruiz).

The activities of the Coal Blends Accreditation Program were summarized by the Convener of this program, and the attendees were reminded about the objectives of the CBAP, the methodology used to perform the exercises, the items that were being evaluated and the statistics used in the evaluation. The Convener also presented the results of the second exercise carried out this year pointing out again that this exercise had been a success because only 5% of the participants had failed. It was also pointed out that according to the results received from some participants, the good results in the point-counting employed to identify the components (macerals and single coals) and the poor results from the reflectance measurement procedures employed, may have been due to the potential existing problems with the measurement systems (microscopic systems) or the standards used.

Taking into account that one of the coals used in the preparation of one blend analysed by the participants, was not exactly a single coal and to avoid problems in the future, it was decided not to use this coal in this program any more. The Convener then commented on the lack of coals for preparing the blend samples and she made a new appeal to obtain more single coals to be used in the future exercises.

After the presentation of the activities of this accreditation program, the attendees made the following remarks:

- i) the standard deviation of the blends was comparable with the standard deviation of the

- single coals which is remarkable;
- ii) it was proposed that the range of the coals used in this program be extended to include coals with a rank ranging from 0,45% Rr up to anthracite stage;
- iii) new single coals with mineral matter content < 10 % will be welcomed and;
- iv) new single coals with inertinite content < 10 % would be accepted in the future.

3. Improved Image Analysis. (Convener: C. Rodrigues).

The Convener of this W.G. was not attending the meeting and according to her comments, the activities of this WG were presented by the Chair of the Commission. The chair reminded those present about the objectives of this working group which were described as: *To search on the possibilities of using of improved analysis systems for new applications in the field of coal and organic petrology.* According to this objective the activities that had to be developed this year were mainly focussed on: New measurements on new types of selected core samples in order to permit an improvement in the method. For this purpose the Convener set a new exercise, the 2009-Exercise to be completed by the 22nd July this year, by the interested participants. However no answer was received and so the Convener suggested (via email) to the Chair of the Commission to initiate discussions in order to decide if this WG should continue acting or not. Apparently people are always interested in registering in the WG but they do not do the exercises and/or do not respond to inquiries and so no advances can be expected. In this regard and after finishing this presentation a discussion was established with the following suggestions:

- i) the lack of participants in the last exercise might be due to doing the exercise in Corel Draw;
- ii) the convener should contact the participants asking why the reply was less effective than in the last exercise;
- iii) an attempt to improve the exercise should be made by modifying the proposed objectives by sending a questionnaire to everybody and;
- iv) it was recommended to focus the exercise sending it to those participants who have already participated in the last round robin.

4. Fly Ash Working Group. (Conveners: I. Suárez-Ruiz and B. Valentim)

One of the Conveners, I. Suárez-Ruiz, presented the activities developed by this WG that this year corresponded to the results of the second round robin.

Taking into account that the objective of this working group dates from 2005, to establish a component classification in fly ashes by using optical microscopy the results of this year's exercise corresponded to those obtained for the identification and classification of fly ash derived from coal combustion, co-combustion and biomass combustion in different operating conditions. As with the first exercise (performed in 2007), and despite the difficulties the results obtained this year were good and encouraging, considering the level of agreement reached among the participants for the identification of fly ash components. The Convener also indicated that despite these good results a more detailed and deeper evaluation of all the results will be made before the end of the year. In addition to this, the Convener briefly described the new tasks to be performed next year.

At the end of the presentation a discussion began among the attendees and some remarks and were made such as:

- i) to include the classification of combustion chars as forms of char present in the fly ashes in the optional part of the evaluating sheet, taking into account that an ICCP Char Classification is going to be published early next year. The Convener clearly stated that this WG is working on residues from the combustion of all types of feed fuels, (and in different operating combustion), so that these residues are not included in the previous char classification. In addition to classify this residues the group is using small fields of the particles in the identification such as in the case of "maceral analysis" and participants are not identifying the whole particle as it the case of the char classification;
- ii) it was suggested that the classification criteria dealing with morphology should be abandoned and;
- iii)- it was also agreed that the Convener should provide the criteria for classifying the fly ash components with some examples for the participants to make the identification easier.

5. Automation W.G. (*Without Convener*).

Next some comments about this working group were made by the Chair of the Commission taking into account that this WG has not had a convener since the Oviedo Meeting in 2008 when the former Convener D. Pearson resigned from this position.

In this situation the Chair reminded those attending about the objectives of this WG: *To establish that automated petrographic systems (programmable devices to automatically collect data on coal) can characterize coals using similar criteria to those used in conventional petrography.* Because there is no Convener this WG has not developed any activity so far this year and the Chair of the Commission indicated that some attempts to find another potential Convener had been made. If the response is positive, then a compilation of all the material on this topic should be made and a discussion of the approach to be applied in the future should be performed. Those attending agreed with this proposal and no further discussion took place.

6. Inertinite in Combustion. (*Convener: A. G. Borrego*).

Although this WG no longer exists the Convener explained that:

- i) all documents and reports from all the exercises will be loaded into the secure part ICCP website and;
- ii)- all of the performed exercises will also be loaded into the ICCP website.

After a practical explanation of how to obtain information from the website once the documents and files are loaded, those present were asked for questions. No questions were raised at this point and the Convener was acknowledged for her successful work.

7. Structural Order. (*Convener: S. Pusz*)

The activities developed by this WG were presented by Barbara Kwiecinska because the Convener did not attend the Meeting. The complete name of this working group is Application of Reflectance to estimate Structural Order and the corresponding objectives have been established as: to investigate the possibilities of application of

various reflectance parameters for the estimation of the structural order of coal or carbonaceous materials. In this context B. Kwiecinska showed the results of the third round robin performed on three samples of an anthracite thermally treated at 1500, 1600 and 1650°C. The results were mainly focused on data obtained from reflectance measurements by all the interested participants and on those from X-Ray Diffraction performed at the INCAR (CSIC), Oviedo, Spain. Good and encouraging results were obtained and the Convener suggested that they should be disseminated via publications in the International Journal of Coal Geology. Moreover, the Convener suggested including a description of some Raman Spectroscopy Analysis performed on the samples. Once B. Kwiecinska ended the presentation the following remarks were made:

- i) not to use multiple standard deviation for evaluating the standards as this method will produce higher values;
- ii) to explain the position of the three blue marked points that correspond to the high variability in the heterogeneity coefficient for the three samples studied this year in one of the diagrams before trying to publish the data;
- iii) Sandra Rodrigues will provide results on the heterogeneity coefficient at a similar temperature range for comparison purposes;
- iv) TEM pictures are to be provided in the final report and;
- v)- as there seems to be enough data to close the exercise and there is quite a good agreement within the measurements it was recommended establishing an accreditation program for the measurement of Rmax and Anisotropy (Bi-reflectance).

The Chair of the Commission decided to convey all these comments to the Convener of this working group particularly those related to point (v).

8. Self-Heating W.G. (*Conveners: M. Misz Kennan, D. Flores and J. Kus*)

The next presentation corresponded to M. Misz-Kennan as one of the Conveners together with D. Flores and J. Kus of the Self-Heating W.G. This working group was created last year in the Oviedo Meeting and it is focused on: *The evaluation of the effect of self-heating on Coals of*

different rank via optical microscopy. The Convener presented the results of the first exercise performed this year on altered coals and coal wastes subjected to self heating processes. In this exercise participants had to classify the materials according to a proposed classification in which ten categories were defined such as: cracks and microfissures, oxidation rims (paler and darker in colour), plasticized particles (particles with porosity and particles with plasticized edges), bands, paler in colour particles, coke (massive: isotropic, anisotropic; porous), inertinite, pyrolytic carbon, natural chars, unaltered particles. Thermally altered minerals were not included. After the presentation of the results and the tasks to be performed next year, the following recommendations were made by the attendees:

- i) Not to split the microfissure and microcrack category into fissures within a particle and those confined to the edges;
- ii) To distinguish isotropic and anisotropic porous coke;
- iii) To modify an existing class of pores as generated by devolatilization, and natural pores belonging to the original structure;
- iv) To extend the classification of bands, paler in colour particles and unaltered forms is to be confirmed as detailed information;
- v) To extend the classification of coked or charred vitrinite occurring as dispersed organic matter (in forms of detritus, laminae, thin lenses etc.);
- vi) To include hydrocarbons generated during self-heating processes;
- vii) To divide the classification into coals and coal wastes;
- vii)- To distinguish a separate category for, e.g. cracks with oxidation rims, plasticized edges with oxidation rims was accepted and;
- viii) Not to include the same photographs in the examples and the exercise.

9. Microscopy of Carbon Materials W.G. (Conveners: G. Predeanu and C. Panaitescu)

In the absence of the Conveners of this WG, Sandra Rodrigues presented the activities carried out this year. This working group was approved last year at the Oviedo Meeting and is focused on: *The microscopical characterization of carbon materials*

derived from coal and petroleum. This new WG is highlighting past and current research initiatives on such materials and it will develop a structural and textural characterization method with an emphasis on: the quality control of raw materials, and at different technological stages, in order to evaluate the physical and chemical properties of the intermediate and final carbon products.

S. Rodrigues presented the results of the first Round Robin on carbon materials such as: coal-tar pitch coke, petroleum coke, calcinated anthracite. This first round robin provided good results considering that only 1/3 of the participants had carried out the exercise. Only a few discrepancies in the results were found the important thing being to find out the reason and so be able to improve the method for the next round. For the next exercise the conveners will try to improve the presentation of the pictures to be analysed and so reduce potential discrepancies.

Taking into account the low level of participants in this WG the following remark was made at the end of the presentation: to send a questionnaire to those members who applied for participation in the WG asking them why they had not carried out the exercise.

10. Characterization of Gasification Products WG. (Convener: N. Wagner).

Finally the Chair of the Commission III presented the activities of the last WG since the Convener was not present at the Meeting. The objective of this WG is: *To establish a petrographic classification to characterize the organic and inorganic particles obtained from gasification. The chars produced from different gasification technologies, the influence of particle size and the maceral type and conversion behavior are additional objectives included in this work.* Thus the Chair read a letter received from the Convener which highlighted the following points:

- i) An open invitation notice was placed in the ICCP news letter and several responses were received (10 members).
- ii) Unfortunately the majority of these members are interested in participating in the working group to extend their own knowledge in this area rather than being members who are actively working in the area of gasification and associated product characterisation. It

would appear that there are very few people directly involved in this area

- iii) Some fixed bed gasification samples and two additional sample sets from entrained flow slagging gasifiers are available. It would also be a good idea to obtain samples from a fluidised bed gasifier. In addition, samples from laboratory/pilot scale gasification equipment will also be a good source of material for this WG
- iv) The Convener will try to prepare a coal sample and submit it to these small scale facilities with the intention of producing gasification chars at specific temperatures and comparing the products.
- v) The aim of this working group for the next year is to compile a series of photographs that can be distributed to the WG participants for comments. The comments will be assessed to

determine if the participants believe that the chars produced under gasification conditions are different to combustion chars, and if there are differences in chars produced by different gasification technologies.

Those present at Meeting suggested that the Convener, N. Wagner should contact Lila Gurba in order to obtain some more useful information on the subject of gasification and related issues from the Australian research working group.

At the end of the this session the Chair mentioned that all the suggestion would be conveyed to the different Conveners of the Working Groups. Having not received any new proposal for creating new working groups nor any other comments and remarks the Chair thanked the Acting Secretary Jolanta Kus and those present for attending and the session of Commission III was closed at 5: 00 pm.

Minutes of the 61st Meeting of the International Committee for Coal and Organic Petrology (ICCP)
September 19-26, 2009, Gramado, Brazil

Appendix 2 - List of Participants

Id	Name	Email	Country	Affiliation
1	Adriano Domingos Dos Reis	aa_d_reis@hotmail.com	Brazil	Student
2	Alan Cook	acc@ozemail.com.au	Australia	TSOP Member
3	Aleksandar Kostic	kostica@rgf.bg.ac.yu	Serbia	ICCP Member
4	Alexandre Jonas Sant'anna	jonasantanna@yahoo.com.br	Brazil	Non Member
5	Alpana Singh	alpanas_in@yahoo.com	India	Non Member
6	Amer Mohamed Ibrahim Burgan	mrburgan@yahoo.com	Malaysia	Student
7	André Da Silveira Machado	andre.smachado@yahoo.com.br	Brazil	Student
8	André Vassilnenko Kalinin	avkalinin@sunocoilnc.com	Brazil	Non Member
9	Andreas Iordanidis	aiordanidis@yahoo.co.uk	Greece	ICCP/TSOP Member
10	Angeles Gómez Borrego	angeles@incar.csic.es	Spain	ICCP Member
11	Arndt Schimmelmann	aschimme@indiana.edu	USA	Non Member
12	Asep Kurnia Permana	permana_ak@yahoo.com	Australia	Student
13	Barbara Kwiecinska	kwiecin@uci.agh.edu.pl	Poland	ICCP/TSOP Member
14	Bhagwan D. Singh			ICCP Member
15	Carl H. Hilgers	info@hilgers.com	Germany	Non Member
16	Carla Viviane Araujo	carla@petrobras.com.br	Brazil	Organizing Committee
17	Carlos Eduardo Santin			Non Member
18	Colin R. Ward	c.ward@unsw.edu.au	Australia	ICCP/TSOP Member
19	David Marchioni	cbm-geology@shaw.ca	Canada	TSOP Member
20	Deolinda Flores	dflores@fc.up.pt	Portugal	ICCP Member

ICCP News

Id	Name	Email	Country	Affiliation
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24	Frederico Sobrinho Da Silva	fsobrinho@geologia.ufrj.br	Brazil	Student
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34	Igor Viegas Alves De Souza	igorviegas@petrobras.com.br	Brazil	ICCP Member
35	Isabel Suarez-ruiz	isruiz@incar.csic.es	Spain	TSOP Member
36	Ivana Sykorova	sykorova@irms.cas.cz	Czech Republic	ICCP/TSOP Member
37	Janaina Levandowski	janalevandowski@yahao.com.br	Brazil	Student
38	Jesse Carrie	umcarrie@cc.umanitaba.ca	Canada	Student
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40	Joauce De Oliveira Mendonca	joalice@geologia.ufrj.br	Brazil	Non Member
41	Joana Paula Machado Ribeiro	joanaribeiro@fc.up.pt	Portugal	Student
42	João Graciano Mendonça Filho	graciano@geologia.ufrj.br	Brazil	Organizing Committee
43	João Marcelo Medina Ketzer	jketzer@pucrs.br	Brazil	ICCP Member
44	Johan Joubert	johannes.joubert@sasol.com	South Africa	ICCP Member
45	Jolanta Kus	j.kus@bgr.de	Germany	ICCP Member
46	José Eustáquio Da Silva	jedasilva@sunocoins.com	Brazil	Non Member
47	Joseane Souza De Oliveira	joseane.geo@gmail.com	Brazil	Student
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50	Kaydy Pinetown	kaydy.pinetown@csiro.au	Australia	TSOP Member
51	Kimon Christanis	christian@upatras.gr	Greece	ICCP Member
52	Lei Zhao	lei.zhao@student.unsw.edu.au	Australia	Student
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54	Lila Gurba	l.gurba@unsw.edu.au	Australia	ICCP/TSOP Member
55	Liliana López	liliana.lopez@ciens.ucv.ve	Venezuela	Non Member
56	Lopo Vasconcelos	lopo vasconcelos@gmail.com	Mozambique	ICCP Member
57	Luciane Garavaglia	luciane.garavaglia@satc.edu.br	Poland	Non Member
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59	Maiquel Kochhann Lunkes	maiquelkl@gmail.com	Brazil	Student
60	Marçal Jose Rodrigues Pires	mpires@pucrs.br	Brazil	Non Member
61	Margarete Wagner Simas			Student

Id	Name	Email	Country	Affiliation
62	Maria Do Carmo Rauro Peralba	mcarma@iq.ufrgs.br	Brazil	Organizing Committee
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64	Maria Manuela Coelho Marques	maarques@fc.up.pt	Portugal	ICCP Member
65	Mariana Balbinot	maribalbinot@yahoo.com.br	Brazil	Student
66	Maristela Bagatin Silva	maristela@log.furg.br	Brazil	Organizing Committee
67	Mark Pawlewicz	pawlewicz@usgs.gov	USA	TSOP Member
68	Matthew Brown			Student
69	Mi Jingkui	jkmi@petrochina.com.cn	P.R. China	Non Member
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73	Paul C. Hackley	phackley@usgs.gov	USA	ICCP/TSOP Member
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76	Petra David	petra.david@tno.nl	The Netherlands	ICCP Member
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80	Rachel Walker	rwalker@coalpetrography.com	USA	TSOP Member
81	Regina Binotto	binotto@petrobras.com.br	Brazil	Non Member
82	Renata Brenand Das Chagas	renata.brenand@yahoo.com.br	Brazil	Student
83	Renata Dillenburg	renata.dillenburg@gmail.com	Brazil	Student
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85	Salvador Lo Mónaco	salvador.lomonaco@ciens.ucv.ve	Venezuela	Non Member
86	Sandra Mónica Paulo Rodrigues	sandra.rodrigues@fc.up.pt	Portugal	Student
87	Sharon Marie Swanson	smswanson@usgs.gov	USA	ICCP Member
88	Shen Jun-chin	048470@cpc.com.tw	Taiwan	Non Member
89	Shifeng Dair	daishifeng@gmail.com	P.R. china	ICCP/TSOP Member
90	Stavros Kalaitzidis	stkalaitzidis@gmail.com	Australia	ICCP Member
91	Svetlana Medeanic			Non Member
92	Taissa Rego Menezes	taissamenezes@petrobras.com.br	Brazil	ICCP Member
93	Trudie Brittz	trudie.brittz@sasol.com	South Africa	ICCP Member
94	Vivian Philippi	vivianphilippi@hotmail.com	Brazil	Non Member
95	Walter Pickel	walter.pickel@organicpetrology.com	Australia	ICCP/TSOP Member
96	Weiwei Li	vera0104@126.com	P.R. China	Student
97	Wolfgang Kalkreuth	wolfgang.kalkreuth@ufrgs.br	Brazil	ICCP/TSOP Member
98	Yuegang Tang	tyg@vip.163.com	P.R. China	TSOP Member
99	Yuzhuang Sun	sun_yz@hotmail.com	P.R. China	ICCP/TSOP Member
100	Zhongsheng li	zs.li@unsw.edu.au	Australia	TSOP Member
101	Zuleika Carretta Correa Da Silva	zuleika.carretta@puccs.br	Brazil	ICCP Member

Appendix 3 - New Members

Mr Vongani Prince **Chabalala** (A 1, 2, 3)
104 Pietersburg street
Ladanna
0704 South Africa
Phone: +27-734555316
mailto:vonganiprince@yahoo.com



Vongani is currently completing his masters degree under the supervision of Nikki Wagner. His project title is: "Investigation into char structure using Raman and petrographic techniques to assess combustion reactivity". Vongani has recently been employed as coal petrographer

heading a new coal petrography laboratory, which he has assisted to set up, and he has also undertaken additional training with Vivien du Cann (Petrographics SA).

Dr Ian James **Glasspool** (A 1)
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Field Museum of Natural History
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Chicago
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USA
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Fax: +1-312 665 7641
mailto:iglasspool@fieldmuseum.org



Ian has a B.Sc. Environmental Geoscience from Cardiff University, a B.Sc. in Biochemistry from King's College London, and a Ph.D. from the Dept. Geology Royal Holloway University of London. He is currently paleobotany collections manager at The Field Museum.

His particular areas of research interest relevant to coal petrology include : 1) research into the origin of the inertinite group macerals with particular emphasis on the role that fire may play in the generation of some; 2) the effect of fires on

peat-forming environments and their subsequent impact on coal quality and; 3) The potential application of coal petrology in predicting past atmospheric composition. Ian has nearly 30 publications in these and related areas.

Dra Joana **Ribeiro** (A1, 3)
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Faculty of Science, University of Porto
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Portugal
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Fax: +351 220402490
mailto:joanaribeiro@fc.up.pt



Joana has been involved in organic petrography for over 4 years and her PhD is on the organic petrology and geochemistry characterization of the waste materials from Douro Coalfield (Portugal). Joana attended Oviedo meeting and the Gramado, Porto Alegre Meeting. At present, she is participating and contributing for the Self-heating of Coals and Coal Wastes WG activities as some of the waste piles that she is studying are in combustion.

Ms. Petra **Matysová** (A 1, 2)
J. A. Komenského 42
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mailto:matysova@irms.cas.cz
mailto:pmatysova@email.cz



Ms. Petra Matysová has a Bachelor degree in Natural Resources Management and a Master degree in Environmental Geochemistry. She is currently a PhD student at the Institute of Geology and Palaeontology at the Charles University in Prague, Czech Republic. Her thesis is entitled "Taxonomy and instrumental analysis of

Permo-Carboniferous permineralized plants - Imaging of plant tissues and/or cells". She is studying mineralised plant material through both field work and laboratory analyses. The scope of her research activities include: interdisciplinary study of permineralized, particularly silicified, fossil stems/trunks/wood; imaging methods (microscopy in normal-, polarized- or reflected light, petrography, mineralogy, hot cathodoluminescence microscopy [CL] and high resolution CL [HRCL], scanning electron microscopy); analytical techniques (XRD, CL spectroscopy, EDS, WDS, Raman analysis); development of the provenience analysis of permineralized, silicified, Permo-carboniferous stems especially based on cathodoluminescence characteristics and; comparative studies between the kinds of plant cell/tissue preservation by humification and permineralization processes

Mr. Carl Horst **Hilgers** (A1, 2, 3)

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Since 1973 Carl Hilgers has been developing components for photomultipliers, microscope photometers linked to computers. He was the first to replace the multipliers with photometers equipped with photo diodes and integrated micro processors for reflectance measurement. Furthermore he modified Leitz microscopes and

completed them with systems for fluorescence measurement, measurement of minimum and maximum reflectance as well as for automated measuring. The microscopes became standard equipment for coal petrographers at the Bergbauforschung, Essen and in all German and coal laboratories. Otte and Pfisterer introduced the petrographic microscope to the ICCP about 1983. In 2004 Carl presented as new instrument at the 56th meeting of the ICCP in Budapest (see ICCP News No 34 in March 2005). Carl has regularly participated in the ICCP meetings where new versions of his microscope were demonstrated and could be tested and used during the microscope sessions.

Dra Sandra Mónica **Paulo Rodrigues** (A1, 3)

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Dra Paulo Rodrigues has undertaken a doctoral programme in geosciences at the Geology Department, Faculty of Science, Oporto University in collaboration with the Geosciences Department of Aveiro University. Sandra has been involved in organic petrography for over 3 years and her PhD is on the

petrographic and structural characterization of coals and carbon materials forming during the high temperature treatment of anthracites (Portuguese and Spanish anthracites). She is also interested in the characterization of graphite and other carbon materials in order to their industrial applications. Sandra attended Oviedo meeting and the Gramado, Porto Alegre Meeting, being involved in three ICCP WG exercise (Fly Ash WG, Structural Order WG, and Carbon Materials WG).

5.4 Re-admissions

Dr Costel **Nedelcu** (F 1, 2, 3)

General Manager

Environmental Protection Agency of Bucharest

Aleea Lacul Morii 1, sector 6

Bucharest

Phone: +40-74 207 7277

Romania

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Dr Costel Nedelcu is General Manager of the Environmental Protection Agency of Bucharest and is a former full member of ICCP. Costel has over 90 published papers and is a member of numerous professional organisations. Costel has been previously been active in ICCP affairs including being President of the

Organizing Committee of the 51st ICCP Meeting in Bucharest, September 1999. Welcome back Costel.

Appendix 4 - New Membership Application Form

President: **Petra David**
General Secretary: **Angeles Gomez Borrego**



Application for Associate Membership - ICCP

Personal:

Surname: _____ Given names: _____

Preferred Name for Correspondence: _____

Title: _____

Organization: _____

Postal Address: _____

Phone: _____

Fax: _____

E-mail: _____

1. I wish to apply for ASSOCIATE MEMBERSHIP of the ICCP: ☒

Agreement: I am familiar with the objectives of the organization and agree to adhere to and abide by the ICCP statutes. (Goto:[www.iccop.org] and click on [About the ICCP](#)>statutes)

Signature: _____

2. I am sponsored by the ICCP Member*:

*leave blank if not acquainted with any ICCP members

3. I wish to be active as an Associate Member of the following Commissions:

- | | |
|--|--------------------------|
| I. General Coal and Organic Petrology | <input type="checkbox"/> |
| II. Application of Coal and Organic Petrology to Geology | <input type="checkbox"/> |
| III. Application of Coal Petrology to Utilization | <input type="checkbox"/> |

4. Select the membership payment category

1 year fee	26 €	<input type="checkbox"/>	3 years fee	66 €	<input type="checkbox"/>
1 year + Newsletter by internet	22 €	<input type="checkbox"/>	3 year + Newsletter by internet	54 €	<input type="checkbox"/>
1 year student fee	13 €	<input type="checkbox"/>	3 year student fee	30 €	<input type="checkbox"/>

Note: Discount fees apply in the year of application. Full table fees is available at www.iccop.org

5. Payment Options

A) PAYMENT BY CREDIT CARD:

(Any currency will be converted to Canadian Dollars at current exchange rates).

Fax details to +1 250 477 4775

CARD NUMBER:

VISA

☐

MASTERCARD

☐

EXPIRY DATE:

/

(month/year)

NAME OF CARD
HOLDER:

PAYMENT:

SIGNATURE
(optional):

DATE:

B) Payment by Cheque/draft /money order in Euro enclosed for:

Made Payable to ICCP

Note: if the application is unsuccessful, credit card details will not be processed and other payments will be returned in full

6. Documents to be submitted

- Completed Application form
- Sponsoring letter by an ICCP Full Member
- Brief Curriculum Vitae highlighting your activities in coal and organic petrology
- A recent photo
- Payment document
- A document justifying student status should be enclosed in case of applying for student rate

**Please return this form and the accompanying documents to the ICCP
General Secretary:**

Dr. Angeles G. Borrego. Instituto Nacional del Carbón, CSIC. Apartado 73, 33080
Oviedo, SPAIN

Fax: +34 985297662

E mail: angeles@incar.csic.es

Appendix 5 - Treasurer's Report

ICCP Treasurer's Report July 31, 2008 – July 31, 2009

The annual accounts for the financial year July 31st, 2008 to July 31st, 2009, are listed in Tables 1 to 4. Table 1 shows the summary of all the receipts and expenditures in both the Canadian and the Euro accounts, and column 3 combines the two accounts by converting the Canadian dollar amounts to Euros, using the exchange rate of July 31, 2009 (\$1Can = 0.65Euros). Tables 2 and 3 give the account summary for each currency; and table 4 shows the balance sheet at the year-end and compares it with the previous year-end.

As stated in last year's report, expenses for 2008 had not been received from two of the accreditation conveners, this meant our profit last year was not a true representation. The two conveners have now given me an estimate of their expenses, which cover the last few years. These have not been paid yet as the treasurer has not received receipts and invoices for these expenses. These expenses are included in Accounts Payable.

Some of the expenses paid out this year included a reimbursement to Alan Cook for the Bandung meeting, (\$590Can), ICCP's contribution to the TSOP/ICCP CDRom Atlas (\$1500US), and a payment to Rapidstats for the development of

databases to process data for the accreditation programs, (\$1500US).

Since July 2007 the Accreditation receipts and expenses can be broken down as follows:

SCAP	Receipts	€4,971.50
	Expenses	€1,382.03
	Gain	€3,589.47
DOMVR	Receipts	€1,369.33
	Expenses	€2,700.75
	Loss	€-1,331.42
CBAP	Receipts	€1,967.57
	Expenses	€5,500.00
	Loss	€-3,532.43

It is obvious that the SCAP program is doing well but we have considerable losses from the other two programs.

As of Sept 9, 2009 15 members have yet to pay their dues for 2008 and 8 members have not paid since 2007 or earlier.

One final point to stress is that in future, all ICCP prices should be quoted in Euros only.

Table 1. Combined Income Statement as of July 31, 2009. Column 1 shows the Canadian \$ transactions, Column 2 shows the Euro transactions and column 3 combines the Euros and the Canadian \$ amounts converted to Euros using exchange rates at end of July 2009. (\$1Canadian = 0.65€)

	<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
	<u>Can \$</u>	<u>Euros</u>	<u>Total in €</u>
<u>Opening Balance</u>			
Canadian Accounts	\$75,597.60		€49,138.44
Euro Accounts		€2,419.31	€2,419.31
TOTAL			€51,557.75
<u>Receipts:</u>			
Membership Dues (CAN \$)	\$1,544.13		€1,003.68
Membership Dues (Euros)		€506.00	€506.00
Institutional Membership (\$)	\$1,036.50		€673.73
Prepaid Membership (CAN \$)	\$1,635.79		€1,063.26

No 48 November 2009

Prepaid Membership (Euros)		€896.00	€896.00
Donation (Euros)		€75.49	€75.49
Sales & Advertising (CAN \$)	\$729.62		€474.25
Sales & Advertising (Euros)		€112.00	€112.00
Accreditation : SCAP (Euros)		€230.00	€230.00
SCAP (CAN \$)	\$760.94		€494.61
DOMVR (CAN \$)	\$256.18		€166.52
CBAP (CAN \$)	\$895.76		€582.24
CBAP (Euros)		€438.00	€438.00
Transfer from Cdn/Euro Acct	\$939.24	€400.00	
Gain on Exchange			€10.87
Bank Interest Received	\$1,200.00		€780.00
TOTALS	\$8,998.16	€2,657.49	€7,506.65
<u>Expenses:</u>			
Credit Card Charges	\$420.47		€273.31
Bank Charges (Euros)		€12.00	€12.00
Bank Charges (CAN \$)	\$70.76		€45.99
Administration:			
Oviedo Meeting (Euros)		€1,242.47	€1,242.47
Oviedo Meeting (CAN \$)	\$812.95		€528.42
Bandung Meeting (CAN \$)	\$590.00		€383.50
Engraving (CAN \$)	\$252.31		€164.00
Election Costs (Euros)		€291.36	€291.36
TSOP/ICCP CDRom Atlas (\$)	\$1,872.00		€1,216.80
Miscellaneous (CAN \$)	\$131.51		€85.48
Accreditation:			
SCAP (Euros)		€480.74	€480.74
CBAP (Estimate) (Euros)		€5,500.00	€5,500.00
DOMVR (Estimate) (CAN \$)	\$2,444.24		€1,588.76
Rapidstats – for development of Database for Accreditation	\$1,710.75		€1,111.99
Newsletter (CAN \$)	\$2,948.95		€1,916.82
Transfer to Cdn/Euro Account	\$640.76	€599.65	
Loss on exchange			€16.49
TOTALS	\$11,894.70	€8,126.22	€14,858.13
FINAL BALANCE			€44,206.27
GAIN/(LOSS)			(€7,351.48)

Table 2: Euro Account Summary July 31, 2009

<u>Opening Balance</u>	
Chequing Account	€889.95
General Secretary	844.05
Cash	7.14
SCAP Program	68.11
SCAP Program (Australia)	610.06
Total	<u>2,419.31</u>
Total Receipts for 2009 (see table 1)	2,657.49
Total Expenses for 2009 (see table 1)	(8,126.22)
<u>Balances at Year End</u>	
Bank Account in Canada	2,006.04
Petty Cash	35.00
General Secretary	277.47
SCAP Program (Australia)	610.06
Accounts Payable	(5,977.99)
Total	<u>(€3,049.42)</u>

Table 3: Canadian Dollar Account Summary July 31, 2009

<u>Opening Balance</u>	
Savings Account	Can\$50,000.00
Bank – Chequing Account	25,640.31
Cash	(42.71)
Total	<u>75,597.60</u>
Total Receipts for 2009 (see table 1)	8,998.16
Total Expenses for 2009 (see table 1)	(11,894.70)
<u>Balance at Year End</u>	
Savings Account	51,200.00
Chequing Account	24,037.71
Cash	17.29
Accounts Payable	(2,553.94)
Total	<u>\$72,701.06</u>

Table 4: Balance Sheet as of July 31, 2009

Assets & Liabilities	July 2009	July 2008
<u>Canadian Account</u>		
Chequing Account	\$24,037.71	\$25,640.31
Savings Account	51,200.00	50,000.00
Cash	17.29	(42.71)
Accounts Payable	(2,553.94)	-----
Total	<u>\$72,701.06</u>	<u>\$75,597.60</u>
<u>Euro Account</u>		
Chequing Account	€2006.04	€844.05
Cash	35.00	7.14
Accreditation Float (Australia)	610.06	610.06
SCAP Float	---	68.11
General Secretary	277.47	889.95
Accounts Payable	(5977.99)	-----
Total	<u>€3,049.42</u>	<u>€2,419.31</u>

Minutes of the 61st Meeting of the International Committee for Coal and Organic Petrology (ICCP)
September 19-26, 2009, Gramado, Brazil

Appendix 6 - Editor's Report

Short Report of the ICCP Editor 2008 - 2009 Financial Year

by
Dr Peter Crosdale

Activities for 2008 - 2009 Financial Year

ICCP News

Distribution

Three issues of ICCP News were made during 2008 - 2009 financial year, viz No. 44 July 2008, No. 45 November 2008 and No. 46 March 2009 (Table 1). At present, 65 members have opted not to receive hard copies of the ICCP News and instead downloaded the pdf version from the web site (Table 2). This is 21 more than for the previous year and reflects the new fee structure which commenced in January 2008.

Table 1 Mail distribution by region

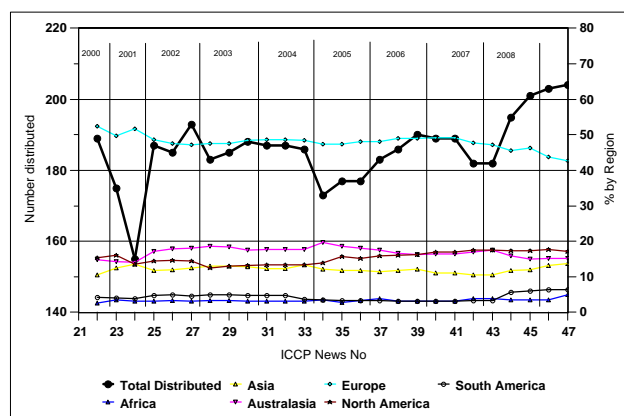
Region	ICCP News 44		ICCP News 45		ICCP News 46	
	No.	%	No.	%	No.	%
Africa	5	4	5	3	5	4
Asia	18	13	19	13	22	16
Australasia	23	17	22	15	21	15
Europe	63	45	67	47	61	44
North America	22	16	23	16	21	15
South America	8	6	7	5	8	6
Total	139	101	143	99	138	100

Table 2 Web download only
distribution by region

	#41	#42	#43	#44	#45	#46
Africa	1	2	2	2	2	2
Asia	0	0	1	5	5	5
Australasia	3	3	4	8	8	10
Europe	12	14	25	26	26	28
North America	4	5	10	12	12	15
South America	2	2	2	3	5	5
Total	22	26	44	56	58	65

Memberships trends can be derived from the distribution of the ICCP News. These records have

been kept since ICCP News #21 in November 2000. Membership has been relatively stable at around 190 since 2000.



Historical distribution of the ICCP News is a proxy for membership numbers as well as regional distribution of members. Totals include both hard copy and internet download.

Format and content

The basic format of ICCP News, established in ICCP News No. 22 (October 2000), has remained unchanged. Content for the 3 issues has been categorised (Table 3) and some statistical information provided.

Table 3 Summary of contributions to ICCP News by type

	2008 - 2009		
	no. items	no. pages	% pages
News from Commissions	4	12.5	12
News from Council (Ed/ Pres/ Treas)	8	4.5	4
Meeting minutes	2	46.75	44
Next Meeting Information	2	16.75	16
Accreditation	1	1	1
Other ICCP Information	14	15.75	15
Scientific Articles	1	0.5	0
Other Articles	7	2.75	3
Miscellaneous Items (KYCP etc)	17	6.5	6
Total	56	107	101

Advertising

The possibility of paid advertising was introduced for the first time in 2000 - 2001, with the schedule of rates approved by the 2000 Council meeting given below.

	Rate per insertion (\$US)*	
	Once only	4 times (20% discount)
Full Page	400	320
½ Page	200	160
1/4 Page	100	80
1/8th Page	60	48

* a 10% discount applies to ICCP members

Two paid advertisements were made in 2007 - 2008, advertising positions vacant.

Costs

Expenses incurred in production and distribution of ICCP News during 2008 - 2009 are detailed in Table 4.

Table 4 ICCP News Costs in AUD

Year	2008	2008	2008	2009
Newsletter No.	Directory	44	45	46
No. Pages	24	28	64	28
No. Copies printed	210	140	150	140
Printing	466.48	352.34	788.88	352.34
Postage - international		459.18	496.36	228.48
Postage - domestic		38.90	34.65	22.00
Stationery - envelopes		0.00	0.00	0.00
Stationery - labels		0.00	0.00	0.00
Total		850.42	1319.89	602.82

Reconciliation of budgeted versus actual costs

The Editor's report for 2007 - 2008 provided estimates for the 2008 - 2009 year. These estimates are reconciled with the actuals in Table 5.

Table 5. Budgeted (B) versus Actuals (A) for the 2008 - 2009 financial year

Item	Number of pages		Number printed		Total cost per page (AUD)		Total Cost (AUD)	
	B	A	B	A	B	A	B	A
#44	28	28	140	140	0.16	0.22	627	850
#45	60	64	140	150	0.12	0.14	1008	1320
#46	32	20	130	140	0.16	0.22	666	603
Direct.	24	24	210	210	0.12		605	466
Miscell							50	0
Total	144	136					2956	3239

ICCP Directory

A directory was produced in July 2008 in conjunction with Dr David (the General Secretary) and Jen Pearson (the Treasurer). This directory has been produced and distributed in August 2008. Two hundred and ten copies were printed and 195 were posted to all members at the same time as ICCP News 44.

Proposals for 2009 - 2010 Financial Year**ICCP News - Number of editions**

Three editions of ICCP News were produced in 2008 - 2009 and it is proposed to again produce 3 ICCP News editions for 2009 - 2010, #47 July 2009, #48 November 2009 and #49 March 2010. At the time of writing, ICCP News #47, July 2009 has been completed and distributed.

ICCP Directory 2010

A new ICCP Directory is scheduled for 2010 in collaboration with the General Secretary and Treasurer.

Budget estimates for 2009 - 2010

Budget estimates for production of ICCP News in 2009 - 2010 are given below. Estimates are based on an average total costs per page, which includes postage.

Costs to date and projected costs of ICCP News in the 2009 - 2010 financial year

Item	Number of pages	Number of copies printed	Cost per page (AUD)	AUD
ICCP News 47	28	150	0.16	665
ICCP News 48	60	150	0.13	1170
ICCP News 49	28	140	0.16	627
ICCP 2010	24	210	0.13	655
Directory				
Miscellaneous ^a				50
Total Projected				3176

Notes: ^a Miscellaneous items include CD ROMs, additional postage and stationery during the year and other small items.

Peter Crosdale

Minutes of the 61st Meeting of the International Committee for Coal and Organic Petrology (ICCP)
September 19-26, 2009, Gramado, Brazil

Appendix 7 - Summary Council Minutes
**Short Minutes of the Council Meeting
61st ICCP Meeting in Gramado, Brazil ,
19th - 26th September 2009**

Council Meetings on 19th September 13:30 – 19:00 h and on 21st September, 19:00 – 20:00 h

Members of Council present: **Petra David**, President, **Angeles Gómez Borrego**, General Secretary, **Lopo Vasconcelos** Vice-President, **Peter Crosdale**, Editor, **Deolinda Flores**, Chair Commission I, **Stavros Kalaitzidis**, Secretary Commission I, **Carla Araujo** Chair Commission II, **Paul Hackley**, Secretary Commission II, Elect, **Isabel Suárez Ruiz**, Chair Commission III,

Apologies for non-attendance received from **Jennifer Pearson**, Treasurer and **Georgeta Predeanu** Secretary Commission III

2. Minutes of Previous Meeting

Minutes of the Council and of the Plenary Sessions of the Oviedo Meeting were approved.

Resolution ICCPC09/2/1. Council approves the Council minutes as circulated.

Resolution ICCPC09/2/2. Council approves the Plenary Session minutes as printed in the ICCP Newsletter.

5. Membership***Institutional Membership***

Requests were received during the year to clarify the conditions of Institutional Members of the ICCP

Resolution ICCPC09/5/3. Council forwards to the Plenary Session to establish the Institutional fee in 700 € per year, having the institution the rights of

selecting up to 2 representatives for correspondence. Member fee discounts will apply for up to 5 employees of the Institution willing to take part in ICCP activities and programs. For individual ICCP members belonging to an Institutional member the rights of the individual member will be maintained without payment of the individual fee. Further benefits are:

- *Logo on website and newsletter indicating Institutional membership*
- *Reduced fee for ICCP training courses*

Expiring Membership

To date, expiring membership (due to arrears with membership fees) is not recorded in any way. Some record is however required.

Resolution ICCPC09/5/5 Council decides that expiring membership should be recorded in the Council Minutes in full and only the number of expiring membership will be published in the ICCP Newsletter.

New application form for Associate Membership

According to Resolution ICCPC08/5/9. “Council approves the principal change of the membership application form to include dues along at time of application and request advise from the General Secretary on the practical implementation” a new application form has been prepared considering recommendation of the Editor and the Treasurer.

Resolution ICCPC09/5/10. Council forwards to the Plenary Session a new student fee, which will be maintained a maximum of 3 years and requests the General Secretary to show the ICCP fees structure in full in the ICCP Web page.

Resolution ICCPC09/5/11. Council forwards to the Plenary Session the new application form and requests the General Secretary to make it available for download from the ICCP Web site.

5.10 Procedures for becoming member of additional commissions

Resolution ICCPC09/5/12. Council approves that ICCP members of one or more commissions who wish to become member of an additional commission should just inform the General Secretary about that and the new status will be recorded in the Directory after informing the chair of the corresponding commission.

6. Awards

6.1 Thiessen Medal Award

Resolution ICCP09/6/1. Council resolves that the Thiessen Medal will not be awarded in 2009

6.2 Organic Petrology award.

No recommendation for the Organic Petrology Award has been received from Marc Bustin for the 2009 meeting.

6.3 Composition of the Organic Petrology Award Committee

A proposal was received from Marc Bustin for the instauration of an independent Organic Petrology Award Committee. Up to now the Thiessen Medal Award Committee has been working to recommend the candidates for Organic Petrology Award due to the insufficient amount of Organic Petrology Awardees.

Resolution ICCP09/6/2. In accordance with Resolution ICCP 08/06 the President will contact the corresponding persons to officially constitute the Organic Petrology Award Committee.

7. Treasurer's Report

The Treasurers Report as shown in Appendix 5 was presented to the Council

Resolution ICCPC09/7/1. Council

- receives the report presented by the Honorary Treasurer*
- agrees that the report represents a fair statement of the financial affairs of ICCP and congratulates the Honorary Treasurer on the report.*

8. Editor

The Editors Report published in Appendix 6 was presented to the Council

Resolution ICCPC09/8/1/1. Council receives the report of the Editor and congratulates him on the presentation of the Newsletter.

Resolution ICCPC09/8/1/2 Council approves spending by the editor in accordance with the budget estimates given in the Editors Report

9. Website

Resolution ICCPC09/9/1. Council notes that significant progress has been achieved in the implementation of the secure zone of the webpage and encourages the exploitation in full of this resource.

Resolution ICCPC09/9/2. Council notes the continued cooperation between the Website and Newsletter publishing and encourages the continuation of this informal arrangement and notes that once the secure

area is working fully, the most recent newsletters will be available in the general area only as contents lists, with the full files being downloadable from the secure area in the normal way.

Resolution ICCPC09/9/3. Council notes that significant improvements have occurred during the year although much work is still needed and urges officers and conveners to examine ways in which it can be further improved.

10. New Handbook

Members are referred to the Minutes of Commission I.

11. Elections

Elections for Secretary of Commission II were carried out during the year.

Resolution ICCPC09/11/1. Council thanks the three candidates for standing for elections of Secretary of Commission II and congratulates the successful candidate.

Resolution ICCPC09/11/2. Council receives the report presented by the Returning Officer, renounces his thanks to A. Harold Smith for continuing his activity as Returning Officer.

12. Registration of ICCP

No developments occurred during the year regarding registration.

13. Revision of the Statutes

No specific actions were taken during the year regarding revision of statutes.

14. Accreditation Program

Individual Reports have been received from the organizers of each accreditation program and a report from the chair of the Accreditation Subcommittee.

Resolution ICCPC09/14/1 Council receives the report of the Chair of the Accreditation Sub-Committee and congratulates her on the report.

Resolution ICCPC09/14/2 Council receives the report of the Organizer of SCAP program and congratulates him on the report.

Resolution ICCPC09/14/3 Council receives the report of the Organizer of DOMVR program and congratulates him on the report.

Resolution ICCPC09/14/4 Council receives the report of the Organizer of CBAP program and congratulates her on the report.

15. ICCP training activities

Some decisions had to be taken during the year to organize the first ICCP training course

ICCPC09/16/1: In accordance with resolution ICCPC08/16/1, ICCP Council supports the training course to be held in Potsdam, Germany, noting that any shortfall in budget is likely to be the sole responsibility of ICCP.

ICCPC09/16/2: Council notes the large involvement of the Vice-President and the Convener for having organized the first ICCP training course and congratulates them for their work.

ICCPC09/16/3: Council notes the excellent acceptance of the course between the potential teachers and thanks them for their willingness to support the ICCP training activities.

ICCPC09/16/4: Council notes the enormous amount of work involved in teaching the 4 days intensive first ICCP course and express that ICCP is deeply in debt with Dr. Alan Cook and Dr. Claus Diessel for having accepted this challenge.

ICCPC09/16/5: Council notes the enormous amount of work involved in the organization of the first ICCP course. The ICCP is deeply in debt with the local organizers of the first ICCP course (Andreas Küppers and Antje Treutler), which are not ICCP members and will award them with a Diploma of special collaborators.

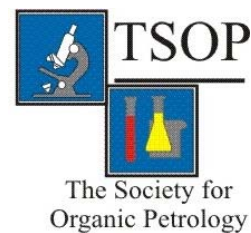
16. Procedures Relating to the use of ICCP Data

Resolution ICCPC09/16/1. No ICCP data shall be discussed, shown or distributed to any party not directly related to the acquisition of the data until permission has been received from the members of the WG and the Chair of the Commission.

28 October 2009

**DEADLINE FOR NEXT
ICCP NEWS :
15TH MARCH 2010**

Final report on the Gramado Meeting from the Organizing Committee



Joint 61st ICCP / 26th TSOP Meeting
Advances in Organic Petrology and Organic Geochemistry
19-26/09/ 2009

http://www.ufrgs.br/iccp_tsop_2009

Host: Instituto de Geociências, Universidade Federal do Rio Grande do Sul, PortoAlegre, Brazil

Meeting Place: Centro de Eventos, FAURGS
Gramado, RS, Rua São Pedro, 663

Organizing Committee:

Prof. Wolfgang Kalkreuth, Chair, Instituto de Geociências, UFRGS, Porto Alegre, RS
M. Sc Carla Araújo, CENPES, Petrobras, RJ
Prof. Eduardo Osório, Centro de Tecnologia, UFRGS, Porto Alegre, RS
Prof. João. Graciano Mendonça Filho, Instituto de Geociências, UFRJ, RJ
Prof. Maria do Carmo Peralba, Instituto de Química, UFRGS, Porto Alegre, RS
Prof. Maristela Bagatin Silva, Instituto de Oceanologia, FURG, Rio Grande, RS
Dr. Miriam Cazzulo-Klepzig, Instituto de Geociências, UFRGS, Porto Alegre, RS

Conference Sponsors

Platinum:



Gold:



SunCoke Energy

Silver:



Bronze:



Conference Exhibitors



Final Report

1. Meeting Statistics

The meeting was attended by a total of 101 participants (76 professionals, 25 students). Of these were 22 ICCP Members, 13 TSOP Members, 14 ICCP/TSOP Members and 52 non-members. The regional participation in terms of continents and countries is shown in Figures 1 and 2.

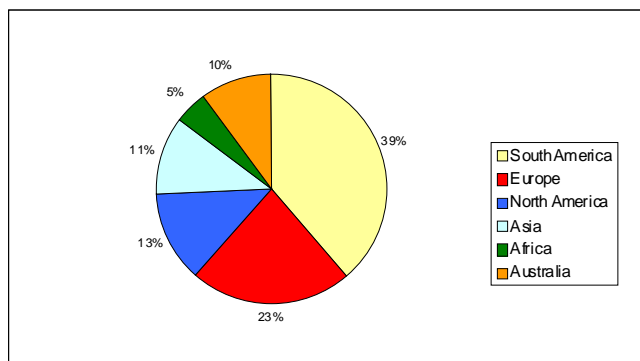


Figure 1: Participation by continent

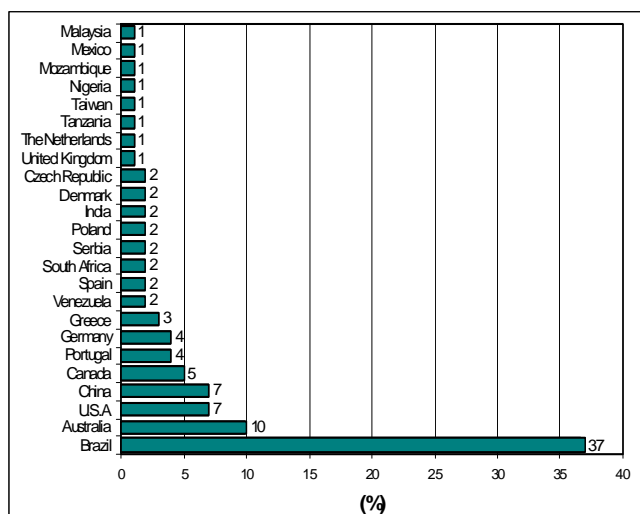


Figure 2: Participation by country

2. Program

The detailed program was published in ICCP News No 47 and is not repeated here.

Program Overview

The meeting started in the morning of September 20, with a short course entitled : **Palynofacies and Organic Facies: Principles, Methods and Applications** lectured by João Graciano Mendonça Filho (LAFO/UFRJ), Taíssa Rêgo Menezes

(CENPES/PETROBRAS), Joalice de Oliveira Mendonça (LAFO/UFRJ).

The afternoon of September 20 featured the opening ceremony (welcome by Wolfgang Kalkreuth, chair of the organizing committee, welcome by Prof. J. Frantz, Director of Instituto de Geociências, UFRGS, and to invited lectures: 1) **THE CONTRIBUTION OF ORGANIC GEOCHEMISTRY AND ORGANIC PETROLOGY TO PETROLEUM EXPLORATION IN BRAZIL** by L. A. Trindade, Petrobras, and 2) **COAL IN BRAZIL** by W. Kalkreuth and E. Osório, UFRGS. This in turn was followed by the ICCP Opening Plenary Session and the Icebreaker.

The days of September 21-23 were devoted to ICCP activities (working groups of commissions I, II, III, including a joint microscopy session in the afternoon of September 22. The visit to Caracol Park on September 23 had to be cancelled because of rain, and was substituted by a joint lunch in a restaurant of typical cuisine of the area (Café Colonial).

The **Symposium on Advances in Organic Petrology and Organic Geochemistry** was held on September 24, with a total of 10 oral presentations and 42 posters. This was followed by the Conference Dinner at the Restaurant Garfo e Bombacha, featuring local food (churrasco) and music and dance.

The TSOP Technical Session was held on September 25, featuring a total of 18 oral presentations. The TSOP Business Lunch was held in the Serra Grill Restaurant, with Leslie Ruppert and other members of TSOP Council reporting on the status of the society. At the end of the formal TSOP presentation W. Kalkreuth was presented the Peter Hacquebard Award by CSCOP (Canadian Society of Coal Science and Organic Petrology) for his contributions to coal research in Canada.

The meeting ended on September 26 with two fieldtrips:

Fieldtrip 1: Excursion to the Leão – Butiá Coalfield, Rio Grande do Sul, Brazil

Fieldtrip Leaders:

MARISTELA BAGATIN SILVA¹, EDUARDO OSÓRIO², MATTHEW BROWN², GUSTAVO BASTIANI³, with contributions by MIRIAM CAZZULO-KLEPZIG², MARGOT GUERRA SOMMER², WOLFGANG KALKREUTH²

¹ Instituto de Oceanografia, FURG, Rio Grande, RS, Brazil

2 Instituto de Geociências, UFRGS, Porto Alegre,
RS, Brazil
3 Copelmi Mineração Ltda., Butiá, RS, Brazil

Participants: 35

*Fieldtrip 2: Excursion to examine the relationship
of soil type and climate to champagne and wine
quality in the region of Vale dos Vinhedos, RS*

Fieldtrip Leaders:

WOLFGANG KALKREUTH, Instituto de
Geociências, UFRGS, Porto Alegre
EDUARDO GIOVANNINI, Instituto Federal de
Educação, Ciência e Tecnologia do Rio Grande do
Sul, Campus Bento Gonçalves

Participants: 22

3. Final Remarks

On behalf of the organizing committee I would like to thank once more the institutions involved in organizing the meeting, our sponsors to generously supporting the event, the meeting exhibitors to provide insight in the latest developments on organic petrology using incident light microscopy, as well as the conference delegates for their contributions either by participating in the ICCP Working Groups, or presenting papers and/or discussions during the ICCP/TSOP Joint Symposium and the TSOP Technical Session.

As chair of the Organizing Committee I would like to express my thanks to João Graciano Mendonça Filho and co-workers to offer the short course on concepts of palynofacies, to Maristela Bagatin Silva and Eduardo Osório for leading Fieldtrip No 1, to João Graciano Mendonça Filho and Carla Araujo to organize the microscopes for the meeting, and to those members of the organizing committee who participated in critical reading of the 79 abstracts submitted for the meeting. Also, I am grateful to João Graciano Mendonça Filho and Maristela Bagatin Silva to act as guest-editors for the upcoming Special Issue of the International Journal of Coal Geology.



Wolfgang Kalkreuth
Chair, Organizing Committee

Membership Matters

please update your email contact

Recent emails by the editor to the following members could not be delivered:

kostica@rgf.bg.ac.yu
joachim.koch@superkabel.de
coal_petro@yahoo.co.in
singhbd_bsip@hotmail.com
nobu@rc.japex.co.jp
rcarrascal@arpl.com
roy.davies@cipr.uib.no
Bruensing@lek.rwth-aachen.de
boris.alpern@wanadoo.fr
Kathy.Benfell@bhpbilliton.com
alfonso@acay.com.au
tgentzis@petronresources.com

member updates

Ricky Pinheiro was appointed Honorary Professor at the Coal and Carbon Research Group of the School of Chemical & Metallurgical Engineering, University of the Witwatersrand, South Africa effective from 1 July 2009, and he has also been appointed Group Marketing Manager for Riversdale Holdings (Pty) Ltd, a mining company listed on the Australian Stock Exchange, effective from 1st September 2009. Contact details therefore have changed to:

Dr H J Pinheiro
Riversdale Holdings (Pty) Ltd
140/142 Western Service Rd
Woodmead Business Park
Cypress Place North
Woodmead, South Africa, 2191

Postnet Suite 538
Private Bag x29 Gallo Manor 2052

Tel. +27 11 802 1677
Facs. +27 11 802 6855
Mob. + 27 82 892 9331
mailto:rickyp@rhld.co.za

in memoriam

Duncan Murchison has a new email address

duncan.murchison@ncl.ac.uk

Dr.rer.nat. Rolf Wartmann
1937 - 2009

Slavka Pusz has changed affiliations:

- official:

Centre of Polymer and Carbon Materials
Polish Academy of Sciences
Curie-Skłodowskiej str. 34
41-819 Zabrze
POLAND

- for correspondence:

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Polish Academy of Sciences
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44-121 Gliwice
POLAND

mailto:slawomira.pusz@cmpw-pan.edu.pl



On 13 September, 2009 Rolf Wartmann died after a long illness in Mülheim, Germany. He had moved there hoping to lessen his suffering. He was a full member of the ICCP, till his retirement active member of Commissions I, II and III.

He was born on 20 February, 1937 in Oberhausen, Germany. After qualifying for university 1957 in Essen, he studied Geology Science at the universities of München and Münster and graduated in 1969 as Doctor Rerum Naturalium.

His professional life commenced in 1970 as scientific assistant in the Section for Mineralogy and Petrology in the Bergbau Forschung GmbH, under the leadership of Prof. Marie-Therese Mackowsky. Solutions to problems in practical application were always of great concern to him. Microscopic measuring techniques were his means to solve problems arising from the mining, utilisation and preparation of hard coal as well as the assessment of coke properties from petrographic coal analysis. Additionally, he lectured in coal petrography at the universities of Karlsruhe and Bonn.

After his retirement 1994 up to the time of his seriously illness he continued to remain active in his profession on voluntary basis.

He will be missed.

Monika Steller

new members

Mr. Vongani **Chabalala** (A 1, 2, 3) South Africa
(introduced herein)

Dr. Ian **Glasspool** (A 1), USA (introduced herein)

Mr. Carl **Hilgers** (A1, 2, 3) Germany
(introduced herein)

Ms. Petra **Matysová** (A 1, 2) Czech Republic
(introduced herein)

Ms. Joana **Ribero** (A1, 3) (introduced herein)

Ms. Sandra Mónica Paulo **Rodrigues** (A1, 3)
(introduced herein)

If applicable please update your contact details with the General Secretary.

Dr. Ángeles Gómez Borrego

ICCP General Secretary
Instituto Nacional del Carbón, CSIC
Apartado 73
33080 Oviedo
SPAIN

mailto:angeles@incar.csic.es

ICCP Awards and Calls for Nominations

ICCP offers a number of awards to recognise outstanding achievements in coal and organic petrology at various stages of career development. Awards available and a brief summary are given below. Full details on the nature of the award, its terms and conditions and how to apply can be found on the ICCP home page at <http://www.iccop.org> or by contacting the chair of the award committee (see inside front cover).

Thiessen Medal

This is the highest award offered by ICCP. It recognises a lifetime of achievement and outstanding contributions in the fields of coal and organic petrology. The award consists of a bronze medal. The award committee consists of the five most recent medalists. Awards are made from time to time but applications are called for every 2 years.

No nominations will be called for in 2010. For details of procedures and nominations, contact:

Dr. Ángeles Gómez Borrego
ICCP General Secretary
Instituto Nacional del Carbón, CSIC
Apartado 73
33080 Oviedo
SPAIN
Ph. +34-98-511 9090 Fax +34-98-529 7662
Email : mailto:angeles@incar.csic.es

Organic Petrology Award

The Organic Petrology Award recognises outstanding contributions by coal and organic petrologists at an intermediate stage of their career. It is limited to applicants under 50 years of age. The award consists of a bronze medal and a certificate. Awards are made from time to time but applications are called for every 2 years.

The award committee currently consists of the Thiessen Medal Committee as a transitional arrangement. Eventually, the award committee will consist of the five most recent recipients.

Nominations will be accepted for 2010. Contact:

Dr. Ángeles Gómez Borrego
ICCP General Secretary
Instituto Nacional del Carbón, CSIC
Apartado 73
33080 Oviedo
SPAIN
Ph. +34-98-511 9090 Fax +34-98-529 7662
Email : mailto:angeles@incar.csic.es

Ralph Gray Award for the Best Published Petrology Paper, 2009

TSOP has initiated the Ralph Gray Award for the best published paper in organic petrology. The 2009 recipient of the inaugural award is “Genesis and rank distribution of Upper Carboniferous coal basins in the Cantabrian Mountains, Northern Spain” by Juan Ramón Colmenero, Isabel Suárez-Ruiz, Javier Fernández-Suárez, Pedro Barba, and Teresa Llorens (*International Journal of Coal Geology*, 2008, Volume **76**, p. 187-204).

A second award for an outstanding publication in a non-refereed venue has been considered. The 2008 Academic Press publication of “Applied Coal Petrology,” edited by Isabel Suárez-Ruiz and John C. Crelling, warranted recognition for an award. The editors enlisted Joan S. Esterle, Robert B. Finkelman, Stephen F. Greb, Gareth D. Mitchell, Jack C. Pashin, Nicola J. Wagner, Colin R. Ward, M. Coertzen, R.H. Matjie, J.C. van Dyk as authors or co-authors on the chapters.

Know Your Coal Petrologist #39



ICCP members are well known for taking lots of photos. This new member has been caught trying to copy the habits of the long standing members Answer page 74.

Precision of Vitrinite Reflectance Measurements in Dispersed Organic Matter. Reappraisal of the Information from past Commission II Activities WG of the ICCP.

Convener: Angeles G. Borrego

The activities of this working group (WG) date back to 2003 (Utrecht Meeting) when Werner Hiltmann suggested that the question of how the isolation procedure was affecting the reflectance of dispersed organic matter (DOM) was not completely addressed in the Isolation of Organic Matter WG convened for many years by John Castaño. The WG stopped its activities when John passed away without finishing the initially pursued objectives. Werner was committed to review the available material dealing with the influence of isolation procedures on vitrinite reflectance and components identification. The review was presented at the Budapest Meeting (Hiltmann, 2004) and the main conclusion was that the effect of isolation on the optical parameters was often obscured by the problem of identification of components and selection of the particles to be measured. The report showed that there was a lot of

interesting material produced over the years which is not available in any way to new members and quite often problems dealing with in the WGs have been previously addressed many years ago without being conveniently considered in the present activities. The reports produced over the years were scanned by W. Hiltmann (the text) and J. Burgess and M. Mastalerz (the images) to make them available to the ICCP membership. The images were used as part of the activities of the Identification of Organic Matter WG convened by J. Kus and the data and text are currently reviewed by A.G. Borrego to summarize the conclusions and find the best way disseminate this material resulting from many years activities in the ICCP. The reports available, samples analyzed and type of analysis performed in the successive WGs dealing with MOD Ring analysis, Dispersed Organic Matter and Unfigured Liptinite WGs is shown in Table 1.

Table 1. Reports available, samples analysed and type of analysis performed in the Commission II reports since 1981

Report	Samples Analysed	Type of Analysis
Bostick 1981	MOD 20-24 Wolcott (US) at variable distance from a dike	VR and other parameters
Robert 1982	MOD 25 Fecocourt (FR) MOD 26 Rundle (AU)	Classification of unfigured organic matter
Hiltmann 1983	MOD 27 Puertollano (ES) MOD 28 Irati L (BR) MOD 29 Irati U (BR)	Classification of organic components
Hiltmann 1984	MOD 30 Puertollano (ES) MOD 31 Monterey (US)	Classification of organic components
Kalkreuth 1985	MOD 32 Pictou Coal (CA) MOD 33 Pictou Shale (CA)	VR, quantitative fluorescence and organic components
Senftle 1986, 1987	MOD 42 New Albany (US)	VR, visual analysis on WR & KC
Castaño/v der Meulen 1988	RR-1 Woodford Shale (US)	Visual analysis on WR & KC
Hiltmann 1990	Kimmeridgian shale (UK)	Classification of organic components (also used in Isolation WG)
Senftle 1992	Bobroudja Basin (BU) two samples at different depth	Visual analysis on WR & KC
Castaño 1995	Pictou shale (CA)	VR, Visual analysis on WR & KC&SM
Castaño 1996	White Specks Marl, Saskatchewan (CA)	VR, Visual analysis on WR & KC&SM

VR=Vitrinite Reflectance, WR=Whole Rock, KC=Kerogen Concentrate, SM=Strew Mount

The first report (Bostick and Borrego, 2006) dealt with the samples analysed in the vicinity of a dike and the evaluation of results were mainly based on vitrinite reflectance measurements. The results were good considering the present ICCP standards for evaluation of results in the ICCP accreditation programs (www.iccop.org). The 2007 report focused on the effect of isolation procedure on petrographic parameters and composition (Borrego, Castaño, Senftle, Hiltmann 2007) and the conclusion was that further work was required to systematically address the effect of isolation procedures on samples from different maturity and different organic matter type. The Concentration of

Organic matter WG convened by J.G. Mendonça Filho is addressing this problem since 2007. A new WG convened by P. Hackley was established in 2008 to deal with the identification of primary vitrinite. The group intends also to participate in the preparation of an ASTM standard for the measurement of vitrinite reflectance. This group required data on precision of vitrinite reflectance in round robin exercises and for this year all the values available in the reports of Table 1 plus those of the Qualifying Vitrinite WG (Borrego et al., 2006) and Concentration of Organic Matter WG (Mendonça, 2008) were submitted to the same type of statistical analysis.

Table 2. shows the analysts who submitted results to elaborate the various reports considered in this work.

Report	Participants
Bostick 1981	Bostick, Baskin, Castaño, Dow, Edison, Cornford, Heroux, Hower, Hufnagel, Jacob, Jones, Kalkreuth, Pittion, Robert, Smith, Somers
Robert 1982	Robert, Harwey, Héroux, Hiltmann, Jacob, Mukhopadhyay, Nicolas, O'Connor, Ottenjann, Sherwood, Smith, Sommers, Wolf,
Hiltmann 1983, 1984	Hiltmann, Baskin, Castaño, Correa da Silva, Héroux, Jacob, Kalkreuth, Mukhopadhyay, O'Connor, Ottenjann, Pittion, Robert, Siskov, Sommers
Kalkreuth 1985	Kalkreuth, Baranger, Bostick, Crosdale, van Gijzel, Hagemann, Hiltmann, Jacob, Mackay, van der Meulen, Malan, Mukhopadhyay, O'Connor, Ottenjann, Pittion, Robert, Smith, Sommers, Teichmüller
Senftle 1986, 1987	Senftle, Dow, Fermont, Heroux, Hufnagel, Kalkreuth, Malan, Malechaux, van der Meulen, Mukhopadhyay, ACIRL-Nancy.
Castaño 1995, 1996	Castaño, Bharati, Borrego, Burgess, Cardott, Faraj, Hagemann, Kalkreuth, Landis, Ottenjann, Reinhart, Pickel, Russell, Teichmüller, Vieth, Volkmann
Borrego et al., 2006	Borrego, Araujo, Balke, Cardott, Cook, David, Flores, Hámor-Vidó, Hiltmann, Kalkreuth, Koch, Kommeren, Kus, Ligouis, Marques, Mendonça Filho, Misz, Oliveira, Pickel, Reimer, Ranasinghe, Suárez-Ruiz, Vieth
Mendonça Filho, 2008	Mendonça Filho, Araujo, Borrego, Cook, Flores, Hackley, Hower, Kern, Kommeren, Mendonça, Menezes, Newman, Ranasinghe, Souza, Suárez-Ruiz, Ujjié

Analysis of Scatter

Table 3 shows some details of sample location, age and depositional environment. A total of 23 samples are considered on this report, which cover a wide variety of depositional settings, age and countries of origin. It must be stressed that the samples are rather inhomogeneous in the type of data provided. Some of the samples were analysed by a high number of participants whereas others were only analysed by very few. For some samples the objective was not reflectance measurements but other type of analysis and therefore vitrinite reflectance was just provided as an additional data

without specific instructions for sample preparation and analysis. Some of the participants provided modal instead of mean values. This means that the group standard deviations and the scatter of results can be considered to be larger than it could be expected for exercises conceived only for vitrinite reflectance measurements. In the case of samples MOD 20-24, QVR and OMC the instructions for vitrinite reflectance measurements were clear and the number of participants was high. In the case of samples considered in the Isolation and Concentration of Organic Matter WGs, only the results reported for whole rock were considered.

Table 3. Description of the samples analysed over the years in Commission II

Simple	Location	Country	Age	Dep. Environment
MOD 20	Pierre Shale (Wolcott)	Colorado, USA	U. Cretaceous	Marine
MOD 21	Pierre Shale (Wolcott)	Colorado, USA	U. Cretaceous	Marine
MOD 22	Pierre Shale (Wolcott)	Colorado, USA	U. Cretaceous	Marine
MOD 23	Pierre Shale (Wolcott)	Colorado, USA	U. Cretaceous	Marine
MOD 24	Pierre Shale (Wolcott)	Colorado, USA	U. Cretaceous	Marine
MOD 25	Fecocourt	France	L. Toarcian	Marine
MOD 26	Rundle	Queensland, AU	Eocene	Lacustrine
MOD 27	Puertollano	Spain	Carboniferous	Lacustrine
MOD 28	Irati Lower	Brazil	Permian	Marine transitional
MOD 29	Irati Upper	Brazil	Permian	Marine transitional
MOD 30	Puertollano	Spain	Carboniferous	Lacustrine
MOD 31	Monterrey	California USA	Pliocene	Marine
MOD 32	Pictou coal	Canada	Carboniferous	Terrestrial
MOD 33	Pictou shale	Canada	Carboniferous	Lacustrine
MOD 42	New Albany	USA	Devonian	Marine
IOM 95	Second White Specks	Canada	Turonian	Marine
IOM 96	Pictou	Canada	Carboniferous	Lacustrine
QVR IS	Irati Lower	Brazil	Permian	Marine transitional
QVR PT	Puertollano	Spain	Carboniferous	Lacustrine
QVR PS	Posidonia	Germany	Jurassic	Marine
QVR CS	Asturian	Spain	Carboniferous	Terrestrial
OMC 1	Asturian	Spain	Carboniferous	Terrestrial
OMC 2	Benin-Flank	Nigeria	Maastrichtian	Terrestrial

Table 4 provides the main statistics of the samples considered. The statistics used for each sample are the Group Mean (GM) and Group Standard Deviation of the values reported. These statistics were also used when the reports were released and typically maximum and minimum values were excluded from the GM and GSD. The approach followed in this report is similar to the one of ICCP Accreditation programs which uses the Unsigned Multiple of the Standard Deviation ($UMSD = ABS((X-GM)/GSD)$) as a measure of the distance to the mean value. The threshold used for UMSD in the ICCP accreditation programs is 1.5 %, which indicates that 86.6% percent of the data is expected to be within 1.5% standard deviation

with a 95% confident interval. Two more statistics have been included in this report to account for the variation of GSD with the increase of mean values and to consider the differences derived from different entries. These are the Coefficient of Variation ($CV = GSD * 100 / GM$), which is a measure of the scatter of the results eliminating the effect of concomitant increase of GM and GSD and the Scattering Index ($SI = CV / N$), which considers the number of entries. The Reproducibility Interval ($R = 2\sqrt{2} * GSD$), which accounts for the maximum difference permitted between two analyst for the same sample (ISO 7404-5; 1994) is also considered.

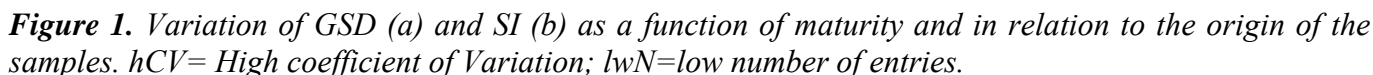
Table 4. *Main statistics applied to the analysis of the different samples*

Sample	GM	GSD	N	CV	SI	AUMSD	SD UMSD	MAX UMSD	R
MOD 20	2.39	0.300	16	12.5	2.9	0.73	0.65	2.77	0.849
MOD 21	1.85	0.286	16	15.4	1.6	0.72	0.67	2.57	0.808
MOD 22	1.31	0.247	16	18.8	2.4	0.78	0.59	2.32	0.699
MOD 23	0.65	0.090	16	13.9	3.1	0.72	0.67	1.92	0.254
MOD 24	0.59	0.058	16	9.9	2.5	0.79	0.58	1.94	0.165
MOD 25	0.45	0.180	8	39.8	1.2	0.75	0.60	1.57	0.510
MOD 26	0.29	0.059	7	20.4	5.2	0.75	0.59	1.50	0.167
MOD 27	0.44	0.194	14	44.0	0.8	0.69	0.70	2.87	0.550
MOD 28	0.44	0.152	10	34.2	3.1	0.86	0.41	1.74	0.429
MOD 29	0.40	0.154	10	38.2	5.0	0.81	0.52	1.51	0.435
MOD 30	0.42	0.138	14	33.0	0.9	0.84	0.49	1.67	0.391
MOD 31	0.36	0.205	11	57.3	0.6	0.77	0.58	2.16	0.579
MOD 32	0.84	0.125	24	14.9	0.9	0.66	0.73	3.03	0.353
MOD 33	0.60	0.176	24	29.4	1.2	0.77	0.62	1.99	0.499
MOD 42	0.42	0.131	10	31.2	1.0	0.81	0.52	1.76	0.370
IOM 95	0.57	0.073	14	12.9	0.8	0.70	0.69	2.40	0.207
IOM 96	0.52	0.141	11	27.1	3.8	0.81	0.52	1.90	0.400
QVR IS	0.44	0.199	22	45.8	2.1	0.80	0.57	2.50	0.564
QVR PT	0.40	0.145	22	35.9	3.4	0.74	0.65	2.65	0.441
QVR PS	0.37	0.066	21	17.8	0.5	0.80	0.58	2.43	0.186
QVR CS	0.70	0.046	22	6.5	0.3	0.71	0.69	3.08	0.129
OMC 1	1.15	0.133	16	11.5	0.6	0.73	0.65	2.76	0.375
OMC 2	0.37	0.032	16	8.7	0.7	0.82	0.54	2.17	0.091

The analysis of results is addressed to answer to the following questions: Which are the typical values for GSD and scatter of results of the samples analysed. Is there any relationship between the values of GSD and scatter of results and the type of organic matter/depositional environment and the maturity of the samples?. These results are expected to help to select appropriate samples for round robin exercises and DOMVR accreditation program, to establish typical thresholds for scatter in vitrinite reflectance analysis of dispersed organic matter and to identify the major problems in this type of analysis.

The data in Table 4 indicates that the samples cover a wide maturity interval from 0.3 to 2.4% vitrinite reflectance and a wide variation of GSD (0.032-0.300). The number of participants per sample is also very different ranging from 7 to 24. The number of entries in all the samples is below the desired amount for precision analysis which requires at least 30 participants per sample. Samples with N close to 20 can be considered to approach to the ideal amount but those with N below 10 have to be considered less reliable. In addition the number of individual measurements in which the values reported by participants are based

the database. The reliability interval is proportional to the GSD and therefore large variation in reliability interval from sample to sample is observed



is an expected result. The increase might be higher than the known increase of standard deviation with maturity due to the fact that this is a case of sample evolution in the vicinity of a dike. As the samples approached to the dike the variability within the sample might also increase. This can be discriminated comparing the CV of samples MOD 20-24 which should be similar if similar difficulty and variability for the samples is assumed. The CV of variation for these samples ranged between 10 and 19 (Table 4) and it was the lowest for the

sample taken far away from the dike (MOD 24) but it was not the highest for the sample closer to the dike (MOD 20). This indicates that neither the maturity nor the variability of the sample itself can be considered as responsible of the large GSD of samples with the highest GM. A large variation of

GSD is also observed between the immature samples. The plot in Figure 1b indicates that some of the large GSD in low maturity samples can be attributed to high CV, which is some times accompanied by a low number of entries (N).

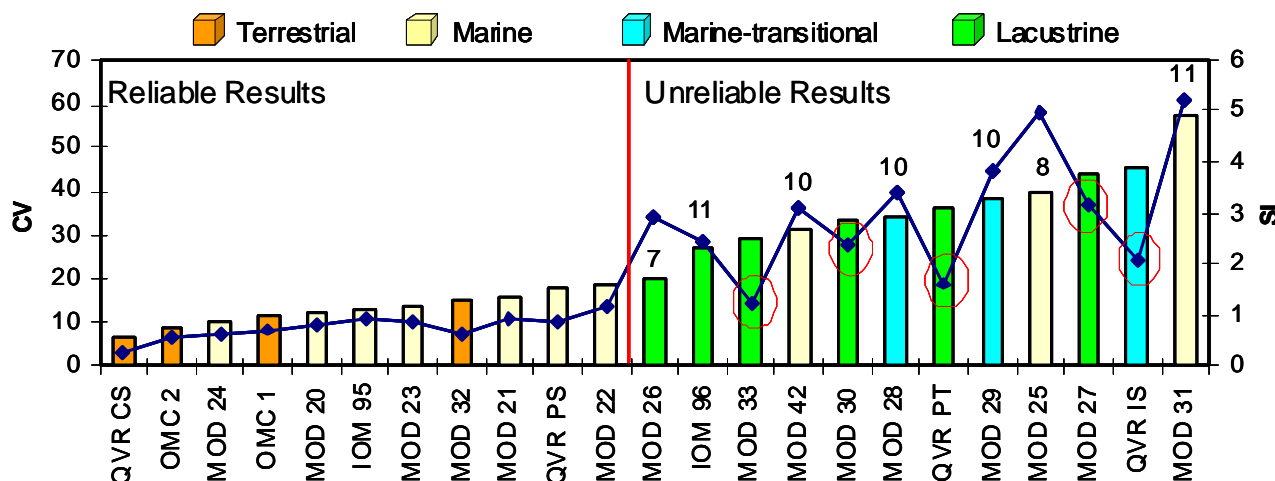


Figure 2. Variation of CV and SI for the samples of ICCP ring analysis in Commission II. The red circle indicates samples with specific problems for the identification of the vitrinite population.

The combination of high CV and low N does not indicate a particular difficulty in the analysis of the samples because the CV would likely be reduced if the number of participants increase. On the contrary high CV and high N reflect specific difficulties in the analysis of samples. This can be better discriminated in the plot of Figure 2 in which samples are ordered by increasing CV (bars) but the scattering index (SI) is also shown (rhombs). Figure 2 indicates that samples with moderate CV and SI are all of terrestrial and marine origin whereas samples of lacustrine and marine transitional origin analysed in the ICCP ring analysis have specific difficulties. It must be stressed that some of the marine samples with low scattering values are samples with very few vitrinite particles to be measured and therefore can be considered difficult to analyse. The marine samples with high coefficient of variation are all of them characterized by a low number of entries, which is not indicative of specific difficulties. The samples of lacustrine origin and marine transitional origin have shown to be all of them difficult to analyse. In few cases the high scatter can be attributed to low N but in other cases specific difficulties are derived from the data. This cannot be taken as a general rule because the samples of marine transitional origin were all of

them the Irati oil shale analysed many times in the ICCP ring analysis (Table 1 and 3). Similarly the lacustrine samples correspond mostly to Puertollano oil shale (Table 1 and 3) and to Pictou shale. These three samples are organic-rich oil shales with TOC values over 20% (Kalkreuth, 1985; Borrego et al., 2006). These sorts of samples with abundant autochthonous organic matter and common recycled vitrinites have shown to be particularly difficult for selecting the primary vitrinite population (Borrego et al., 2006).

Figure 2 indicates that around half of the samples analysed in ICCP round robins have moderate CV and SI indicating that no specific problems were faced in the analysis of these samples whereas the other half either had a low number of participants or reflected specific difficulties for analysis essentially related to the selection of the vitrinite population to be measured.

Analysis of Precision

The results of analysis of precision using the UMSD as in the ICCP accreditation program are shown in Table 4 and Figure 3. The average UMSD for each sample ranged between 0.66 and 0.86. As UMSD involves the GSD, which is generally higher for samples with high scatter, most of the

participants passed the text even in the samples more difficult to analyse. The average proportion of participants passing the text in each sample was generally higher than the theoretical value of 86.6 % (Table 4 and Figure 3). For all the samples

maximum values for UMSD were below 3%, which is a typical threshold for outliers. No specific trend could be found for samples of a given origin or maturity to have higher average UMSD or higher extreme values for this parameter.

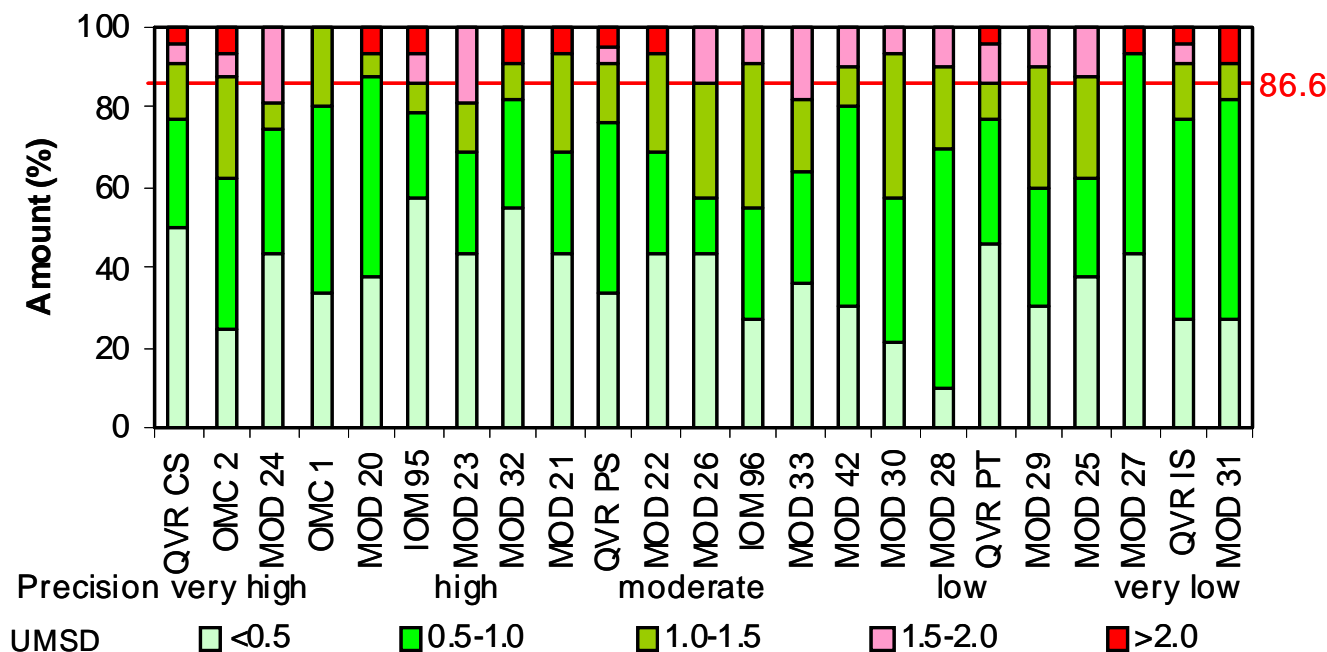


Figure 3. Analysis of precision. Percentage of data within specific intervals of UMSD.

No specific standard for the measurement of vitrinite reflectance in DOM is available and therefore the standards for coal vitrinite reflectance are taken as reference (ASTM D2798; 2009; ISO 7404-5; 1994). The reproducibility interval is the value considered in the ASTM and ISO standards for the analysis of precision. Two values are considered valid if they depart from each other by less than R ($R=2\sqrt{2}\cdot\text{GSD}$). As no observed GSD are always available unless the data are part of a round robin exercise, the values accepted as typical GSD in the ASTM and ISO standards were respectively 0.02 and 0.03 %. These values yield a reproducibility interval of 0.06 and 0.085 % for ASTM and ISO standards respectively. These values are well below the R values calculated for the samples using the observed GSD (Table 4).

The mean value of the GSD obtained for the samples was 0.145 %. This value decreases to 0.135 % if the oil shales are excluded and to 0.132 % if only the most reliable values are considered. The plot in Figure 4 shows a histogram of the GSD of the samples, in which the samples are classified

according to their reliability. For the most reliable samples modal values for the class 0.05-0.10 % were obtained, although the most mature samples had higher GSD. The least reliable samples had GSD modal values in the range 0.15-0.20 %. If the mid value of the modal class interval is considered as representative of typical scattering for DOM vitrinite reflectance, then the reproducibility interval for samples without specific problems for the identification of vitrinite population can be around 0.20 %. These values are still higher than those stated in coal standards but are significantly lower than those derived from the averaged GSD ($R=0.41\%$).

Conclusions

Based on the analysis of vitrinite reflectance results of 23 samples analysed between 1981 and 2008 in Commission II of the ICCP, which cover a large maturity range and a variety of depositional environments the following conclusions can be drawn.

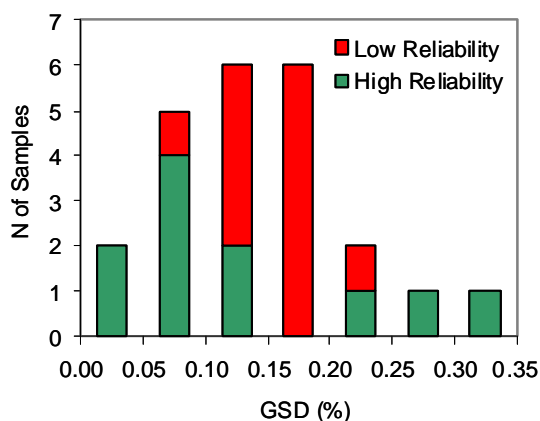


Figure 4. Histogram of GSD for the most and least reliable results.

The statistics used are those applied in the ICCP accreditation programs for estimation of precision. Precision of results was generally good with 89.5 % participants in average reporting results within ± 1.5 group standard deviation.

The coefficient of variation and a scattering index were used for the estimation of the reliability of the samples. High values of one or both of these quotients were obtained for organic-rich oil shales and/or samples with low number of participants.

A value of 0.145 % was obtained averaging the GSD of the different samples, which decreased to 0.135 % when the organic-rich oil shales were excluded and to 0.132 % when only the samples with moderate to low coefficient of variation and scattering index were averaged. GSD values as low as 0.03 (representative for coal as recorded in the ISO standard) were obtained for samples with terrestrial organic matter, low scatter of results and at least 15 participants.

The mid value of the modal GSD interval for the samples with high reliability was 0.075, whereas for the least reliable samples a mid value of 0.175 is derived for the modal GSD interval. Even the value for the most reliable samples is still higher than the typical standard deviation for coal (ISO 7404-5;1994) and yields a reproducibility interval of around 0.20%. It must be taken into account that the results considered in this report were not always based on homogeneous set of analysis performed for the purpose of establishing precision of reflectance measurements. Therefore the values derived from this report can be considered maximum values which would decrease if a higher number of participants with a higher number of readings would be recorded. The values for parameters involved in reliability, precision and

reproducibility interval are shown in the summary table

Summary Table. Relevant average values derived from the precision analysis of the samples analysed in Commission II for reflectance analysis between 1981 and 2008

Parameter	All samples	More Reliable Samples	Less Reliable Samples
Averaged GSD	0.145	0.132	0.156
Averaged Coefficient of Variation (CV)	25	13	36
Averaged Scattering Index (SI)	1.9	0.8	3.0
Mid value of modal class for GSD	0.125	0.075	0.175
Reproducibility Interval based on mid modal class	0.35	0.21	0.49

The selection of the primary vitrinite population in organic-rich oil shales with presumably vitrinite reflectance suppression phenomena has shown to be particularly difficult and it is likely to be the source of the scatter found for these sort of samples.

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Report of the 2009 Round Robin Exercise of the Self-heating of Coal and Coal Wastes Working Group

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1. Aim of the Self-heating of Coal and Coal Wastes WG

The aims of this Working Group included in the Commission III of the ICCP are:

- to gather examples of various forms of transformation of organic matter in coal and coal wastes of various rank
- to create a classification of self-heating-induced transformations of organic matter.

2. Objective of the SH WG Round Robin Exercise 2009

The objective of this year exercise was to identify and classify products of thermal alteration in coals and coal wastes. Photomicrographs were kindly provided by the following participants: James

Hower (University of Kentucky, USA), Nikki Wagner (University of Witwatersrand, South Africa), Vivien duCann (PETROGRAPHICS SA, South Africa), Deolinda Flores (Universidade do Porto, Portugal), Magdalena Misz-Kennan (University of Silesia, Poland), and Jolanta Kus (Bundesanstalt fuer Geowissenschaften und Rohstoffe, Germany). The conveners are very grateful to these participants for providing numerous photomicrographs.

The supplied photomicrographs of thermally altered organic matter were complemented by additional information, such as the background value of random vitrinite reflectance in coal or coal waste and the respective locality:

- WG1 – Inner Mongolia Autonomous Region,

- Wuda Coal Field, Republic of China, Rr = 1.00%
- ▶ WG2 – S. Pedro da Cova, Lomba and Midões waste piles, Douro Coalfield (meta-anthracite), Portugal, Rr = 4.10 - 6.25%
 - ▶ WG3 – Marcel and Rymer Cones coal waste piles, Upper Silesian Coal Basin, Poland, Rr = 0.70%
 - ▶ WG4 – South Africa (no data available)
 - ▶ WG5 – Mulga, the Warrior Basin, USA, Rr = 1.07%
 - ▶ WG6 – Starzykowice coal waste dump, Upper Silesian Coal Basin, Poland, Rr = 0.60 – 0.70%
 - ▶ WG7 – Piekary Śląskie coal waste dump, Upper Silesian Coal Basin, Poland, Rr = 0.60%
 - ▶ WG8 – coal heaps and coal wastes, Republic of South Africa, Rr = 0.60 – 0.70%

The proposed classification contained ten categories: cracks and microfissures (Figure 1), oxidation rims (paler and darker in colour), plasticised particles (particles with porosity and particles with plasticised edges), bands, paler in colour particles (Figure 2), coke (massive: isotropic, anisotropic; porous), inertinite, pyrolytic carbon (Figure 3), natural chars, and unaltered particles. Thermally altered minerals present in the microphotographs were not included in this classification as the 2009 year exercise focused exclusively on thermally influenced organic matter.

Thirteen ICCP members expressed their willingness to participate in the 2009 exercise: Sławomira Pusz (Poland), James Hower (USA), Ivana Sýkorová (Czech Republic), Jen O'Keefe (USA), Deolinda Flores (Portugal), Claudio Avila (Great Britain), Dragana Životić (Serbia), Joana Ribeiro (Portugal), Manuela Marques (Portugal), Nikki Wagner (Republic of South Africa), Isabel Suárez-Ruiz (Spain), Stavros Kalaitzidis (Australia/Greece), and Kimon Christanis (Greece).

The deadline for the submission of results for SH WG Exercise 2009 both electronically or by post was 30 August 2009.

3. Results for the SH WG Exercise 2009

In the 2009 exercise participants were asked to identify and classify 212 forms.

Cracks and microfractures, present in 45 places, were the easiest forms to be identified. For a total of over 50% forms, full agreement was reached and in an additional 27% only one mistake was made. The only forms that displayed a similar level of agreement were natural chars and pyrolytic

carbons. Natural char particles were present in two microphotographs and, in one of them, a full agreement was reached. In case of pyrolytic carbon, in one out of three forms a full agreement was obtained. It was also relatively easy to recognize porous particles, although they were commonly confused with porous coke. Overall, for 18% a full agreement was reached and one mistake was recorded in 18%.

The most troublesome forms were natural cokes. Porous coke particles were commonly mistaken with porous particles whereas isotropic massive coke particles were commonly identified as inertinite, paler-in-colour particles, and natural chars. Relatively troublesome were paler-in-colour particles, as displayed in five places. The level of the highest agreement was slightly above 50% in only one microphotograph. Participants usually mistook it with unaltered particles, inertinite, bands, or plasticised particles.

Inertinite was correctly identified in only 10% of the inertinitic forms. Participants confused it with almost all other forms including natural chars, bands, porous coke, massive isotropic, and anisotropic coke, oxidation rims, and paler-in-colour particles.

In general, in about 70% of all forms the level of agreement was slightly over 50%, Table 1.

Table 1. The levels of agreement for a number of forms to be identified.

Level of agreement (%)	Number of forms	Percentage of all forms
100.0	35	16.5
92.3	27	12.7
84.6	17	8.0
76.9	23	10.9
69.0	18	8.5
61.5	14	6.6
53.4	15	7.1
Sum	149	70.3

4. General Suggestion made for the SH WG Exercise 2010

Participants of the 2009 exercise provided numerous suggestions which were discussed and agreed upon during the 61st ICCP Meeting in

Gramado, Brazil. These are as follows:

- The suggestion to split the microfissure and microcrack category into fissures within a particle and those confined to the edges was abandoned.
- The indication to distinguish isotropic and anisotropic porous coke was accepted.
- The suggestion to modify an existing class of pores as generated by devolatilisation, and natural pores belonging to the original structure was accepted.
- The suggestion to extend the classification of bands, paler-in-colour particles and unaltered forms is to be confirmed as detailed information was requested.
- The suggestion to extend the classification of coked or charred vitrinite occurring as dispersed organic matter (in forms of detritus, laminae, thin lenses etc.) was accepted.
- The suggestion to include hydrocarbons generated during self-heating processes was accepted.
- The suggestion to divide the classification into coals and coal wastes was accepted.
- The suggestion to distinguish a separate category, e.g. cracks with oxidation rims, plasticised edges with oxidation rims was accepted.

5. Schedule for the 2010 Round Robin Exercise:

The proposed schedule for the 2010 Exercise is as follows:

- the end of March 2010 – the deadline for sending microphotographs of organic matter altered in self-heating processes or suitable samples
- the end of June 2010 – preparation of next exercise via secure ICCP web site
- August 31, 2010 – the deadline for sending results.

6. Requests for the 2010 Round Robin Exercise

If you would like to contribute to the 2010 exercise and provide the SH WG with new additional photomicrographs or suitable samples, please do so and contact Magdalena Misz-Kennan at magdalena.misz@us.edu.pl

We would like to invite interested ICCP members to participate in the SH WG in order to develop a new classification system of thermally affected organic matter in coals and coal wastes subjected to self-heating. It is a challenging task with regard to future evaluation of potential environmental hazards and protection of valuable coal resources world wide.

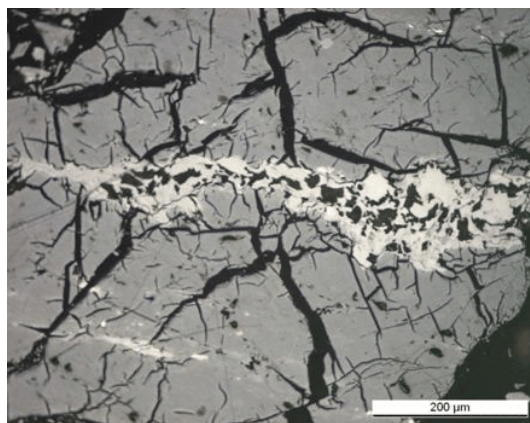


Figure 1. Cracks in coal. Inner Mongolia Autonomous Region, Wuda Coal Field, Republic of China, $R_r = 1.00\%$. Non-polarised incident white light.

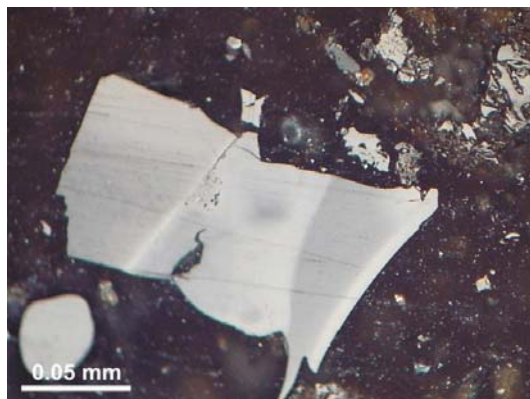


Figure 2. Paler in colour particle of organic matter in coal wastes with paler-in-colour oxidation rim. Piekary Śląskie coal waste dump, Upper Silesian Coal Basin, Poland, $R_r = 0.60\%$. Non-polarised incident white light.



Figure 3. Pyrolytic carbon in coal waste dump. Portugal, metaanthracite waste pile, $R_r = 4.10 - 6.25\%$. Polarised incident white light.



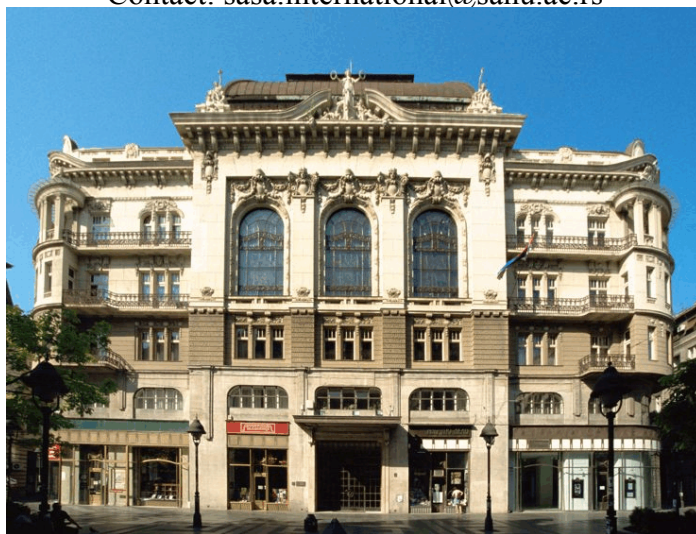
62nd Meeting of the International Committee for Coal and Organic Petrology (ICCP) September 26th - October 2nd 2010

First Announcement – 15/11/2009

Hosts: Serbian Academy of Sciences and Arts (SASA) and
University of Belgrade, Faculty of Mining and Geology

Location: Belgrade, Serbia, Knez Mihailova 35 (City Centre)

Contact: sasa.international@sanu.ac.rs



Serbian Academy of Sciences and Arts

Homepage: <http://www.sanu.ac.rs>

1. Organizing Committee

Academician Marko Ercegovac, Chair, Serbian
Academy of Sciences and Arts, Belgrade, Serbia

Dr. Dragana Životić, University of Belgrade,
Faculty of Mining and Geology, Belgrade,
Serbia

Dr. Aleksandar Kostić, University of Belgrade,
Faculty of Mining and Geology, Belgrade,
Serbia

Prof. Dr. Vladica Cvetković, University of
Belgrade, Faculty of Mining and Geology,
Belgrade, Serbia

Prof. Dr. Branimir Jovančičević, Faculty of
Chemistry, University of Belgrade, Belgrade,
Serbia

Prof. Dr. Dragoslava Stojiljković, Faculty of
Mechanical Engineering, University of
Belgrade, Belgrade, Serbia

Dr. Ivan Dulić, Naftagas, Novi Sad, Serbia

2. Planned Schedule Includes

Sunday, September 26:

ICCP Council Meeting

Monday, September 27:

Registration, Welcome, ICCP General
Assembly and Ice Breaker

Tuesday, September 28:

ICCP Commissions and Council Meeting

Wednesday, September 29:

ICCP Commissions and Poster session

Thursday, September 30:

ICCP Commissions, Symposium, Poster session
and Conference Dinner

Friday, October 1:

Symposium and ICCP Plenary Meeting

Saturday, October 2:

Field trip to Kostolac basin and Viminacium
archeological site

3. Conference Themes

- Advances in Organic Petrology
- Applied Organic Petrology and Organic Geochemistry

4. Call for Papers

Deadline for Abstract Submission:

April 30, 2010

Abstract Format: maximum of 1 page, 12 Times New Roman, Please submit via e-mail:

mailto:sasa.international@sanu.ac.rs
or to the following address:

Academician Marko Ercegovic
Serbian Academy of Sciences and Arts
Knez Mihailova 35
11000 Belgrade,
Serbia

5. Registration Fee, Conference Dinner, Fieldtrips (at this point estimated)

ICCP Members and Guests	150 €
Students	50 €
Conference Dinner	50 €
Field trip	60 €

Registration includes: Ice-Breaker, participation in ICCP sessions and ICCP symposium, coffee breaks, light luncheons and Book of Abstracts.

Local currency: dinar (RSD)

Exchange Rate (20/10/2009): 1 Euro = 93 RSD.

6. Accommodation

Several hotels of different categories and some luxury villas are located around the meeting venue. All details about accommodation, fees and field trip will be available in Second Announcement



ICCP Working Group Identification of Primary Vitrinite in Shale: 2009 Report

Convener: Paul C. Hackley - U.S. Geological Survey, MS 956 National Center, Reston, Virginia, 20192 USA, phackley@usgs.gov

Introduction

Statement of the Problem

Previous work in the International Committee for Coal and Organic Petrology (ICCP) Qualifying Vitrinite for Dispersed Organic Matter Reflectance Analysis working group demonstrated that some shale samples were particularly difficult to analyze (Borrego and others, 2006). In the particular case of the Qualifying Vitrinite working group, many analysts identified a low-reflecting vitrinite population in Puertollano and Irati shales not in accordance with the weak fluorescence of the lamalginite present (which suggested higher maturity). This low-reflecting vitrinite population had a well constrained Gaussian-like distribution of reflectance values for some participants, whereas

for others, a non-Gaussian distribution was evident (Figure 1). Despite this characteristic, some participants in the working group did not measure it, possibly because they considered it to be too low reflecting (suppressed reflectance due to intermaceral effects or atypical chemistry?), or because they assigned these particles to another maceral component. The variance in reported mean reflectance values thus demonstrated that special instructions are needed to identify the indigenous vitrinite population in such samples. In particular, differentiation of primary indigenous vitrinite from similar organic components such as bitumen, bituminite, recycled vitrinite, and low-reflecting semifusinite needs to be addressed. In addition, there is a need to consider the possibility of reflectance suppression and/or retardation and the

effects of atypical chemistry in the vitrinite of such shales. Finally, a consensus methodology for identification and measurement should be employed.

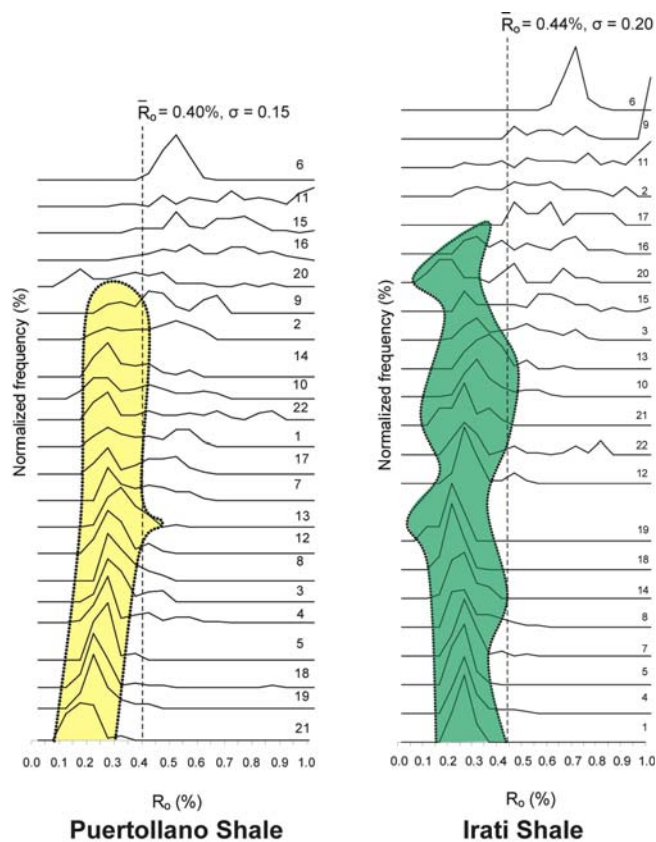


Figure 1. Measured reflectance histograms of the Puertollano and Irati shales. Group mean reflectance values are indicated by the dashed vertical line and the symbol R_o ; standard deviation is indicated by σ . The numbers listed on the right side of the histograms are used to identify the participant. Low reflecting vitrinite populations are enclosed in the coloured fields. From Borrego et al. (2006).

History of the Identification of Primary Vitrinite in Shale working group

A new working group called the Identification of the Primary Vitrinite in Shale was proposed by Angeles Borrego during the September, 2008, ICCP meeting in Oviedo, Spain, to address these problems and convene Paul Hackley was appointed at the Oviedo meeting. A request for interested participants appeared in ICCP News (2008), and an invitation to return a questionnaire in the first exercise of the working group was emailed to seventy-seven persons of interest in January, 2009. The completed questionnaire was received from twenty-two respondents by April, 2009, reflecting a return rate of twenty-nine

percent. The compiled results of the questionnaire are reported herein and an invitation to participate is hereby extended to all interested person who would like to contribute to the ongoing efforts of the working group.

Questionnaire: 2009 Exercise of the Working Group

The first exercise of the Identification of the Primary Vitrinite in Shale working group consisted of the 2009 questionnaire containing four sections: 1. Microscopist and laboratory information (nine questions); 2. Microscope equipment, measuring conditions and protocols (fifteen questions); 3. Measurement, interpretation, and reporting (eighteen questions) and; 4. Future directions (five questions). The questionnaire is available upon request to Paul Hackley - <mailto:phackley@usgs.gov>.

Twenty-three respondents representing nineteen different petrographic laboratories returned the questionnaire. Their names and affiliations are given in Table 1.

Table 1. Name and affiliation of respondents in the 2009 exercise of the Identification of the Primary Vitrinite in Shale working group.

ANALYST	AFFILIATION
Carla Araujo	Petrobras, Brasil
Jack Burgess*	Humble Geochemical, USA
Brian Cardott	Oklahoma Geological Survey, USA
Alan Cook	Keiraville Konsultants Pty. Ltd., Australia
Deolinda Flores	University of Porto, Portugal
Angeles Gómez Borrego	Instituto Nacional del Carbón, Spain
Paul Hackley	U.S. Geological Survey, Reston, Virginia, USA
Mária Hámor-Vidó	Geophysical Institute of Hungary, Hungary
Wayne Knowles	Weatherford Laboratories, USA
Kees Kommeren	Shell International, The Netherlands
Jolanta Kus/Aenne Balke	Fed. Inst. Geosciences and Nat. Resources, Germany
MaryAnn Malinconico	U.S. Geological Survey, USA

Maria Mastalerz	Indiana Geological Survey, USA
João Graciano Mendonça Filho	Universidade Federal do Rio de Janeiro, Brasil
Taissa Menezes	Petrobras, Brasil
Gary Mitchell	Pennsylvania State University, USA
Jane Newman	Newman Energy Research, Ltd, Australia
Jennifer O'Keefe	Morehead State University, USA
Mark Pawlewicz	U.S. Geological Survey, Denver, Colorado, USA
Judith Potter	J.P. PetroGraphics, Canada
Isabel Suárez-Ruiz	Instituto Nacional del Carbón, Spain
Igor Viegas	Petrobras, Brasil
Nikki Wagner	University of Witwatersrand, South Africa

*Jack Burgess returned the questionnaire incomplete

Microscopist and Laboratory Information

The first section of the 2009 questionnaire contained inquiries designed to understand who was participating in the exercise. These questions included items such as number of years of experience, type of experience, e.g., thermal maturity analysis, facies analysis, etc., and questions about the workplace setting of analysts. Responses indicated a large variation in the experience of petrographers, ranging from less than 5 years to almost fifty years (Figure 2). Workplace settings were divided amongst oil companies, service companies and consultants, academic laboratories, and government agencies, with the greatest number of respondents from government (Figure 3). Nearly all of the respondents indicated that, in addition to serving as a petrographer in their workplace, they were responsible for other elements of laboratory management, including: general project oversight, employee supervision and training, marketing and advertisement, facilities maintenance, and procurement. Most respondents indicated that thermal maturation analysis was the primary objective of laboratory investigation, while facies analysis and investigation of utilization byproducts also figured prominently (Figure 4). All respondents indicated that their laboratories pursued secondary

investigations in addition to the primary focus, and all indicated that some supporting documentation usually is supplied with samples submitted for dispersed vitrinite reflectance analysis.

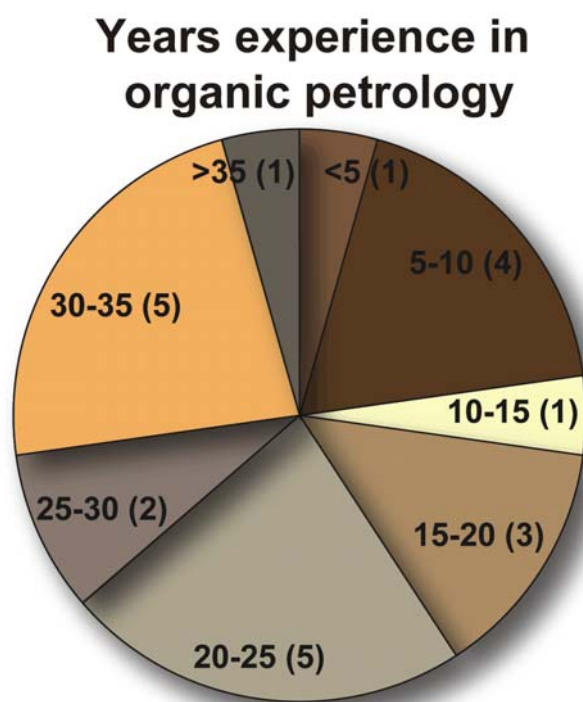


Figure 2. Years experience in organic petrology of the twenty-two respondents

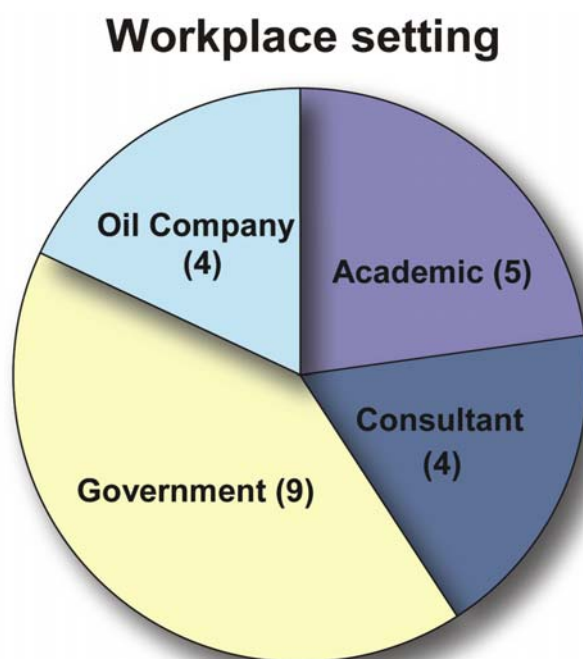


Figure 3. Workplace setting of the twenty-two respondents

Primary type of organic petrology work

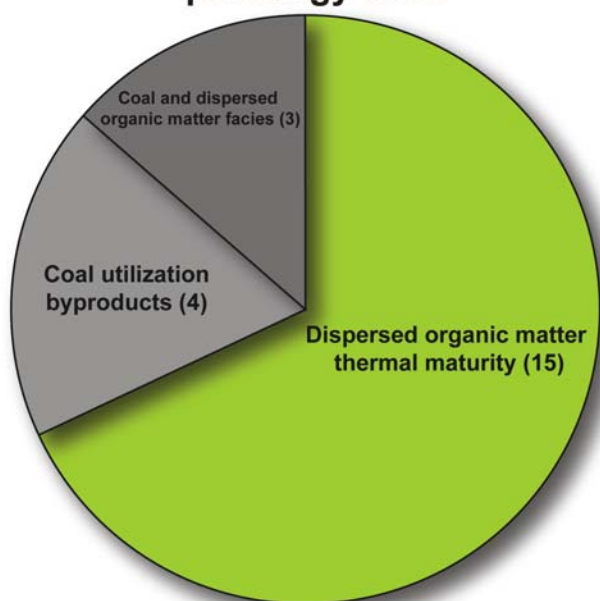


Figure 4. Primary type of organic petrology work conducted by the twenty-two respondents

Microscope and Measuring Conditions

The second portion of the 2009 questionnaire contained fifteen questions asking for information about the microscope equipment, measuring conditions, and laboratory protocols employed. This included sample preparation techniques, microscope make and vintage, filters, diaphragms, and illuminations. Responses indicated that Leitz-Leica and Zeiss research microscopes are the primary makes employed, while one respondent uses a Vickers reflectance system (Figure 5). Only three of the participating laboratories prepare kerogen concentrates when requested; most respondents utilize whole rock preparations. Most respondents indicated that non-polarized light is used with the occasional addition of a polarizer pre-sample to differentiate anisotropic materials. Two of the respondents always use polarized light and sometimes add an analyser post-sample. Five of the respondents have the 546 nm band pass filter located prior to the sample, whereas the rest have the filter located just prior to the photomultiplier. The ISO 7404-5:2009 (International Organization for Standardization, 2009) and ASTM D2798-09 (ASTM International, 2009) standards for coal vitrinite reflectance differ in the specified location of the band pass filter; ISO 7404-5:2009 specifies that the filter is to be placed just prior to the detector whereas ASTM 2798-09 indicates that the

filter can be placed anywhere between the lamp and the detector.

Respondents reported a wide variation in the size of the field diaphragm during instrument calibration and measurement, ranging from completely open to closed to the same size as the measuring aperture of the photomultiplier. This variation may be responsible in some part for measurement differences between laboratories, although, in theory, stray light reaching the photomultiplier from areas outside of the measuring aperture should not influence the measurement if the instrument is calibrated with the same size field diaphragm as used for measurement. Future exercises of this working group should look closely at whether differences between laboratories in the size of the field diaphragm during measurement significantly influence reported reflectance values.

Microscope Make

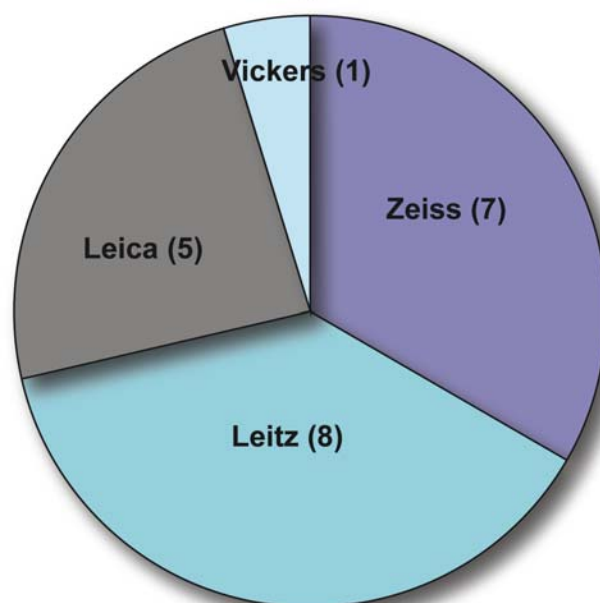


Figure 5. Microscope make employed by twenty-one respondents (one respondent did not indicate the make)

Most respondents reported that the reflectance system photomultiplier was recalibrated to standard for each separate sample analysed, or on a greater frequency basis. Only one respondent reported using a detector other than a photomultiplier, in this case, a digital camera. Only one respondent indicated that access to fluorescence illumination was not available in their laboratory, and nearly all respondents indicated that fluorescence was not employed during the course of a reflectance analysis; rather fluorescence characteristics are

observed with a dry objective prior to reflectance analysis.

Measurement, Interpretation, and Reporting

The third part of the questionnaire contained eighteen questions related to procedures and standards used for dispersed vitrinite reflectance analysis, the conventions and rules followed during measurement, and method of reporting used. Participants were invited to submit a typical example of a dispersed vitrinite reflectance analysis report from their laboratory as an example.

About one-half of the respondents reported that their laboratories typically attempt to follow the ASTM D2798-09 or ISO 7404-5:2009 standards for vitrinite reflectance of coal as closely as practical; the rest use an internal laboratory protocol, which presumably closely parallels the specifications written in the ASTM or ISO standards. However, all respondents indicated a deviation from the coal standards in the number of reflectance measurements collected per sample. Most respondents reported collecting 20-30 measurements per sample, with a maximum of 50, in contrast to the 100 measurements specified in the ASTM and ISO coal standards. About one-half of the respondents indicated that the reflectance of all organic materials in a sample was measured, and then reported with an interpreted identification of the material, i.e., the reflectance of vitrinite and any other organic materials present are measured and reported. The other one-half of the respondents indicated that only interpreted primary vitrinite is measured and reported. All petrographers make their interpreted identification based on the occurrence of dispersed organic matter in the microscope oculars, although about one-half of the respondents indicated that some vitrinite data was discarded after evaluation of the reflectance histogram. This subjective “shaping” of the reported reflectance histogram is another area for potential pitfalls in interlaboratory comparisons of dispersed organic matter vitrinite reflectance measurement. Clear rules should be established that describe outlier exclusion and other subjective shaping of the reflectance histogram.

Most petrographers reported that the presence of fluorescence and anomalies in downhole reflectance profiles were used to evaluate for the possibility of vitrinite suppression. However, all respondents indicated that corrections for

suppression were not routine and that other data are necessary for this case. All respondents agreed that the evaluation of other data such as obtained from Rock-Eval pyrolysis, total organic carbon content, spore colouration indices, elemental content, volatile matter, geochemical biomarkers, and geologic context are very useful in the interpretation of thermal maturity, and assist in the recognition of primary vitrinite.

Petrographers agreed that a consistent symbolization should be employed for the representation of random reflectance. However, the respondents were divided on what the symbol should be (Figure 6), with nominations for R_o followed closely by R_r .

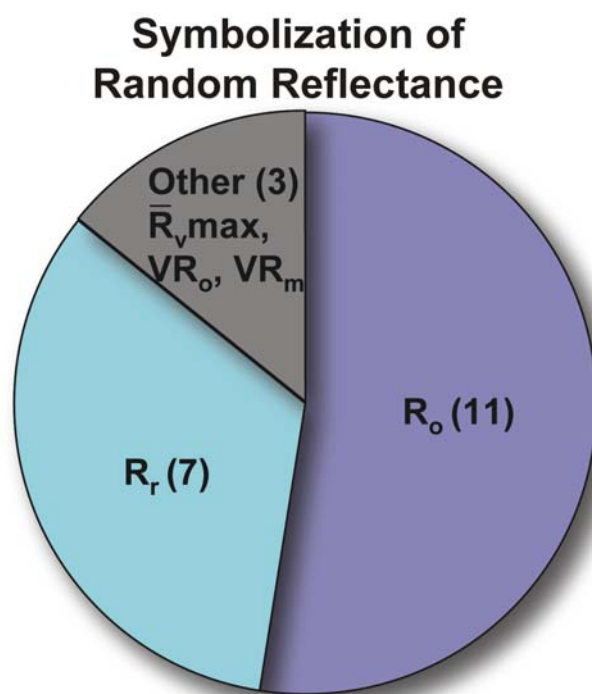


Figure 6. Preferred symbolization of the random reflectance of vitrinite dispersed in sedimentary rocks (one respondent did not reply to this question)

The concluding questions from the Measurement, Interpretation, and Reporting portion of the questionnaire asked respondents what they considered the biggest problem confronting petrographers measuring the reflectance of dispersed vitrinite, and the single-most important step to be taken in confronting that problem. Several different themes were noted in the replies but the overwhelming answer was rooted in the identification of primary vitrinite and its distinction from similar macerals. Other concerns included a

lack of access to supporting information and data related to the samples being analysed, or that lack of experience or the influence of a particular type of experience may misguide or influence the interpretation of reflectance values. Some respondents indicated that pressure to provide a vitrinite reflectance value to a customer or laboratory supervisor with certain expectations may unduly influence the outcome of an analysis, in particular in cases where vitrinite may be sparse or absent, or where the observed reflectance values simply were not in agreement with the predetermined expectations. Of lesser concern but still noted in the survey were problems related to the type of preparation, e.g., whole rock versus kerogen concentrate and the quality of sample polish, and problems related to the type of sample, e.g., cavings contamination present in cuttings, and mud additives.

Recognition of Primary Vitrinite

Primary vitrinite in shale is first cycle organic matter representing the coalified remains of woody plant material. In coal, the precursor woody plant material is largely autochthonous. In addition, vitrinite in coal is grossly homogeneous in bulk chemical composition and molecular arrangement; whereas vitrinite dispersed in sedimentary rocks is allochthonous and possibly representative of a large variety of precursor plant materials with differing original chemistries and structures. Therefore, primary vitrinite in shale is heterogeneous a priori. Despite this complexity, primary vitrinite in shale has some features which may help to distinguish it from similar macerals. Respondents were asked what features helped to distinguish primary indigenous vitrinite from bitumens, bituminite, recycled/oxidized vitrinite, and low reflecting semifusinite. The distinctions are compiled here.

Distinction from bitumens

In contrast to bitumen, vitrinite is not pore-filling or anastomosing, and is not typically embayed by authigenic minerals such as calcite that commonly form contemporaneously with bitumen deposition (Figure 7). However, vitrinite can be replaced by authigenic minerals and therefore textures indicative of embayment or mineral inclusion is not always diagnostic of bitumen. Vitrinite often is brighter at low rank, and thicker, with more distinct boundaries. Vitrinite does not exhibit mosaic

anisotropy, and may occur with other macerals, e.g., inertinite and liptinite. Bitumens can have certain distinguishing features which vitrinite lacks, including deposition in voids and in orientations normal to bedding. Bitumens frequently occur as droplets, and may dissolve in organic solvents. Finally, rock type, rank, and geologic occurrence may influence the analyst's expectations, e.g., it may be likely that bitumens are present if the sample occurs in proximity to a mature oil-prone source rock.

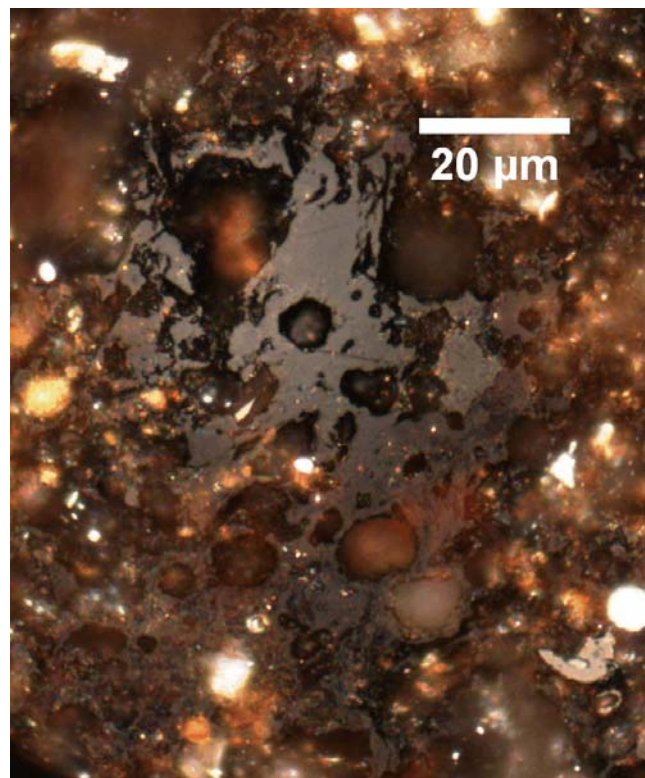


Figure 7. Generic examples of bitumen. Note anastomosing character around mineral grains and embayment by authigenic minerals. Oil immersion, reflected white light

Distinction from bituminite

Vitrinite is characterized by brighter reflectance than co-occurring bituminite, as well as lower fluorescence intensity (if fluorescence is present in vitrinite). Often vitrinite has more distinct boundaries and is more blocky and evenly coloured compared to bituminite, which is indistinct and wispy and usually speckled or unevenly coloured (Figure 8). The occurrence of bituminite in association with lamalginite and micrinite also is a distinguishing feature. Again, as with other macerals similar to vitrinite, rock type, rank, and geologic occurrence may help to distinguish bituminite from vitrinite. For instance, bituminite may be expected to occur in lacustrine or marine

settings whereas it is less frequently present in fluvial or similar proximal environments, where vitrinite may be expected to occur in greater abundance.



Figure 8. Generic examples of bituminite. Oil immersion, reflected white light

Distinction from recycled/oxidized vitrinite

Several characteristics help to distinguish primary indigenous vitrinite from recycled and/or oxidized vitrinite that may have undergone an additional cycle of burial, exhumation, and transportation. For instance, recycled vitrinite is brighter than co-occurring indigenous vitrinite, and less angular, due to the rounding of grain boundaries during transportation (Figure 9).

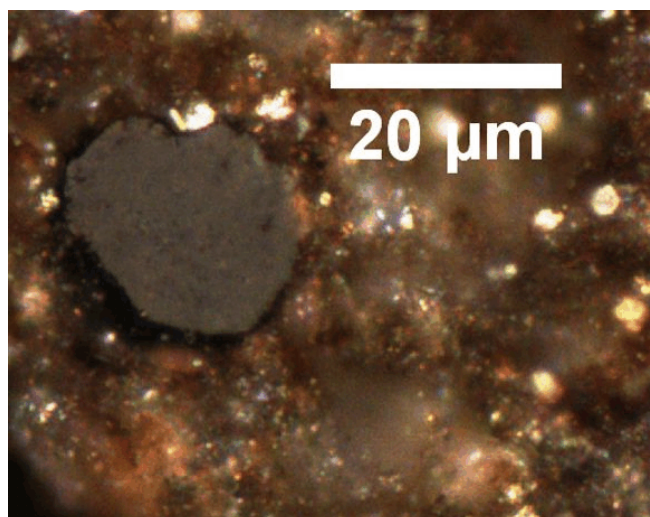


Figure 9. Recycled vitrinite with rounded grain margins. Oil immersion, reflected white light

Recycled vitrinite may have bright or dark halos, representing thermal oxidation (by fluids or wildfire), and weathering processes, respectively,

which are not present in the co-occurring indigenous vitrinite. Evaluation of the reflectance histogram may also help to distinguish recycled vitrinite which has higher variance of reflectance values, reflecting many possible sources and processes occurring during transportation. Finally, recycling of vitrinite may be anticipated from the geologic context, e.g., a higher proportion of recycled vitrinite may be expected in a catchment collecting sediments derived from a growing orogenic belt.

Distinction from low-reflecting semifusinite

Vitrinite also is commonly confused with low-reflecting semifusinite. However, vitrinite is not as bright, has lower relief, and is not usually as arcuate. Probably the most reliable distinguishing feature of low-reflecting semifusinite is the frequent presence of well-preserved cellular structure and/or open cell lumens (Figure 10). However, it is not unusual for cell lumens to also remain open in vitrinite when deposited in clay-rich sediments. Semifusinite usually has more distinct grain margins, whereas vitrinite has a more porous and textured surface. The use of cross-polarized light may also help to distinguish semifusinite which may have irregular anisotropy regions, i.e., mosaic anisotropy. Geologic context also is important; areas, climates, and time periods subjected to a higher frequency of moisture stress may have introduced a greater proportion of semifusinite into a given basin.

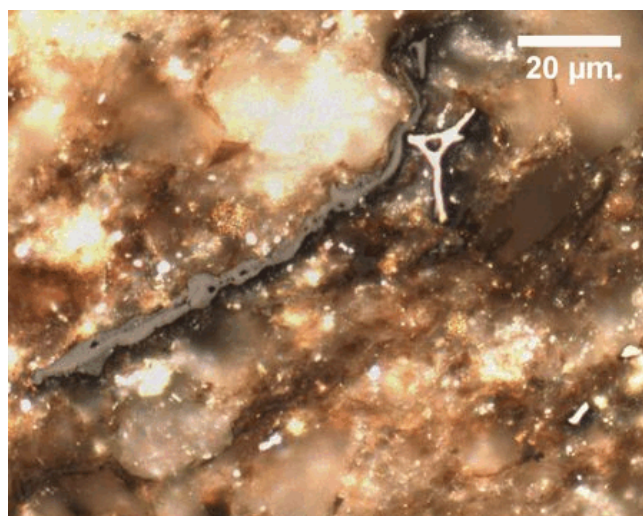


Figure 10. Low-reflecting semifusinite with arcuate margins and cellular structure. Oil immersion, reflected white light

Suggestions for Future Work

The questionnaire distributed in the 2009 exercise concluded with five questions asking about the future directions of the Identification of Primary Vitrinite in Shale working group. Suggestions ranged from creation of a consensus standard for dispersed vitrinite reflectance measurement (described in the next paragraph), to the formation of an ICCP training course for the analysis of dispersed organic matter. Other ideas included round robin exercises on samples and images in which the results should include labelled photographs of the fields chosen to measure along with the interpreted maceral identification. Another suggestion was to compile an online, open-access image atlas of problematic oil shales with the macerals labelled by ICCP consensus. This type of image database should include typical fields as well as atypical fields where identification is difficult, in addition to supporting data such as geochemical analyses.

The working group now is moving forward with the creation of a consensus standard for dispersed vitrinite reflectance analysis through ASTM. Ten participants in the 2009 working group exercise agreed to serve in committee to help with the development of the new standard (Table 2).

Table 2. Name and affiliation of committee members to develop a new ASTM standard for dispersed vitrinite reflectance analysis.

NAME	AFFILIATION
Carla Araujo	Petrobras, Brasil
Brian Cardott	Oklahoma Geological Survey, USA
Alan Cook	Keiraville Konsultants Pty. Ltd., Australia
Angeles Gómez Borrego	Instituto Nacional del Carbón, Spain
Paul Hackley - Chair	U.S. Geological Survey, Reston, Virginia, USA
Mária Hámor-Vidó	Geophysical Institute of Hungary, Hungary
Kees Kommeren	Shell International, The Netherlands
Charles Landis	Minerals End, Inc., The Woodlands, Texas, USA
João Graciano Mendonça Filho	Universidade Federal do Rio de Janeiro, Brasil

Jane Newman	Newman Energy Research, Ltd, Australia
Mark Pawlewicz	U.S. Geological Survey, Denver, Colorado, USA
Judith Potter	J.P. PetroGraphics, Canada
Isabel Suárez-Ruiz	Instituto Nacional del Carbón, Spain

The new standard has been registered as work item WK24192 with ASTM and was described in ASTM Standardization News (2009). The committee chair is working on a first draft which will soon be available to the committee via an online ASTM collaboration space or email. The new standard is entitled “Standard Test Method for Microscopical Determination of the Reflectance of Vitrinite Dispersed in Sedimentary Rocks.” The goals of the standard are to provide a consensus methodology for dispersed vitrinite reflectance analysis and to aid in the recognition and distinction of primary vitrinite by using a tabulated set of rules, e.g., the distinctions between vitrinite and similar organic materials presented in the preceding section of this report. Depending on the views of the committee, the standard may also include items such as: 1. the use of fluorescence illumination, 2. incorporation of or reference to supporting documents and data in the vitrinite reflectance report, and 3. an admission in the reflectance report that vitrinite reflectance data are not or may not be indicative of thermal maturity in some cases, among others. Participation in the standard development committee is open to all interested persons. To contribute, please contact Paul Hackley - <mailto:phackley@usgs.gov>

Acknowledgments

This contribution to ICCP News would not be possible without the substantial efforts of the members of the Identification of the Primary Vitrinite in Shale working group. Reviews by Cathy Enomoto and Harvey Belkin of the U.S. Geological Survey improved this report.

References

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International Organization for Standardization, 2009. Methods for the petrographic analysis of coals - Part 5: Method of determining microscopically the reflectance of vitrinite. International Organization for Standardization Standard 7404-5:2009, 14 p.

WG on Temporal Variation of Coal

Dear Reader

As you know, the ICCP has a WG on Temporal Variation of Coal who has collected up to now more than 9000 petrographic data from World Coals.

A control has been done on the accuracy of the data, by cross-checking with the literature, but there are still around 600 data that need to be controlled, but for which the convener (Lopo Vasconcelos) has no access.

So, if any one of you has the possibility of sending the literature below listed, we would appreciate very much. By email attachment is OK.

Thanks for your cooperation.

Regards

Lopo Vasconcelos

List of Literature Needed for Control

- Alpern, B. & Nahuys, J., Étude pétrographique et chimiques des charbons du Brésil. CR 5ème Congr. Internat. Stratig. Géol. Carbonif. (Paris, 9-12.09.63), 887-906, Vol. IV., 1963
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Hacquebard Medal

Awarded to Prof. Dr. Wolfgang Kalkreuth by Canadian Society for Coal Science and Organic Petrology



At the Joint 61st ICCP / 26th TSOP meeting held in Gramado, Brazil in September, the Canadian Society for Coal Science and Organic Petrology presented the Hacquebard Medal to Prof. Dr. W.D. Kalkreuth of the Federal University of Rio Grande do Sul in Porto Alegre, Brazil, and formerly of the Geological Survey of

Canada.

The Hacquebard Medal is the society's highest award, made to a member of CSCOP who has had a long and distinguished career in coal science and whose work in advancing coal science and organic petrology has been recognized both nationally and internationally. The award is in memory of Dr. Peter Hacquebard, a pioneer in coal geology and organic petrology in Canada. Peter came to Canada from the Netherlands and served a long and distinguished scientific career with the Geological

Survey of Canada. Most of those years were spent at the Atlantic Geoscience Centre in Halifax.

Wolfgang Kalkreuth is a very worthy recipient, who has made significant contributions to coal petrology and organic geochemistry in Canada and in several other countries during his highly productive research career.

Dr. Kalkreuth came to Canada from Germany after gaining an MSc in geology from the University of Berlin and a PhD in organic geochemistry from the University of Aachen. In 1989 he was awarded the Habilitation degree from the University of Berlin – the highest scientific award in European Academia and equivalent to a Doctorate of Science.

He joined the Geological Survey of Canada at the Institute of Sedimentary and Petroleum Geology in Calgary in 1980. During his 17 year tenure at the GSC he made a major contribution to coal geoscience, producing more than 130 research papers including more than 60 in refereed journals. His contributions cover a wide range of topics including, thermal maturation in the Rocky Mountain Foothills and Ranges, composition and depositional environments of Canadian coals, the characterization of Canadian oil shales, the alternative utilization of Canadian fossil fuels and the characterization of dispersed organic matter with new spectroscopic techniques.

Wolfgang has been very active in scientific societies. With ICCP he served as an officer of Commission 2 for 13 years between 1991 and 2003, first as Secretary and then as Chair of that Commission. During these years significant developments occurred in Commission II with the creation of new working groups on enhanced coalbed methane recovery and CO₂ storage, qualifying vitrinite for reflectance measurements in DOM, reactivation of the group on environmental application of organic petrology, and establishment of a working group in conjunction with TSOP to produce a classification of dispersed organic matter.

At TSOP he served as Councilor from 1986 to 1988 and as Vice President in 2005-06.

Dr. Kalkreuth has given time and inspiration to students in his role as an adjunct professor at both the University of Berlin and at Dalhousie University in eastern Canada and in a sabbatical year at the University of Cologne. That role continues as he has established a well-equipped and active research laboratory at UFRGS in Porto

Alegre and has several graduate students working with him on a range of projects. He has continued his active research role and has published at least 30 scientific papers and been the principal adviser to 7 graduate students since joining the faculty in 1996.

Previous recipients of the Hacquebard Medal are the late Dr. Alexander Cameron, Dr. Fari Goodarzi and Prof. Dr. Marc Bustin.

Moscow Power Engineering Institute
(Technical University)

IIIrd International Scientific and Practical Workshop



«Ashes From TPPs – Removal, Transport, Processing, Landfilling»

April 22-23, 2010

Moscow, Russia

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Order

Registration of the workshop participants

April 21, 2010, Wednesday

9.30 - 18.00; Krasnokazarmennaya str., 14,
building "ZH", room ZH-107

April 22, 2010, Thursday

8.30 - 9.20; Krasnokazarmennaya str., 14,
building "ZH", room ZH-107

Workshop activities

April 22, 2010, Thursday

9.30 — 10.00 opening ceremony

10.00 — 17.00 plenary sessions

17.00 18.00 discussion

April 23, 2010, Friday

9.00 — 16.00 plenary sessions

16.00 closing ceremony

April 24, 2010, Saturday

Departure of the workshop participants

Workshop location: Moscow, Energeticheskii
passage, 3-a, House of Culture of the MPEI

Organizing Committee:

phone/fax: +7 (495) 362-7912,

mail:PutilovVY@mail.ru

mailto:PutilovVY@ecopower.ru

Location of the Organizing Committee: MPEI, room ZH-107 (entrance from the end face of the building 14 from Krasnokazarmenny passage)

Workshop Topics

- influence of the international and national legislation on efficiency of solution of ash and slag problem;
- volumes and directions of utilization of ash and slag from TPPs in separate countries and international associations;
- use of ash and slag in building industry;
- use of ash and slag in agriculture;
- use of ash and slag at mining, primary and other industries;
- ash and slag properties and standardization;
- technologies of ash and slag removal and beneficiation of their properties;
- complex approach to increase in economic efficiency and ecological safety of TPPs and solution of ash and slag handling issues.

The 27th International Pittsburgh Coal Conference <http://www.engr.pitt.edu/pcc> will be held 11-14 October 2010 at the Istanbul Hilton, Istanbul, Turkey. Programs topics of interest, but not limited to, include Underground Coal Gasification, Coal Chemistry and Geoscience, Post-combustion Carbon Management, Coal-derived Products, and Sustainability and the Environment. Abstracts must be submitted by 1 March 2010. Please forward paper title, intended topic area, authors, affiliations, contact information with valid email address and a one-page abstract to the Conference Secretary <mailto:ipcc@pitt.edu>.

Answer to Know Your Coal Petrologist #39

Although only just admitted to ICCP Membership, **Carl Hilgers** has been a regular attendee at ICCP meetings - perhaps this is why he knows our habits only too well.

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For more information, contact the convenors of the programs.



Stavros Kalaitzidis tells us he turned 21 (again) during the Gramado meeting



There was plenty of work at Gramado ...



New friends to make....



but no time to play.... (Lago Negro, Gramado)

WHAT'S HAPPENING

21 - 14 April 2010

AAPG Annual Convention and Exhibition, New Orleans, Louisiana, USA.
<http://www.aapg.org/neworleans/>

22 - 23 April 2010

Ashes From TPPs – Removal, Transport, Processing, Landfilling, Moscow, Russia.

<http://www.ecopower.ru/index.php?newsid=60>
mailto:PutilovVY@mail.ru
mailto:PutilovVY@ecopower.ru

11 - 16 July 2010

The Annual World Conference on Carbon, Clemson, South Carolina, USA.
<http://www.carbon2010.org/>

12 - 15 Sept 2010

AAPG International Conference and Exhibition, Calgary, Canada.
<http://www.aapg.org/meetings/>

12 - 17 Sept 2010

TSOP, Denver, Colorado, USA.
<http://www.tsop.org/2010Denver/index.htm>

26 Sept - 2 Oct 2010

ICCP, Belgrade, Serbia.
Contact: Dragana Životic
mailto:sasa.international@sanu.ac.rs

11 - 15 Oct 2010

27th International Pittsburgh Coal Conference, Istanbul, Turkey.
<http://www.engr.pitt.edu/pcc>
mailto:ipcc@pitt.edu

10 - 13 April 2011

AAPG Annual Convention and Exhibition, Houston, Texas, USA.
<http://www.aapg.org/meetings/>

9 - 12 May 2011

World of Coal Ash, Denver, Colorado, USA.

<http://www.worldofcoalah.org/>

July 2011

TSOP Annual Meeting, Halifax, Canada.

<http://www.tsop.org/annmtg.htm>

24 - 29 July 2011

Carbon 2011, Shanghai, China.

<http://www.american carbonsociety.org/calendar.html>

Planned Future ICCP Meetings

2011 Porto, Portugal

2012 Beijing, P.R. China (joint TSOP)

ICCP Publications and Training Materials

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Orders to

Dr Peter Crosdale

ICCP Editor

PO Box 54, Coorparoo, Qld 415, Australia

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ICCP Handbook

- ★ *International Handbook of Coal Petrography 2nd Edition (1963)* (in English) as CD ROM
PC and Mac Compatible
Requires Adobe Acrobat Reader Ver. 4 or above
ICCP / TSOP member - **20€**(including postage)
ICCP non-member - **40€**(including postage)

- ★ *International Handbook of Coal Petrography, supplement to the 2nd edition*, second print (in English) 1985 - **24€**

- ★ *International Handbook of Coal Petrography, 2nd supplement to the 2nd edition* (in English) 1986 - **8€**

- ★ *International Handbook of Coal Petrography, 3rd supplement to the 2nd edition* (in English) 1993 - **16€**

Prices do not include shipping unless stated or cost of money transfer.

Atlas of Anthropogenic Particles

A digital atlas of anthropogenic particles largely derived from fossil fuel sources. The atlas contains 543 images grouped by source and by site of occurrence. For details, see ICCP News No. 39, November 2006 pp 55 - 56.

Cost: **16€**including postage

ICCP Training Material on Vitrinite Reflectance Measurements in Dispersed Organic Matter

A CD and set of 4 polished grain mounts to be used as training material for learning about the appearance of dispersed vitrinite in rocks and about the measurement of its reflectance. Only a limited number of grain mounts are available. CDs can be purchased separately. For details, see ICCP News No. 39, November 2006 pp 53 - 54.

Cost:

CD + polished sample set **40€**including postage (ICCP / TSOP member)

CD + polished sample set **120€**including postage (non-members)

CD only **16€**

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The set contains two polished blocks with samples from Posidonia and Irati shales and the excel sheet with the results of the round robin exercises performed on these samples.

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