

# COKE

# 62nd ICCP Meeting - Belgrade





ar

Republic of Serbia, Ministry of Science and Technological Development

Republic of Serbia, Ministry of Environment and Spatial Planning

Serbian Academy of

Sciences and Arts (SASA)



University of Belgrade, Faculty of Mining and Geology



### **ICCP** News

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

President (2007 - 2011) Dr Petra David TNO Built Environment and Geosciences Division of Geo-energy P.O. Box 80015 3508 TA Utrecht THE NETHERLANDS Ph. +31 30 256 4648 Fax +31 30 256 4605 mailto:petra.david@tno.nl





Commission II Chair (2008 - 2012) M.Sc. Carla Araujo mailto:carla@petrobras.com.br



Commission II Secretary (2009 - 2013) Mr Paul Hackley mailto:phackley@usgs.gov



Vice-president (2003-2011) Prof. Dr. Lopo Vasconcelos mailto:lopovasconcelos@gmail.com



Treasurer (2007 - 2011) Ms Jennifer Pearson mailto:jen@coalpetrography.com



**Commission I Chair** (2008 - 2012) Dr Deolinda Flores mailto:dflores@fc.up.pt



General Secretary (2008 - 2012) Dr M. Ángeles Gómez Borrego mailto:angeles@incar.csic.es



Editor (2000 - 2012) Dr Peter J. Crosdale mailto:peter.crosdale@energyrc.com.au



Commission I Secretary (2008 - 2012) Dr Stavros Kalaitzidis mailto:stkalaitzidis@gmail.com



Commission III Chair (2007 - 2015) Dr Isabel Suárez-Ruiz mailto:isruiz@incar.csic.es



Commission III Secretary (2004 - 2012) Dr Georgeta Predeanu mailto:gpredeanu@metal.icem.ro

mailta: alanaaa le@azamail aam ay

#### Past President

DI. Alan C. Cook manto.alanceook@ozeman.com.au
Returning Officer
Harold Smith mailto:a.h.smith@sheffield.ac.uk
Reinhardt Thiessen Award Committee
Contact General Secretary mailto:angeles@incar.csic.es
Organic Petrology Award Committee
Contact General Secretary mailto:angeles@incar.csic.es
Webmaster (http://www.iccop.org)
Dirk Prinz mailto:prinz@lek.rwth-aachen.de
Archives
Faculdade de Ciências, Universidade do Porto
Dr Deolinda Flores mailto:dflores@fc.up.pt
U II

#### **Membership Enquiries**

# From the Editor

Well, what an excellent meeting in Belgrade. Marco, Dragana, Alexandar and all of the people behind the scenes are to be congratulated. A great experience for all, and not just the scientific programme. Belgrade was a surprising city with much to recommend it. Also surprising was the ability to actually not just look at the coals from afar but also to touch them and see them up close in their natural environment. Such opportunities are now most rare in the world. Seeing the coals as they exist *in situ* is a stark reminder of how little we really do know about them despite all of the years of intensive research - there is always something new to surprise us.

I must apologies for the lateness of this edition of the ICCP News. However, as we are now entering the holiday season (at least in Australia) I hope that the newsletter will provide some scientific relief amongst all of the mundane frivolities! As usual, you will find a lot has been said in the commission meetings. It is also really pleasing to see the success of the ICCP Training Courses - successful enough to have two different themes in 2011 with the addition of the dispersed organic matter course. It is clear that such work is an integral part of ICCP activities and I hope it continues long in to the future.

With best wishes for 2011

Peter



# From the President

Dear colleagues,

This is issue of the ICCP News contains a lot of information on the information and discussions from the last meeting in Belgrade. The meeting again was a very productive one, with a lot of progress in many working groups, as you can read in the minutes. The excellent organisation and wonderful social program showed the personal commitment and enthusiasm of Marko, Dragana, Aleanxdr and their team to make participants feel comfortable and at the meeting successful.

Of course there were many interesting results of the working groups and they were presented in a professional manner. What occurred to me though was that compared to my early times at ICCP meetings there was only little discussion in a number of cases, which I find is a pity. As ICCP is structured in working groups that work during the year, the meeting gives opportunity to members to discuss the results and give input to further work.

I would like to encourage members to take the chance to discuss and exchange their views on petrographic issues at the annual meetings more intensively. One of the ways to stimulate discussion is to ask the participants of the working groups prior to his presentation about their ideas and findings as done this year in one of the working groups. I am sure there a many other ways and I am curious to hear your ideas.

Wishing you all the best for a healthy and successful New Year 2011

With best regards Petra David ICCP President mailto:petra.david@tno.nl

# From the General Secretary

The ICCP website is an excellent support for the work of the working groups because it allows different options for accessibility: Certain material can be accessed only by members of the working groups (if documents, images or whatever for exchange is required); Preliminary reports can be made available for the membership, including most of the material presented at the meetings to give a better idea of the advances and the activities developed during the year; More elaborated reports can be made more widely available in the open section of the ICCP website and in the ICCP News. This year the website also offered information about the new developments regarding the organization of the 62<sup>nd</sup> forthcoming meeting and we thank the organizers for using this way to communicate with the membership. Since last October when members were provided with usernames and passwords, every ICCP member can have access to different restricted areas of the website and therefore all the options can be now exploited in full. Please remember that the ICCP website is your site and it is to serve you as vehicle for communication.

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

# A Note From Monika Wolf

Dear colleagues and friends!

After the ICCP meeting in Beograd - which seems to me was a very successful and delightful one - I got a very nice postcard, signed by several old friends. Since I am not able to write to everybody of you to give my sincere thanks, I take this way to thank all of you cordially. It is very pleasant to see that I am not forgotten by you after the long period of my last presence during a meeting. Best wishes for you all,

> Monika Wolf Krefeld 14/11/2010

# **ICCP** Training Courses

Dear ICCP Members,

As you know, after the Oviedo Meeting in 2008, ICCP decided to go ahead with training courses in Organic Petrology under the coordination of the Vice-President, and convened by Nikki Wagner from South Africa.

Following this decision, two courses were organized in Potsdam, Germany, at the GFZ-Potsdam, with great success, under the orientation of two famous coal petrologists: Prof Claus Diessel and Dr. Alan Cook.

A report on these two has been prepared and presented to the last Annual Meeting in Belgrade, Serbia, and published ahead in this newsletter, with lots of recommendations and suggestions from the participants and the teachers.

In Belgrade, two proposals for future courses were presented:

- A) one by Nikki Wagner (South Africa) to offer a course in Johannesburg on Coal Petrology with a Gondwana flavor, to be held middle 2011;
- B) one by Deolinda Flores (Portugal) to offer a course in Porto, Portugal, on Dispersed Organic Matter, associated with the 63rd Annual Meeting of the ICCP.

Both proposals were accepted and approved during the General Assembly. This proves the importance of these courses and the positive impact they are having amongst our community.

Details on the organization will be posted in the ICCP website.

We count on you all to spread wide the news and do some marketing to contribute to the success of the courses.

> Maputo, 20th October, 2010. Lopo Vasconcelos Training Courses' Coordinator

# Know Your Coal Petrologist #44



Who are these illustrious gentlemen in a fairly animated conversation? Answer Page 59

# Minutes of the 62<sup>nd</sup> ICCP Meeting Belgrade, Serbia September 26<sup>th</sup> – October 2<sup>nd</sup>, 2010

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

#### **GENERAL COURSE OF THE MEETING**

The 62<sup>nd</sup> meeting of the ICCP took place in Belgrade (Serbia) from 26<sup>th</sup> September to the 2<sup>nd</sup> October 2010. The chair of the organizing committee was Marko Ercegovac, Academician of the Serbian Academy of Sciences and Honorary member of the ICCP. The organizative tasks were shared with Dragana Životić and Alexandar Kostić also members of the ICCP and colleagues of the Faculty of Mining and Geology, Faculty of chemistry and Faculty of Mechanical Engineering of Belgrade University and NAFTAGAS (Petroleum Industry of Serbia).

The activities started on Sunday 26<sup>th</sup> at 13:00 h with the Council Meeting in the Ethnographic museum. The sessions of the Meeting were held in the impressive Main Hall of the Serbian Academy of Science and Arts (SASA) decorated with beautiful stained glass windows. The activities initiated 27th of September at 09:00 h with the warm welcome words of the Chair of the Organising Committee, Dr. Marco Ercegovac, who reviewed his long experience as ICCP member and the ICCP activities linked to Serbia and Yugoslavia. The opening remarks were followed by key note lecture presented by Alexandar Kostić entitled the Fossil Fuels of Serbia. The very interesting presentation gave us an overview of the main fossil fuel resources in Serbia and the work over the years of the Faculty of Mining and Geology on this issue.

After the coffee break, the first Plenary Session opened with the President Petra David in the Chair. A preliminary schedule for the meetings of the General Assembly of the ICCP in Plenary session was published in the ICCP News #50. The schedule was slightly modified to postpone some topics not treated in the first Council Meeting and to include some relevant topics. The schedule for the Meetings of the General Assembly in the 62<sup>nd</sup> ICCP Meeting was as follows:

- 1. Apologies for Non-attendance
- 2. Minutes of Previous Meeting
- 3. Arrangements for Belgrade Meeting
- 4. Future Meetings
- 5. Membership
- 6. Elections
- 7. ICCP Status Registration
- 8. Revision of Statues
- 9. ICCP Training Activities
- 10. Financial matters
- 11. Editor's Report
- 12. ICCP Accreditation program
- 13. Website
- 14. New Handbook
- 15. ICCS&T2011
- 16. Awards
- 17. Presentation by the TSOP president
- 18. Short reports from the Commission Meetings
- 19. Short report from the Council Meeting
- 20. Arrangements for 2011 Meeting
- 21. Others

Topics 7 and 8 initially scheduled for the Opening Plenary Session were postponed and topics 14 to 24 were dealt with in the Closing Plenary Session

#### 1. APOLOGIES AND OTHER ATTENDANCE MATTERS

Paul Hackley, USA; Diego Alvarez, Spain; Helmut Jacob, Germany; Rosa Menéndez, Spain; Pascal Semkiwa, Tanzania; Monika Wolf, Germany; Cortland Eble, USA; Ricky Pinheiro, South Africa; Manuela Marques, Portugal; Angelika Vieth, Germany; A. Harold Smith, UK; Javier G. Prado, Spain; Cristina Rodrigues, Portugal; Noé Piedad Sánchez, Mexico; Wolfgang Kalkreuth, Brazil; Andreas Iordanidis, Greece; Costel Nedelcu, Romania; Werner Hiltmann, Germany

As the Secretary of Commission II was unable to attend the Meeting Mária Hamor-Vidó was

appointed to act as Secretary of Commission II and she kindly accepted.

#### **2.** MINUTES OF THE GRAMADO MEETING

The President asked the Plenary Session for confirmation of the minutes of the 61<sup>st</sup> ICCP Meeting held in Gramado, Brazil, as published in the ICCP News #48, which were approved as an accurate record of the meeting.

#### 3. ARRANGEMENTS FOR BELGRADE MEETING

The arrangements for Belgrade Meeting were presented by Dragana Zivotić.

#### **4. FUTURE MEETINGS**

#### 2011 - Porto, Portugal

The 63<sup>rd</sup> ICCP meeting will be held from 11-17 September 2011 at the Department of Geology in the Campo Alegre pole of the University. A presentation was made by the Chair of the Organizing Committee at the Closing Plenary Session.

#### 2012 - Beijing, China

No further information has been received regarding the organization of the 2012 ICCP Meeting from Prof. Jin. ICCP and TSOP have agreed to hold separate meetings which will be connected by a 2 days joined field trip. More detailed information will become available in the next year.

#### 2013 - Sosnowiek, Poland

An invitation was received and accepted from Magda Misz-Kennan to organize the 65<sup>th</sup> ICCP Meeting in Sosnowiek. It will be a meeting organized in connection with TSOP having a common field trip and separate time for the respective sessions. Magda made a presentation on the proposed structure of the meeting and the facilities available.

#### 2015 - Tete, Mozambique

An invitation was received and accepted from Lopo Vasconcelos to organize the 67<sup>th</sup> ICCP Meeting in Tete, Mozambique. Lopo made a presentation showing the area and location of the meeting to encourage attendance of participants.

#### **5. Membership Matters**

Four applications for Associate membership have been received during the year. All applications were recommended for acceptance and have been approved by the General Assembly. Two members have resigned.

#### 5.1 Associate membership

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

Ms. Malgorzata Piechaczeks (A 1, 2) Poland (already introduced in Newsletter #50)

Ms. Elena Karmazina (A 1, 2, 3) Australia (already introduced in Newsletter #50)

- Ms. Lauren Johnson (A 1, 3) Australia
- Dr. Maria Eugenia Cisternas (A 2) Chile

A short introduction of the new associate members based on their applications and CV's 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 two members which have not previously introduced is given in Appendix 3.

#### 5.2 Honorary Membership

The following Members were awarded with Honorary Membership of ICCP in 2010.

Dr. Paul C. Lyons, USA Prof. Dr. Ing. Cornelia Panaitescu, Romania

Cornelia attended the meeting thanked the ICCP for this honour.



Honorary Member Dr Paul Lyons



Prof. Dr. Ing. Cornelia Panaitescu receives her certificate of Honorary Membership from Prof. Dr Marco Ercegovac (left), ICCP Genreral Secretary Dr Ángeles Gómez Borrego and ICCP President, Dr Petra David (right)

#### 5.3 Resignations

The following members submitted resignations during the year:

Jim C. Hower, US Trudie Brittz, South Africa

#### 5.4 Expiring Membership

Five members have lost their membership during the year 2010 (last year paid 2007).

#### 5.5 Other Losses

A member of the ICCP attending regularly the meetings until last year and a colleague who belonged for many years to our Institution passed away during the year:

- Dr. John M. Vleeskens (H 3). In Memoriam by B. Kwiecinska (ICCP News #49), Memory images ICCP News #50).
- Professor Dr hab. ing. Wiesław Gabzdyl. In Memoriam by B. Kwiecinska (ICCP News #50).

#### **6.** ELECTIONS

No elections were held in 2010. The audience was informed that during the year 2011 the positions of President, Vice-president, Chair of Commission III and Honorary treasurer can be renovated. Information was provided about the procedures for proposing candidates and the audience was invited to think about suitable candidates for the positions which were proposed at the closing plenary session of the General Assembly. **Candidates for President:** Council proposed Petra David as candidate for a second turn as president of the ICCP and she accepted to run for election. Wolfgang Kalkreuth was proposed as candidate from the floor. Over 30 % of the full members present in the audience supported his nomination. As the candidate was not present at the meeting, the candidature was pendant from confirmation. General Secretary contacted the candidate after the meeting who accepted to run for election for President of the ICCP thanking members for the support.

**Candidates for Vice-president:** Council proposed Peter Crosdale and Walter Pickel as candidates for Vice-president and both accepted the nomination. Henrik Petersen was proposed from the floor, the nomination being supported by over 30% of the full members in the audience. The candidate accepted the nomination and therefore elections will take place between the three candidates.

**Candidates for Chair of Commission III:** Council proposed Isabel Suárez-Ruiz as candidate for Chair of Commission III. No other candidates were suggested from the floor and therefore she was automatically elected the turn starting at the end of the next ICCP Meeting.

**Candidates for Honorary Treasurer:** This position has a different wording in terms of elections according with the statutes and Jennifer Pearson was confirmed as Honorary Treasurer for a period of 4 years.

#### 7. REGISTRATION OF ICCP

The vote following the Patras meeting was in favour of ICCP becoming a formal organization either by registration in its own right or affiliation with an existing scientific organization. In accordance with Resolution ICCPC05/12/5 submissions were sought relating to Registration.

Proposals and information were received as follows:

- Alan Cook Australia
- Jen Pearson Canada
- Kimon Christanis Greece
- Deolinda Flores Portugal
- Ángeles Gómez Borrego Spain.

In general all the Countries have the possibility of having non-profitable organizations legally registered. This is overall an easy procedure used by scientific, professional, free time and many other types of organization but the specific rules of each country have to be followed.

Resolved ICCPC08/12/1. Council requests advice from the General Secretary about the status of the voting papers to allow all members to make a choice for the registration location based on the data provided for various localities.

The preparation of a single table compiling the requirements and costs of the different jurisdictions resulted to be a difficult task. Efforts were done during the year to homogenize the information to be provided to members. When the different persons providing information from their respective countries requested further details on the procedures, some specificities appeared. The countries having more similar requirements for registration were *Australia ASIC (QLD), Canada (BC) and Spain* and Council resolved to limit the choices to these three jurisdictions *(Resolution ICCPC10/12/1).* 

Although the previous vote from all members is in favour of registration, the same question if *"ICCP should become a registered organization"* will be again put to the Full Members because registration would require a change in the Statutes. Additionally Full members will be asked in

Additionally Full members will be asked in which of described jurisdictions ICCP should register.

#### 8. REVISION OF THE STATUTES

This topic was not discussed but audience was informed that during the year the Vice-President performed a compilation of previous contributions to the statutes, which will be discussed also in the light of the requirements of the jurisdiction voted for registration if the final vote is in favour of formal registration of the ICCP.

#### 9. ICCP TRAINING ACTIVITIES

Lopo Vasconcelos, coordinator of the ICCP training activities, presented the main developments during the year regarding the training activities of the ICCP. Since the last meeting in Gramado two training courses took place. A comprehensive

report comparing the two courses was provided, including attendance, degree of satisfaction and broad economic information. The report is available in the website. The second course had a lower number of attendants, the global economic crisis being identified as one of the reasons preventing participation.

#### **10. FINANCIAL MATTERS**

The Honorary Treasurer presented the report of the 2010 economic affairs which is shown as Appendix 4. Accounts are in good shape and allowed the support of some loses in the initial training activities.

#### **11. EDITOR'S REPORT**

The Editor presented a summary of the 2010 report which is shown in Appendix 5. 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 2010. This can be considered a transition year because no round was finalized at the time of reporting. The SCAP results were already received by participants and were to be evaluated short after the meeting. The DOMVR samples will be also distributed after the meeting and CBAP would initiate its activities by the end of the year. Deolinda presented a detailed report of the evolution of participation in the different programs, which increased compared to the previous round and as well as the proportion of participants in multiple programs.

The Accreditation Sub-committee held a meeting on Tuesday after the daily sessions which was attended by the organizers of the three Accreditation Pprograms (Kimon Christanis for the SCAP; Alan Cook for the DOMVR; Isabel Suárez-Ruiz for the CBAP), the Accreditation Subcommittee (Deolinda Flores, Chair and representative from Commission I; Carla Araújo-representative from Commission II; Georgeta Predeanu-Representative from Commission III and; Kees Kommeren-External expert), Jen Pearson (The Honorary Treasurer), Paddy Ranansinghe (who has created the three programs in Access 2003), Petra David (ICCP President) and Ángeles G. Borrego (past Chair of the Accreditation Subcommittee). The meeting focused on the discussion of some managerial aspects in order to improve the performance of the program. Proposals for improvement include implementation of online registration and facilities to provided updated information about registration for the organizers.

An additional meeting took place in relation to Accreditation after the session on Monday involving the participants in DOMVR program attending the Belgrade Meeting. The results of the last exercise were discussed.

#### **13. WEBSITE**

The General Secretary presented to the plenary the main progress regarding the ICCP webpage during the year. The main advances in the webpage updating during the year have been:

- i) offering information about the 62nd ICCP Meeting Belgrade, Serbia;
- ii) Providing members with usernames and passwords;
- iii) Uploading Newsletter #48, #49 and #50;
- iv) announcement of the 2010 ICCP Training Activities and updating information including report of the first training course;
- v) announcement of the 2010-2011 ICCP Accreditation Round;
- vi) Implementation of a subpage with information about the ICCP Archives;
- vii) making available the information about the ICCP fees structure and the application form for becoming ICCP Member;
- viii) information about institutional members with logo is provided;
- ix) a sub-page "Information to members" has been implemented available for members upon login containing open letters to the membership;
- x) Updating of information from the working groups in different Commissions.

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.

#### **14. NEW HANDBOOK**

The developments of the New Handbook were treated in detail during Commission I meeting and were not dealt with in the Plenary Session.

#### 15. ICCS&T 2011

A presentation was made by Ángeles G. Borrego, chair of the Scientific Program of the International Conference for Coal Science and Technology 2011 which will be held in Oviedo from 9<sup>th</sup> to 13<sup>th</sup> October, 2011. Papers on any topic related with coal science and technology are welcome at the conference with an specific topic on coal and organic petrology. Further information can be found at http://www.iccst.info

#### **16.** AWARDS

Council prepared guidelines to better define the merits for being awarded with any of the distinctions of the ICCP.

#### 16.1 Thiessen Medal Award

Membership of ICCP is, of itself, not considered a merit for the award but outstanding contributions to the work of ICCP would be taken into account. *Aspects to consider include:* 

- Significant contribution to the advancement of any branch of organic petrology on either fundamental or applied studies (or both) and consideration should be given to publications in any language.
- Contribution to the utilization of petrographic studies relating to industrial activities
- Contribution to training, education and dissemination of organic petrology science, including establishment of organic petrology laboratories in countries with less tradition in organic petrology.
- Contribution to positioning organic petrology within other branches of science
- · For a Candidate having already received the

Organic Petrology Award (OPA) it is necessary for the supporters of the nomination to be able to demonstrate a substantial body (corpus) of additional work beyond that achieved at the time of the OPA. The draft laudation has to demonstrate the additional work

**16.2 Organic Petrology Award** Membership of ICCP is, of itself, not considered a merit for the award but outstanding contributions to the work of ICCP would be taken into account. Aspects to consider include:

- Publications and/or scientific or technical reports dealing with any branch of organic petrology on both fundamental and applied studies (consideration should be given to publications in any language)
- Application of organic petrographic techniques to the industry
- Advances in analytical procedures used in organic petrology.
- The award is restricted to candidates below 50.
- Indented

#### 16.3 Composition of the Award Committees

Contacts have been made to ensure the completeness of the Awards Committees

- Thiessen Medal Award:
  - Last five Awardees that indented willingness to be on the Committee again
- Organic Petrology Award Committee
  - 3 Awardees
  - 2 last Thiessen Awardees

#### 16.4 Check list for ICCP Awards

A check list has been prepared for the awards that should be completed by the corresponding Award Committee. The questions to be answered are:

- How many candidates for Award?
- External referees?
- Reports received? yes/no
- Recommendations received yes/no number?
- Was the selection unanimous?

For applicant to provide

- CV
- Supporting letters (optional)
- 5 most relevant presentations (pdf)

Notes: Nomination should be kept confidential. The draft laudation will not only name achievements, but will explain why the

achievements are important also by forwarding supporting information for the evaluation of the nomination

#### 16.5 Honorary Membership of the ICCP

There was not a formal description of the profile of ICCP members to become Honorary Members of the ICCP. Better guidelines have also been provided for this award.

Honorary Membership of the ICCP acknowledges relevant contributions of ICCP Members to the development and progress of the institution manifested in any or all:

- Attendance to meetings and participation in the working groups.
- Leading activities within the ICCP
- Relevant and outstanding contributions to the acknowledgement of the Institution by third parties.
- Serving as Officer in the Institution
- It would normally be expected to be member for 25 years

#### **17. PRESENTATION OF TSOP PRESIDENT**

Hamed Sanei, President of The Society for Organic Petrology (TSOP), made a presentation of the main developments occurring at the last TSOP meeting in Denver encouraging the co-operation between both institutions

#### **18. REPORT FROM THE COMMISSION** MEETINGS

Reports of the meetings of the Commissions were presented during the Closing Plenary Session on Thursday, 30<sup>th</sup> 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.

#### **19. REPORT FROM THE COUNCIL MEETINGS**

The minutes of the Council Meetings comprising the resolutions which were adopted at the Meeting are given as Appendix 6. Most of the issues discussed were presented to the General Assembly in their respective topics.

#### **20.** Arrangements for **2011** Meeting

Deolinda Flores, Chair of the 63<sup>rd</sup> Meeting of the ICCP, presented the activities programmed for the next ICCP meeting to be held in Porto from 10<sup>th</sup> to 16<sup>th</sup> September, 2011. The meeting will be organized by the Department of Geosciences of the University of Porto at the Campo Alegre Pole. The meeting will comprise one day Symposium on 16<sup>th</sup> and one-and-a-half day excursion to the Peniche Basin (Lower Jurassic) prior to the meeting starting on Saturday 10<sup>th</sup> in the afternoon. The excursion will also comprise a visit to the truistic place Óbidos. Prior to the meeting, a 3 day ICCP course will take place dealing with Organic Petrology of Dispersed Organic Matter. Further information will be provided through the ICCP webpage and in the next ICCP News (*Ed. Note:* this issue, page 55).

#### **21. OTHER**

The Closing Plenary session of the ICCP General Assembly finished thanking Marko Ercegovac, Dragana Životić and Alexandar Kostić and all the other members of the organizing committee (Marija Martinović, Martina Laskač, Branka Popović, Zoran Gajić, Nenad Grujić, Dragana Trajković, Mira Đorđević, Čarkić Snežanafor) for a perfectly organized meeting in which they took any action to meet our needs. The meeting run smoothly throughout the week.

#### SOCIAL PROGRAMME AND FIELD TRIP

The ice-break party was celebrated at the Entrance Hall of the Ethnographic museum at 19:00 and gave participants the opportunity to meet each other in a very friendly environment and enjoy our hosts hospitality.

Every day three plates warm lunch was served at the Serbian Academy of Science where we had the

chance to taste over the week different Serbian plates. The lunch was very efficiently served to be completed in the time allocated for lunch break.

The Conference Dinner celebrated on Thursday 30<sup>th</sup> September at the AERO KLUB of Belgrade. This was also a very nice building from the beginning of the last century and before coming into the dining room drinks were served for welcoming the members. Different specialities of delicious Serbian food were served accompanied by wine. The dinner was accompanied by the accords of a very good orchestra and a regional dancing group was showing a complete repertory of dances from different regions of Serbia. After the dinner Dragana and Stavros were showing us how to dance some of the Serbian traditional music and the lessons were very efficient because most of the attendants were participating in the dancing. All the places where meeting activities were celebrated were located downtown at walking distance also from the hotels.

The excursion on 2<sup>nd</sup> October was organised to visit the Drmno Depression with petroleum and coal deposits and the Viminacium Archaeological Site.

# Fieldtrip to Drmno Mine (Kostolac Basin) and Viminacium Archaeological Site.

We left Belgrade by Bus at 8:30 in the morning and drove to the first stop, the Electric Power Industry in Kostolac. There we received a general outline of the mining characteristics of the Upper Miocene coal seams and production of coal in the Kostolac and we were offered a breakfast including schnapps.

The next stop was the Drmno open pit mine. The Drmno field is the easternmost part of the Kostolac Coal Deposits. The Upper Miocene (Upper Pontian) sediments consist of three main coal seams of variable thickness throughout the basin. The seam III (lowermost) and seam II (intermediate) are exploited at the Drmno Mine. Lignites from the basin have a high moisture content (46% in average), moderate ash content (16% in average) and low sulphur content (0.5-2.5% in average). The coals are huminite-rich coals with inertinite and liptinite typically maintained below 10% each. Before coming to the exploitation front to touch the coal a stop was performed to get a general view of the mine from which the different seams could be observed. Then we moved nearby the coal seam to take samples

and observed the characteristics of the seam.

Leaving the Drmno Mine we made an additional stop to see Vika's skeleton, a female mammoth, dating 5 million years before present, which is among the oldest in the world. It is preserved *in situ* and it belongs to 60 year old female of 4.5 m height, 5 m length and 10 t weight.

The visit to Viminacium Archaeological site consisted of two stops: one of them at the mausoleum and the other one at the Thermae. The ancient city of Viminacium was the capital of the *Moesia Prima* Province and the military camp was the place where the *Legion VII Claudia Pia Fidelis* was stationed. The richness of the archaeological site is vast and very unique and an ambitious project titled ITINERARIUM ROMANUM SERBIAE is under development to put in value and preserve the Roman heritage. At the moment very well preserved paintings of high quality can be observed in the Mausoleum and the complete structure of the Roman baths have been excavated. The remnants of the entrance gate (Porta Pretoria) of the fortification with massive tiling, cistern and lavishly decorated architectural elements was also visited. Lunch was served at the Viminacium Scientific-Research Center (Domus Scientiarum), where delicious Serbian food in Roman Cutlery was served. Participants also had the opportunity to dress themselves in Roman fashion leaving imagination to fly. After the exciting visit and the delicious meal we returned back to Belgrade.

#### **SUMMARY OF APPENDICES**

Appendix 1		of	the Commission
	Meetings		
Appendix 2	List of part	ticipai	nts
Appendix 3	New Mem	bers	
Appendix 4	Treasurer		
Appendix 5	Editor		
Appendix 6	Council		

Minutes of the 62<sup>nd</sup> Meeting of the International Committee for Coal and Organic Petrology (ICCP) September 26<sup>th</sup> – October 2<sup>nd</sup> 2010, Belgrade, Serbia

# **Appendix 1 - Commission Minutes**

#### **Minutes of Commission I**

General Coal and Organic Petrology 62<sup>nd</sup> ICCP Meeting Belgrade 29<sup>th</sup> and 30<sup>th</sup> September, 2010 *Chair: Dr. Deolinda Flores* Secretary: Dr. Stavros Kalaitzidis

#### **Opening remarks**

The commission I meeting was held on Wednesday afternoon and Thursday morning and attended by 34 and 32 members, respectively. The Chair outlined the programme for the sessions and presented a short overview of the Commission's activities during the last year, including a short report for the Working Groups of Degradinite and Temporal Variations of Coals, which have finalized their activities in 2009 and the final reports have been uploaded in the ICCP webpage.

#### **Temporal Variations in Coal WG** Lopo Vasconcelos

The Chair of Commission I presented the outcome of this WG, which resulted in the creation of a Database including information on the following parameters: sample identification, coal basin, age, type of basin, maceral groups, reflectance, literature from coals worldwide. The Database (in Excel format) is available in the secure area of ICCP webpage. Lopo informed that he has received new data from Chile and now the database includes more than 10,000 petrographic data. The tasks that have to be yet finalized include:

- to control 907 data
- to access literature sources (58 references published in ICCP News 48, p.70)
- elaboration of a series of VLI diagrams to see if any differences can be found between coals of different ages

The ICCP Members are encouraged to use the

Database and/or to add any new data that become available by conducting either Lopo or Com I Chair/Secretary.

#### Degraditinite WG Peter Crosdale

The Chair of Commission I presented the conclusions of this WG as appear in the Final Report posted in the ICCP Webpage. During it's activities between 2002-2008 the aim of the WG was to assess and possibly redefine the term degradinite. The final concluding remarks note:

- 1. 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.
- 2. 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.

Commission's I session continued with the presentations of the following WG's:

- SCAP Single Coal Accreditation Program
- Standardization Working Group
- Suberinite Working Group
- Peat Petrography Working Group
- Reflectance Standard
- ICCP Training Program
- Petrographic Image Database
- New methodologies and techniques in organic petrology WG
- New Handbook Editorial Group
- Liptinite Editorial Group
- Extended development of the DISKUS FOSSIL Program for coal reflectance measurements
- Microscope session

#### SCAP - Single Coal Accreditation Program Kimon Christanis

The Convenor presented the timeframe of the 2010 Programme, which is still in progress.

The 2010 SCAP exercise was announced in February 2010. Invoices were sent out in March 2010 and the samples in April 2010; 6 block samples for the new participants in the program and 2 bulk coal samples for the continuation program. However, due to late new registrations from several new participants invoicing is still in progress. The participants have to measure the following parameters:

• Vitrinite random reflectance (VR)

• Vitrinite content (VC)

The deadline to submit the results was end of September 2010.

Kimon presented some statistics of the program: In total 107 analysts were registered in the 2010 SCAP from 47 laboratories located in 20 countries; 75 of the participants are continuing the program, whereas 32 are new entries. It is interesting to note that 51 participants are members of ICCP, whereas the remaining 56 are non-members. It was also mentioned that approximately 15% of the participants in 2008 SCAP did not apply for the new exercise due to change in their professional occupation.

The geographic (concerning continents) distribution of the participants is as follows:

Oceania 35 % Europe 32% America 19% Africa 10% Asia 4%

For the first time SCAP obtained registrations from Austria, France, Slovakia and Russia.

The schedule for the forthcoming months involve the evaluation of the data, the circulation of the results back to participants, and the mailing of the Certificates by the end of December 2010.

Kimon also mentioned the need for new samples, and appeals to Members for any assistance.

Finally, Kimon would like to thank the Members of the Accreditation Sub-Committee Deolinda Flores, Carla Viviane Araujo and Kees Kommeren, the ICCP Treasurer Jen Pearson, Alan Cook, Angeles Gómez Borrego, Isabel Suárez-Ruiz and his students George Siavalas and Görkem Oskay for their valuable support.

uring the discussion that followed Petra David and Angeles Gómez Borrego commented on the enormous work that Kimon carrying on for the implementation of the Program and thanked him for his efforts.

Alan Cook commented how successful and dynamic the Program is and how much it developed since 1996.

The discussion focused also to the interesting statistical data that Kimon presented. Nikki Wagner

commented on the fact that a significant portion of the SCAP participants are non-ICCP members and brought into the question the paradox that they are not becoming ICCP members. Dave Pearson and Alan Cook discussed also the fact that there is a lack of participants from countries like China, Japan, Korea and others that have a significant coal industry. It has been concluded that there is a need to advertise more the Program and in conjunction with the ICCP Training Courses the interest and the participation worldwide will increase.

Commission I would like to thank Kimon for his efforts managing the SCAP 2010 Exercise.

#### Standardization WG Walter Pickel

Walter presented the state of the Standardization WG and a short remind of the aims and results of the RIC2008 exercise, in which 22 participants had to conduct maceral analysis following the ISO 7404 Standard and strictly the ICCP Classifications (results published in ICCP News vol. 48, p. 17).

Following from the results of the RIC 2008 round robin with rather unsatisfactory results especially regarding the vitrinite maceral sub-groups he introduced the RIC 2010 exercise. The new exercise is designed to tackle the problem with vitrinite identification.

Images of the same sample as in RIC 2008 are distributed. Each image contains various circles and analysts are asked to identify the maceral sub-groups accordingly and report them to an Excel worksheet. This procedure should make sure that all the participants are identifying exactly the same macerals.

The round robin sample is a Permian bituminous coal from Queensland (Australia) of medium rank B-C (according to ISO 11760, formerly also known as high volatile bituminous coal). The sample is from Gregory, Bowen Basin, German Creek Formation of late Permian (German Creek Seam). The exercise includes 47 images (bmp files), annotated with 250 macerals to identify. The files will be uploaded in the ICCP Webpage and the interested members can download and perform the exercise. CDs are also available upon request from (please Convenor e-mail: the walter.pickel@organicpetrology.com). The tentative deadline for the RIC 2010 exercise is early 2011.

Commission I thanks Walter for his dedication conducting the Standardization round robin exercises.

#### **Suberinite WG** *Peter Crosdale*

The Suberinite WG was established in 2009 in Gramado with the aims:

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

Peter presented the activities of the WG for 2010. Two polished blocks, a ground mount and a solid coal, were circulated for point counting and vitrinite reflectance. Additionally, the participants were asked to provide with photomicrographs in white and fluorescence mode and any comments. The coal was originated from the Jurassic Surat Basin in Australia. 14 members expressed interest to participate but up to now only 7 participants conducted the exercise.

During the Com I session Peter asked the members who conducted the exercise (Angeles Borrego, Deolinda Flores, Stavros Kalaitzidis, Walter Pickel, George Siavalas and Dragana Zivotic) to express their opinion about the level of difficulty and any concerns they had conducting maceral analyses. All of the participants mentioned that they found the exercise complex, the solid coal sample being more difficult to study than the ground mount, and all "think" that identified correctly suberinite.

All the participants conducted maceral analyses in both samples and provided several photomicrographs and comments, not all of them though using fluorescence mode; additionally 6 participants provided vitrinite reflectance data.

In general the results point out significant variations in the quantification data but also how the participants perceived suberinite. For the ground mount sample, in the question "Did you find the present ICCP definition for suberinite to be satisfactory?" three out of the seven participants replied "yes", two "no" and two were "unsure"; the satisfaction for the suberinite definition was even less for the solid coal. Additionally the results were also poor concerning the agreement on the percentages of the different macerals, as well as of the vitrinite sub-groups; even in the maceral group level the results pointed out significant variation, particularly for the solid coal sample.

Some of the key issues that derived from the participants' comments are summarized below: thickness of the suberinite; in cases of thin walls it is difficult to count and hence to get reproducible data;

- the presence or absence of structure is a key parameter and one that participants seem to disagree on;
- structure is a key element in distinguishing among suberinite / bituminte / liptodetrinite;
- can some of the observed structures correspond to sedimentary/compaction features?
- it seems there is a confusion regarding the existence of clear guidelines on how to discriminate between suberinite and bituminite;
- the existing definition appears to be adequate for "classic" suberinite but has difficulties to discriminate from other macerals of Liptinite group especially in sapropelic facies; a clear statement of how to distinguish from other macerals is probably needed.

Peter in his concluding remarks commented also that there is a need for ICCP to discuss also at one stage the fact that significant portion of the suberinite will report as vitrinite at high rank coals. During the discussion that followed Peter's presentation Alan Cook noted the confusion in the usage of bituminite for non-marine rocks; Angeles Borrego pointed out that it appeared that in several cases the groundmass particularly in the solid coal sample has been counted as suberinite, bituminite or detrohuminite; Walter Pickel mentioned that suberinite cannot represent groundmass whereas Stavros Kalaitzidis noted that the co-existence of corpogelinite, which is a key factor to identify suberinite, was sometimes difficult to assess in the solid coal.

A report of the 2010 exercise will be soon available on the ICCP Webpage.

The exercise will continue for 2011, by distributing a compilation of annotated photomicrographs from the same samples for the participants to identify the macerals and to comment, but also by re-point counting the samples.

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

Commission I thanks Peter for convening this very interesting WG.

# Peat Petrography Working Group

Kimon Christanis and Stavros Kalaitzidis

Stavros presented a short overview of the activities and exercises of this WG for the period 2005-2008, and a summary of the results. At this stage the conveners are preparing a draft final report, which will incorporate the recommendations for the peat maceral nomenclature.

A draft definition of the terms Pre-textinite and Epiderminite has been presented as a base for further discussion within the WG:

- Pre-textinite: (variety of Textinite) represents fresh plant cell walls, rich still in cellulose (internal reflections in white light, significant fluorescence under blue light excitation). Often remains of the protoplasm can be observed.
- Epiderminite: epidermal cells (epidermis, outer cortex) of herbaceous plants; Reveals strong fluorescence in fresh stage; the inner part tends to degrade/gelify during humification/early coalification transforming to telohuminite, while the outer part is still recognized as cutinite.

The draft Final report will be distributed early 2011 to the WG members.

#### **Reflectance Standard** *Walter Pickel*

Walter gave a short presentation on the Reflectance Standard service of ICCP, by reminding the members that they can either send their standards to A u s t r a l i a (W a l t e r P i c k e l, walter.pickel@organicpetrology.com) or Canada (David Pearson, dpearson@coalpetrography.com) or can be provided with the ICCP Standard by depositing \$1000.00 as guarantee. It was also decided that one ICCP Standard will be available soon in Germany (contact Gerd Bieg, gbieg@t-online.com).

Commission I acknowledges the efforts of Walter, David and Gerd in providing this very useful service.

ICCP Training Program

Coordinator: Lopo Vasconcelos Convenor: Nikki Wagner

The session continued with Lopo presenting an overview of the ICCP Training Course in Organic Petrology WG activities.

The presentation included three parts:

1. Comments/issues raised by the participants/instructors of the two courses in 2009 and 2010

- 2. Presentation on the proposals for 2011 courses,
- South Africa, proposed by Nikki Wagner
- Portugal, proposed by Deolinda Flores
  Reorganization of Training Course WG.

1. Comments/issues raised by the participants/ instructors of the two courses in 2009 and 2010 Following the discussion during the General Assembly on Monday 27th September, regarding the evaluation of the first two ICCP courses in 2009 and 2010 in Potsdam, Germany (see also ICCP News, vol.49, p. 30-33) Lopo summarized the main burning issues to discuss. A summary of the discussion is presented below:

- What interval should exist between courses: in general the agreement was that ICCP should have at least one per year and if needed a second one might take place, either focusing in a specific topic or be regional. From the feedback ICCP got, it can be suggested that regional courses might prove very successful, since they will provide the opportunity to people that cannot afford to travel to participate, but also will be a forum to resolve regional coal petrography/science affairs. The idea of having the courses in conjunction with the ICCP Meetings is also something that will concern in the near future the WG. Petra David proposed to organize a specific course on Coke Petrography to be held in Potsdam Germany, but a decision was postponed until more information will be provided.
- What sort of marketing should we do? It was agreed that a more aggressive advertisement is needed. The organizers should prepare the flyers early enough so that professionals from companies will have the time ahead to plan.
- What sort of policy should we have if number of candidates is low? Jen Pearson pointed out that ICCP should discuss a strategy for cancelation of the courses, in cases that the number of participants is not enough to support a financial viable course. Additionally with the current structure of the fees, in the case that only students apply to participate, the program will not be viable.
- Maintain the excursion, reduce it? This issue

can be addressed case by case, according to the schedule of the organizers. Stavros suggested including in the registration forms a clause whether the participants are interested or not in the field-trip, and/or that in case of low participation it will be cancelled.

Publication of course materials? Should the Members pay a reduced fee? Alan Cook commented on the need to discuss the copyright issues regarding the Textbooks or any other material that is produced for the purposes of the ICCP Courses, before any publication.

The above issues were not resolved during the session, but will be tasks for the ICCP Training Program WG deal with in the near future.

#### 2. Presentation on the proposals for 2011 courses South Africa

Nikki outlined the proposal to host an ICCP Course in South Africa during 9-13th of May 2011, with the theme Organic Petrology course with a Gondwana Flavour. The proposed venue is the University of Witwatersrand in Johannesburg, which is equipped with all the necessary facilities for the course. Sample preparation laboratory facilities and coal petrographic microscopes will be available for the purpose of the course.

Alan Cook and Claus Diessel will be invited to instruct the course, with the additional assistance of Rosemary Falcon, Ricky Pinheiro and Vivien du Cann: Nikki will coordinate the activities. The tentative schedule for the course is as follows: coal origin and formation, coalification processes, coal petrography, applications of coal petrography, focusing in combustion, coke, forensic petrography, practical sessions and field trip to New Vaal Colliery and Lethabo power plant.

Nikki suggested a maximum of 20 participants with the following breakdown of fees: students 500€ and 1350€ for professionals; a draft estimation of the cost was also presented without taking into account though the expenses of the field trip.

#### Portugal

Deolinda presented a draft overview of the Course to be held in Portugal jointly with the 63<sup>rd</sup> ICCP Meeting in Porto September 2011. The proposed theme will be ICCP Training Course on Dispersed Organic Matter and will take place in the facilities of the University of Porto. The advantages of a jointly ICCP Course and Meeting

will be: a) to minimize the expenses for the organizers and the participants by paying travel costs only once, and b) to organize a single field trip.

A course on Dispersed Organic Matter (DOM) is expected to be attractive since: a) it was one of the suggested topics to be considered in future courses during the evaluation of the 1st Course, b) it is anticipated that will attract professionals working in oil prospection, c) the University of Porto has already organized similar short courses and has the required infrastructure, and d) the field trip will be to a basin considered a petroleum system analogue - Lusitanian Basin.

The content of the course will include: Concepts and definitions of DOM, study methods and sample preparation, geochemical techniques, petrography of DOM, applications of these techniques and case studies.

João Graciano and Alan Cook will be the instructors of the course, although the total number of instructors will be finalized in the next months. Maximum number of participants is estimated not to exceed the 25/30.

A draft estimation of the fees was presented with the following breakdown: company/professionals 750 $\in$ , government/non-profit organizations 400 $\in$ , students 200 $\in$ , without including the field trip (180 $\in$ ).

During the discussion that followed the presentations it was agreed for the course in Portugal to take place the week before (7-11<sup>th</sup> September) the ICCP Meeting, with the joint field trip taking place on the 10<sup>th</sup> and 11<sup>th</sup> of September. Carla Viviane Araujo commented that it will be useful to include in the contents of the DOM course in Portugal the achievements of Commission's II WGs in this field.

In the general discussion for both the proposed ICCP Courses, Jolanta Kus mentioned that the invitation and the advertized flyers should be ready early enough in order potential participants, particularly from industries to have the time to plan. Particularly in the cases of companies, sometimes it is required a one year notice to schedule the participation. Carla also commented that it is very positive that both courses cover part of the expenses from sponsorships and this is a good practice to follow in the future.

The following were approved and agreed by the participants:

• Both courses in South Africa and Portugal and their topics were approved.

- Deadlines for submitting materials to the Coordinator were set up; the material that will be printed out (e.g. Textbooks) 4 months before the course, and the presentations 2 months before.
- Deadline for registrations: April for South Africa, June for Portugal.

#### 3. Reorganization of Training Course WG.

Lopo discussed some organizational problems that the WG faced during the last two years, the material for the courses were not checked by coordinator/convener for any contradictory messages, requests for teaching never received through the Vice President but instead the organizers contacted directly the instructors. He also proposed to establish a Sub-committee on Training Activities (as for Accreditation) led by the VP and the chairs of the three Commissions. This issue will be further addressed within the current WG and a resolution will be finalized for the next ICCP Meeting.

Lopo acknowledges the efforts of Nikki Wagner, Petra David, Angeles G. Borrego, Jen Pearson and Peter Crosdale for their commitment to the Course, as well as Claus Diessel and Alan Cook for the course preparation, Antje Treutler and Andreas Küppers, from GFZ-Potsdam, for their incredible help in setting up the facilities for the 2009/2010 courses.

Commission I thanks Lopo and all the members of the WG for their efforts in accomplishing such a success ICCP initiative.

#### **Petrographic Image Database** Johan Joubert, Paddy Ranasinghe and Daniel van Niekerk

This WG was established in 2009 in Gramado with the purpose to establish and maintain a database of photomicrographs for supporting the ICCP Classification, Teaching and Training activities. Initially Trudie Brittz co-convened the WG with Johan, but after her resignation from ICCP last year, Johan proposed Daniel van Niekerk as member of the WG.

Johan gave a short overview of the WG activities during 2010, which included the drafting of the structure of the database focusing on the basic information that will be required to accompany each photomicrograph. A two page information sheet has been compiled for petrographers to complete when sending in photomicrographs. The information include the following main entries: petrographer affiliation, geographical location of coal samples, any geological data, maceral description, reflectance data, sample preparation methods, type of illumination, specifications of the photomicrographs. Paddy completed a stand alone prototype database using this preliminary structure. He demonstrated the interfaces of Enter Data, Edit/View Data and Search Data in the session by commending on the images and their metadata. Additionally a validation stage has been incorporated in order to check that the data are correct and according to specifications. The users of the database will be able to download data in .html format.

Some general improvement steps were discussed, such as to add several "pop up menus" that will facilitate the uploading of data and make the interface more user-friendly, and the establishment of abbreviations that could be incorporated in the photomicrographs referencing the macerals.

The structure of the database will be uploaded in the ICCP webpage in the next months so that members comment on the required or optional information of the photomicrographs. Members should be ready to provide with photomicrographs once the database is functional.

Johan acknowledged the assistance of Petra David, Alan Cook, Trudie Brittz and Daniel van Niekerk, in this first year of the WG.

Commission I thanks Johan and Paddy for this innovative activity of ICCP.

#### New Methodologies and Techniques in Organic Petrology WG Lila Gurba

Lila presented a summary of the activities of this WG since its establishment in 2000 in Rio de Janeiro. The aim 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, Dedicated to the Memory of Dr Marlies Teichmüller and Dr Alexander Rankin Cameron are available from the ICCP webpage. For this year Lila discussed the research activities under the New Techniques and Applications Topic presented during TSOP 2010 Meeting in Denver. She outlined the main conclusions from the following papers:

- An influence of crude oil on microscopically measured reflectance, by N.H. Bostick
- Systematic characterization of kerogen using Advanced Solid State Nuclear Magnetic Resonance, by J. Mao, A. Schimmelmann, M. Mastalerz, K. Schmidt-Rohr
- Estimating thermal maturity, generation potential and mineralogical composition of oil shale and post-pyrolysis residues using Fourier transform infrared spectroscopy, by J.E. Birdwell
- Assessing the importance of pyrobitumen in unconventional reservoirs, byT.E. Ruble, C.D. Laughrey, H. Lemmens, G. Walker, W.R. Knowles.

Henrik Petersen was also invited to give a presentation with the Title: Measured kinetics and composition of a global set of lacustrine and marine oil shales: influence on petroleum generation characteristics, by H.I. Petersen, J.Bojesen-Koefoed, A. Mathiesen. The aim was to: a) investigate the compositional variability of oil (Type I and Type I-II source rocks) from a global set of 23 Ordovician - Miocene oil shales representing fresh, brackish water and marine environments, b) determine the decomposition kinetics by measuring and calculating activation energy distributions and frequency factors and modeling the effect of differences in composition and kinetics on HC generation. Very interesting was the projection of the petrographic composition of the studied shales, which are dominated by algal-derived organic matter in the form of telalginite, lamalginite, fluorescing AOM and liptodetrinite.

The presented material will be available in the secure part of the ICCP webpage. Commission I would like to thank Lila and Henrik for their presentations.

New Handbook Editorial Group Ivana Sýkorová, Isabel Suárez Ruiz and Kimon Christanis

Ivana discussed the progress of the New Handbook Editorial Group for 2010. She presented the tasks

that have been finalized, and what is still in progress providing details for the additional work needed. For this year the NHEG focused on revising the Handbook sheets. The implemented changes included revisions of the text for a better understanding of the concepts, updating information with new data, as well as editorial changes of the references list to comply with the style of the International Journal of Coal Geology. Additionally, the incorporation of a table containing the new terminology for coal classification according to the International codification system for medium and high rank coals and the International Classification of in-Seam Coals (ECE-UN, 1998), as well as the ISO 7404 (2009) regarding the Methods for the petrographic analysis of coals has been presented. It has been pointed out that preferably the Handbook should adopt a single classification.

The schedule for next year is to upload all the revised sheets on the ICCP webpage as soon as possible so that members will be able to contribute with comments and suggestions and send any feedback to Ivana (sykorova@irsm.cas.cz). The NHEG will also approach experts in various fields to assist in finalizing the sheets.

A more detail report of the NHEG Process is presented below:

**Report on activities of New Handbook Editorial Group in 2010 year**, *by Ivana Sýkorová, Isabel Suárez Ruiz, Kimon Christanis* 

The state of the New Handbook activities was presented on 61<sup>st</sup> Meeting of ICCP in Brazil and summarized in ICCP News No48 (2009). The activities of the NHEG for 2010 were 1) to revise the sheets, 2) to compile a list of new terms to replace older ones, which are no more in use, 3) to continue editing the chapters and the references, and 4) to add some information that is still lacking.

1. The NHEG focussed on the revision of the published sheets. The texts were corrected in order to improve the understanding and to update the information and the references, as follows:

a) Revised text ready to be loaded on the ICCP webpage

- Definitions of terms: Coal, Peat, Boghead, Cannel Coal, Humic coal, Sapropelic coal, Rank, Carbonification - Coalification, Lithotype, Microlithotype, Maceral;
- Lithotypes of brown coal: Charcoal-rich coal,

Matrix coal, Stratified matrix coal, Unstratified matrix coal, Mineral-rich coal;

- Lithotypes of hard coal: Vitrain, Clarain, Durain, Fusain;
- Coal Utilization and Conversion -Hydrogenation residues: Classification of hydrogenation residues, Unaltered coal macerals, partially reacted coal macerals, Vitroplast, Granular residues, Primary semicoke, Secondary semicoke, Pyrolytic carbon, Unaltered minerals, New minerals.

b) Revised text not uploaded yet on the ICCP webpage

- Huminite: Telohuminite, Textinite, Ulminite, Detrohuminite, Attrinite, Densinite, Gelohuminite, Corpohuminite, Gelinite;
- Inertinite: Fusinite, Semifusunite, Macrinite, Micrinite, Funginite, Secretinite, Inertodetrinite.

c) Recommendations for revision of the new chapter "Other terms"

- add in the Graphite definition text the Raman characteristics and update information regarding the origin and the properties of graphite, as well as the references;
- add in the text of Semigraphite, Natural coke and Natural char information regarding their Chemical composition, Derivation, Occurrence and Practical importance;
- add all the above described terms in list of references;
- update the manuscripts on TEM and SEM microscopy and possibly ask assistance from an experienced colleague. Add list of references for both manuscripts.
- d) State of remaining chapters:
- Introduction in *progress*
- Lithotypes of hard coal will be revised
- Microlithotypes in progress
- Maceral groups: Vitrinite in revision
- Liptinite in progress
- Classification of dispersed organic matter *in progress*
- Methods in progress
- Coal Utilization: Coke and Combustion residues - *in progress*
- Other terms, Bitumens and Oxidation in progress
- Fluorescence sheets need advanced revision
- Author to be found for automation procedure.

The NHEG would like to seek the assistance of experts in writing and revising of manuscripts of remaining chapters, particularly of special methods (e.g. thin section analysis).

### **ICCP** News

2. The first list of terms to be changed in the new handbook was compiled and presented. The radical changes refer to the terminology of coal rank and

macerals particularly, vitrinite, huminite and inertinite groups as is summarized in Table 1.

Table 1 List of terms used in the previous Handbook versions (1963, 1985, 1986, 1993) and in the prepared New Handbook

Terms used in Handbook of ICCP (1963, 1985, 1986,1993), Stach et al. (1982)	Relevant terms in New Handbook	Reference <sup>1</sup>
Soft coal Brown coal	Low rank coal Lignite + Subbituminous coal	
Soft brown coal, Lignite	Low rank coal C Ortho-Lignite	
Dull brown coal, Lignite	Low rank coal B Meta-Lignite	
Bright brown coal, Lignite	Low rank coal A Subbituminous coal	
Hard coal Bituminous coal	Medium rank coal	
High volatile bituminous coal	Medium rank D Para-Bituminous	ECE-UN (1988) ECE-UN (1998) and ISO 11760
Medium volatile bituminous coal	Medium rank C Ortho-Bituminous	(2005)
Wedium volatile bituminous coar	Medium rank B Meta-Bituminous	
Low volatile bituminous coal Semi-Anthracite	Medium rank A Per-Bituminous	
	High rank coal Anthracite	
Anthracite Meta-Anthracite	High rank C, Para-Anthracite	
Meta-Anthracite	High rank B, Ortho-Antracite	
	High rank A, Meta-Anthracite	
Not defined	Telovitrinite (Subgroup)	
Not defined	Detrovitrinite (Subgroup)	
Not defined	Gelovitrinite (Subgroup)	
Collinite	Collotelinite (Maceral)	
Vitrodetrinite	Vitrodetrinite (Maceral)	LCCD (1000)
Maceral not defined Desmocollinite (Submaceral)	Collodetrinite (Maceral)	ICCP (1998)
Maceral not defined Corpocollinite (Submaceral)	Corpogelinite (Maceral)	
Maceral not defined Gelocollinite (Submaceral)	Gelinite (Maceral)	

HUMINITE				
Humotelinite (Subgroup)	Telohuminite (Subgroup)			
Humodetrinite (Subgroup)	Detrohuminite (Subgroup)	Sýkorová et al. (2005)		
Humocollinite (Subgroup)	Gelohuminite (Subgroup)			
INERTINITE				
Sclerotinite	Funginite Secretinite	ICCP (2001)		

1 References

ECE-UN (1988): International codification system for medium and high rank coals. - Economic Commission for Europe, United Nations Geneva, United Nations New York, 26 str. [Document ECE/COAL/115].

ECE-UN (1998): International Classification of in-Seam Coals. - Economic Commission for Europe, Committee on Sustainable Energy, Geneva and UN New York and Geneva, United Nations Geneva, 41pp.

ICCP, 1998. The new vitrinite classification (ICCP System 1994). Fuel 77, 349-358.

ICCP, 2001. The new inertinite classification (ICCP system 1994). Fuel 80, 459-471.

Stach E, Mackowsky M.T., Teichmüller M., Taylor G.H. Chandra D., Techmüller R., 1982. Stach's Textbook of Coal Petrology. Gebrüder Borntraeger Berli-Stuttgart, 535pp.

Sýkorová et al., 2005. Classification of huminite - ICCP System 1994. International Journal of Coal Geology 62, 85-106.

 The references included in every sheet were checked and corrected. The format will be similar to this of the International Journal of Coal Geology.
 The following chapters are already formatted: Definitions, Vitrinite, Huminite, Inertinite, Lithotypes, Coal Utilization - Hydrogenation residues, Other terms.

During the discussion that followed Petra proposed to release a version of the Handbook as soon as possible, while Alan suggested the preparation of a draft electronic version that will be easy to update regularly until all the chapters are ready. Angeles proposed that the sheets of Huminite, Vitrinite and Inertinite could be part of this first release, since already have been published. The NHEG will assess the stage of the Handbook regarding publishing a draft version and urged the members who are responsible for certain chapters to finalize the incomplete parts, in order to speed up the publication of the Handbook.

The session continued with the conveners of the various Editorial Groups presenting the progress of their work.

#### Liptinite Editorial Group - Walter Pickel

The Convenor presented photomicrographs from liptinite macerals to be incorporated in the revised version of the Handbook. It has been agreed that current work produced within the various WGs will be incorporated; Peter Crosdale will provide additional information for the texts regarding Suberinite, Jolanta Kus regarding Bituminite and Alan Cook regarding Alginite. By the end of the year all the information will be uploaded on the ICCP webpage so that members can review/revise the texts. It is anticipated that Commission I will approve the Liptinite chapter by the next year.

**Oxidation Editorial Group** - Jolanta Kus and Magdalena Misz-Kennan

The focus of this chapter is on Aerial Coal Oxidation, and the structure of the chapter as well draft texts of several sections were presented. The proposed structure is as follows:

Aerial Coal Oxidation

0. Origin of term

1. Weathering (natural oxidation - physical, biological, and chemical oxidation)

- 2. Artificial oxidation (induced oxidation)
- At ambient conditions
- At low temperature (up to 250°C)
- 3. Related terms
- 4. Definition
- 5. Optical Properties of oxidized coals
- Alteration of organic matter (reflectance, oxidation structures)
- Alteration of mineral matter
- 6. Chemical properties related to the microscopic features

7. Physical properties related to the microscopic features

- 8. Causes influencing coal oxidation
- internal factors coal rank and composition, moisture content, coal-pore structure, pyrite content
- external factors temperature, particle size, surface area, composition of ambient air, oxidation history, varying humidity, atmospheric precipitation, physical and biological

degradation, pH, oxygen partial pressure Reaction mechanisms (effects on the molecular structure of coal)

- Oxygen uptake and loss of volatiles
- Change in mass and elemental composition
- Structural changes (chemical and spectroscopic analyses)
- 9. Practical importance effects on:
- coal technological parameters
- combustion, cooking, liquefaction, gasification self-heating

10. Methods applied in the study of coal oxidation

- Reflected light microscopy using white light and fluorescence
- Image analysis (measuring width of rims, etc.)
- Staining
- In relation to the optical methods in general: TGA (Thermogravimetric method), DTA (Differential thermal analysis), isothermal and adiabatic calorimeters, cross-point temperature, isothermal flow reactor and "oxygen adsorption", GC- MS, RockEval, FTIR spectroscopy

11. Information regarding the Coal Oxidation WG (1970s)

- ICCP Minutes
- ICCP Archives

Jolanta (mailto:j.kus@bgr.de) asked the members to contribute with any relevant information and publications. The plan is to have ready a final draft version to present in the next ICCP Meeting in 2011. Henrik Petersen also noted that the references should be updated to cover recent publications on this topic.

#### **Pyrolytic Carbon Editorial Group** - Barbara Kwiecinska and Sławomira Pusz

Barbara presented an extent historical overview of the work done as well as any relevant information regarding pyrolytic carbon. She described thoroughly the concepts of origin of term, formation, natural and industrial processes.

A draft version of the Pyrolytic Carbon sheet has been provided to Commission I and will be available soon on the webpage for members to comment. The sections covered are: Origin of Term, Related Terms, Definition, Classification of Structures, Places and modes of occurrence, References.

This draft version will be also provided to the

New Handbook EG to be formatted according the Handbook style and upload it in the webpage for comments and approval.

Barbara thanked Peter and Jolanta for their significant contribution in providing references for several topics. During the discussion Alan mentioned the need to incorporate also forms of pyrolytic carbon in coals.

#### Hard Coal Lithotypes Editorial Group - Walter Pickel and Peter Crosdale

A substantial amount of text has been provided largely by Gerd Bieg which now requires some editorial work and approval by Commission I. Until this approval is achieved, it was proposed to use the existing definitions in the handbook noting that they are "Under Revision". In this way, progress on the handbook will not be slowed by waiting for these sheets.

#### New Methodologies & Techniques in Organic Petrology Editorial Group - Lila Gurba

Lila presented, at the end of New Methodologies & Techniques in Organic Petrology WG session, the progress as well as a draft layout of the chapter to be included in the Handbook. The status of each section is described below:

- 1. Introduction (*updated*)
- 2. Advances in Optical Microscopy (to be provided)
- 3. Advanced Techniques & Methodologies (*to be provided*)
- 4. Techniques
- Laser Microscopy FAMM, (to be updated)
- Confocal laser scanning fluorescence microscopy, (to be updated)
- Colour Image Analysis (in progress)
- Transmission Electron Microscopy (TEM) (to be updated)
- Micro-Fourier Transform infrared (FTIR) (provided and updated)
- Small Angle Neutron Scattering and Small Angle X-ray Scattering to Organic Petrology (in progress)
- QEMSCAN (in progress)
- Electron Microprobe (in progress)
- Micro-Raman Spectroscopy (to be provided)
- Fourier Transform Infrared Spectroscopy (provided and updated)
- Advanced Solid-State Nuclear Magnetic Resonance (to be provided)
- 3-D models derived from FIB-SEM analysis (to

be provided)

The authors of each technique will be conducted shortly to finalize the texts and as soon the chapters are ready they will be available on the ICCP Webpage.

Com I would like to thank Ivana, Isabel and Kimon, as well as Walter, Jolanta, Magda, Barbara, Slawomira, Peter and Lila for their significant efforts and dedication in preparing the New ICCP Handbook.

#### **Proposal of New Working Group**

At the end of the Commission I session a discussion for a new WG dealing with the *Measurement of Vitrinite Reflectance in Air* was raised by Peter Crosdale. He gave a short overview for the concept and the reasons to initiate this activity. A number of laboratories nowadays have new equipment with which it is possible to produce images taken in air, which have a very similar appearance to those using oil immersion. The question though is how does the reflectance value determined in air equate to the reflectance value determined in oil?

As draft objectives of the WG he proposed:

- 1. To investigate the vitrinite reflectance determined in air versus that in oil and to develop an algorithm to convert the air values to their equivalent value in oil
- 2. To assess if the developed algorithm works in reverse i.e. can it be used to convert oil values into air values?

The proposed work plan will include three stages: a) review of relevant references, b) measurement of random reflectance, and c) measurement of maximum reflectance.

The WG was accepted pending the appointment of a convenor. Peter Crosdale would ask some people who had recently acquired a Hilgers instrument if they would be prepared to act as convenor.

#### Joint Microscope Session of Commissions I and II

**Extended development of the DISKUS FOSSIL Program for coal reflectance measurements** -*Carl Hilgers* 

During the Joint Microscope Session Carl Hilgers in a very interesting presentation showed the developments on the DISKUS FOSSIL Program for coal reflectance measurements, by discussing both the improvements on the hardware (i.e. LED diodes, Zeiss and Leica Lenses) and the software. A training version of the software is available free of charge for ICCP Members and Academia for education purposes. Please contact Carl for more information (info@hilgers.com).

#### Microscope session

Microscopy facilities were provided by Carl Hilgers and 46 members attended the session. Two Jurassic Australian coals, one grain mount and one solid coal block from the suberinite WG samples were examined and discussed, focussing on identifying suberinite. Parameters like the structure and interrelationships with other macerals were among the main identifying criteria. Additionally distinguishing features between suberinite and bituminite were also discussed. The different opinions in the identification of suberinite and other macerals were quite obvious among the attendees, although encouraging for the purposes of the WG. Due to the lack of fluorescence mode the samples provided from Jolanta Kus from the Identification of Dispersed Organic Matter WG were not discussed.

Commissions I and II would like to thank Carl for his presentation but also for his valuable support in the ICCP activities by providing the microscope and training facilities. Additionally Peter and Jolanta are acknowledged for providing samples for the Microscope Session.

As per final remark Commission I would like to remind the ICCP members to start using the Webpage since a lot of data and information from the WGs have been uploaded. The presentations of the Meeting will be also available soon in the secure area of the webpage. Commission I greatly acknowledges Igor Viegas for his support in updating the webpage.

Furthermore Dragana Životić and Marco Ercegovac are thanked for all their support during the Meeting.

# DEADLINE FOR NEXT ICCP NEWS : <u>15<sup>™</sup> MARCH 2011</u>

#### Minutes of Commission II Geological Applications of Coal Petrology 62<sup>nd</sup> ICCP Meeting Belgrade 27<sup>th</sup> and 28<sup>th</sup> September, 2010

Chair: MSc Carla Araujo Acting Secretary: Dr Maria Hamor-Vido Secretary: Mr Paul Hackley

#### Monday - 27<sup>th</sup> September

<u>**16:00-16:05 - Opening address:**</u> Welcome and update of the last four years activities within Commission II and presentations of Comm. II training material - Carla Araujo.

The Commission II meeting started at 16:00 h at the Main Hall of the SASA, on Monday on 27th September and was attended by 30 participants. Among the participants there were 24 ICCP members and 17 members of Commission II. We started with some opening remarks to review the activities of the Working Groups.

15:05-15:30 - Coal Bed Methane (Peter Crosdale) and - CO<sub>2</sub> sequestration (Lila Gurba) WG (Conveners: Peter Crosdale and Lila Gurba) Peter reviewed the activities of Coal Seam Gas and CO<sub>2</sub> sequestration WG over 2008 - 2010. The isotherm results from the exercise carried out in 2008 showed some small differences with the Langmuir volumes varying by several cc/g, but all three isotherms were remarkably close for the lack of standardization. Future directions include discussion amongst the participants to better coordinate the exercise, such as agreement on standardized procedure and reporting. There is some activity on isotherm standardization outside of the WG and it may also be a good idea to contact these workers for their input. Peter intends to do new work in the next year which will include discussion between the participants of the previous exercise, decisions about what information should appear in a standard report, an assessment of analysis protocols between laboratories, and another ring analysis. Carla Araujo recommended to the convener to expand the exercise to other isotherm laboratories to get more experience on the comparison of different laboratory results and to improve the standardization and reporting. Commission II thanks Peter and congratulates him for his efforts in leading this WG forward.

#### <u>16:30- 17:00 - Gas Shale - Is commercial</u> production a good thing, or a bad thing?(Convener: Lila Gurba)

Lila indicated that she had results from the  $CO_2$  sequestration WG exercise in 2009-2010 but had not yet secured permission to present the results at ICCP. The working group results will be made available in the website this year. She intends to continue this WG into the future as well.

Lila gave an overview on gas shale exploration all over the World. She emphasized that gas shale is a hot point among exploration and exploitation activities nowadays but there is no common definition for the term gas shale. Lila presented a new WG proposal to identify the term of gas shale from the sedimentology, petrology, chemistry, temperature, pressure etc. point of view. One important step forward is to address the problem including the objectives and methodology and to build up a plan with deliverables for the next ICCP Meeting in Porto. She intends to look for defining terms in the literature and later she plans to start a ring analysis.

The first task of the WG is to circulate a questionnaire to interested members. At the Meeting 14 members signed up for participation. Commission II supports starting the WG. Convener Lila Gurba was tasked with providing Commission II detailed information on the work program such as the objectives and tasks of this new WG as they are developed.

#### <u>17:00-</u> 17:25 - Coal Bed Methane and - CO<sub>2</sub> sequestration WG - Proposition of a New WG (Zuleika Carretta Corrêa da Silva)

Zuleika presented a new proposition aimed at gathering of the efforts on the Coal Bed Methane and - CO2 sequestration Working Groups as well as using the achievements of the Improved Image Analysis WG in Commission III. She gave a historical summary of previous results from the minutes of the WGs. The information was taken directly from the minutes published in the ICCP News.

She proposed to create a WG, which would gather together the experiences of the application of coal petrology in the CBM exploitation industry and clean coal technologies.

She wants to send a circular to all ICCP members about whether they are interested in the coal petrology approach to CBM, ECBM, UCG, and  $CO_2$  injection technology. The new WG wants

to focus on the petrography of coal samples collected before and after the process of injection. The objective of the WG is to get a better understanding on the structural changes during gas injection into the coal seam.

There was a discussion on the technical approach of the new WG goals. Lila Gurba raised the question of how the results of existing WGs would be used and in which format they can work together on similar fields. Zuleika was asked to improve the WG objectives, work plan and schedules for the next meeting.

#### <u>17:25 -17:35 - Accreditation Program DOMVR</u> (Organizer: Alan Cook)

Alan Cook presented a summary of the successful DOMVR program. In 2010, forty participants have signed up for the accreditation exercise (7 new, 33 continuing). The samples for the 2010 exercise are prepared for shipment in particulate form and will be distributed after the Belgrade meeting.

By the suggestion of Alan a closed session was held for the accreditation convener and participants for discussion of problematic results obtained in the 2008 exercise. 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.

After consideration of the ring analysis results in the new WG on gas shales, an  $R_{max}$  measurement could potentially be included in the DOMVR Accreditation Program in the future, if the protocol and the feasibility of the measurement is proven.

Commission II congratulates Alan for the work that has been done in the DOMVR Accreditation Program.

#### Tuesday - 28th Sept

The Commission II program continued on Tuesday 28th September in the morning. All together 46 participants attended this meeting where there were 37 ICCP and 27 Commission members among them.

#### <u>09:00 - 09:40 - Identification of Dispersed</u> Organic Matter (Convener: Jolanta Kus)

Jolanta Kus presented a review of activities of this WG in 2009-2010. An exercise was carried out in 2009, asking to indicate the level of confidence in the identification of OM, based on photomicrographs from BGR archives on bituminite and alginite. This exercise aimed to differentiate bituminite and alginite based on available descriptions. Results were available, for participants, in the website for download. Jolanta checked the results that she got from participants and evaluated which macerals they easily recognized and what macerals were difficult to recognize based on the published maceral descriptions. Differentiation of lamalginite from groundmass caused major difficulties but there even larger problems appeared with bituminite identification. Alan Cook raised the question of the alginite sheet which had been approved some years ago, but Angeles Borrego noted that the document was not published within two years after approval and due to ICCP statues should be therefore reapproved by the ICCP assembly. Carla and Angeles recommended to Jolanta to keep in contact with the editorial group of the Handbook and especially with the conveners of the liptinite and/or alginite sheets for revision and extension of the definitions of alginite and bituminite based on the evaluation of the 2009 Round Robin exercise. Peter Crosdale suggested considering also the appearance of bituminite in coal.

The WG decided to prepare modifications to the alginite definitions in the liptinite sheets of the Liptinite Editorial WG and to the alginite sheet by Alan Cook with the references of the Round Robin exercise. Further, the WG decided to carry out a Round Robin exercise on bituminite in 2011.

Commission II thanks Jolanta for the very comprehensive work that has been done.

#### <u>09:40 - 10:15 - Identification of Primary</u> Vitrinite WG (Convener: Paul Hackley)

On behalf of the convener, Carla presented the report prepared by Paul. The efforts of this WG over 2009-2010 included the evaluation of a questionnaire to collect information on 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 inertinite. The questionnaire was answered by 22 participants and included a number of suggestions about how to identify vitrinite as well as suggestions for future directions of the WG. The creation of a consensus standard through the ASTM is ongoing, a second draft has been circulated for comment and a ballot will be held on the final draft by the end of 2011.

The ASTM standard aims to determine the

primary vitrinite population. Besides this there is the suggestion to make workshops and training courses dedicated to this topic, and the possibility that the DOMVR data also can be used for evaluation. Alan Cook suggested that the ASTM WG should consider the protocol of the accreditation program for DOMVR because in most cases the sample preparation causes the highest deviation in the mean vitrinite reflectance determination. Angeles asked the WG to pay attention in the standard to report for each measurement what type of maceral or e.g., zooclast was measured. Commission II congratulates Paul for his efforts and achievements in the WG.

#### <u>10:15-10:40 - Reappraisal of the information</u> <u>from past Commission II Activities WG</u> (Convener: Angeles Borrego)

Angeles presented a summary of past ICCP decisions which resulted in the idea to make available older documents generated over the years within Commission II. Angeles presented the reports which included many documents presented in the past in ICCP news and other summaries. Documents of the previous WGs were confirmed and edited in uniform format and put onto the ICCP secure website with details of the reports. Revised results of previous WGs were reported in ICCP news recently. Complete original reports are available in the web page.

Reappraisal of data which have not been considered in the revision, e.g. chemical, Rock-Eval, fluorescence analysis data might continue in the future in new WG activities with a focus on the identification of components.

Commission II congratulates Angeles for her efforts at recovery and consolidation of the past work of this commission.

#### 10:30-11:00 Coffee break

#### <u>11:10-11:40 - Concentration of OM (Convener:</u> João Graciano Mendonça Filho)

João Graciano showed the results of a comparison between the two methods of preparation: whole rock and kerogen concentration. For this exercise two outcrop carbonaceous shale samples were selected both representing Type I organic matter at low rank. Sixteen participants provided results for samples OMC5A and B, OMC6A and B that showed a low to moderate amount of measurable vitrinite particles. In general SD values in both

samples are low and the scatter of the readings is small in the two samples. However results for a Green River sample (OMC5) suggest that participants measured different vitrinite populations, indicating a higher difficulty in the identification of primary vitrinite in sample OMC5 than in sample OMC6. The spectral fluorescence of kerogen concentrate and whole rock preparations of OMC5 show a significant scatter but not a clear trend between the two types of preparation. On the other hand, for sample OMC6, spectral fluorescence measurements clearly indicate a higher maturity for kerogen concentrate than for whole rock thus revealing that fluorescence properties are affected for preparation procedures. In summary, following the criteria and parameters described in the statistical evaluation system, in general, excellent results were obtained and the selected samples allowed an accurate study on the effect of sample preparation procedure on the organic matter optical parameters in Type-I kerogen. Commission II congratulates João for the achievements of the OMCWG and for the paper publication with results already achieved by this WG.

The isolation procedure will be documented as part of the results of the WG and will be available on the website to stress that this preparation technique has not affected the vitrinite reflectance results. Carla and Angeles proposed for the future the investigation of the fluorescence properties of different components e.g. lamalginite, telalginite in samples prepared via kerogen concentration versus whole rock procedures in a new WG.

#### <u>12:05 - 12:20 - Dispersed Organic Matter in</u> sedimentary rocks (Convener: Maria Hamor <u>Vidó)</u>

Maria Hamor Vidó presented results on the DOM in sedimentary rocks classification, identification and thermal maturity. The White Paper is 95% ready and consists of 60 pages. Descriptions and other information were provided in the last 2 years, in the missing chapters. The reference list should be completed and with the approval of the meeting the last chapter of published photomicrographs will be skipped. The final editorial work of the White Paper will be ready in November and distributed to the authors for correction. The first draft of the document will be available for members' suggestions and remarks from January until May, and the document will be ready for approval at the next year's meeting.

During the discussion Angeles recommended to Maria to make contact with the publisher about the condition of publication as soon as possible. Commission II thanks Maria for her efforts.

#### <u>12:20 - 12:40 - Environmental Applications of</u> <u>Organic Petrology WG (Convener: Hamed</u> <u>Sanei)</u>

Hamed reviewed the activities of the WG over the years and made some proposals to the members about how to proceed with future activities. The WG wants to develop further the Atlas of Anthropogenic Particles and to increase the application of the Atlas to differentiate anthropogenic vs. geogenic particles based on the source and matrix. Besides this, the WG intention is to gather much more information on environmental studies. New references and case study reports are welcome. Photomicrographs of case study samples are also requested from contributors to make them available on the website. Commission II thanks Hamed for the work done by this WG

12:30 - 12:50 ICCP Group Photo 12:50 - 14:00 Lunch

#### <u>14:00 - 14:20 - Classification of Dispersed</u> <u>Organic Matter WG (Convener: Vern Stasiuk,</u> <u>Carolyn Thompson-Rizer et al.)</u>

On behalf of the conveners Hamed Sanei presented the status of the Dispersed OM Atlas which is based on the ICCP OM classification approved in 2003. A TSOP research committee prepared the Atlas in 2009-2010 with the leadership of Carolyn Thompson-Rizer. Carolyn has solicited help on the editing of the text of the Atlas and for additional photomicrographs and has already prepared 250 copies of the Atlas on a CD-ROM but revision will necessary in the near future. The Atlas will be advertised on the TSOP website and for charge it will be sold. The rights and income will be shared half-half between TSOP and ICCP Half of the 250 CDs are available to ICCP for dissemination purposes. Commission II congratulates the conveners for this very useful publication.

#### <u>14:20 - 14:45 - Thermal Indices WG (Convener:</u> <u>Carla Viviane Araujo)</u>

Carla presented a review of the activities conducted by this WG since its beginning in the early 90s. Results of the first exercise showing the correlation of correction functions and subsequent spectral fluorescence measurements on a maturation series from the Toarcian of the Paris Basin were presented. Following the presentation of this data. Carla showed a correlation of the correction functions obtained using microscopes with different detection technologies. Results of the measured spectrum of the calibrated lamp device were obtained in the old system (photomultiplier R 928) and a new system with a CCD detector and an optical fiber light delivery system. It was observed that the new system is more sensitive for the red region of the spectrum. This effect resulted in a different correction function. After this observation a sample with alginite was selected for spectral fluorescence measurements with both systems providing once again different spectra that, when corrected with the equivalent correction function, presented a very good correlation.

Carla concluded that the excellent correlation of results illustrates that the lamp didn't change its radiance properties and that it is possible to compare corrected spectral curves obtained by microscopes with regular photomultipliers and new photometers with CCD devices. It was suggested that this test should be carried out by a different lab in the same conditions to check the repeatability of this result and suggested to reevaluate the Toarcian maturation series studied in the beginning of this WG.

A new ring analysis was proposed to repeat the original exercise with the Toarcian Basin samples using microscopes that have the new CCD detectors to see if a better correlation of results could be found for the more mature samples with higher intensity emission in the red part of the spectrum.

The Chair thanked all WG conveners and participants for their achievements. Commission II encourages all WG conveners to submit papers on WG achievements for publication in peer-reviewed journals such as the International Journal of Coal Geology.

The chair presented apologies for any embarrassment that might have been felt by Commission II WG conveners because of the failure of Commission II officers to foster a proper channel of communication between the Coal bed methane -  $CO_2$  sequestration WG and Improved image analyses WG and the Chair of commission III. In particular for the way in which a new proposal to gather efforts derived from these WGs was presented.

Lila Gurba raised a number of questions to ICCP Council such as the frequency of accreditation (on behalf of Wolfgang Kalkreuth), admission of new members, submission of the WG conveners' presentations to the Chairs and upload of the presentations to the website, and ways in which to record contributions of members in the minutes. Lila was asked to provide the comments to ICCP Council in written form.

#### Minutes of Commission III Industrial Applications of Coal Petrology 62<sup>nd</sup> ICCP Meeting Belgrade 26<sup>th</sup> September - 2<sup>nd</sup> October, 2010 *Chair: Dr Isabel Suárez-Ruiz*

Chair: Dr Isabel Suárez-Ruiz Secretary: Dr Georgeta Predeanu

The sessions of Commission III were held on Tuesday, September 28<sup>th</sup>, from 15.00-18.00 and on Wednesday, September 29<sup>th</sup>, from 09.00-14.20 with about 35 attendees.

The Chair presented the Activity Report of Commission III developed in 2009/2010, and the current situation of the <u>10 active Working</u> <u>Groups</u>, including that of the Coal Blend Accreditation Program.

In addition, the Chair presented the opportunities for potential WGs: Fluorescence Intensity Working Group, suggested by Dave Pearson and Carbon dioxide emission factors, proposed by Jeff Quick and presented by Lila Gurba.

Then the Commission III activities started with the presentation of the tasks developed by the WGs of this Commission.

#### 1. Coke Petrography W.G.

#### Convener: H. Eickhoff supported by Alan Cook and Carmen Barriocanal

The objective of this Working Group is to establish a classification of coke textures which is reproducible and which can predict coke technological properties.

Heike Eickhoff made an overview of the past year's tasks that were proposed and not attained respectively, an inventory of the existent classifications in different countries to see which kind of classifications are used. The Chair of the Commission said some words in relation to the non-availability of Carmen Barriocanal in helping this WG because at present day she is very busy at the INCAR. Then the Chair asked for the information existing about the activities developed by this WG in the past. She asked D. Flores if some information could be filed in the ICCP Archives. Deolinda replied that she will try to check the archives. The Chair also asked Heike if she had any information on the activities developed by this WG and she replied that R. Xavier had sent her a CD. The chair mentioned that Heike should find participants for this WG, because she knew (the Convener) that there were interested people in this WG and theferore, this WG should be maintained. Cornelia Panaitescu promised to support the future planning of the WG objectives only if there is a real interest and progress within the activities proposed. Georgeta Predeanu pointed out that there is an interest for Coke Petrography as one of the topics within the ICCP Training courses which gives an optimistic forecast to the approach of this WG activity. Additionally, Georgeta remarked an interest for coke microscopically approach through the participation within Carbon Materials WG that deals also with coke texture classification (pitch, petroleum).

> **2. Inertinite in combustion** *Convener: Ángeles Gómez Borrego*

The objectives of this Working Group were the study of the behaviour of the inertinite maceral group in combustion processes.

The Convener of this WG presented the last information on the activities developed within the WG that was initiated in 1995. Angeles showed the antecedents, the classification of char optical texture (ICCP system 1996), the objectives, chronology of the developed activities of 1997, 1999, 2000, 2001, 2007, and the report of all the exercises (that will be included in the restricted page of the website). An Atlas will be also provided as a final achievement of this WG and this, together with all the exercises performed during the years in which this WG was active, will be partially included within the open area, and some information within the protected area of the web page. It will be provided with all the necessary information on how the excel file is working. The Chair congratulated the convener and participants for the work and the especially the convener presentation. Lila Gurba also congratulated the Convener for how much work has been involved for years in this WG. She remarked that the results on Inertinite in combustion WG involved a great work and that the final outcome is very impressive. Lila asked if the final atlas would be publicly available. Angeles replied that the Atlas will be available as a CD; and that all the training material of this WG is already available on the ICCP web site.

The Chair and the audience acknowledged Ángeles G. Borrego for the activity developed as convener of the Inertinite in combustion WG, which ended this year.

#### 3. Improved Image Analysis WG

Convenor: Cristina Rodrigues

The main objective of the Working Group is to validate and to substantiate the possibility of using, in different kind of materials, a new approach to the study of coal cleat system. That includes the development of a common methodology and analytical procedures to define the cleat network of a coal seam in terms of space orientation of preferential fracturing/cleat planes, ordered by connectivity frequencies. Such a methodology is considered an important goal when applicable to both CBM/CMM drainage/production, and  $CO_2$  injection/storage in abandoned coal mines or deep unmineable coal seams.

For personal reasons Cristina was not attending the Meeting and the Chair of this Commission presented a summary of the objectives and activities developed in the last years.

The Chair remarked that in 2009 nobody replied to the exercise proposed by Cristina, and that the convener did not know the reasons by which nobody replied. The Convener also remarked the interest of Cristina for continuing with the activities of this WG taking into account the importance of the topic.

The Chair of the Commission asked for comments and remarks from the audience. There were some comments related to the late delivering of the exercises, and other related to the format (Corel Draw) in which the exercise was presented. Alan Cook remarked that the problems with Corel still exist. Isabel mentioned that perhaps a change of the software could be useful. Joao Graciano complained that he received the images but with only 3 weeks before the meeting and that time everybody is busy preparing the Meeting. Isabel mentioned that this may have been the reason by which there was no response at the first instance. Jolanta Kus added that with regards to Corel Draw software, there are some companies which supply this program at the universities for 80Euro. Isabel remarked that it is difficult to ask the potential members to spend money. Finally it was decided to convey all this information to Cristina. Lila Gurba also suggested using the software which is freely available. (Isabel, I'm not using Corel Draw - since I do not have it).

#### **Guest Presentation**

As it was agreed before this Meeting with some of the ICCP Council Members, a talk by Dave Pearson could be included here, considering that the Improved Image Analysis Working Group had not to show any other type of activity. Thus, Dave Pearson showed the existing relationships between Gieseler fluidity assays and vitrinite fluorescence.

A new method of automated two-stage fluoresence analysis was described in which a series of images are collected for later analysis. The images are monochrome black and white; blue light excitation and orange emission; and green light excitation and red emission. In a suite of seven carefully chosen samples of essentially the same rank (0.92% of vitrinite reflectance), and coal type, it was found that the whole-coal fluorescence intensity, and Vitrinite fluorescence intensity measured in red emission, correlates with maximum Gieseler fluidity. The two most fluid coals, (133,000 DDPM and 162,000 DDPM), were examined geochemically (Soxhlet extraction, GCMS) to determine whether hydrocarbon migration had enhanced their fluidity. In both cases, the waxy oils were derived wholly from the coals themselves.

Thus, while white-light petrography cannot separate and discriminate between these coals, but the fluorescence of both the whole coal, and of the Vitrinite fluorescence intensity, can do this. Therefore, whole coal fluorescence, and Vitrinite Fluorescence Intensity is seen as being independent of both traditional petrographic parameters.

An example was given in which both manual and automated fluorescence intensity confirmed a measured difference in fluidity. Such variations, probably impact coke quality, could not previously been identified. An example of an industrial blend was shown in which the variance of vitrinite fluorescence intensity of blended component coals was larger than single coal components.

After the talk, a proposal was made to form *Fluorescence Intensity Working Group*, involving both manual and automated methods. The WG will investigate the use of the NIST SRM2940 as a fluorescence calibration tool between participating laboratories, and also a common sample preparation technique.

The Chair appreciated Dave's presentation and was very happy for the new WG. She asked for questions or comments to the audience. Some technical issues have been raised from the audience trying to clarify things like: the measurement and intensity of fluorescence light, the type of light, magnification, resolution, etc.

After the answers were given by Dave Pearson, the Chair asked him if he is interested to be the convener. Additionally, Isabel requested for some more details to be included in the ICCP newsletter, by sending a preliminary program to develop such a WG, in order to inform all the ICCP members and to look for participants.

The Chair asked the audience about the opportunity to create such a WG. Some positive answers were given by Walter Pickel and Angeles G. Borrego with regard to the objectives of the new WG which are within the scope of the ICCP.

Finally, Dave pointed out that to comply with the objectives of this new WG, the potential analysts will not request additional equipments, but a classical instrumentation for manual measurements on vitrinite.

#### 4. Automation

#### Convener: Barry Jenkins since 2010

The objective of this Working Group is to determine if the automated petrographic systems can be used to characterize the coals with the same criteria used in manual/conventional petrography. The Chair presented the need for finding all type of information that has been obtained for the WG, and requested this information from the previous conveners and from the archives.

Petra David, one of the previous conveners, said that it was difficult to run automation, to have results, and to compare data because many people had not equipped with automated devices.

The Chair asked for a summary (one page) to the previous conveners of this WG present in this Meeting: P. David and D. Pearson. They agreed to send a summary.

The Chair decided to move the Accreditation Program on Coal Blends to Wednesday morning and to end the reports of the Commission III activities with the presentation of Slawka Pusz on the Structural Order progresses.

#### 5. Application of reflectance to estimate structural order Convener: Slavka Pusz

The aim of the Structural WG was to investigate the possibilities of application of various reflectance parameters for estimation of structural order of coal or carbonaceous materials. To accomplish with this, the investigations of changes in reflectance parameters of high rank meta-anthracite (Svierdlovski - SV) during thermal treatment from room temperature to 2000°C were studied.

The convener presented the theoretical background; the steps followed for attaining the purpose of this WG, the stages followed for developing the 3-rd stage exercise; the participants during running the exercise; the results obtained from the measurements; the calculated parameters for the 3<sup>rd</sup> exercise; and conclusions of the exercise. The convener also presented the final conclusions of this WG and the papers that will be published in an international journal.

At the end of the talk the Chair thanked for the work performed along the years.

Barbara Kwiecinska remarked that it was a very specific exercise, including simultaneously X-ray determination and transmission microscopy. She thanked Isabel for her work, and Slawka who did a great job.

Angeles G. Borrego remarked as the main achievement of this WG was that we are able to measure maximum and minimum reflectance with the same precision as random.

The Chair asked the convener and the ICCP members if they are interested in developing an accreditation WG on anisotropy measurements.

Slawka Pusz answered that she could not manage such a WG, but she can help. In this

circumstances Isabel recommended a thought about that next year.

# 6. Identification and petrographic classification of components in Fly Ashes

Conveners: Isabel Suárez-Ruiz, Bruno Valentim

The convener Isabel Suárez-Ruiz explained the main reasons for creating this WG focused on the establishment of a classification of Fly Ash components by using optical microscopy. The Chair and also convener of this WG started with an overview of the activities during the years, since 2005 and up to 2010.

Thus the convener presented: the fly ash component classification; the proposed scheme; the evaluation of the results of two previous round robin exercises including the performances of the analysts, some preliminary conclusions and some examples on different levels of agreement and the proposed classification of fly ash components.

Some proposals, questions and comments were raised. Thus, Peter Crosdale suggested that, to make a better visualization and a better differentiating between the isotropy and anisotropy, the future exercises may use the images side by side and rotating them into the same orientation, this opinion being sustained also by Alan Cook. The convener said that this issue was already requested in Bandung meeting.

Another discussion was raised by the subject of the classification levels and that the levels 1,2,4,5,6 are addressed to the point you are looking when counting, and level 3 is dedicated to the particle. The general suggestion made by Peter Crosdale, Nickky Wagner, Jolanta Kus, Stavros Kalaitzidis and Angeles G. Borrego was to make that more clearer to the top of the table classification.

An additional suggestion by Stavros was to leave the char classification, so that members could optionally describe the particle when derived from coal/biomass. The convener of the WG agreed to consider separate levels, so that the researchers can select one level or more levels to classify the fly ash according to their interest in the future.

Cornelia Panaitescu congratulated Isabel for the work and suggested that for the next exercise it is necessary to keep close to the application purposes, also by considering the relation between coal composition, fly ash at the supply source and ash dumps. The chair answered that this approach is difficult but it could be included in the second part of the WG purpose.

Some additional comments were raised by Krystyna Kruszewska who proposed to shortage the name of the identified particles/points and asked for more details in case of classification the semifusinite and fusinite. Isabel and Angeles answered that the classification of those particles depends on if they are transformed or not. If they are not transformed then they will be classified as unburnt coal. If they are transformed then you chose isotropic, porous, unfused concept of the proposed classification.

Isabel thanked for the addressed suggestion and asked for more detailed discussion via e-mail. She proposed to rewrite the classification, and send to the participants to get a feedback.

#### 7. Gasification products characterization Convener: Nikky Wagner

The aim of this WG was to enhance the understanding of coal gasification by considering the carbon conversion process from a petrographic aspect.

The Convener presented the objectives of the WG some comments about the letter she sent last year to the Brazil Meeting and readdressed the tasks and explained the time frame until 2012. The chair asked for comments from the participants within experience in this field.

Lila Gurba made a remark on previous experience on gasification in Australia and the possibility for Dr. Graham O' Brian (CSIRO) to join the WG providing some samples. Peter Crosdale commented on the proposed use of underground gasification products as well and expressed his concerns about availability of samples (redrilling would be required). The Convener thanked for the idea and requested help to provide samples from Australia.

Nickky promised few pictures to be send in April 2011.

The Chair suggested that there is a need to bring more participants within the WG and ended this session congratulating the Convener.

#### 8. The Microscopy of Carbon Materials Conveners: Georgeta Predeanu, Cornelia Panaitescu

The Convener explained that the new WG of The Microscopy of Carbon Materials is directed to work

on the microscopically characterization of carbon materials derived from coal and petroleum, currently including materials as: calcinated anthracite, coal tar pitch, petroleum coke, graphite, electrographite (carbon waste), others.

The Convener presented the proposed methodology and methods, and the information required from the analysis of carbon materials. It was presented the main tasks of the 2-nd exercise as: i) selection of two types of coal-tar pitches: binder pitch (type A) and impregnating pitch (type C) currently used as matrix precursors of many carbon materials; ii) description the evolution of optical characteristics of pitches during heating up to 480, 500, 800 and 1000°C that influence their preparation within the production industrial steps; iii) the setting up of an inter-laboratory exercise involving the identification of the morphological differences occurred between type A and type C pitches as mesophase, semicoke and coke.

The WG's members were asked: to identify the mesophase formation from the isotropic aromatic parent liquid to an anisotropic solid texture (nucleation, coalescing, mesophase coalescing final stage); to classify the optical appearance during thermal evolution of the carbon textures by optical type (isotropy, anisotropy), shape/texture (punctiform, mosaic, ribbon, domain), size (fine, medium. coarse), miscellaneous materials/inclusions (different forms of organic and inorganic matter). For that a rather simple classification scheme was used in which the criteria to distinguish between different classes considered both the optical type (isotropic/anisotropic), texture and size. The system has 14 different classes that cover all the possible coke occurrences (according to previous experience of the ICCP Working Groups i.e. Coke Petrography and the published papers including the conveners' ones, and the existent standards, see: ASTM D 5061/1997, Microscopical determination of volume percent of textural components in metallurgical coke).

It was included an introduction to the terminology that describes the main optical textures and all the information needed to perform the exercise.

The results (qualitative) were received from 15 participants (~72%), representing 9 laboratories (increase of 100%), 9 countries (Spain, Portugal, Germany, Poland, USA, India, Serbia, UK, Romania). From these results it was possible to find the agreement and discrepancies in optical texture

results on 4 levels: i) identification of mesophase during the heating of the pitches; ii) optical type (isotropic or anisotropic); iii) optical texture (punctiform, mosaic, fiber, ribbon, domain); and iv) inclusions.

It was found out that the accuracy degree started from 70% (for mesophase type) and 80% for optical type, the average agreement being over 90% (not including the conveners and 2 exceptions). An acceptable agreement of 50-60% was achieved for assessing punctiform, fibel and ribbon and a good agreement of about 70% for mosaic, domain and inclusions. In case of the mosaic and fiber when exploring the size, it was sometimes difficult to find exact limits of the shape (fine, medium, coarse). The very good results obtained has demonstrated: the level of expertise of the participants, the same point of view regarding the classification, the clear and easy way of exercise presentation, and the good quality of the images.

The Convener concluded that the small number of discrepancies found betwen some of the analists is extremely encouraging, and prove that the number and accuracy of the pictures was properly chosen for the exercise.

Cornelia Panaitescu the co-convener of this WG said that the following exercises that will be performed within the next two years will be addressed to the asdsessment of the complex mixtures of components in comercial steel electrodes, in different technological steps of backing, re-backing, graphitization.

The Chair thanked the conveners for the interesting results of the WG and asked for discussion, comments. At this point some discussion was carried out to the poster session with some members of the WG: Angeles, Gisela and Gerd Bieg, and Sandra Rodrigues.

The Conveners also provided some of their recently published literature on carbon materials, to some members of the WG.

#### 9. Coal Blends Accreditation program (CBAP) Convener: Isabel Suárez-Ruiz

The convener of the CBAP presented the objective of the program, which is to accredit coal petrographers in coal blend analysis by the use of microscopically methods following the ISO standards and the methods previously developed by the coal blends WG. The convener showed the schedule for the third exercise and finally, as usual, requested for more single coals.

#### 10. Self heating in coal and coal waste dumps

Convenors: Magdalena Misz-Kennan, Jolanta Kus, Deolinda Flores

Magda Misz-Kennan presented the scope of the WG; the origin of the samples; the evaluation of results; the discussion regarding the different identified particles; the troubles encountered with assessment the particles; the suggestions for further exercise (to use cross hair instead arrows, to decrease the number of particles to be classified); and the planning for the next exercise for June 2011. Some suggestions were made to the Conveners to put an early dead line. In order to get that, Magda proposed also an early stage to prepare the samples, promising to send the pellets in February, and to ask for the results in June.

Another issue which have been discussed was related to the problematic items: isotropic coke; with regard to a picture (isotropic coke or not??). The Chair who raised the problem said that we can continue in the same way, but it is most appropriate to working in the Commission III by making a list of terms who will describe the specific particles appearances: combustion, pyrolysis, self-heating. Henrik Petersen requested that it is necessary only to follow the published char classification. Jolanta Kus and Isabel remarked that now, we have dealt with products of various processes that are happening in short periods of time in a coal dump. The Convener proposed to continuing discussion on the website.

Barbara Kwiecinska asked also the opinion about "paler in colour" origin term and asked if there were made reflectance measurements. Magda answered that the conveners did reflectance measurements but, they can only speculate on temperatures attained. Jolanta also agreed that it is important to supply the additional reflectance information on the next exercise. Peter Crosdale also asked how much troubles to use "paler than darkest" material which leaves open interpretation of the darkest material (does it represent unaltered material or not). Magda answered that there are parts of the dump.

Cornelia Panaitescu commented with regard to the establishing of the correct terms which must be in accordance with the origin of the coals and the conditions of heating; the presence of oxygen involves the obtaining of different products which must be correctly assessed in the proposed nomenclatures.

The Chair appreciated the importance of the WG, thanked the presentation and congratulated the conveners for the results.

Finally to conclude the activities of the Commission III at the 2010 ICCP Meeting, the Chair presented some new concepts on Carbon dioxide emissions factors as proposed by Jeff Quick, and presented by Lila Gurba. As only a couple of minutes were available for this presentation, Lila briefly discussed some issues related to currently interesting subject of CO<sub>2</sub> training emissions schemes and carbon emission factors as applied in USA (based on Jeff's presentation given at the 2010 TSOP meeting in Denver). She also provided Jeff's presentation to L. Vasconcelos a day before the meeting, but no comments were received. Her presentation was informative only with the aim to draw attention of the ICCP members to the issue of possible temporal variation of carbon emission factors in relation to coal rank, origin, country, coal type, and if there is a need to establish uniform terminologies and analytical procedures for establishing coal emissions factors. Because of the short time further discussion on carbon emission factors relevance to the objectives of the ICCP, and eventually development of a new working group was postpone to the next ICCP meeting.

Some comments were raised by Petra David (with regard to the topics which are not addressed to that of the ICCP, and concerns on what will be the expectations to do the WG), and by Peter Crosdale (who doesn't understand what will be the main outputs until the end of the project). Lila answered that the questions raised are not relevant, as no call for a new working group was made this time. The Chair requested from Lila more detailed information with regards to this issue for the next meeting in 2011 in Porto.

Finally, the Chair of the Commission thanked to all the conveners and participants in the Commission III, and closed the sessions for this year.

> Isabel Suárez-Ruiz Georgeta Predeanu 29.09.2010

#### Minutes of the 62<sup>nd</sup> Meeting of the International Committee for Coal and Organic Petrology (ICCP) September 26<sup>th</sup> – October 2<sup>nd</sup> 2010, Belgrade, Serbia

Dhata	Namo	Affiliation / Address	Country	amail
Photo Id	Name	Affiliation / Address	Country	email
37	Carla <b>Araujo</b>	Petrobras Research & Development Center, CENPES/GEOQ/PDEXP Av. Horácio Macedo, nº 950, Cidade Universitaria Ilha do Fundao Rio de Janeiro, CEP: 21941-915	Brazil	carla@petrobras.com.br
2	Gerd Bieg	Mikroskopische Untersuchungen Hirshgraben 2, 45721 Haltem am See	Germany	gbieg@t-online.de
3	Gisela <b>Bieg</b>	Mikroskopische Untersuchungen Hirshgraben 2, 45721 Haltem am See	Germany	mikro-un@t-online.de
6	Zuleika Carretta Correa da Silva	CEPAC, Pontifical Catholic University of Rio Grande do Sul Av. Ipiranga, 6681, Predio 96J Porto Alegre 90619-90	Brazil	zuleika.carretta@pucrs.br
48	Kimon Christanis	University of Patras Depatrment of Geology University campus, 26504, Rio-Patras	Greece	christan@upatras.gr
53	Alan <b>Cook</b>	Keiraville Konsultants Pty Ltd 7 Dallas Street, Keiraville NSW 2500	Australia	alanccook@ozemail.com.au
32	Peter Crosdale	Energy Resources Consulting Pty Ltd PO Box 54, Coorparoo, Qld 4151	Australia	peter.crosdale@energyrc.com.au
46	Petra <b>David</b>	TNO – Built Environment and Geosciences Business unit Geo-Energy Princetonlaan 6, P.O. Box 80015 508 TA Utrecht	The Netherlands	petra.david@tno.nl
41	Heike Eickhoff	ThyssenKrupp Steel Europe AG Kaiser-Wilhem Str. 100, 47161 Duisburg	Germany	Heike.eickhoff@thyssenkrupp.com
59	Marko Ercegovac	Serbian Academy of Sciences and Arts Knez Mihajlova 35, 11000 Belgrade	Serbia	merc@ptt.rs
10	Deolinda <b>Flores</b>	Departamento e Centro de Geologia da Faculdade de Ciencias da Universidade do Porto Rua do Campo Alegre 687, 4169-007 Porto	Portugal	dflores@fc.up.pt
28	Ángeles <b>Gómez</b> Borrego	Instituto Nacional del Carbón, CSIC Francisco Pintado Fe 26, 33011 Oviedo	Spain	angeles@incar.csic.es
57	Lila Wanda <b>Gurba</b>	University of New South Wales, School of Biological, Earth and Environmental Sciences Entry via Gate 9, High Street, Randwick NSW 2052	Australia	lila.gurba@ccsd.biz l.gurba@unsw.edu.au
35	Mária <b>Hámor-Vidó</b>	Eötvös Loránd Geophysical Institute of Hungary Columbus str. 17-23, H-1145 Budapest	Hungary	vido@elgi.hu hamorvido@gmail.com

# Appendix 2 - List of Participants

#### No 51 December 2010

Photo Id	Name	Affiliation / Address	Country	email
21	Bronisława <b>Hanak</b>	Silesian University of Technology, Faculty of Mining and Geology, Institute of Applied Geology Akademicka 2, 44-100 Gliwice	Poland	Bronislawa.Hanak@polsl.pl
15	Roberto Heemann	CEPAC/PUCRS Av.Ipiranga 6681, Predio 96J, Porto Alegre 90619-900	Brazil	roberto.heemann@pucrs.br
27	Antje <b>Hilgers</b>	Hilgers Techniches Buero Hauptstrasse 82, D 53639 Koenigswinter	Germany	info@hilgers.com
26	Carl H. Hilgers	Hilgers Techniches Buero Hauptstrasse 82, D 53639 Koenigswinter	Germany	info@hilgers.com
4	Iwona <b>Jelonek</b>	University of Silesia in Katowice Bankowa 12, 40-007 Katowice	Poland	ijelonek@wnoz.us.edu.pl iwona.jelonek@wnoz.us.edu.pl
9	Johannes <b>Joubert</b>	Coal Processing Technologies Sasol Technology R&D Klasie Havenga ave., 1947 Sasolburg	Republic of South Africa	johannes.joubert@sasol.com
23	Stavros Kalaitzidis	Geological Services BHP Billiton Mitsubishi Alliance, Central Queensland Office, Peak Downs Mine QLD 4744, Moranbah, Queensland	Australia	stkalaitzidis@gmail.com
54	Constantina <b>Katsanou</b>	University of Patras University campus, 26504, Rio-Patras	Greeece	katsanou@upatras.gr
7	Sławomir <b>Kędzior</b>	University of Silesia, Faculty of Earth Sciences Bedzinska 60, 41-200 Sosnowiec	Poland	slawomir.kedzior@us.edu.pl
5	João Marcelo Ketzer	CEPAC/PUCRS Av. Ipiranga, 6681, Predio 96J, Porto Alegre 90619-900	Brazil	marcelo.ketzer@pucrs.br
7	Kees Kommeren	Consultant Organic petrography Wilgendreef 45, Voorburg, 2272EM	The Netherlands	ykea@live.nl kees.kommeren@versatel.nl
51	Aleksandar <b>Kostić</b>	University of Belgrade, Faculty of Mining and Geology Djušina 7, 11000 Belgrade	Serbia	aleksandar_k@vektor.net kostica@rgf.bg.ac.rs
15	Krystyna <b>Kruszewska</b>	University of Silesia in Katowice Bankowa 12, 40-007 Katowice	Poland	k.kruszewska@wp.pl
.6	Marta <b>Krzesinska</b>	Silesian University of Technology (SUT), Institute of PhysicsDepartment of Applied Physics Krzywoustego 2, PL-44100 Gliwice	Poland	Marta.Krzesinska@polsl.pl mkrzesinska@polsl.pl
42	Jolanta <b>Kus</b>	Federal Institute for Geosciences and Natural Resources in Geocentre HANNOVER Stilleweg 2, D-30655 Hannover	Germany	J.Kus@bgr.de Jolanta.kus@bgr.de
25	Barbara <b>Kwiecinska</b>	AGH- University of Science and Technology Al. Mickiewicza 30, PL-30-059 Krakow	Poland	kwiecin@agh.edu.pl
56	João Graciano <b>Mendonça Filho</b>	UFRJ Universidade Federal do Rio de Janeiro Av. Pedro Calmon, no 550, Rio de Janeiro	Brazil	graciano@geologia.ufrj.br graciano@igdo.ufrj.br

# ICCP News

Photo Id	Name	Affiliation / Address	Country	email
14	Magdalena Misz-Kennan	University of Silesia, Faculty of Earth Sciences Bedzinska 60, 41-200 Sosnowiec	Poland	magdalena.misz@us.edu.pl
13	Rafał <b>Morga</b>	Silesian University of Technology, Faculty of Mining and Geology Akademicka 2, 44-100 Gliwice	Poland	rafal.morga@polsl.pl
9	Grzegorz Nowak	Polish Geological Institute - National Research Institute, Lower Silesian Branch Jaworowa 19, 53-122 Wroclaw	Poland	grzegorz.nowak@pgi.gov.pl gnow@pgi.gov.pl
22	Jacek Nowak	Silesian University of Technology, Faculty of Mining and Geology, Institute of Applied Geology Akademicka 2, 11-100 Gliwice	Poland	jacek.nowak@polsl.pl
50	Riza Görkem <b>Oskay</b>	University of Patras University campus, 26504, Rio-Patras	Turkey	oskay@upatras.gr
29	Cornelia <b>Panaitescu</b>	University Politehnica Bucharest Frumoasa Str., 22, Sector 1, 010987 Bucharest	Romania	cpanaitescu@b.astral.ro corneliapanaitescu@yahoo.com
20	Sandra Monica <b>Paulo Rodrigues</b>	Departamento e Centro de Geologia da Faculdade de Ciencias da Universidade do Porto Rua do Campo Alegre 687, 4169-007 Porto	Portugal	sandra.rodrigues@fc.up.pt
31	Magdalena Pawlowska-Koko wska	Silesian University of Technology, Faculty of Mining and Geology, Institute of Applied Geology Akademicka 2, 11-100 Gliwice	Poland	magdalena.kokowska-pawlowska@p olsl.pl
52	Dave <b>Pearson</b>	David E. Pearson & Associates Ltd. 4277 Houlihan Place, Victoria, British Columbia V8N 3T2	Canada	dpearson@coalpetrography.com
51	Jennifer <b>Pearson</b>	David E. Pearson & Associates Ltd. 4277 Houlihan Place, Victoria, British Columbia V8N 3T2	Canada	jen@coalpetrography.com
19	Henrik Ingermann <b>Petersen</b>	Geological Survey of Denmark and Greenland (GEUS) ØSTER Voldgade 10, DK-1350 Copenhagen K	Denmark	hip@geus.dk
36	Walter Pickel	Coal & Organic Petrology Services P/L 23/80 Box Rd, Taren Point NSW 2229	Australia	walter.pickel@organicpetrology.com walterpickel@optusnet.com.au
1	Margaret <b>Piechaczek</b>	Institute for Chemical Processing of Coal Zamkowa St.1, 41-803 Zabrze	Poland	mpiechaczek@ichpw.zabrze.pl
30	Georgeta <b>Predeanu</b>	Metallurgical Research Institute, ICEM SA, Department of Raw Materials, Coke and carbon Materials Laboratory Mehadia 39, Sector 6, 060543 Bucharest	Romania	gpredeanu@yahoo.com gpredeanu@metal.icem.ro
58	Dirk <b>Prinz</b>	RWTH Aachen University, Faculty of Georesources and Materials Engineering Intzestr. 1 52056 Aachen	Germany	prinz@lek.rwth_aachen.de
#### No 51 December 2010

Photo Id	Name	Affiliation / Address	Country	email
24	Sławomira <b>Pusz</b>	Sławomira <b>Pusz</b> Polish Academy of Sciences, Centre of Polymer and Carbon Materials M. Curie-Sklodowskiej 34, PL-41-819 Zabrze		slawomira.pusz@cmpw-pan.edu.pl
33	Paddy <b>Ranasinghe</b>	Keiraville Konsultants Pty Ltd 7 Dallas Street, Keiraville NSW 2500	Australia	Paddy_Ranasinghe@hotmail.com
55	Julito <b>Reyes</b>	Geological Survey of Canada 3303-33rd Street NW, Calgary, Alberta, T2L2A7	Canada	jreyes@nrcan.gc.ca
8	Joana <b>Ribeiro</b>	Departamento e Centro de Geologia da Faculdade de Ciencias da Universidade do Porto Rua do Campo Alegre 687, 4169-007 Porto	Portugal	joanaribeiro@fc.up.pt
38	Hamed Sanei	Geological Survey of Canada 3303-33rd Street NW, Calgary, Alberta, T2L2A7	Canada	hsanei@nrcan.gc.ca hamed.sanei@NRCan-RNCan.gc.ca
49	George Siavalas	University of Patras, Depatrment of Geology University campus, 26504, Rio-Patras	Greece	siavalas@upatras.gr
18	Lukasz <b>Smedowski</b>	Silesian University of Technology Krzywoustego Street 2, PL-44100 Gliwice	Poland	Lukasz.Smedowski@polsl.pl
4	Isabel <b>Suárez-Ruiz</b>	Instituto Nacional del Carbon (INCAR- CISC) Francisco Pintado Fe 26, 33011 Oviedo	Spain	isruiz@incar.csic.es
43	Ivana <b>Sýkorova</b>	Institute of Rock Structure and Mechanics AS CR, v.v.i. V Holesovickach 41, 182 09 Prague	Czech Republic	sykorova@irsm.cas.cz
34	Nader <b>Taghipour</b>	Damghan University, School of Earth Sciences 3671641167 Damghan	Iran	taghipour@dubs.ac.ir
12	Anabela Pinheiro Teixeira da Costa	Departamento e Centro de Geologia da Faculdade de Ciencias da Universidade do Porto Rua do Campo Alegre 687 4169-007 Porto	Portugal	anabelacosta@fc.up.pt
40	Daniel Van Niekerk	Sasol Technology Research and Development Klasie Havenga ave., 1947 Sasolburg	Republic of South Africa	daniel.vanniekerk@sasol.com
47	Lopo de Sousa e Vasconcelos	Universidade Eduardo Mondlane, Departamento de Geologia, Faculdade de Cincias C.P. 257 Maputo	Mozambique	lopovasconcelos@gmail.com
11	Nicola <b>Wagner</b>	University of Witwatersrand, School of Chemical & Metallurgical Engineering 1 Jan Smuts Avenue, Braamfontein 2000, Johannesburg	Republic of South Africa	Nicola.wagner@wits.ac.za
60	Dragana <b>Životić</b>	University of Belgrade, Faculty of Mining and Geology Djušina 7, 11000 Belgrade	Serbia	draganar@rgf.bg.ac.rs

Minutes of the 62<sup>nd</sup> Meeting of the International Committee for Coal and Organic Petrology (ICCP) September 26<sup>th</sup> – October 2<sup>nd</sup> 2010, Belgrade, Serbia

## Appendix 3 - New Members

Dr. Rer. Nat. Maria Eugenia Cisternas (A 2) Instituo GEA Universidad de Concepción Casilla 160-C Concepción 3 Chile Phone: +56-41-2204873 Fax: +56-41-2241045 mailto:mcistern@udec.cl



Dr Cisternas obtained her Ph.D. from the University of Heidelberg. She studied about the petrology of coals in 1992 at the University of Kyushu, Japan with Prof. Aihara. Early research interests were in the thermal evolution of the Eo-Miocene Valdivia and Osorno basins (southern Chile). More recent research has focussed in the study

of hydrothermal bitumen, temporally and spatially associated with stratabound copper deposits in the area of Atacama (northern Chile). The research was centred on the study of the paragenesis of bitumen and metallic mineralization, including bitumen reflectance as a thermal indicator. Recent renewed exploration of coal resources in the far south of Chile (particularly in the area of Isla Riesco) has lead to her teaching more broadly in: 1) incorporating coal petrography in the Sedimentary Petrology course and; 2) applied scientific research maceral and microlitotype analysis as well as rank evaluation (based on vitrinite reflectance). Ms. Lauren Johnson (A 1, 3) ALS Coal P.O. Box 242 Booval 4304 Qld Phone: +61-7-3810 5200 Fax: +61-7-3816 1107 mailto:Lauren.johnson@alsglobal.com Australia



Lauren Johnson has been employed by ALS Coal since November 2006. She currently works as Coal Utilisation Consultant in the QLD Coal Technology Business Unit. In this role Lauren is involved in consulting in the areas of Petrographic analysis and Carbonisation as well as participating in Research

projects, a current project is focused on automated structural analysis of Coke by imaging. Her previous roles at ALS have seen her conduct routine Petrographic Analysis (Vitrinite Reflectance and Maceral Analysis) as well as Coke Microtexture analysis an interpretive petrographic reports. Lauren has been involved in the running of ALS's Carbonisation research centre as well as the reporting and interpretation of carbonisation test work. Lauren Graduated From the University of Queensland in 2006 with a Bachelor of Science. She first achieved ICCP accreditation in the SCAP program in 2008.

Minutes of the 62<sup>nd</sup> Meeting of the International Committee for Coal and Organic Petrology (ICCP) September 26<sup>th</sup> – October 2<sup>nd</sup> 2010, Belgrade, Serbia

## Appendix 4 - Treasurer's Report

#### ICCP Treasurer's Report August 31, 2009 – July 31, 2010

The annual accounts for the financial year ending July  $31^{st}$ , 2010, are listed in Tables 1 and 2. Table 1 shows the closing balance in all accounts compared to the previous year. Table 2 is a summary of all receipts and expenditures, all the Canadian dollar transactions have been converted to Euros, using the exchange rate at closing of July 31, 2010 (\$1 Can = €0.7424).

Our final balance of  $\notin$  59,311.22 is higher than the previous year by  $\notin$  15,104.95, most of this can be accounted for by the moneys coming in from the accreditation fees as follows:

SCAP	€7,224.19
DOMVR	€1,242.04
CBAP	€2,702.85
Total	€11,169.08

Bear in mind that only €628.95 has been paid out

for expenses incurred in the accreditation program, so this is not all profit.

Assets & Liabilities	July 2010	July 2009
Canadian Account		
Chequing Account	\$ 6,781.63	\$24,037.71
Savings Account	51,277.43	51,200.00
Cash		17.29
Accounts Payable		(2,553.94)
Total	\$58,059.06	\$72,701.06
Exchange rate at year end	\$1 = €0.74 =€42,963.70	
Euro Account		
Chequing Account	€14,621.41	€2006.04
Cash	35.00	35.00
Accreditation Float (Australia)	610.06	610.06
SCAP Float	171.05	
General Secretary	313.58	277.47
President	596.42	
Accounts Payable		(5977.99)
Total	€16,347.52	(€3,049.42)
Balance in Euros	€59,311.22	€44,206.27

The advantage of having a Canadian treasurer in these economic times is that the Canadian dollar has remained relatively strong and less volatile than other currencies, e.g. at the end of July 2009 the \$50,000Can in the Savings account was equal to  $\epsilon$ 32,500, July 2010 the same \$50,000Can is equal to  $\epsilon$ 37,000. This accounts for some of the gain in the final balance. The Euro has fluctuated considerably over the year as shown below:

July 2009	€1 = \$1.539can
Nov 2009	€1 = \$1.584can
June 2010	€1 = \$1.268can
July 2010	€1 = \$1.3467can

However the economic times have also affected our interest rate in the savings account, in July 2009 we received 1,200 (2.4%), in interest payments for our deposit of \$50,000. This year we only received \$77.43 in interest, as the rate has gone down to 0.15%.

 Table 2: Income Statement as of July 31, 2010 in Euro

Canadian \$ amounts converted to Euros using exchange rates at end of July 2010. ( $\notin 1 = \$1.3470$  Canadian)

Tates at end of July 201			· · · · · · · · · · · · · · · · · · ·
	Column 1 Can \$	Column 2 Euros	Column 3 Total in €
<u>Opening Balance –</u> July 31/2009			
Canadian Accounts	\$72,701.06		€47,255.69
Euro Accounts		€(3,049.42)	€(3,049.42)
TOTAL			€44,206.27
Receipts:			
Membership Dues			€1624.01
Prepaid Membership			€2154.08
Donation & Sponsorship			€3450.87
Sales & Advertising			€496.08
Accreditation : SCAP			€7224.19
DOMVR			€1242.04
CBAP			€2702.85
Org. Pet. Courses			€18150.89
Transfer from Can/Euro Acct	)		€21062.00
Recovered Expenses			€1691.00
Bank Interest Received			€57.50
Gain on Exchange			€4443.52
TOTALS			€64,299.03
Expenses:			
Credit Card Charges			€1092.83
Bank Charges			€580.52
Administration			€437.94
Gramado Meeting			€795.04
Accreditation: SCAP			€628.95
Org. Pet. Courses			€22985.16
Newsletter			€1611.64
Transfer to Can/Euro Account			€21062.00
TOTALS			€49,194.08
FINAL BALANCE			€59,311.22

Although we held two very successful organic petrology courses in Potsdam, one in November 2009 and one in June 2010, we actually made a loss on both  $\notin$ 847.86 on the first and  $\notin$ 2,158.55 on the second.

As of August 31, 2010 14 members have yet to pay their dues for 2009 and 15 members have not paid since 2008 or earlier.

Minutes of the 62<sup>nd</sup> Meeting of the International Committee for Coal and Organic Petrology (ICCP) September 26<sup>th</sup> – October 2<sup>nd</sup> 2010, Belgrade, Serbia

## Appendix 5 - 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. 47 July 2009, No. 48 November 2009 and No. 49 April 2010 (Table 1). During the year, the number of persons not receiving a hard copy of the newsletter was constant at 65, the same as the previous year (Table 2). This was due to the editor not reconciling his records with those of the treasurer until after the distribution of ICCP News #49. At present, 97 members(out of 207 = 47%) 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 an increase of 32 during the year and compares to the increase of 21 in the 2008 - 09 year. This rapid increase reflects the new fee structure which commenced in January 2009 and is partly occurring in response to 3 year memberships becoming due. The new fees offer substantial discounts for members who opt not to receive a hard copy of the newsletter by post. Due to many members paying on a three year cycle, the number of internet only newsletter recipients is expected to continue to increase over the next year with a consequent decrease in the number of paper copies distributed.

<b>I ADIC I</b> MILLI LISTIDULION DV LETON	Table 1	Mail	distribution	bv	region
--	---------	------	--------------	----	--------

	IC	СР	IC	СР	IC	СР
	New	's 47	New	s 48	New	's 49
Region	No.	%	No.	%	No.	%
Africa	8	6	9	6	9	6
Asia	23	17	23	16	23	16
Australasia	21	15	21	14	21	15
Europe	59	42	63	43	62	43
North America	20	14	21	14	21	15
South America	8	6	8	6	8	6
Total	139	100	145	99	144	101

	-					-			-		-
distri	but	ie	n	h	v	r	eg	ri	0	n	

	# 44	#45	#46	#47	<b>#48</b>	<b># 49</b>
Africa	2	2	2	2	2	2
Asia	5	5	5	5	5	5
Australasia	8	8	10	10	10	10
Europe	26	26	28	28	28	28
North America	12	12	15	15	15	15
South America	3	5	5	5	5	5
Total	56	58	65	65	65	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. No similar historical trend data appears to be available from other sources. Membership has been relatively stable at a little over 200 since 2009. A large fall in 2001 was associated with many members being removed due to non-payment of fees. However, many of these persons were subsequently recovered in 2002. There has been a substantial increase since 2007 which has been driven by an increase in the number of non-European members.



Historical distribution of the ICCP News is a proxy for membership numbers as well as regional distribution of members.

#### 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.

		2009 - 2010	
	no. items	no. pages	% pages
News from Commissions	5	34.75	25
News from Council (Ed/ Pres/ Treas)	10	5.5	4
Meeting minutes	1	40	29
Next Meeting Information	3	22.5	16
Accreditation	1	1.25	1
Other ICCP Information	17	20	15
Scientific Articles	1	0.5	0
Other Articles	2	1.25	1
Miscellaneous Items (KYCP etc)	14	11.25	8
Total	55	137	99

Table 3 Summary	of contributions to	ICCP News by type
-----------------	---------------------	-------------------

Apart from working group reports, contributions from members still requires a substantial effort to attract items. This effort includes both a general email-out to all members about one month prior to printing as well as targeting particular members for contributions. The Chairs of the Commissions are also reminded 4 to 6 weeks prior to printing for news of working group activities or other relevant commission information. A close liaison is also maintained with the convenor of the upcoming meeting to ensure that timely and relevant information is published.

#### Advertising

The possibility of paid advertising was introduced for the first time in 2009 - 2001, with the schedule of rates approved by the 2009 Council meeting given below.

	Rate per insertion (\$US)*				
	Once only	4 times (20%			
		discount)			
Full Page	400	320			
<sup>1</sup> / <sub>2</sub> Page	200	160			
1/4 Page	100	80			
1/8th Page	60	48			
*		X C C D 1			

\* a 10% discount applies to ICCP members

One un paid advertisement was made in 2009-2010, advertising a book. In accordance with ICCP Council Resolutions made in Utrecht, a

number of extended conference promotions had been placed at no charge. It was considered that these meetings were of high importance and direct relevance to ICCP Members and their extended promotion would be useful in advancing our science.

#### <u>Costs</u>

Expenses incurred in production and distribution of ICCP News during 2009 - 2010 are detailed in Table 4. Printing costs have been kept to a minimum by the use of photocopying technology, which is substantially cheaper for print runs of fewer than 500. A few additional copies are kept on hand in case of requests by members.

Average costs have been calculated including all costs of production (printing, folding, stapling and trimming), postage, stationery and any other noted expenses. Historically, the range of average total cost per page for the past 22 ICCP News is 0.12 to 0.29 AUD (Fig. 1). Costs fluctuate between different issues due to varying numbers of pages and varying postage costs as well as due to the procurement of stationery items such as mailing envelopes and labels. About half the total cost is in postage and the other half in printing. Notes on particular reasons for variations in costs for previous financial years can be found in the relevant report of the Editor. As expected, there is a strong relationship between the number of pages and the costs (Fig. 2). More pages means a higher total cost per copy but a lower average per page cost. Since the page printing cost per page is almost constant, the lower per page rate relates to lower relative postage costs.

Table 4 ICCP	News Costs	in AUD
--------------	------------	--------

Year	2009	2009	2010
Newsletter No.	47	48	49
No. Pages	28	76	36
No. Copies printed	150	150	150
Printing	352.34	797.94	392.04
Postage -	307.85	666.26	461.65
international			
Postage - domestic	22.00	33.00	22.00
Stationery -	0.00	0.00	0.00
envelopes			
Stationery - labels	0.00	0.00	0.00
Total	682.19	1497.20	875.69

Monitoring of costs has continued since a steep rise in 2004 - 2005 from 0.15 to 0.21 to 0.29 AUD per page. The printing costs are now stable at around 0.08 to 0.09AUD per page by negotiating a new price with the printers in late 2005. The per copy costs were \$6.07, \$8.80 and \$4,31 AUD for issues 44, 45 and 46 respectively.

<u>Reconciliation of budgeted versus actual costs</u> The Editor's report for 2008 - 2009 provided estimates for the 2009 - 2010 year. These estimates are reconciled with the actuals in Table 5.

**Table 5.** Budgeted (B) versus Actuals (A) for the 2009 -2010 financial year

Item	Nun	nber	Nur	nber	Total	cost	Total	Cost
	of p	ages	of co	opies	per p	age	AU	JD
			prii	nted	(AU	D)	(wł	nole
							dol	lars
							on	ly)
	В	Α	В	Α	В	Α	В	Α
ICCP	28	28	150	150	0.16	0.1	665	682
News 47						6		
ICCP	60	76	150	150	0.13	0.1	1170	1497
News 48						3		
ICCP	28	36	140	150	0.16	0.1	627	876
News 49						6		
Directory	24	0	210	0	0.13	0.0	655	0
-						0		
Miscellan							50	0
eous								
Total	140	142					3176	3055

Actual expenditure was \$119 AUD lower than budgeted. The higher than budgeted cost of ICCP News 49 was due to the larger number of pages than expected. This was offset by the directory not being published in the 2009 - 2010 financial year.

#### Proposals for 2010 - 2011 Financial Year

#### **ICCP** News - Number of editions

Three editions of ICCP News were

produced in 2009 - 2010 and it is proposed to again produce 3 ICCP News editions for 2010 -2011, #50 August 2010, #51 November 2010 and #52 March 2010. At the time of writing, ICCP News #50, August 2010 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 2010 - 2011

Budget estimates for production of ICCP News in 2010 - 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
2010 - 2011 financial year		

Item	Number	Number of	Cost per	AUD
	of pages	copies	page	
		printed	(AUD)	
ICCP News 50	24	115	0.19	536
ICCP News 51	64	115	0.13	957
ICCP News 52	28	115	0.17	547
ICCP 2010	24	210	0.13	655
Directory				
Miscellaneous <sup>a</sup>				50
<b>Total Projected</b>				2745

Notes: <sup>a.</sup> Miscellaneous items include CD ROMs, additional postage and stationery during the year and other small items.

Peter Crosdale

Minutes of the 62<sup>nd</sup> Meeting of the International Committee for Coal and Organic Petrology (ICCP) September 26th – October 2nd 2010, Belgrade, Serbia

## **Appendix 6 - Summary Council Minutes**

#### Short Minutes of the Council Meeting 62<sup>nd</sup> ICCP Meeting in Belgrade, Serbia , 26<sup>th</sup> September - 2<sup>nd</sup> October 2010

Council Meetings on 26<sup>th</sup> September 13.00 - 19.00 h and on 28<sup>th</sup> September, 18.30 - 20.00 h

Members of Council present: Petra David, President, Angeles Gómez Borrego, General Secretary, Lopo Vasconcelos Vice-President, Jennifer Pearson Honorary Treasurer, Peter Crosdale, Editor, Deolinda Flores, Chair Commission I, Stavros Kalaitzidis, Secretary Commission I, Carla Araujo Chair Commission II, Isabel Suárez Ruiz, Chair Commission III and Georgeta Predeanu Secretary Commission III

Apologies for non-attendance received from **Paul Hackley**, Secretary Commission II

Alan Cook and Marko Ercegovac attended as observers

#### 2. Minutes of Previous Meeting

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

*Resolution ICCPC10/2/1. Council approves the Council minutes as circulated.* 

Resolution ICCPC10/2/2. Council approves the Plenary Session minutes as printed in the ICCP Newsletter.

#### 4. Future Meetings

Two invitations were received to host the 65th and 67<sup>th</sup> ICCP Meetings in 2013 and 2015 respectively.

Resolution ICCPC10/4/1. Council thanks the organizers for the invitation and approves to hold the 2013 Meeting in Sosnowiec, Poland

Resolution ICCPC10/4/2. Council thanks the organizers for invitation and approves to hold the 2015 Meeting in Tete, Mozambique

#### 5. Membership

The last updated directory was produced in July 2008 and distributed in August 2008. Next updated version is scheduled for autumn 2010.

Resolution ICCPC10/5/3. Noting the excellent response to the directory, Council renews its thanks the Editor, the Hon Treasurer and the General Secretary for their continued work in preparing the new directory.

Resolution ICCPC10/5/4. Council also renews it request that the new directory be posted on a secure area of the website now that appropriate access codes for this area are available.

#### 6. Awards

Following the Resolution *ICCP/09/06/03 Council* requests the General Secretary and President to draft more detailed guidelines for a better discrimination of the 2 *ICCP* Awards, a draft has been discussed and approved in Council. The guidelines are detailed in the General Course of the Meeting Section and only the Resolutions are listed here. Plenary the guidelines for awarding the Thiessen Medal and requests to make it available in the ICCP Web site.

Resolution ICCP10/6/2. Council forwards to the Plenary the guidelines for awarding the Organic Petrology award and requests to make it available in the ICCP Web site.

Previous Thiessen Medal and Organic Petrology Awardees have been contacted to establish new Thiessen and Organic Petrology Awards Committees.

Noting the lack of a formal procedure for awarding Honorary Membership of the ICCP, some guidelines have been established which are described in the General Course of the Meeting Section.

Resolution ICCP10/6/3 Council forwards to the Plenary a new procedure for awarding Honorary membership status based on outstanding contributions to the ICCP over the years. Candidates should be nominated to the ICCP Council, who will rule on the nomination and make their recommendation to the General Assembly.

#### 7. Treasurer's Report

The Treasurers Report as shown in Appendix 4 was presented to the Council

#### Resolution ICCPC10/7/1. Council

*i)* receives the report presented by the Honorary Treasurer

*ii)* 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 5 was presented to the Council

Resolution ICCPC10/8/1. Council receives the report of the Editor and congratulates him on the presentation of the Newsletter.

Resolution ICCPC10/8/2. Council approves spending by the editor in accordance with the budget estimates given in the Editors Report.

#### 9. Website

Resolution ICCP10/6/1. Council forwards to the

Resolution ICCPC10/9/1. Council thanks the organizers of present ICCP Meeting for using the ICCP website to provide information about the meeting and informs the organizers of future meetings that ICCP website is always available for the organizers of the meetings.

Resolution ICCPC10/9/2. 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 ICCPC10/9/3. 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.

Resolution ICCPC10/9/4. 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 ICCPC10/11/1. Council thanks the three candidates for standing for elections of Secretary of Commission II and congratulates the successful candidate.

Resolution ICCPC10/11/2. Council receives the report presented by the Returning Officer, renovates his thanks to A. Harold Smith for continuing his activity as Returning Officer.

#### 12. Registration of ICCP

Resolved ICCPC10/12/1. Council approves to send out the ballot for Registration. The following jurisdictions will be considered: Australia ASIC (QLD), Canada (BC), Spain.

#### 13. Revision of the Statutes

The Vice-President performed a compilation of previous contributions to the revision of statutes.

#### 14. Accreditation Program

A report from the chair of the Accreditation Subcommittee was received.

Resolution ICCPC10/14/1 Council receives the report of the Chair of the Accreditation Sub-Committee and congratulates her on the report.

#### **15. ICCP training Activities**

Two courses were celebrated in Potsdam, Germany since the last ICCP Meeting.

ICCPC10/15/1. Council notes the large involvement of the Vice-President in keeping working the ICCP training activities and congratulates him for his work. Council notes the enormous amount of work involved in teaching the 4 days intensive ICCP course and express that ICCP is deeply in debt with Dr. Alan Cook and Dr. Claus Diessel for having accepted this challenge. The personal and material support of Carl Hilgers for the microscopy session and the sponsorship of Peter Crosdale are also gratefully acknowledged. Council notes the enormous amount of work carried out by the local organizers (Andreas Küppers and Antje Treutler) for the organization of the ICCP courses. They have been awarded with a diploma of Special Collaborators.

A General Assembly resolution acknowledging President's contribution to the organization of the Training Courses was suggested.

ICCPGA10/15/1. General Assembly notes the invaluable contribution of the ICCP President to the organization of the two ICCP training courses.

5 October 2010



Dragana (L), Stavros and Lopo take the opportunity to do a Balkan reel at the most excellent dinner in Belgrade

## **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

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). More information as to the criteria considered for each award can be found on page 9 of this issue (ICCP News 51)

## 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 2011. 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 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 as well as the most recent awardees. Eventually, the award committee will consist of the five most recent recipients.

Nominations will be accepted for 2011. 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 mailto:angeles@incar.csic.es

## Thermal evolution of the coal-tar pitches structure studied within the Microscopy of Carbon Materials ICCP Working Group

Georgeta Predeanu<sup>1</sup>, Cornelia Panaitescu<sup>2</sup>, Gisela Bieg<sup>3</sup>, Angeles Gómez Borrego<sup>4</sup>, Maria Antonia Diez<sup>4</sup>, Barbara Kwiecińska<sup>5</sup>, Manuela Marques<sup>6</sup>, Maria Mastalerz<sup>7</sup>, Magdalena Misz-Kennan<sup>8</sup>, Sławomira Pusz<sup>9</sup>, Isabel Suárez Ruiz<sup>4</sup>, Sandra Rodriguez<sup>4</sup>, Dragana Životić<sup>10</sup>

1 Metallurgical Research Institute, Mehadia St. 39, Sector 6, 060543, Bucharest, Romania.

7 Indiana University, Indiana Geological Survey, 611 North Walnut Grove, Bloomington, Indiana 47405-2208, USA.

8 University of Silezia ul. Bçdzińska 60, 41-200 Sosnowiec, Poland.

- 9 Polish Academy of Sciences, ul. Sowińskiego 5, 44-121 Gliwice, Poland.
- 10 University of Belgrade, Djusina 7, 11000 Belgrade, Serbia.

#### Introduction

The Microscopy of Carbon Materials Working Group of Commission III of the International Committee for Coal and Organic Petrology was established to investigate the efficiency of microscopically methods to the study of carbon materials derived from coal and petroleum, with an emphasis on quality control of raw materials either on different technological stages, in order to evaluate the physical-chemical properties of the parent, intermediary, and final products.

Within the 2<sup>nd</sup> exercise on Carbon Materials Working Group 2010 the conveners proposed an exercise involving the identification of the morphological differences occurred between two types of different thermally treated coal-tar pitches: binder pitch (type A) and impregnating pitch (type C) currently used as matrix precursors of many carbon materials. The selected pitch samples were provided by the Romanian industrial manufacturer of steel electrodes (Electrocarbon SA Slatina).

The binder and impregnating pitches are prepared from the coal-tar pitch supplied by coking plants and their characteristics depend on those of tar. The coal-tar characteristics are influenced by coal blends properties and coking parameters.

The quality of graphitizable carbons is directly related to pitch semicoke and coke an optical texture, which is controlled by the development of mesophase during the carbonization process and which depends on the chemistry and reactivity of pitch components.

The Working Group members were asked:

• to identify the mesophase formation from the

isotropic aromatic parent liquid to an anisotropic solid texture (nucleation, coalescing, mesophase coalescing final stage).

• to classify the optical appearance during thermal evolution of the coal-tar pitch carbon textures by optical type (isotropy, anisotropy), shape/texture (punctiform, mosaic, ribbon, domain), size (fine, medium, coarse), miscellaneous materials/inclusions (different forms of organic and inorganic matter).

#### Methodology

A rather simple classification scheme was proposed in which the criteria to distinguish between different classes considered both the optical type (isotropic/anisotropic), texture and size. The system cover all the possible coke occurrences.

For the optical study 8 polished mounts of binder and impregnating pitch (4 samples each) have been carried out. The interlaboratory exercise involved the assessment and classification of 113 fields belonging to 42 different black and white pictures (from a total of about 300 digital microphotographs) taken using an Olympus optical microscope (polarized light, 50X glycerin immersion objective).

The first criteria choosen was to identify the formation of anisotropic coal-tar pitch mesophase from the isotropic phase during heating. The optical texture of experimental binder and impregnating pitches is defined by the size, shape and orientation of the different mesophase spheres corresponding to different carbonization stages: nucleation,

<sup>2</sup> University Politehnica Bucharest, Polizu St. 1, Sector 1, 011061, Bucharest, Romania.

<sup>3</sup> Mikroskopische Untersuchungen, Hirschgraben 2, 45721 Haltern am See, Germany.

<sup>4</sup> Instituto Nacional del Carbón (INCAR-CSIC). Ap. Co., 73. 33080-Oviedo. Spain.

<sup>5</sup> AGH University of Science and Technology, Al. Mickiewicza 30, 30-059 Kraków, Poland.

<sup>6</sup> Universidade do Porto, Rua Campo Alegre 687, 4169-007 Porto, Portugal.

growing and coalescing (Fig. 1,2). Mesophase spheres appear to have distinct textures and mainly sizes (medium, coarse). The contrasting areas in the

textures - anisotropy - correspond to those where the liquid crystals molecules are oriented in different directions (Fig.2).





Fig. 1. Binder pitch mesophase optical transformation: 1-Nucleation (embryonic spheres stage  $<5 \mu m$ ); 2-Spheres growing (10-15 $\mu m$ ). PL, imm., 500x





*Fig. 2. Optical transformation of the pitch mesophase during growing and coalescing: 1-Small spheres in binder pitch; 2-Coarse spheres in impregnation pitch type; 3- Coalescing spheres. PL, imm., 500x* 

The criteria proposed for the classifications of optical appearance of mesophase during thermal evolution to semicoke and coke were according to the terminology belonging to the ASTM D 5061/1997, Microscopical determination of volume percent of textural components in metallurgical coke, as follows:

• Isotropic phase - binder phase carbon texture that exhibits optical properties that are the same

in all directions when viewed with an optical microscope having polarized light, and crossed nicols;

- Anisotropic exhibiting optical properties of different values when viewed with an optical microscope having polarized light, and crossed nicols;
- Binder phase continuous solid carbon matrix formed during the thermoplastic deformation of

coal macerals that become plastic during carbonization;

- Ribbon anisotropic phase group of binder phase anisotropic carbon textures distinguished by their ribbon -like domains [that is length (L) to width (W) ratio of L>4W);
- Domain region of anisotropy in a carbon form that is distinctively marked by its isochromatic boundary and cleavage.

Early conversion of coal-tar pitch to semicoke takes place with increasing the heat treatment. The mesophase spheres coalescing to an incipient structural organization before solidification to semicoke, Fig.3. Final stage of conversion to semicoke takes place with increasing the duration



of the heat treatment (from 1 to 2 hours), Fig.4, 5. The optical texture varies from coarse mosaic to domain-anisotropic and even flow type, depending on the nature of raw coal and the technological parameters of coking.

With continuous heat treatment (at 800°C and 1000°C and 1 hour soaking time) the semicoke resulted from mesophase pitch, develops a higher structural organization to coke with more reflecting anisotropic units and larger porosity. The temperatures of 800°C (in case of type C pitch, Fig.6) and 1000°C (in case of type A pitch, Fig.7), were used to get the re-backing stage after impregnation and respectively, the backing phase corresponding to the industrial processes.



*Fig. 3. Pitch mesophase coalescing to semicoke: 1-Incipient structural organization of mesophase to semicoke (pitch type A) ; 2-The same (for pitch type C). PL, imm., 500x.* 





*Fig. 4. Pitch mesophase final stage (pitch type A): 1-Final structural organization of semicoke; 2- Domain (>20µm); 3-Insoluble matter (QI); 4-Isotropic inclusion. PL, imm., 500x* 





Fig.5. Pitch semicoke optical texture (pitch type C): 1-Domain (>20µm); 2-Flow type. PL, imm., 500x.



Fig. 6. Coke optical texture of pitch type C (800oC). 1-Mosaic medium (1-5 $\mu$ m) and coarse (5-10 $\mu$ m); 2-Fiber fine (<5  $\mu$ m), medium (5-10 $\mu$ m) and coarse (10-20 $\mu$ m); 3-Ribbon (L>4W) 4-Domain (>20 $\mu$ m). PL, imm., 500x.

## ICCP News



Fig.7. Coke optical texture of pitch type A (1000oC). 1-Mosaic medium (1-5 $\mu$ m) and coarse (5-10 $\mu$ m); 2-Fiber fine (<5  $\mu$ m) and medium (5-10 $\mu$ m); 3-Mosaic coarse (5-10 $\mu$ m) and domain (>20 $\mu$ m). PL, imm., 500x.

#### Results

From the qualitative results it was possible to find the agreement and discrepancies in optical texture results, on 4 levels: i. identification of mesophase during the heating of the pitches; ii. optical type (isotropic or anisotropical); iii. optical texture (punctiform, mosaic, fiber, ribbon, domain); iv. inclusions.

In case of the identification of anisotropic coal-tar pitch mesophase stage the average agreement is of 90%. The evaluation revealed the highest level of agreement in evaluation of the isotropic and anisotropic types. The accuracy degree starts from 80%, the average agreement being of 97%.

For the optical texture assessment the results

achieved a lower level of agreement. The classification of carbons sizes revealed that only 52% were identified as punctiform, 58% as fiber and 50% as ribbon. Additionally, for mosaic, domain and inclusions the level of agreement was of about 70%.

#### **Preliminary conclusions**

The very good results demonstrate the high level of expertise of the participants, the same point of view regarding the classification, the clear and easy way of exercise presentation, and the good quality of the images. However, punctiform, mosaic and ribbon were sometimes difficult to be evaluated with regard to the exact limits of the shape (fine, medium, coarse).

## ICCP Organic Petrology Training Program May 9 - 13 2011 University of the Witwatersrand, Johannesburg, South Africa

The International Committee for Coal and Organic Petrology (ICCP), in conjunction with the University of the Witwatersrand and the SANERI Chair in Clean Coal Technology, is pleased to announce a training program in organic petrology to be held in Johannesburg, South Africa, May 2011.

The course will follow the structure of the 2 previous, highly successful organic petrology training courses, with a distinct Gondwana flavour. The course will be centred on the petrology of coals with a particular emphasis on their petrography. Practical applications and technological importance will be stressed. Students may bring their own samples for discussion. While a basic geological understanding will be assumed, the course is designed for those with little or no particular knowledge of coal or coal petrology. It is therefore suitable for undergraduate or post graduate students as well as established professionals who require a more thorough understanding of coal.

Topics to be covered include:

- Coal origin and formation including peat forming environments, sedimentary environments, coalification and tectonic setting
- Coal classification & standards
- History of organic petrology
- Sample preparation
- The petrographic microscope

- Petrographic techniques: point counting, reflectance, fluorescence
- Macerals, microlithotypes, lithotypes, minerals, rank
- Interpretation of petrographic results and their applications
- Exploration, beneficiation
- Chars combustion, gasification, coking
- Practical sessions
- Field trip

#### Presenters

Dr Alan C. Cook Prof. em. Dr Claus F.K. Diessel Prof. Rosemary Falcon Coordination by Prof Nikki Wagner

Costs are being finalised, and will be kept as low as possible as support funding has been received. Bona fida students will receive a significant discount.

Cost for the course excludes travel, accommodation and meals except where stated. Costs include field trip, course notes, lunches and coffee, ice breaker and farewell function. Accommodation will be suggested closer to the time.

Space is limited (25 persons maximum) and will be on a first come basis.

Further information is available from Nikki Wagner

mailto:Nicola.wagner@wits.ac.za

Please copy all emails to ICCP Vice-President and Training Courses Working Group Coordinator, Lopo Vasconcelos

mailto:lopovasconcelos@gmail.com

#### News from ASTM

The American Society for Testing and Materials subcommittee D05.28 for the petrographic analysis of coal and coke met during ASTM committee week October 12-15, 2010, at the Grand Hyatt, San Antonio, Texas. Subcommittee D05.28 is charged with maintaining six ASTM consensus standards. These include three test methods: 1) vitrinite reflectance of coal, 2) maceral composition of coal, and 3) textural components of coke. Also included are three practices: 1) preparing coal samples for microscopical analysis, 2) preparing coke samples for microscopical analysis, and 3) etching of coal samples. The subcommittee is preparing to ballot a new test method standard for the measurement of the reflectance of vitrinite dispersed in sedimentary rocks.

Attending the October meeting were Jesse Belcher (Inspectorate America Corporation), Michael Carmon (Hampton Roads Testing Laboratories), Jason Carter (Intertek Caleb Brett), Katie Danyko and Michael Haven (Intertek OCA), Bob Gossett (Arch Coal, Inc.), Eric Hatfield (SGS Mineral Services), Paul Hackley (U.S. Geological Survey), Victor King (SunCoke Energy), Doug Lowenhaupt (Consol Energy), Tommy Pike (ABC Coke), and Dave Spong (ArcelorMittal Dofasco). Business items before the subcommittee included new ballots for the coal preparation and vitrinite reflectance standards. Proposed revision of standard D2797 for coal petrographic sample preparation included significant changes, such as the addition of language to incorporate the growing use of thermoset resins and automated mounting Ballots for the vitrinite reflectance presses. standard D2798 will include updated abbreviations for mean maximum and mean random reflectance, and language to include CCD light detection systems.

The coal and coke petrography subcommittee will next meet in Anaheim, California, May 15-18, 2011, and a teleconference will be arranged beforehand for interested parties who cannot attend the California meeting. Coal and coke petrographers using ASTM standards are encouraged to participate in the teleconference and to attend the Anaheim meeting: please contact Paul Hackley (mailto:phackley@usgs.gov) for additional information.

Representatives from the metallurgical coal industry are the principal members in ASTM subcommittee D05.28 (currently with thirty members), including coal, coke, and steel companies, service laboratories, and consultancies. A small minority of the subcommittee consists of representatives from governmental organizations and academia. ASTM members have an individual vote in the development and maintenance of petrographic standards.

## 63<sup>rd</sup> Annual Meeting of the International Committee for Coal and Organic Petrology (ICCP) September 10-16, 2011, Porto, Portugal

#### 1. Meeting Venue

The 63<sup>rd</sup> Annual Meeting of the International Committee for Coal and Organic Petrology will be held in Porto (Portugal) in September 10-16, 2011, and the meeting venue is the Departamento de Geociências, Ambiente e Ordenamento do Território, Faculdade de Ciências da Universidade do Porto (Rua do Campo Alegre, 687, 4169-007, Porto, Portugal).

Porto, one of Europe's oldest cities, is the second largest city in Portugal. The urbanized area of Porto has a population of 1.1 million in an area of 389 km<sup>2</sup>. Porto combines tradition with modernity and contemporary architecture with historic monuments.

Located along the Douro river estuary in northern Portugal, Porto is one of the oldest European centres, and registered as a World Heritage Site by UNESCO since 1996. One of world's most famous wines, port wine, is named for Porto, since the metropolitan area, and in particular the cellars of Vila Nova de Gaia, where there are more than fifty companies that make this wine.

More information about Porto available at the website: http://www.portocvb.com



*Fig. 1. Departamento de Geociências, Ambiente e Ordenamento do Território, Faculdade de Ciências da Universidade do Porto* 

#### 2. Organizing Committee

Deolinda Flores - dflores@fc.up.pt Manuela Marques - maarques@fc.up.pt Bruno Valentim - bvvalent@fc.up.pt Joana Ribeiro - joanaribeiro@fc.up.pt Sandra Rodrigues - sandra.rodrigues@fc.up.pt Cândida Garcia - cgarcia@fc.up.pt



*Fig. 2. Departamento de Geociências, Ambiente e Ordenamento do Território, Faculdade de Ciências da Universidade do Porto* 

#### 3. Programme and Schedule

The Programme for this meeting includes the reporting activities carried out during the year by the various Working Groups of the three Commissions, and a one-day Symposium on "New Trends in Coal Science".

Under the 63<sup>rd</sup> ICCP Annual Meeting, a three-day ICCP Training Course on Dispersed Organic Matter is also being organized, aimed at ICCP members and non-members, postgraduate students, researchers, geologists and other professionals working in the oil industry (please see the advertising included in this newsletter, page 55).

A one and half day field trip on "The Lower Jurassic of the west coast of Portugal: Stratigraphy, geological heritage and organic matter record" will take place in conjunction with these both initiatives in the 10-11 September; it means that it is a pre-ICCP meeting excursion (please see detailed information in the ICCP Training Course on DOM advertising included in this newsletter, page 55).

The draft schedule is shown in the following table.

#### 4. Call for Papers

Submissions of Abstracts for oral and poster presentation should be via email to 63ICCP@fc.up.pt, indicating whether an Oral or Poster presentation is preferred.

Time	Saturday 10-Sep	Sunda y 11-Sep	Monda y 12-Sep	Tuesday 13-Sep	Wednesday 14-Sep	Thursday 15-Sep	Frida y 16-Sep
8.30-9.00 9:00 - 9:30 9:30 - 10:00 10:00 - 10:30	Council	Field trip	Registration Welcome & General Assembly	Commission Meeting	Commission Meeting	Comm ission Meetin g	
10:30 - 11:00 11:00 - 11:30 11:30 - 12:00 12:00 - 12:30	Meeting		Coffee Break General Assembly	Coffee Break	Coffee Break	Coffee Break	Symposium
12:30 - 13:00 13:00 - 13:30 13:30 - 14:00	Lunch break		Lunchbreak	Lunch break	Lunch break	Lunch break	Lunch break
14:00 - 14:30 14:30 - 15:00 15:00 - 15:30 15:30 - 16:00 16:00 - 16:30	Field trip		Com mission Meetin g	Commission Meeting	Commission Meeting	Closing Ple nary Session	Symposium
16:30 - 17:00 17:00 - 17:30 17:30 - 18:00 18:00 - 18:30			Coffee Break	Coffee Break	Coffee Break	Coffee Break Closing Ple nary Session	Coffee Break Symposium
18:30 - 19:00 19:00 - 19:30 19:30 - 20:00 20:00 - 20:30 20:30 - 21:00 21:00 - 21:30		Vinho Verde Ice-Brea k Party			Council Mee ting	Evening Conference Dinner	

## Deadline for Abstracts submission by the end of May 2011.

The layout for the preparation of the abstracts will soon be available in the ICCP webpage.

After review and notification of acceptance, authors will also be invited to submit their papers for a special issue of the International Journal of Coal Geology.



Fig. 3. General view of Porto downtown.

#### 5. Registration, Conference Dinner and Field Trip Fees

Full Registration includes the participation in both ICCP meeting and Symposium, the ice-break party and coffee-breaks. Field trip is paid separately and includes guide-book, accommodation and dinner in Peniche and lunch in Nazaré.

#### Fees:

Basic fees for participation in ICCP meeting and Symposium

**ICCP** Members:

Early registration	180€
After May 31, 2011	220€
ICCP Non-members:	220€
Students	100€

Conference Dinner 50 € Field trip (accommodation, dinner and lunch) 180€

All fees must be paid in cash at the meeting upon registration.

**6.** Accommodation and Transport information Information regarding accommodation and transport are mentioned in the advertising of the ICCP Training Course on Dispersed Organic Matter included in this newsletter (page 55). More information and details concerning the 63<sup>rd</sup> ICCP Annual Meeting will be available in the ICCP webpage soon (http://www.iccop.org).

#### 7. Disability-related needs

If you plan to attend the conference and you have disability-related needs, please contact Bruno Valentim mailto:bvvalent@fc.up.pt



Fig. 4. Douro River and D. Luís metallic bridge engineered by Théophile Seyrig a Gustave Eiffel disciple.



Fig. 5. Casa da Música which is one of the most prominent cultural institutions in Porto dedicated to the promotion and diffusion of the music.





Alexandar Kostić (foreground) and Marco Ercegovac prepare visitors for the trip in the yellow transporters down into the Drmno Mine (below)



Fig. 6. "A ribeira", Porto view from Douro left margin.



## ICCP Training Course in Dispersed Organic Matter September 7-9, 2011, Porto, Portugal

#### **1. Introduction**

A three-day Training Course in Dispersed Organic Matter (DOM) organized by the ICCP will be held, under the 63<sup>rd</sup> ICCP Annual Meeting, in Porto (Portugal), in September 7-9, 2011. The course venue is the Departamento de Geociências, Ambiente e Ordenamento do Território, Faculdade de Ciências da Universidade do Porto (Porto, Portugal). At the end of the course it will take place a one and half day field trip (September, 10-11, 2011) will take place, jointly organized with the ICCP Meeting.

The course has 18 hours of theoretical and 8 hours of practical sessions. Instructors will be Prof. João Graciano from Brazil and Dr. Alan Cook from Australia and materials for the course will be distributed at the beginning of the course during registration. Powerpoint presentations of the lectures will be also available in a digital format.

The ICCP Training Course in DOM is aimed at ICCP members and non-members, postgraduate students, researchers, geologists and other professionals working in oil companies. The maximum number of participants is 30, taking into account that the practical sessions will be performed on imaging projector mode.

A Certificate of participation will be awarded to each person completing this course.

**2. Program and Schedule** (still subject to changes) The items covered in the course, instructors and the distribution of the theoretical and practical sessions (see Table 1) are as follows:

- 1. Dispersed Organic Matter (DOM): Concepts and definitions - João Graciano (1:30h - T1)
  - 1.1. OM production, processing and sedimentation
  - 1.2. OM evolution and chemical composition of biomass
- Transmitted light microscopy techniques (white and fluorescence lights) - João Graciano (6h - T2 to T4 + 3h practical session - P1)
  - 2.1. Sample preparation
  - 2.2. Classification of OM
  - 2.3. Maturation: SCI-Spore Colour Index; spectral fluorescence

2.4. Applications: organic petrography, palynology and palynofacies

2.5. Organic facies

- 3. Reflected light microscopy techniques (white and fluorescence lights) - Alan Cook (6h - T5 to T7 + practical session 3h - P2)
  - 3.1. Sample preparation and Standardization
  - 3.2. Petrography of OM: Nomenclature and applications
  - 3.3. Maturation: huminite/vitrinite reflectance and spectral fluorescence
- 4. Case studies (Alan Cook 2h T8 and João Graciano 2h - T9)

Practical session T3 for questions (Alan Cook and João Graciano). Participants are suggested to bring as mounted samples their own materials that are of interest to them.

Practical session facilities will be provided by Carl Hilgers Technisches Büro using a microscope coupled to an image projector. Another microscope from the Department of Geosciences will be also available.

A one and half day field trip entitled **"The Lower Jurassic of the west coast of Portugal: Stratigraphy, geological heritage and organic matter record"** will take place in conjunction with the 63<sup>rd</sup> ICCP Annual Meeting just at the end of the ICCP Training Course. The field trip will be conducted by Luis Duarte and Ricardo Silva (Coimbra University), and João Graciano (Federal University of Rio de Janeiro). One of the case studies that will be presented by João Graciano is the Peniche Lower Jurassic (Vale das Fontes Formation).

1<sup>st</sup> day, 10<sup>th</sup> September - after lunch

Porto - Óbidos (sightseeing visit) - Peniche (dinner and overnight stay).

## 2<sup>nd</sup> day, 11<sup>th</sup> September

Morning (3/4 hours): Visit to the Peniche peninsula where, framed in one of the most emblematic places of the Portuguese coast (Fig. 1), the most complete sequence of the Lower Jurassic of the Lusitanian Basin can be observed. The Lower Jurassic of Peniche is materialized by a succession of carbonates of marine origin, illustrating organic-rich hemiplagic facies (black shales) and turbidite deposits. The Pliensbachian succession (Vale das Fontes Formation) of Peniche has been the most studied area of the Lusitanian Basin for potential hydrocarbon generation. In addition, the Lower Jurassic of Peniche is an international reference, because it is the only candidate to the Pliensbachian-Toarcian stratotype, still presenting great arguments on the oceanic anoxic event from the lower Toarcian.

#### Nazaré (lunch)

Afternoon (2h): Visit to the Jurassic Calcareous cliffs of S. Pedro de Moel (Fig. 2). Being the

depocenter of the Lusitanian Basin, this sector of the basin shows the thickest succession of marl-limestone rich in organic matter, involving the Sinemurian (Água de Madeiros Fm) and Pliensbachian (Vale das Fontes Fm). This sequence has a set of other sedimentary geology structures, as unique examples of fossilized marine invertebrates.

Return to Porto (20h)

	Wednesday	Thursday	Friday	Saturday	Sunday
Time	07-Sep	08-Sep	09-Sep	10-Sep	11-Sep
8:00-8:30	Registration		-		
8:30 - 9:00	Welcome				
9:00 - 9:30		<b>T4</b> - JG	T7 - AC		Field trip
9:30 - 10:00	T1 - JG	14-00	17-70		
10:00 - 10:30					
10:30 - 11:00	Coffee break	Coffee break	Coffee break		
11:00 - 11:30					
11:30 - 12:00	<b>T2</b> - JG	T5 - AC	P3 - AC and		
12:00 - 12:30	12 00	13 45	JG		
12:30 - 13:00					
13:00 - 13:30	lunch break	Lunch break	lunch break	ICCP	
13:30 - 14:00	Larion Broak	Larion broak	Lanon broak	Regis tration	
14:00 - 14:30					
14.30 - 15:00		<b>T6</b> - AC	<b>T8</b> - AC		
15:00 - 15:30	T3 - JG				
15:30 - 16:00				Field trip	
16:00 - 16:30	Coffee break	Coffee break	Coffee break		
16:30 - 17:00					
17:00 - 17:30			<b>T9</b> - JG		
17:30 - 18:00	P1 - JG	<b>P2</b> - AC			
18:00 - 18:30	•				
18:30 - 19:00					Vinho Verde
19:00 - 19:30					Ice-Break
19:30 - 20:00					Party ICCP
20:00 - 20:30					and TCourse

 Table 1. Schedule of the ICCP Training Course in DOM.

T1 to T9 - Theoretical sessions P1 to P3 - Practical session

#### 3. Registration Fees

Fees for the course include course materials, coffee-breaks and lunches. Field trip is paid separately and includes guide-book, accommodation and dinner in Peniche and lunch in Nazaré. The price for the course and field trip is as follows:

Company / Professional	750€
Government / non-profit	400 €
Students	200€
Field Trip	180€

Payment should be settled at the latest on 31<sup>st</sup> May 2011. Payments can be made by credit card or money order. After registration, participants will receive an invoice with further details.

Those interested in participating in this course are advised to contact the coordinator, Prof. Lopo Vasconcelos, Vice-President of the ICCP, mailto:lopovasconcelos@gmail.com to record their interest. Updated information about the course will be available in the ICCP webpage www.iccop.org. For information or inquiries concerning the local organization contact Deolinda Flores mailing to mailto:dflores@fc.up.pt



Fig. 1. General view of the open marine organic-rich carbonate succession of the Lower Jurassic at Peniche.

#### 4. Accommodation and Transport information

Campo Alegre area has a set of hotels ranging in quality from 3 to 5 stars. Hotels from the "HF Hotéis Fénix" Chain (www.hfhotels.com) are recommended as they provide accommodation for participants at special rates. Hotels near the Faculty of Sciences (Fig. 3) are Ipanema Park Hotel (5 stars - 75 Euros Twin/Single), Ipanema Porto Hotel (4 stars - 70 Euros Twin/Single); Fénix Porto Hotel (4 stars - 70 Euros Twin/Single) e Tuela Porto Hotel (3 stars - 65 Euros Twin/Single). These hotels are at a walking distance from the course venue. Participants must make their own reservations directly online by a link specifically created to the Course participants. The link and codes that allow access to special rates granted to the Course will be available soon in the ICCP webpage.



Fig. 2. Calcareous cliffs of the Sinemurian (Lower Jurassic) at S. Pedro de Moel.

The Seminário de Vilar, Casa Diocesana (Rua Arcediago Van Zeller, 50, 4050-621 Porto, about 15 minutes walking) offers accommodation at cheaper prices (40-60 Euros). Reservations must be made directly via email: info@seminariodevilar.pt. Francisco Sá Carneiro Airport (OPO) is about 15km from Campo Alegre/Boavista area. After arrival at the Francisco Sá Carneiro Airport, Porto may be reached by:

Taxi - just outside the Airport building - rate about 25 euros; or,

Metro - just outside the Airport building till Casa da Música stop (about 3 euros) + taxi to hotel (less than 10 euros) or walking to some of the hotels.

Campo Alegre area has also a public transport network (bus and subway) that will facilitate travelling to several parts of the city.



Figure 3. HF Hotels and the ICCP Training Course on DOM localization. H1 - Ipanema Park Hotel (5 stars); H2 - Fénix Porto Hotel (4 stars); H3 - Tuela Porto Hotel (3 stars); H4 - Ipanema Porto Hotel (4 stars).

## **ICCP** Services

For more information, contact the convenors of the programs.

#### ★ ICCP Reflectance Standard

Check the calibration of your reflectance standard against the ICCP standard!

For more information contact

Dr. Walter Pickel: **Director - Organic Petrology** Coal & Organic Petrology Services Pty Ltd P.O. Box 174 Sans Souci, NSW 2229 Australia Ph: +61-2-9524 0403 / Fax +61-2-9526 7083 mailto:walter.pickel@organicpetrology.com Also available through Dr David Pearson David E. Pearson & Associates Ltd. 4277 Houlihan Place Victoria, British Columbia V8N Canada Ph:+1-250 477 2548 / Fax:+1-250 477 4775 mailto:dpearson@coalpetrography.com

#### ★ Accreditation Programs

- Maceral Group Analysis of Coals convenor: Dr Kimon Christanis Department of Geology University of Patras 26500 Rio-Patras, GREECE Phone+30-2610-99 7568/Fax+30-2610-99 1900 mailto:christan@upatras.gr
- Vitrinite Reflectance of Coals convenor: Dr Kimon Christanis
- Coal Blend Analysis convenor: Dr Isabel Suárez-Ruiz Instituto Nacional del Carbón - CSIC Apartado 73 33080 Oviedo, SPAIN Phone+34-98-511 9090 / Fax: +34-98-529 7662 mailto:isruiz@incar.csic.es
   Vitrinite Reflectance of Dispersed Organic

Matter convenor: Dr Alan Cook 7 Dallas St Keiraville NSW 2500, AUSTRALIA Phone +61-2-42 299 843 / Fax +61-2 4229 9624 mailto:alanccook@ozemail.com.au

## Answer to Know Your Coal Petrologist #44

Hamed Sanei (left) and Marco Ercegovac enjoying a moment of amicable agreement at the dinner in Belgrade.



The much enjoyed entertainment at the much enjoyed dinner



The South African triumvirate of Nikki Wagner (L), Daniel Van Niekerk and Johan Joubert having a light moment during the opening session.

## WHAT'S HAPPENING

#### <u>10 - 13 April 2011</u>

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.worldofcoalash.org/ July 2011 TSOP Annual Meeting, Halifax, Canada. http://www.tsop.org/annmtg.htm

#### 24 - 29 July 2011

**Carbon 2011,** Shanghai, China. http://www.americancarbonsociety.org/calendar.html

#### <u>11-17 September 2011</u>

**63<sup>rd</sup> ICCP Meeting,** Porto, Portugal. mailto:dflores@fc.up.pt

#### <u>9-13 October 2011</u> International Conference for Coal Science and Technology (ICCS&T) 2011, Oviedo, Spain. http://www.iccst.info

#### Planned Future ICCP Meetings

2011 Porto, Portugal2012 Beijing, P.R. China (joint TSOP)2013 Sosnowiek, Poland2014 open for applications2015 Tete, Mozambique

## ICCP Publications and Training Materials

ICCP publications are available by ordering from the editor. <u>DO NOT SEND PAYMENT</u> - an invoice will be issued for payment.

Orders to

Dr Peter Crosdale ICCP Editor PO Box 54, Coorparoo, Qld 415, Australia mailto:peter.crosdale@energyrc.com.au

#### **ICCP Handbook**

 ★ International Handbook of Coal Petrography 2<sup>nd</sup> 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 2<sup>nd</sup> edition, second print (in English) 1985 24€
- ★ International Handbook of Coal Petrography, 2<sup>nd</sup> supplement to the 2<sup>nd</sup> edition (in English) 1986 - 8€
- ★ International Handbook of Coal Petrography, <sup>3<sup>rd</sup></sup> supplement to the 2<sup>nd</sup> 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€

#### ICCP Training kit for spectral fluorescence measurements in Dispersed Organic Matter

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.

<u>Cost:</u>

- samples + excel sheet **30** € including postage (ICCP/ TSOP member)
- samples + excel sheet 90 € including postage (non members)



Attendees of the 62<sup>nd</sup> ICCP Meeting, Belgrade, Serbia. Key to photo on page 34.

**If undeliverable return to :** Dr P. Crosdale, Editor, ICCP Energy Resources Consulting Pty Ltd PO Box 54, Coorparoo, Qld 4151 <u>AUSTRALIA</u>