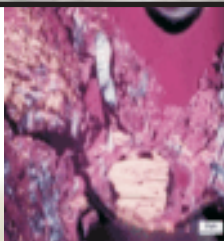


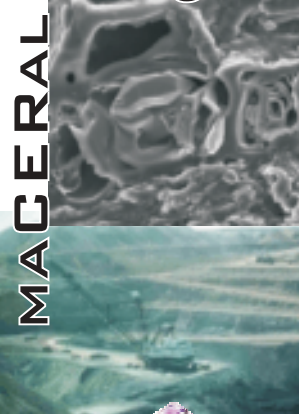
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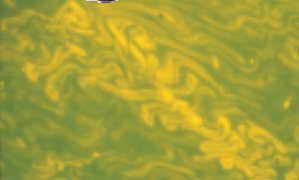
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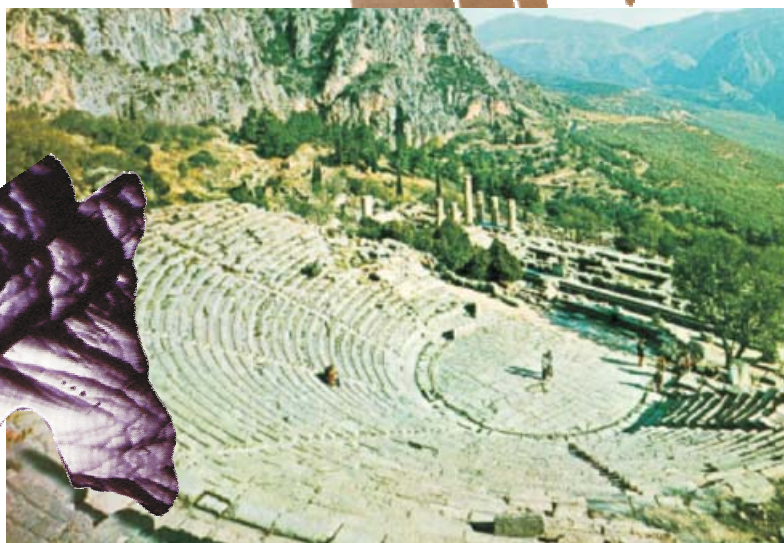


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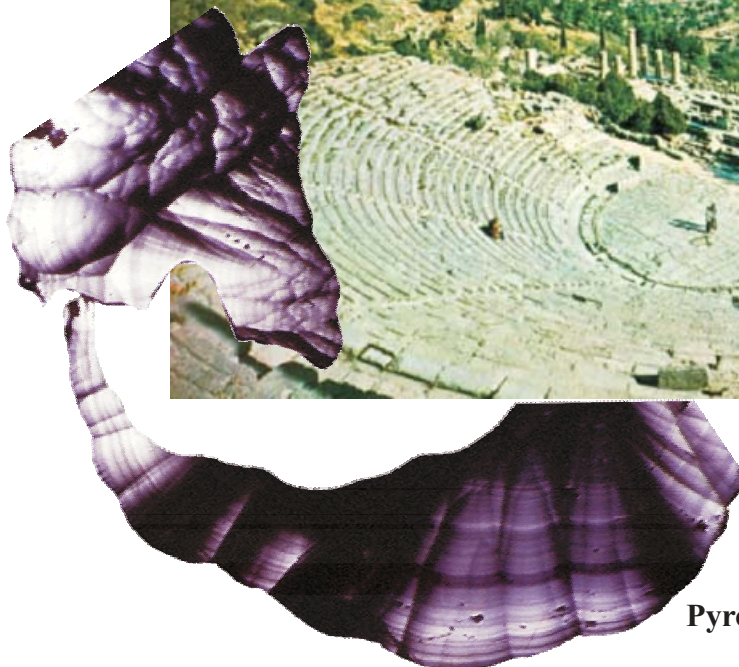


57th ICCP Meeting Patras, Greece

Plan of coal and iron-stone deposits around Dudley Castle (1665)



Theatre at Delphi



Pyrolytic Carbon

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issue*

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14 co2 storage

15 membership matters

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From the Editor

The Theatre at Delphi (front cover) is one of the mid-week excursion points for the Patras meeting. Delphi is also known for its famous Oracle, which is the world's best known, and probably earliest recorded, instance of 'chroming' - the inhalation of light hydrocarbons to produce an hallucinogenic state. The temple was apparently built over a fault which, fluid inclusion evidence indicates, was the migration pathway for light weight hydrocarbons, as well as hot water and other fluids. Curiously, the theatre at Delphi is reminiscent of other circular structures encountered by coal petrologists, especially pyrolitic carbon. Another, not so immediately apparent, circular structure is the early map provided by Dud Dudley, showing the distribution of iron ore and coal deposits in the vicinity of Dudley Castle (West Midlands, England). Dud Dudley, in 1620, may have been the first person in England to use metallurgical coke in the manufacture of iron. The pattern of the amphitheatre of the ancient Greeks repeats itself in curious ways.

It is always a pleasure to welcome new members to ICCP. Recently, council has approved applications to associate membership from Dr Ferenc Fedor, Mr Paul Hackley and Dr Rachel Walker. Welcome to ICCP!

The new Huminite sheets have recently been published in the International Journal of Coal Geology. Congratulations to all involved. Sufficient reprints of the classification have been acquired to distribute to all ICCP members and a copy is included in this edition of the newsletter. Members who receive the newsletter by internet download will also receive a hard copy of the classification by post.

The Patras meeting now draws very near and an extremely good programme is promised. It is significant that a large contingent of non-ICCP Members will be attending. It is always good to spread the work of ICCP to a wider audience. Do not forget to write to the President / General Secretary / Commission Chair if you have an opinion or issue you wish to air at the meeting. Make yourself heard without attending personally or attend the meeting in Patras and "know thyself"!

Happy Reading

Peter

Front Cover: (1) Map from Dudley, D. (1665) *Metallum Martis: or, Iron made with Pit-coale, Sea-coale &c. Reprint West Bromich, 1851. 54pp*; (2) Theatre at Delphi, K.Christanis; (3) Pyrolitic carbon in coal, P. Crosdale.

From the President

We are now getting close to the meeting in Patras. It looks to be both a busy and important meeting. We need to take the various Accreditation programs to a further stage. The importance of this type of activity has been recognized but perhaps what is not always known is the enormous amount of work that is associated with an accreditation effort. The work up period to any given accreditation program absorbs a great amount of effort. The ongoing programme also requires major efforts especially as the numbers involved increase. It is necessary to maintain integrity at all stages: sample selection; dispatch; analysis; recording of analyses and assessment of the results. Each stage requires careful checking, and desirably most of these stages require independent checks. We all know how difficult it is to achieve perfection and yet this is what has to be achieved for accreditation programs.

We have an opportunity to contribute to the ISO 7404 set of standards. We should take more than a passing interest in these as they relate to the use of petrographic techniques for the analysis of coals. Our attempts to use the old standards in the accreditation program have shown that there are weaknesses in the old standards and consideration should be given to the range of purposes for which data could be used. A classic example is the unqualified instruction to report vitrinite reflectance values to two places of decimals. This has proved to be a problem with accreditation where standard deviations for some sets of data are now under 0.03. This means that potential round-off errors can be $0.0049/0.03=0.16$ standard deviations. This may not seem to be a major problem, but it represents about 10% of the allowable range of 1.5 standard deviations. OK, it would be a rare event that enough round-off errors were obtained to make a difference, but for marginal analysts, just one case where it did would be enough to make the difference between accreditation and not being accredited. To adapt a quote from a certain film, "do you feel lucky today?" It is relatively simple to fix this problem and it has been fixed by allowing data to be reported to three decimal places, but how many other problems are lurking there that could be removed with a bit of thought. As I understand the procedure, members will be sent copies of the current revisions of the parts of ISO 7404 in time for detailed input at the Patras meeting. I know it is difficult to make time to do this sort of work and

that it needs a large amount of time **and thought**. However, this is an opportunity for input of the sort that we have not had before and we are grateful to Ricky Pinheiro, Harold Read and Walter Pickel for this chance to improve on the international standards that most closely affect our work.

The new edition of the Handbook will be discussed. Petra has distributed a detailed list of contents for this and anyone not having a copy should contact the General Secretary. We need persons willing to take the lead on many of the sections. Taking the lead means pushing the process to completion but it also means obtaining wide input - two requirements that the cynics would suggest cannot be met at the same time. However, we must meet them. At one extreme, we cannot settle for a GATT agreement (general agreement on talking and talking) and at the other extreme we cannot afford to have a "quick" handbook made up of a series of "cadenzas without any orchestral accompaniment". In some ways the issue of a new edition of the Handbook relates to the standards issue. We should have an up to date reference on definitions and methods that itself will act as an international standard - the old editions served that purpose for many years. Surely we can build on that base and publish an updated handbook.

There are many other matters of importance on the various agendas and that I have not mentioned some here in no way should be taken to imply lesser importance. As always, I encourage members to scan the agendas and if papers are not circulated in advance, to write to the commission secretaries and ask for documents relating to items of interest. And don't forget that this applies both to members who will be going to Patras and to those who will be unable to be there. I look forward to the days when each agenda item is preceded by a (long) list of suggestions received from members who are not at the meeting. All too often I meet members who apparently feel cut out by not having been at a specific meeting. There was a time when it really was essential to be at an ICCP meeting to know what happened, but we do now have systems in place that allow for extensive input from those not able to attend. A further stage is for comment on minutes as they are published in the Newsletter following the meeting. In earlier times, you only knew the official minutes if you attended the next meeting. Now you have an agenda in advance and a set of minutes within a month or two. I remember being told that such things "would never happen at

ICCP", but they do and I hope that you will all take full advantage of this sequence now being a regular occurrence.

The coal boom appears to continue although the doomsayers cannot predict the fall in coal prices early enough. However it is useful to note that the pressure on coal prices developed in 2004. BP lists Chinese coal production in 2004 as 1956 million tonnes, up from 1728 million in 2003. Indonesian 2004 production at 132 million tonnes increased even more than China in percentage terms (2004/2003: 13.2% for China and 17.3% for Indonesia).

So the preconditions for price rises came during a year of a huge increase in coal production from the largest producer of coal. Reports suggest continued demand for more electric power in most Asian countries so the fall in prices may be longer in coming than has been suggested.

It is also fascinating to watch stock markets react with joy to a fall in oil prices below USD60 a barrel, when very recently USD57 a barrel was muttered about as a "never to be repeated" peak. The Peakoil website continues to have interesting information about the health (or lack of it) of the super-giant oilfields of Saudi Arabia and Kuwait, especially Ghawar and Burgan. It is interesting to speculate about what would happen if the reserves criteria that caused Shell so much trouble were applied to the reserves data for Saudi Arabia, Kuwait and Iran.

I assume that there are a great number of Dutch cyclists with superior smiles on their faces as they peddle along. Then again, it is just as well that the price for oil is rising, because the size of discoveries is decreasing at an alarming rate. Overall, however, the higher prices do not compensate for the smaller field sizes of discoveries over the past ten years compared with the heady days of the 50's and 60's. Changes in the field size of discoveries may turn out to be as good an inverse predictor of oil prices as some of the more conventional methods of "reading the tea leaves".

As always, I welcome comment. Positive comments, brickbats, all welcome.

ACC July 2005

mailto:alanccook@iccpozemail.com.au

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Jet Workers - Whitby. This photograph of a jet workshop was taken in 1890 by Frank Meadow Sutcliffe. It is reproduced by permission of Whitby Literary and Philosophical Society

57th Annual Meeting of the International Committee for Coal and Organic Petrology - ICCP Patras, 18-23 September 2005

Latest news

As you all know our forthcoming 57th Annual Meeting will take place middle September in Patras, Greece, so that you will still have the opportunity for hot swims in Mediterranean Sea. The deadline for registrations has been expired; however, any last-minute decision will be accepted. For further information concerning registration, accommodation and other details (see ICCP News No. 33) contact Dr. Kimon Christanis (<mailto:christan@upatras.gr>).

Up to now around 80 delegates from 23 countries have been registered and an interesting aspect is that almost 40% of them are not (yet!!!)

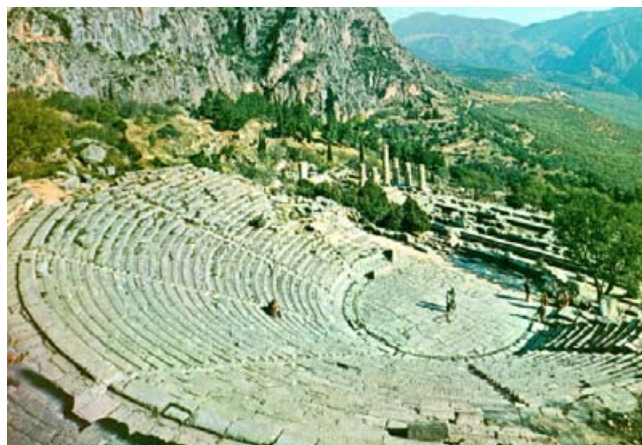
ICCP members. The poster session will include more than 40 posters dealing with almost all



The meeting venue (University Conference and Cultural Centre)

aspects of organic petrography. The scientific programme of the Meeting will be soon finalized. However, the schedule for the two excursions has been arranged. A pre-conference excursion to Megalopolis Lignite Center and to Olympia archaeological site will take place on September 17-18, 2005, and a one-day excursion to Vagonetto Museum (underground bauxite mine) and the Delphi archaeological site on September 21, 2005. Unfortunately, due to very low participation the post-conference excursion has been cancelled.

Do not forget to bring summer clothes and swimsuits (as well as an umbrella for the unlucky of you!) and we hope you will enjoy your residence in Patras!



The Delphi ancient theatre

Preliminary Programme 57th ICCP Meeting, Patras

	Sunday 18.9.2005	Monday 19.9.2005	Tuesday 20.9.2005	Wednesday 21.9.2005	Thursday 22.9.2005	Friday 23.9.2005
09:00-11:00	Pre-conference Excursion	Opening Plenary Session	Comm. II	Excursion to Delphi and Vagonetto	Comm. I	Comm. II
11:00-11:30		Coffee	Coffee		Coffee	Coffee
11:30-13:00		General Assembly	Comm. II		Comm. I	Comm. II
13:00-15:00		Lunch	Lunch		Lunch	Lunch
15:00-16:30		Comm. III	Comm. I		Comm. I	General Assembly
16:30-17:00		Coffee	Coffee		Coffee	Coffee
17:00-18:30	Council Meeting	Comm. III	Comm. I	Comm. I	Closing Plenary Session	
18:30-20:00						
20:00-21:00	Registration and Ice-breaker				Conference Dinner	
21:00-22:00						

Note Commission II is divided between Tuesday and Friday in order to discuss the Atlas on Environmental Applications of Organic Petrology relatively early during the week. Participants will have the opportunity to go through the Atlas during the week before submitting it for final approval at the end of Commission II sessions.

**Preliminary Agenda for the 57th Meeting of the International Committee
for Coal and Organic Petrology - ICCP**

Patras, Greece - 18 - 23 September 2005

Sunday 18 September

17:00 - 20:00 h Council Meeting

20:00 - 22:00 h Registration & Ice-breaker party

Monday 19 September

09:00 - 14:00 h Registration

09:00 - 12:00 h Welcome of the Organising Committee and keynote lectures: Energy aspects of Greece

09:00 - 9:10 h Chairman of the Organising Committee, Kimon Christanis

09:10 - 9:30 h The representative of Greek Ministry of Development

09:30 - 10:00 h The representative of the Greek Institute of Geology & Mineral Exploration

10:00 - 10:30 h **Constantinos Kavouridis**, General Director of Mines Division of Public Power Corporation S.A., and Assoc. Professor of the Technical University of Crete: *PPC's activities on the lignite subject Objectives - results - perspectives.*

10:30 - 11:00 h Representative of The Hellenic Petroleum Group

11:00 - 11:30 h Coffee Break

11:30 - 12:00 h **Antony E. Foscolos**, Professor Emeritus, Department of Mineral Resources Engineering, Technical University of Crete, Chania, Crete, and Emeritus Research Scientist, Geological Survey of Canada-Calgary, Alberta, Canada: *Oil, gas and coal reserves and demands throughout the world. Implications for cheap power generation.*

12:00 - 13:00 h Opening plenary session of the General Assembly

1. Apologies for non-attendance
2. Minutes of Previous Meeting
3. Arrangements for the Patras meeting
4. Future meetings
5. Membership
6. Awards
7. Financial matters
8. Editor
9. Status of ICCP

13:00 - 15:00 h Lunch Break

15:00 - 16:00 h Opening plenary session of the General Assembly

16:00 - 18:30 h Meeting of Commission III

16:00 - 16:30 h Opening Address and further activities - Rosa Menendez, Georgeta Predeanu

16:30 - 17:00 h Coffee Break

17:00 - 17:20 h Automation WG - Convenor: Dave Pearson - Presentation: 'Identification of Vitrinite Populations in Automated Fingerprints of Coal Blends'

17:20 - 17:30 h Coal blends accreditation programme - Convenors: Isabel Suárez-Ruiz and S.Paddy Ranasinghe

17:30 - 18:00 h Improved image analysis WG - Evolution of the work - Convenor: Cristina Rodrigues

18:00 - 18:30 h Coke petrography WG - Short Summary of the activities - Convenor: Heike Eickhoff

Tuesday 20 September

09:00 - 13:00 h Meeting of Commission II

09:00 - 09:10 h Opening Address - Ángeles Gómez Borrego, Mária Háamor-Vidó

09:10 - 10:30 h Working Group on Environmental Applications of Organic Petrology Convenor: Maria Mastalerz M.

10:30 - 11:00 h Accreditation program on dispersed organic matter: Convenor: Alan Cook

11:00 - 11:30 h *Coffee Break*

11:30 - 12:30 h Classification of Dispersed Organic Matter, DOM Working Group Convenor: Vern Stasiuk

12:30 - 13:00 h Coal Seam Methane and CO₂ Sequestration Working Group - Convenor: Lila Gurba

13:00 - 15:00 h *Lunch Break*

15:00 - 18:30 h Meeting of Commission I

Opening Address and report on progress in ICCP sheets- Walter Pickel, Deolinda Flores Standardization WG - Convenor: Harold W. Read

WG on New Methodologies and Technologies in Organic Petrology - convenor: Lila Gurba

16:30 - 17:00 h *Coffee Break*

Presentation: New developments of the 'Hilgers' instrument for reflectance and maceral analysis. - Carl Hilgers

New Handbook Edition Groups - Convenors: Petra David, Walter Pickel

18.45 - 20.30 h Council Meeting

Wednesday 21 September: Excursion to Delphi and Vagonetto

Thursday 22 September

09:00 - 18:30 h Meeting of Commission I

Accreditation Program - Convenor: Aivars Depers

Degradinite WG - Convenor: Peter Crosdale (continued during microscopy session)

Temporal Variations of coal: Convenor: Lopo Vasconcelos

11:00 - 11:30 h *Coffee Break*

Presentation and discussion of the revision of ISO 7404 - Convenors: Harold Read, David Pearson, Alan Cook and Walter Pickel

13:00 - 15:00 h *Lunch Break*

Peat WG - Convenor: Kimon Christanis

16:30 - 17:00 h *Coffee Break*

Microscope Session

20:00 - late *Conference Dinner*

Friday 23 September 2004

09:00 - 12:30 h Meeting of Commission II

09:00- 10:15 h Thermal Indices Working Group - Convenor: Carla Araujo

10:15 - 11:00 h Isolation of Organic Matter Working Group - Convenors: Jolanta Kus, Maria Masterlerz

11:00 - 11:30 h *Coffee Break*

11:30 - 12:15 h Dispersed Organic Matter (DOM) in Sedimentary Rocks - Classification, Identification and Thermal Maturity- Convenor: Wolfgang Kalkreuth

12:15 - 13:00 h Qualifying System for reflectance analysis WG - Convenor: Ángeles Gómez Borrego

15:00 - 16:30 h Closing Plenary Session of the General Assembly

10. Website
11. New Handbook
12. Accreditation Program
13. Elections
14. Revision of the Statutes
15. Differential charge for members and non-members
16. Email protocol for Council decisions
17. Relations with TSOP
18. Feedback from members

16:30-17:00 h *Coffee Break*

17:00 - 18:30 h Closing Plenary Session of the General Assembly

**Agenda for the Council Meeting -
57th ICCP Meeting at Patras in
Greece, 18-23 September 2005**

Council Meeting at 17:00 on 18th September in the "A PANAGOS Conference Room (Room 219, 2nd Floor) of the Department of Geology, University of Patras, University Campus, 26500 Rio-Patras, Greece.

1. Apologies for non-attendance

2. Minutes of Previous Meeting

- 2.1 Minutes of the Council Meetings from the Budapest meeting
- 2.2 The minutes of the Plenary Sessions were published in the ICCP Newsletter #33.
- 2.3 Arrangement of the Agenda
- 2.4. Business arising from the minutes.

3. Arrangements for the Patras meeting

4. Future meetings

- 4.1 Arrangements for meeting in Bandung, Indonesia in 2006.
- 4.2 Arrangements for meeting in Victoria, Canada 2007.
- 4.3 2008 meeting - Oviedo meeting
- 4.4 2009 meeting, invitation from Porto Alegre, Brazil
- 4.5 2010 meeting, invitation for meeting in Belgrade, Serbia and Montenegro

5. Membership

- 5.1 Applications for Associate membership
- 5.2 Applications for Full membership
- 5.3 Admissions made between meetings.
- 5.4 Resignations
- 5.5 Membership Directory
- 5.6 Honorary Membership

6. Awards

- 6.1 Thiessen Medal Award
- 6.1 Organic Petrology Award
- 6.3 Young Scientist award

7. Financial matters

- 7.1 Treasurers Report
- 7.2 Financial procedures
- 7.3 Budget 2005/2006

8. Editor

- 8.1 Activities for 2004-2005
- 8.2 Proposals for 2005-2006

9. Status of ICCP

10. Website

11. New Handbook

12. Accreditation Program

13. Elections

14. Revision of the Statutes

15. Differential charge for members and non-members

16. Email protocol for Council decisions

17. Relations with TSOP

18. Feedback from members

19*. Other business

Know Your Coal Petrologist #16a



For the first time we are giving a selection of photos of the same petrologist to increase your chances of working him out. The blackboard may be a clue in his role as a communicator, despite his puzzled looks.... Next photo page 13.

NEWS FROM THE COMMISSIONS : COMMISSION II

Chair: Ángeles G. Borrego
mailto:angeles@incar.csic.es

Secretary: Mária Hámor-Vidó
mailto:vidom@mafi.hu

The following activities are expected to run within commission II at the next Meeting in Patras. In order to strength, renew and enlarge the activities within Commission II, we would like to invite any ICCP members to suggest the creation of new Working Groups that you think may be of interest within the scope of the Commission. If you have any suggestion and you think you will not be able to attend the meeting, please contact the Secretary or the Chair of the Commission and we will present your proposal at the Meeting.

- **Environmental Applications of Organic Petrology Working Group**

Convener: Mastalerz M.

Since the last ICCP meeting, the Atlas of Anthropogenic Particles has been reviewed by several members, and the revisions have been incorporated. At the forthcoming meeting, a reviewed and revised version of the Atlas of Anthropogenic Particles will be presented and its structure will be explained in detail. After discussion the agreed version of the Atlas will be presented for Final Approval by the members.

- **Classification of Dispersed Organic Matter, DOM Working Group**

Conveners: Stasiuk L., Burgess J. and Hutton A.

At the meeting in Budapest a pretty final version of the CD-Atlas illustrating the various classification entries was presented although some images were missed. At the meeting in Patras the progress in the document will be discussed.

- **Coal Seam Methane and CO₂ Sequestration Working Group**

Conveners: Gurba L and Crosdale P.

The ways in which ICCP can contribute to

clarify the influence of coal petrographic properties on CO₂ sequestration will be discussed.

- **Thermal Indices Working Group**

Convener: Araujo C.V.

Two samples a Posidonia shale from Germany and a carbonaceous shale from Spain are the subject of this year Round Robin. The convener asked participants to report on a comprehensive list of geochemical parameters. The results of the Round Robin will be presented at the meeting.

- **Isolation of Organic Matter Working Group**

Conveners: Mastalerz M. and Kus J.

After the review presented last year by Werner Hiltmann on the past activities of this WG, it appeared that one of the main problems preventing agreement in the exercises performed over the years was the lack of a well-established classification system. In addition to the written reports a large amount of high quality graphic material was compiled by Jack Burgess, which could be the basis for a Round Robin on testing the ICCP-TSOP classification of DOM. During the year Maria Mastalerz has scanned the graphic material and the conveners will present during the meeting a proposal for future activities.

- **Dispersed Organic Matter (DOM) in Sedimentary Rocks - Classification, Identification and Thermal Maturity**

Convener: Kalkreuth W.

The progress in the document will be presented

- **Qualifying System for reflectance Analysis Working Group**

Convener: Borrego A.G.

The WG. was officially closed at the Budapest Meeting since it was considered that the objectives proposed were achieved. It was thought that the results deserved a wider diffusion and during the year a manuscript for publication in the International Journal of Coal Geology has been prepared and review by the authors . The content of the manuscript and the conclusions will be presented before sending the manuscript to the Editor.

New Aspects of Carbopetrographical Research in Romania

THESIS SUMMARIES

Coordinated by Prof. Dr. Cornelia Panaitescu



1. Correlation between technological parameters, structure and characteristics for some special carbon products

Dr. Eng. Maria Marilena Paraschiv

The thesis represents an extended study for complex structure characterization of some vitreous carbons obtained by pyrogenation from different synthetic resins. This study enables comparison of new morphological structures formed during heat treatment and helps to establish the critical temperature of the basic vitreous carbon structure formation.

Eight types of synthetic resins were used as raw material precursors, which are usually used in mould production for alloy casting. The resins and their resultant chars (laboratory scale) at different temperatures between 800-1200 °C and up to graphitization at 2700 °C, were physical-chemically characterized by different structure investigation methods (SEM, X-ray diffraction) and optical microscopy. The thesis provides new information about microstructure and texture of vitreous carbons developed on pyrogenation, being a contribution of carbopetrography's wide area applications. Carbopetrographic analysis was

carried out on blocks polished surfaces prepared from agglomerated fines. The results were associated with 77 micrographs which present some very interesting structures of the vitreous carbon. Vitreous carbon made on high temperature pyrogenation of resins reveals an isotropic matrix in which anisotropy and pyrocarbon buds with different degrees of structural orientation occur (Fig.1). In graphitized samples appear needle structures of different sizes and anisotropical intensity (Fig.2).



Fig. 1



Fig. 2

2. Intercalation Compounds of Graphite. Synthesis and Characterization

Dr. Eng. Gabriela Hristea

The study opens new trends in the carbopetrography fundamental research of the advanced carbon products that have a special application in different industrial fields.

Microstructure characterization of some intercalated graphite compounds gives the possibility to a thorough understanding of the phenomena occurring during the complex physical-chemical process of intercalation. It is well known that graphite can accept various atoms, ions and even molecules between its interlayer spaces. The phenomenon of such an insertion is called intercalation and the resulted products are usually called graphite intercalated compounds (GICs). Intercalation into graphite is able to produce numerous compounds with different novelty properties required for development of advanced technologies. The GICs synthesis is considered to be one way to develop the functionality of carbon materials. Structural evolution stages of the

obtained compounds are analysed, as a consequence of the applied reaction parameters (reaction time, temperature etc.) on the intercalation process of a carbon substrate (natural graphite).

The graphite structural changes evolved during the process were microscopically revealed and analysed (Fig. 3). Due to the carbon layers orientation, there are stacking sequence, and distance between them.

The petrographic research of the pore shape and dimensions show that the progress of intercalation stage, related to the carbon layers expansion degree and the particle dimension decreasing, lead to enlarging of the surface area. That has a direct consequence on the sorption capacity of the synthesized compounds, and not only.

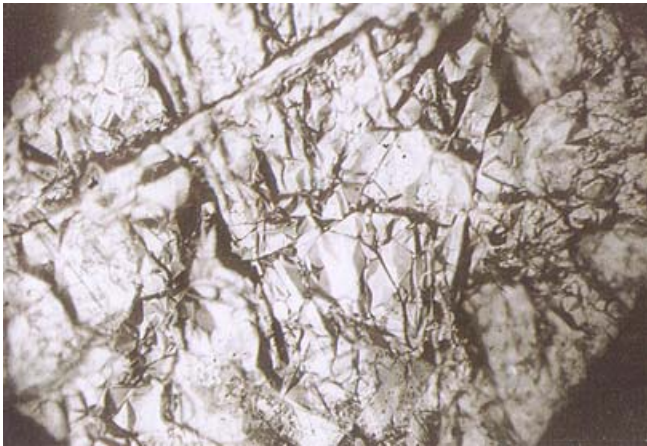


Fig. 3

3. New carbon-carbon nanocomposite materials for practical use

Dr. Eng. Gimi A. Rimbu

The thesis presents a special research in the aim of new and advanced carbon composite materials, with high technical performances. These new materials, in the form of the carbon matrix doped with nanocarbon powder as "self assembled systems" open a worldwide scientific challenge. It has been studied the influence of the surface characteristics on the structural morphology developing in a multicomponent system, in which the mesophase pitch represents the C-C composite matrix and nanocarbon additives the dispersed phase. For this study the carbopetrographical

research is carried out using the Optical Microscopy and Image Processing Analysis. There are established:

- changing of the mesophase pitch units within the temperature range of 420-450°C, their textural aspects being emphasized in photomicrographs, (Fig. 4);
- the influence of nanocarbon additives on the evolution of the matrix morphology with rising temperature and on the isotropic/anisotropic ratio, close related with the matrix kinetic's parameters in the composite systems.

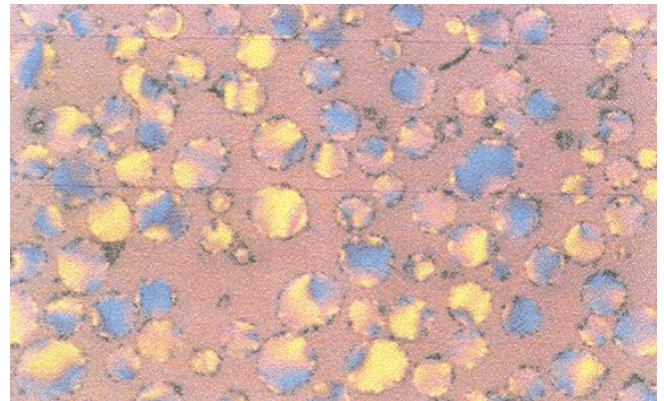


Fig. 4

The performing of the Image Processing Analysis develops an efficient prognosis method to investigate the mesophase's evolution process that makes possible the statistical evaluation of mesophase spheres on size distribution(Fig.5).

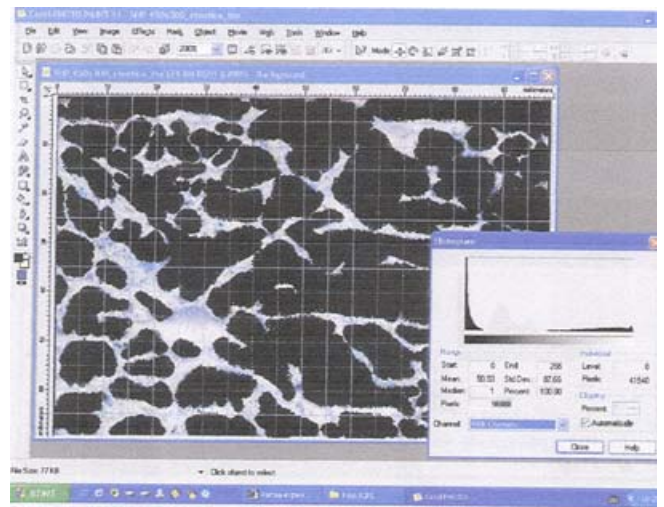


Fig. 5

The petrographical analysis enables the emphasizing of the pitch mesophase developing, the transformation extent with rising temperature and

nanocarbons' addition. The description of the mesophase nucleation and development in the temperature range of 420-450°C, gives the possibility of kinetics evaluation as a first order reaction.

All these findings have a tremendous importance on the carbon-graphite industry which, for the first time, has got a working theory regarding the manufacturing of graphitized carbons.

Georgeta Predeanu

Know Your Coal Petrologist #16b



Walter Pickel is supported by Mária Hámor-Vidó (left) and Jenni Pearson (right) in valiant attempts at making our perplexed petrologist understand. Next photo this page.

Bowen Basin Symposium 2005 The Future for Coal – Fuel for Thought

Rydgcs Capricorn Resort, Yeppoon,
Queensland

Wednesday 12 to Friday 14 October 2005

- ★ Coal Quality - 10 papers
- ★ Exploration - 4 papers
- ★ Mining - 4 papers
- ★ Geophysics - 10 papers
- ★ Geotechnical - 9 papers
- ★ Gas - 2 papers
- ★ Workshops - 4

For further information, contact:

Nick Gordon (Symposium Secretary)

Ph: +61-(0)428 186 255 (mob.)

mailto:cngordon@tpg.com.au

ICCP Classifieds

A free service to ICCP members. Send your 'For Sale', 'Wanted to Buy', 'To Give Away' etc. to the editor.

WANTED TO BUY

- Objective: Leitz 50/0.85 P oil , Infinity/0
Dave Pearson
mailto:dpearson@coalpetrography.com
- Point counter stage only
Peter Crosdale
mailto:peter.crosdale@energyrc.com.au
- ICCP Handbook 1st and 2nd Editions;
Proceedings 1st, 2nd and 3rd ICCP Meetings
Peter Crosdale
mailto:peter.crosdale@energyrc.com.au

DONATION NEEDED

- an old working photomultiplier microscope for vitrinite reflection measurements;
 - a point counter;
 - the last edition of COAL - Van Krevelen's.
- for the Carbochemistry Laboratory's benefit (Industrial Chemistry Faculty -University Politehnica Bucharest) which is deeply involved in petrological activities (graduation diplomas and Ph.D. students of Prof. Cornelia Panaitescu).

Contact: *Dr. Georgeta Predeanu:*

mailto:gpredeanu@metal.icem.ro or

mailto:gpredeanu@yahoo.com

Know Your Coal Petrologist #16c



Dave Pearson is on the right, but who is on the left, looking clearly befuddled by Dave's comments - perhaps it is Dave's accent. Next photo page 17.

Working Group on Application of Coal and Organic Petrology to CO₂ Storage into Unmineable Coal Seams

Geological sequestration of CO₂ into unmineable coal seams is considered as one of the potential solutions to greenhouse gases and climate change, but a large number of both technical and non-technical issues need to be addressed. At the last ICCP meeting in Budapest, the world activities, R&D, and uncertainties in relation to CO₂ storage

into unmineable coal seams were discussed. It was agreed that the questionnaire will be circulated to ICCP members to test the interest in this topic, to identify the level of ICCP member's current involvement in this area and to define the future activities for CO₂-CBM WkG.

Contact Lila Gurba to return the questionnaire or to obtain an electronic copy (MS Word file) :

Dr Lila Gurba, CRC for Coal in Sustainable Development

mailto:Lila.Gurba@ccsd.biz

fax: +61-2-3871 4444

Dr Peter Crosdale

Questionnaire

Name

Affiliation

Member of the CO₂-CBM WkG (Y/N)

	Y/N	Comments (If possible, please provide additional information including papers published, current projects, achievements; etc)
1 Any (past) or (current) involvement in the research related to: CBM ECBM CO ₂ storage into coal seams		
2 Which coal petrographic properties might have a significant impact on evaluation of CO ₂ storage into unmineable coal seams? a) Coal macerals; b) Coal mineral matter; c) Aromatic/aliphatic nature of coal; d) Coal microstructure; matrix shrinkage; e) Other		
3 Topics of interest within CO ₂ -CBM WkG: a) Impact of Coal quality (ash, coal type/coal rank) on CO ₂ storage b) Stress, Permeability and porosity c) Coal Plasticization d) CO ₂ interactions with coal e) Microstructure and Cleating in coal f) Coal characterization to support CO ₂ sequestration (eg) * Coal petrography; * Image analysis; * SEM, electron microprobe, QEMSCAN etc g) Other		
4 What activities should be undertaken by ICCP in relation to CO ₂ storage into coal seams? a) Round Robin Exercise; b) Develop Guidelines; c) Develop Standards; d) Links with other groups (eg IEA, Coal Seq Forum) e) Other		

Membership Matters

Directory Updates

Since issuing ICCP News #34 the following changes to members' contact details have been reported:

Gerd Bieg *will retire in due course - new contact details:*

Hirschgraben 2
45721 Haltern am See
GERMANY

Tel.: +49-2364-6285
mailto:gbieg@onlinehome.de

Chris Cornford - *E-mail address, homepage:*

mailto:chris@igiltd.com
http://www.igiltd.com

Bukin Daulay - *E-mail address, homepage:*

mailto:bukin@tekmira.esdm.go.id
http://www.tekmira.esdm.go.id/en

Vivien Du Cann - *Homepage:*

http://www.coalandminerals.com

Ferenc Fedor - *New member:*

Dr. Ferenc Fedor (A 1,2)
Mecsekérc Environmental Co.
Esztergár Lajos u. 19.
7633 Pécs
HUNGARY
Tel.: +36-30-659 3103
Fax: +36-72-535 300
mailto:fedorferenc@mecsekerc.hu
http://www.mecsekerc.hu

Michael C. Frank - *Postal address:*

1902, Cameron Street
Regina
Saskatchewan S4T 2V1
CANADA

Paul C. Hackley - *New member:*

Mr. Paul C. Hackley (A 1,2)
U.S. Geological Survey
MS 956 National Center
Reston VA20192
U.S.A.
Tel.: +1-703-648 6458
Fax: +1-703-648 6419
mailto:phackley@usgs.gov

Kuili Jin - *E-mail address:*

The listed e-mail address >res@cumt.edu.cn< is inactive. Please notify new address.

Gilles Nicolas - *E-mail address:*

mailto:gilles.nicolas@total.com

Cassiani Papanicolaou - *E-mail address:*

mailto:cassipapani@igme.gr

Martin Reinhardt

Deceased 25 March 2005

Hennie Roux - *Postal address:*

P.O. Box 11498
Wierda Park South
0057
SOUTH AFRICA

Ivana Sýkorová - *E-mail address:*

mailto:sykorova@irms.cas.cz

Jaroslaw Szwed-Lorenz - *E-mail address:*

The listed e-mail address >jarka@ig.pwr.wroc.pl< is inactive. Please notify new address.

Rachel Walker - *new member:*

Dr. Rachel Walker (A 1,3)
Pearson Coal Petrography
15998 US 23
Catlettsburg, KY 41129
U.S.A.
Tel.: +1-606-931 0506
mailto:rwalker@coalpetrography.com

Please update your contact details with the Honorary Treasurer when necessary.

Rudi Schwab, 10 July 2005
mailto:rudi.schwab@btinternet.com

Welcome to New Members

Dr Ferenc Fedor



Ferenc (Feri) Fedor obtained his PhD from the University of Miskolc (Hungary) in 2004 with studies on "Origin of gases of Inert Gas Zone of the Hungarian Great Plain".

He specialises in maturity of organic matter and gas generation but also has interests in the carbon cycle, statistical aspects of measurements; pore space characterizing and measurement of permeability by the use of PPD technique. He is currently involved in research into geochemical aspects of radioactive waste deposition.

Mr Paul Hackley



Since late 2001, Paul has been working on coal quality issues in support of national and international coal resource assessments that are conducted by the USGS. Specifically, since late 2002, he has been working on the petrography and vitrinite reflectance of primarily low rank coals from the Gulf Coast of the USA in support of CBM exploration. Other coal petrographic work has focussed on Tertiary high-volatile bituminous coals of Venezuela, recently published in International Journal of Coal Geology (v. 63, p. 68-97). Currently, Paul is continuing work on organic petrology of Paleocene coals of western Venezuela and lignite-sub-bituminous coals of northern Louisiana.

Dr Rachel Walker



I'm a transplanted Aussie currently working in the US as a coal petrographer. After completing a BSc (Hons) with a major in Geology and a minor in Zoology at the University of Queensland, I came to the US in 1999 to start graduate studies with Dr Maria Mastalerz at Indiana University. I graduated with a PhD this past May and have started work with Pearson Coal Petrography as the petrographer/manager of a new lab in Catlettsburg,

KY. My PhD was concerned with the reasons behind the good coking properties of the low-rank Lower Block Coal Member from southern Indiana. The high liptinite content and their dispersal throughout the vitrinite of this coal greatly improved its plasticity, allowing it to produce strong coke in blends containing up to 50% Lower Block coal. I have been a member of TSOP since 1999, and am looking forward to meeting fellow ICCP members at future meetings.

Es hat alles seine Zeit,
Und alles fun, unter dem Himmel hat seine Stunde.
Geborenwerden hat seine Zeit,
Sterben hat seine Zeit.

Plötzlich und viel zu früh gingst Du von uns.

Dr. Martin Reinhardt

* 29. 9. 1956 † 25. 3. 2005

Wir trauern um Dich:

**Katrin Burchard mit Hannah Marie und Malte
Heidi und Helmut Reinhardt mit Christian
Susanne Pomerance mit Jona
Insa Reinhardt und Harald Imse mit Ida und Paula
Dr. Lore Reinhardt
Angelika Schult mit Valerie, Birke und Alexa**

30173 Hannover, den 4. April 2005
Modersohnweg 5

Die Trauerfeier findet am Samstag, den 9. April 2005,
um 11.30 Uhr in der Friedhofskapelle Weetzen statt.

Anstelle von Blumen bitten wir um eine Spende für die Chris-
Lowdon-Stiftung, Freie Waldorfschule Hannover-Maschsee,
Kto. 178 459, Bankhaus Hallbaum, BLZ 250 601 80.

Ausführung: Ahrberg Bestattungen, Konnenberg-Weetzen.

ICCP Services

- ★ **ICCP Reflectance Standard**
- ★ **Accreditation Programme**

For more information contact the Commission I chair Dr. Walter Pickel :

<mailto:walter.pickel@organicpetrology.com>

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).

Young Scientist Award Call for Nominations

For recent higher degree graduates under 35 years of age who have potential to make outstanding contributions in the field of coal and organic petrology during their career. The award consists of:

- \$500US cash
- 3 years of ICCP Membership
- a certificate

In addition, the ICCP Council may invite candidates of exceptional merit to attend the next ICCP meeting to present their results. In this case, up to an additional \$1500US will be provided to cover expenses. Meeting costs will be included.

Applications close on **December 31** of each year and should be sent to:

Dr A.C. Cook
Chair ICCP Young Scientist Award Committee
Keiraville Konsultants Pty Ltd
7 Dallas Street
Keiraville, NSW 2500
Australia

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. Applications for the award are called for every second year. The next call will be in 2006.

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. Awards are made sporadically but applications are called for every 2 years. Nominations for 2005 have closed.

Know Your Coal Petrologist #16d



Henrik Peterson (left) has clear trouble in trying to communicate with our unknown petrologist. Next photo page 18.

DEADLINE FOR NEXT

ICCP NEWS :

7TH NOVEMBER 2005

Know Your Coal Petrologist #16e



For the last time, our puzzled petrologist is on the left. Naturally it is Diego on the right wearing the 'Snowy' (or 'Struppi') t-shirt. Answer page 19.

News from TSOP

<http://www.tsop.org>

Eleven papers from those presented at the 2003 Annual TSOP Meeting in Washington have recently been published in a special issue (Volume 63, Parts 1 and 2) of the International Journal of Coal Geology. These are:

Tar yields from low-temperature carbonization of coal facies from the Powder River Basin, Wyoming, USA. R.W. Stanton, P.D. Warwick, S.M. Swanson

Arsenic-bearing pyrite and marcasite in the Fire Clay coal bed, Middle Pennsylvanian Breathitt Formation, eastern Kentucky. L.F. Ruppert, J.C. Hower, C.F. Eble

Vertical variations of mercury in Pennsylvanian coal beds from Indiana. M. Mastalerz, A. Drobnik

Influence of a basic intrusion on the vitrinite reflectance and chemistry of the Springfield (No. 5) coal, Harrisburg, Illinois. A.K. Stewart, M. Massey, P.L. Padgett, S.M. Rimmer, J.C. Hower

Petrology, mineralogy and geochemistry of mined coals, western Venezuela. P.C. Hackley, P.D. Warwick, E. Gonzalez

Partitioning behaviour of trace elements in a stoker-fired combustion unit: An example using bituminous coals from the Greymouth

coalfield (Cretaceous), New Zealand. Z. Li, A.H. Clemens, T.A. Moore, D. Gong, S.D. Weaver, N. Eby

Variations in coal maceral chemistry with rank advance in the German Creek and Moranbah Coal Measures of the Bowen Basin, Australia, using electron microprobe techniques. C.R. Ward, Z. Li, L.W. Gurba
Geological processes that control lateral and vertical variability in coal seam moisture contents-Latrobe Valley (Gippsland Basin), Australia. G.R. Holdgate

Inorganic chemistry, petrography and palaeobotany of Permian coals in the Prince Charles Mountains, East Antarctica. G.R. Holdgate, S. McLoughlin, A.N. Drinnan, R.B. Finkelman, J.C. Willett, L.A. Chiehowsky

Coal sample preservation in foil multilaminar bags D.C. Glick, G.D. Mitchell, A. Davis.

The World Coal Quality Inventory: A status report. S.J. Tewalt, J.C. Willett, R.B. Finkelman

Some 25 full-length papers from the 2004 Annual Meeting in Sydney have also been submitted for publication. These are currently being steered through the editorial process under the guidance of Neil Sherwood, Joan Esterle and Tim Moore, and another special issue of the Journal will follow in due course. A CD containing the Abstracts and Program together with other material from TSOP 2004 has also been distributed to TSOP members and meeting registrants.

TSOP sponsored a technical session at the 2005 Gussow Geoscience Conference on *Coalbed Methane: back to the basics of coal geology*, organised during March by the Canadian Society of Petroleum Geologists (CSPG) in Canmore, Alberta. A volume of papers, with Lavern Stasiuk as lead editor, is expected to be published from the meeting. Several TSOP (and ICCP) members attended the very successful *World of Coal Ash* meeting, held in Lexington, Kentucky, during April. A poster by Agnieszka Drobnik, Maria Mastalerz and several co-workers, entitled *Association of mercury in Indiana coals and their fly ash; Insights from a sequential extraction*

technique, was selected from a diverse and very competitive field for the prestigious award to the best poster presented at the meeting.

2005 TSOP Meeting, Louisville, Kentucky

A total of 61 papers from an international range of authors have been accepted for oral and poster presentation at the 22nd Annual Meeting of the Society, to be held in Louisville, Kentucky between 11 and 14 September, 2005. A pre-meeting workshop on CO₂ sequestration, pre- and post-meeting field trips, and a special student function are also included in the program, making it a meeting not to be missed. Further information, including registration forms and accommodation details, is available on the TSOP web site.

New Names for TSOP Awards

TSOP has also recognised the contributions of some of its founders by re-naming two of its key awards. The Society's most prestigious award will now be known as the John Castaño Honorary Membership Award (or, in shorter form, the John Castaño Award), and the Student Research Grant will be known as the William Spackman Student Research Award (or, more simply, the Spackman Award). As well as honouring the respective people for their roles in establishing the society and the science of organic petrology, it is hoped that the changes will add prestige to the awards themselves, and more clearly define their standing in the organic petrology community. The first recipients of the awards under their new names will be announced at the Louisville meeting.

Revised Edition of CD-ROM Atlas of Coal

Geology: *Images Needed*

A revision of the Atlas of Coal Geology CD-ROM (AAPG Studies in Geology #45), produced jointly by the AAPG Energy Minerals Division and TSOP, is currently in progress. Contributions of coal-related images are being sought, with a draft publication expected by the end of September, 2005. The compilers hope to add more international

examples, and to include geological features and issues that were not represented in the first edition. New sections on Recent peat deposition, coal education, and coal sequence stratigraphy are also being planned. Authors of images selected for inclusion will be referenced in the image caption. Further information on the project is available on the TSOP web site.

Colin R. Ward
President

Answers to Know Your Coal Petrologist #16a, b, c, d and e

Perhaps it is just the people he associates with, but **Ed Lester** is clearly looking in a very confused state in all 5 photos. Perhaps he is contemplating the necessity of a new commission - Commission IV: New Methods to Understand the Average Coal Petrologist.

WHAT'S HAPPENING

11 - 14 September 2005

22nd Annual TSOP Meeting, Louisville, Kentucky, USA
<http://www.tsop.org>

12 - 15 September 2005

22nd International Pittsburgh Coal Conference, Pittsburgh, PA, USA
<http://www.engr.pitt.edu/pcc/>

18 - 23 September 2005

57th Annual Meeting of ICCP, Patras, Greece
Contact : Assoc. Prof. Dr. Kimon Christanis
<mailto:christan@upatras.gr>
<http://www.iccop.org>

9 - 14 October 2005

2005 International Conference on Coal Science and Technology (ICCS&T), Ginowan City, Okinawa, Japan
<http://unit.aist.go.jp/energy/iccst>

12 - 14 October 2005

2005 Bowen Basin Symposium,
Yeppoon, Qld., Australia
Contact : Nick Gordon
mailto:cngordon@tpg.com.au

25 October 2005

**Cooperative Research Centre for Coal
in Sustainable Development (CCSD)
Annual Conference,** Brisbane, Australia
Contact: Christina Li
mailto:administration@ccsd.biz

21 - 22 November 2005

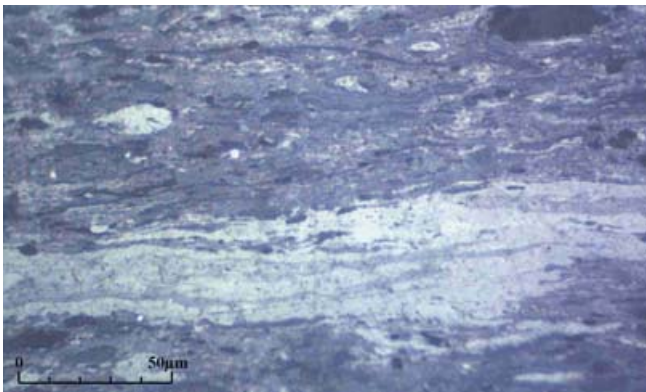
**2005 Clean Coal and Power
Conference,** Washington, DC, USA
mailto:faith.cline@hq.doe.gov

16 - 21 July 2006

Carbon 2006, Aberdeen, Scotland.
http://www.carbon2006.org/

Planned Future ICCP Meetings

2006	Indonesia
2007	Victoria, Canada
2008	Oviedo, Spain
2009	Porto Alegre, Brazil
2010	Belgrad, Serbia and Montenegro



*Degradinite? Liptodetrinite? Suberinite? Alginite?
Bituminite? Come to the microscopy session at the
57th ICCP Meeting and tell us what you think!*

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

ICCP Publications

ICCP Handbook

- ★ *International Handbook of Coal Petrography 2nd Edition (1963)* (in English) as CD ROM
PC and Mac Compatible
Requires Adobe Acrobat Reader Ver. 4 or above
ICCP / TSOP member - \$25US (including postage)
ICCP non-member - \$50US (including postage)
- ★ *International Handbook of Coal Petrography, supplement to the 2nd edition*, second print (in English) 1985 US\$30
- ★ *International Handbook of Coal Petrography, 2nd supplement to the 2nd edition* (in English) 1986 US\$10
- ★ *International Handbook of Coal Petrography, 3rd supplement to the 2nd edition* (in English) 1993 US\$20

Prices do not include shipping unless stated (approx US\$15 in Europe and outside Europe US\$23 per item) or cost of money transfer.

Orders to

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