

ICCP NEWS



Evomarie Wolff-Fischer

Hans W. Hagemann

1. SHORT MINUTES OF THE 42nd MEETING OF THE ICCP, HELD IN WOLLONGONG, AUSTRALIA* February 19-23, 1990

- *) A full version of the minutes will be circulated to ICCP members who attended the Wollongong meeting. Other members may obtain them by writing to the General Secretary, Prof. Dr. Alan Davis, Energy and Fuels Research Center, The Pennsylvania State University, 517 Deike Building, University Park, Penns. 16802, USA

The 42nd meeting of the ICCP took place in Wollongong, Australia, from February 19th to 23rd, 1990. It was attended by the President, Prof. M. Wolf, and 68 members and guests from 16 countries. The meeting was officially opened at the Plenary Session by Professor Ian Chubb, Deputy Vice-Chancellor, University of Wollongong.

The President asked the meeting to stand in honour of Prof. F.T.C. Ting who died on July 20, 1989 in China after a short illness. He had been Professor of Geology at West Virginia University.

Commission I (General Coal Petrology)

Chairman: Dr. E. Wolff-Fischer, DMI-IRA 1, Franz-Fischer-Weg 51, D-4300 Essen, FRG

Secretary: Prof. A. Cook, Department of Geology, The University of Wollongong, P.O. Box 1144, Wollongong N.S.W. 2500, Australia

1. Coal Classification (M. Lemos de Sousa, Portugal)

The ICI is working on an "International classification of coals in the seam" with a view to its use for estimation of reserves and resources taking into account coal utilization. Official advice has been sought from ICCP on additional rank parameters to be used either in conjunction with each other or in conjunction with the existing basic parameters and on terms for the maceral composition to categorize coals by type. These decisions were presented to the Plenary Session and, subject to confirmation at this Session, they will be conveyed to ECE by the President of the ICCP.

Dr. E. Wolff-Fischer, DMI-IRA 1, Franz-Fischer-Weg 51, D-4300 Essen, FRG

Prof. Dr. Ing. H.W. Hagemann, Lehrstuhl für Geologie, Geochemie und Lagerstätten des Erdöls und der Kohle der RWTH Aachen, Lochnerstraße 4-20, D-5100 Aachen, FRG

2. Standardization of reflectance-/maceralanalysis (W. Piisterer, W.-Germany)

The results of the ring analysis indicated that the majority of the participants has no problem with reflectance measurements. The reproducibilities of the analysis are close to the ISO limit, but the ISO procedure as given in 7404/5-1984 is not sufficient for blend analysis.

3. Standardization of fluorescence measurements (K. Ottenjann, W.-Germany)

Report about the activities of the last years. A proposal for a new method "Determination of Spectral Distribution" was presented.

4. Gondwana coals (Z. Correa da Silva, Brasil)

The need for the continuation of the group was questioned but it was agreed that the WG would be continued. The aims of the WG will be re-formulated.

5. Lithotypes in brown coals (P. Black, New Zealand)

The chairman of the Commission explained that P. Black was no longer able to serve as chairman of the WG. The members of the WG will be informed by the new chairman (not yet elected) about further activities.

6. Saprovitrinite (K. Kruszewska, S-Africa)

A preliminary description of SAPROVITRINITE was submitted by K. Kruszewska for discussion. The Commission recommended that no new name be adopted but the additional descriptions be added to the vitrinite sheet in the revised HANDBOOK. Additions are to be available for the meeting in Porto Alegre in 1991. - J. Newman presented some informations on some New Zealand coals.

7. The Bostik Bibliography of Sedimentary Organic Matter

Disks of the Bibliography were shown including version taken across into Display-write III and Word Perfect 5.0 together with part of listing run through the DW3 version. It was pointed out that in the translated form, the Bibliography could be accessed by automatic referencing systems such as AUTOREF. The thanks of the Commission for provision of the Bibliography were recorded.

Commission II (Geological and Petroleum Applications)

Chairman: Dr. J. Senville, ARCO Oil and Gas Company, Research and Technical Services, 2300 West Plano Parkway, Plano, Texas 75075, USA

Secretary: Dr. Y. Somers, INIEX, Rue de Chert 200, B-4000 Liège, Belgium

Acting Secretary: Dr. W.J.J. Fermont, Geologisch Bureau, P.O. Box 125, NL-6400 AC Haerlen, The Netherlands

The Chairman proposed that the commission change its approach towards the development of:

- working classification
- integrated basin studies to enhance
 - characterization
 - organic facies
 - depositional environment
- maturation/geohistory

1. MOD Round Robin (W. Miltmann, W.-Germany)

Results:

- 1) significant discrepancies of maceral analyses
- 2) significant problems distinguishing organic matter from mineral matter

Conclusions:

Chief reason for result differences due to maceral identifications by individual workers.

Working Classification:

The classification of sedimentary organic matter (SOM) was discussed and a working classification was proposed as follows:

<u>Whole Rock</u>	<u>Isolated SOM</u>
vitrinite	vitrinite
inertinite	inertinite
liptinite	liptinite
bituminite	bituminite
zooclasts	AOM
mixed matter	zooclasts
	mineral matter

2. Isolation of SOM Working Group (A. van der Meulen, The Netherlands)

The objective of this group was to develop a better understanding of the visual and chemical effects of organic matter isolation by chemical methods. The advantages and disadvantages of the isolation procedures were discussed.

Recommendations:

- use coarser grain sizes in isolation procedure and minimize handling of kerogen to preserve network structure
- the chemical preparation scheme will be summarized by van der Meulen.

3. Working Group on Alginite (A. Cook, Australia)

A. Cook discussed the history of alginite terminology. The group will proceed with the classification of alginite based upon morphology.

4. Thermal Indices (J. Senftle, USA)

The history of this working group was reviewed by J. Senftle including the goals developed in Aachen in 1988.

The initial study should include:

vitrinite reflectance, fluorescence, maceral composition, TGC, Rock-Eval, solvent extraction, gas chromatography, kerogen isolation, spore color, pyrolysis-gas chromatography and Raman spectroscopy. - W. Fermont who will be the Convener of this Working Group.

Commission III (Industrial Applications)

Chairman: Prof. Dr. C.F.K. Diessel, Geology Department, University of Newcastle, Rankin Drive, Newcastle N.S.W. 2308, Australia

Secretary: Dr. M. Bengtsson, M. Bengtsson Consultant AB, Bläcksvampvägen 16, S-61163 Nyköping, Sweden

1. Reactive Inertinite Working Group (K. Kruszewska, S-Africa)

Objectives:

- 1) To determine the precision of the reflectance scan method for the evaluation of fusible inertinite.
- 2) To assess different methods of scan evaluation.
- 3) To develop a classification system for the inertinite identified in coke.

Conclusions:

The scanning method yielded promising results and further work based on this method is suggested.

2. Combustion Working Group (M. Bengtsson, Sweden)

Objectives:

The objectives of the Working Group are to increase the knowledge of the combustion patterns of coals and to develop a char classification that is not only reproducible but also a meaningful tool for the correlation of coal composition with optical char properties and char combustion.

Conclusions:

More precise definitions and guidelines for analyses will be provided by J. Bailey who will prepare a ring analysis in order to test the improved char classification. Judy Bailey was elected to be the new convener for the Combustion Working Group.

3. Automation Working Group (S. Munnix, Belgium)

Objectives:

The purpose of this working group is the development of methods for automatic measurements system and the establishment of procedures for more reliable reflectance measurements and maceral group analysis.

Conclusions:

The discrepancy observed between the automated and manual reflectance measurements requires further efforts from the members of the Working Group in order to improve the results of rank assessment with automated systems. David Pearson was elected as the new convener of the Automation Working Group.

4. Coke Petrography Working Group (C. Vogt, France)

Objectives:

The aim of the Working Group is the establishment of a classification of coke textures, which is not only reproducible but also sufficiently meaningful that accurate predictions can be made about the coke's technological properties.

Future Activities:

Two tasks have been planned for the current year:

- (1) Members of the Working Group will be requested to identify selected points on photomicrographs of coke samples. The results of this exercise will serve to improve the present definitions of coke texture.
- (2) For the second exercise members of this Working Group will use the two coke samples, of the Reactive Inertinite Working Group.

2. Field Trip and Social Program

Pre- and post-meeting field excursions were held to the Port Kembla steelworks, the Hunter Valley coalfields, CSIRO and ACIAL Research Laboratories, and the Gippsland Oasis.

The social programme included a reception at the University of Wollongong, an evening excursion to the Sydney Opera House and a Conference Dinner.

3. Thiessen Medal

The Thiessen Medal was awarded to Dr. A.H.V. (Harold) Smith for his contribution to coal petrology and palynology, for his many valuable contributions in industrial applications of coal petrology, and for his work on the International Handbook of Coal Petrography.

4. ICCP statutes

The President addressed the revision of the ICCP statutes. Important changes in the revised statutes are:

1. The future voting procedure will be changed to eliminate the need for the lengthy pre-election process. The Council will prepare a list of candidates for presentation at a Plenary Session. Members at the Plenary Session may nominate additional members. During balloting members may write in the names of other eligible candidates.
2. The Thiessen Medal now be awarded once a year. The text of the laudatio will be incorporated in the ICCP Comptes Rendus for publication in an appropriate scientific journal.
3. A Comptes Rendus will be prepared at the end of a President's third year in office for publication in a scientific journal. This replaces the report which in the past had been incorporated in the Comptes Rendus of the International Congress of Carboniferous (and Permian) Stratigraphy and Geology.
4. In future, the ICCP will have only one Vice-President.
5. An Editor will be nominated by Council and confirmed by the General Secretary. She or he will become a Member of Council.
6. Differences in qualifications for Associate and Full Membership have been formalized.

5. Treasurer's Report

Prof. Murchison noted that the ICCP's overall balance in the General Accounts is £ 21,514.25. The success of the newly introduced 3-year fee was noted. The Handbook Account has a balance of £ 2750.19; however this amount will not be sufficient to cover the anticipated costs of the planned printing of the 1990 Supplement and reprinting of the 1963 edition.

The 1990 Supplement sheets and plates were placed on display. It is hoped that the printing of 300+ copies will take place in the near future.

6. Elections

Chairman of Commission III: C. Diessel
Secretary of Commission III: M. Bengtsson

Forthcoming Elections

Several elections will have to be called before the next ICCP meeting. The positions which will become vacant are: President, Vice Presidents, Secretary of Commission I, Chairman of Commission II, and Secretary of Commission II. Pre-election ballots are circulated.

7. Membership

A. Degers, Australia, and Dr. R. Wartmann, W.-Germany, were elected to Full Membership of the ICCP.

New Associate Members are:

Helmar Achilles	West Germany	Jeffrey Quick	New Zealand
Carla Araujo	Brasil	Adrian Reifenstein	Australia
Judith Bailey	Australia	Reinhard Sachsenhofer	Austria
Barry Clark	Australia	Rakesh Saxena	India
Ian Crick	Australia	Neil Sherwood	Australia
Bertrand Ligouis	West Germany	Mahendra Singh	India
Jane Newman	New Zealand	Richard Sykes	New Zealand
Walter Pickel	West Germany		

8. Future Meetings

The next meeting of the ICCP will take place in Porto Alegre on September 16-22, 1991. Members who attend the meeting in Brazil will have the possibility of attending the International Carboniferous and Permian Congress in Buenos Aires, after the ICCP meeting.

The 1992 meeting will take place at University Park, Pennsylvania on July 20-24. It will be followed by a meeting of The Society for Organic Petrology (TSOP) on July 26-27.

A European organization willing to host the 1993 meeting is being sought.

9. Announcements

1. The Canadian Coal Petrographers Group wishes to invite you to attend this year's Annual Meeting of the Society for Organic Petrology which is to be held in Calgary, Canada, from September 9th to 14th, 1990.

If you require further information, contact:

Dr. Wolfgang Kalkreuth
Geological Survey of Canada
Institute of Sedimentary & Petroleum Geology
3303-33rd Street, N.W.
Calgary, Alberta T2L 2A7
Phone: (403) 292-7119; fax (403) 292-5377

2. Letter from B. Alpern

a) Up to now there is no official internationally agreed definition of COAL. It could be, among many others, a) "a sedimentary rock formed by macerals and minerals and containing more organic than mineral matter" or b) "a sedimentary rock giving more energy than it consumes when it is burned" (positive thermal balance).

In the first case, the limit would be at 50 % HT ash (about 55 % of mineral matter) and beyond this limit, Humic and Sapropelic coals would become respectively Coal (y) Shales and Oil Shales. The term shale has here no precise connotation, but it corresponds to the fact that, statistically, clays are most often associated with coals.

In the second case, the concept of COAL is more extensive, the limit reaching about 80 % of ash. This would be applicable to Humic coals and the category of "Mixed" or "Middlings" would disappear. For Sapropelic coals the boundary with Oil Shales has also to be fixed and it seems that a limit at 50 % ash would be more appropriate than at 80 %.

b) During the discussion on Coal Classification it appears that few distinguished colleagues consider that, among parameters selected for such a classification, some would be more "scientific" more "noble and fundamental in nature" than others. For example, chemical parameters as: C, N, O would be better than petrographic ones because the reproducibility is better. I disagree with that old opinion that considers natural sciences to be of inferior status when compared with physico-chemical ones. Accumulation of press-button automatic, even precise, data are not necessary the true science. Remember the old explanation of regretted Prof. Mackowsky, she was saying "Do you believe that the elemental analysis - even with many decimals - of your hand-watch is correct and scientific?".

The characterisation of a full coal seam by only C, H, O correspond to the analysis of thousands of variable forests and swamps accumulated during millions of years and mixing wood, cork, cuticles, resins, fats, oils, seeds, fruits, spores, zooclasts, secondary products, etc..

Is it really more scientific than a maceral analysis?

c) It is by definition and etymology the specific task of petrologists (not of chemists) to give names to the rocks. That means to use names not complex sentences. Thus to replace, for example, "Meta-anthracite" by "high rank C coal" is perhaps a good compromise but surely not a progress. A classification using words is an obligation.

B. Alpern - 11.12.89

3. Proceedings of the "MACERALS '89"

Symposium: **The Affect of Macerals on the Utilisation of Coal and their significance in Petroleum Exploration**; Edited by C.G. Thomas and M.G. Strachan.

Copies are available from

C.G. Thomas
CSIRO
Division of Coal Technology
P.O. Box 135
North Ryde, N.S.W. 2113
Australia

4. Notes about the designation of ICCP officers

In order to avoid misunderstandings between the different levels of Presidents the Council made the following decision:

Head of the ICCP	- President
Head of the Commissions	- Chairmen
Leader of WGs	- Conveners

5. Briefly notes on relevant books:

Sedimentology, Petrology & Mineralogy, Economic Geology, Paleobotany

Peat and Coal: Origin, Facies, and Depositional Models

edited by P.C. Lyons, U.S. Geological Survey, Reston, VA, U.S.A. and B. Alpern, Paris, France

Reprinted from the *International Journal of Coal Geology*, Vols. 12, Nos. 1-4

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APPROXIMATE MONTH OF PUBLICATION: JUNE

This volume, the first of two containing papers presented at the 28th International Geological Congress (Washington, D.C., 9-19 July 1989), focuses on peat and coal studies related to the origin of coal. It will be of interest to a broad spectrum of readers, including specialists in peat and coal studies, and also teachers, students, and experts in applied peat and coal science. The subject and geographical indices allow easy access to detailed information.

Contents: Preface and Acknowledgements. Introduction. Part I: Overview. The genesis of coal from the viewpoint of coal petrology (M. Teichmüller). Part II: Modern Peat Systems. The ecology of peat-forming processes: a review (P.D. Moore). The geology, botany and chemistry of selected peat-forming environments from temperate and tropical latitudes (C.C. Cameron et al.). The Changuinola peat deposit of northwestern Panama: a tropical, back-barrier, peat (coal)-forming environment (A.D. Cohen et al.). Part III: Peat Depositional Models. Organics versus clastics: conditions necessary for peat (coal)



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Contents: Preface and Acknowledgements. Introduction. Part I: Coal Classification. A progress report on the Alpern coal classification (B. Alpern et al.). The rank evaluation of South Brazilian Gondwana coals on the basis of different chemical and physical parameters (Z.C. Corrêa da Silva). Part II: Early Stages of Coalification (Lignite and Subbituminous Coal).



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Any member wishing to contribute to the **ICCP NEWS** may submit material to Dr. E. Wolff-fischer, DMT-IRA 1, Franz-Fischer-Weg, D-4300 Essen 13, FRG. The deadline for the next **ICCP NEWS** is September 30, 1990.