THE SOCIETY FOR ORGANIC PETROLOGY

NEWSLETTER

Vol. 20, No. 3 September, 2003 ISSN 0743-3816

Photo by Hal Gluskoter

20th Annual Meeting, September 21 - 24:

TSOP 2003 Washington, D.C.

Schedule on page 16

TWENTY-FIRST ANNUAL MEETING

Organic Matter Down Under

Sydney, Australia
27 September – 1 October, 2004

The 21st Annual Meeting of TSOP will be held at the Crowne Plaza Hotel, Coogee Beach, a beach-side conference venue conveniently located with respect to Sydney Airport, the city centre and the University of New South Wales.

Some Conference Themes:

- Non-marine source rocks
- New techniques in organic petrology and geochemistry
- Coal in sustainable development

Provisional Program:

- Monday, September 27 – Short course, registration, icebreaker reception
- Tuesday, September 28 – Technical sessions, TSOP business lunch
- Wednesday, September 29 – Technical sessions, conference dinner
- Thursday, September 30 – Technical sessions, field trip departure
- Friday, October 1 – Field trip: coal geology of the Hunter Valley

Additional details will be provided as the planning process develops. A formal call for papers will be made during 2003, covering the conference themes together with other advances in coal geology, organic petrology and geochemistry. Sydney, host to the 2000 Olympics, has many attractions for those who can stay a little longer, and a partners' program is being planned to complement the technical activities.

Mark the dates on your calendar now!

Organising Committee:

Neil Sherwood	Colin Ward	Lila Gurba
Claus Diessel	Adrian Hutton	Joan Esterle
Herbert Volk	Harold Read	Tim Moore

For more information contact:

- Neil Sherwood, CSIRO Petroleum: Neil.Sherwood@csiro.au
- Colin Ward, University of New South Wales: C.Ward@unsw.edu.au

The Society for Organic Petrology Newsletter

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Writers, Photographers and Associate Editors Needed!

The TSOP Newsletter welcomes contributions from members and non-members alike. Submission methods: Text is preferred in WordPerfect, MS Word, RTF or plain text format. Photos as slides or prints (will be returned after use) or as digital files (300 dpi preferred) without strong compression on CD-ROM or as e-mail attachments (if larger than 5 MB, please e-mail me first). Zip disks are discouraged.

Contact the Editor:

David C. Glick
209 Spring Lea Dr.
State College, PA 16801 USA
phone: 814-237-1094
e-mail: xid@psu.edu

Address Changes

Please report any changes in address or contact information to:

Peter Warwick, TSOP Membership Chair
U.S. Geological Survey
956 National Center
Reston, VA 20192 USA
e-mail: pwarwick@usgs.gov

Society Membership

The TSOP Newsletter (ISSN-0743-3816) is published quarterly by The Society for Organic Petrology and is distributed to all Society members as a benefit of membership. Membership in the Society is open to all individuals involved in the fields of organic petrology and organic geochemistry. For more information on membership and Society activities, please see:

http://www.tsop.org

For purposes of registration of the TSOP Newsletter, a permanent address is: The Society for Organic Petrology, c/o American Geological Institute, 4220 King St., Alexandria, VA 22302-1520 USA

Contents

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Cover:

Washington's famous cherry blossoms frame the view across the Tidal Basin to the Jefferson Memorial. Photo by Hal Gluskoter.

President's Column:

Maria Mastalerz

There is only one month left of my presidential term and I would like to take this space to share some of my thoughts with you. I have had a very enjoyable year as TSOP President. I am especially grateful to the Council ®. Finkelman, D. Glick, W. Huggett, R. Pheifer, and P. Warwick), who have been extremely hard-working, responsive, and helpful. I could not have imagined a better group of people to work with.

It has been a busy year for the Society. We have introduced several initiatives that, I believe, will benefit the TSOP membership. The Initiative to Promote TSOP and Coal Science was introduced and we established a committee to coordinate its efforts. Their first initiative was to offer a free subscription of the International Journal of Coal Geology to TSOP members who cannot afford it if they demonstrate that the journal will also be used by their colleagues and students. We have funds secured for the first two subscriptions of the journal, and we are in the process of selecting suitable candidates.

This year, due to a generous contribution from Penn State, we have been able to offer student support to attend the TSOP meeting in Washington. It is very important to have student participation at our meetings, and we hope that this program can become a permanent feature; we will actively pursue ways to secure further funding for this purpose. This year we have also received many applications for the TSOP student grant for research support.

Our working groups have made progress. A cooperative ICCP/TSOP working group has developed the petrographic classification of dispersed organic matter and the atlas demonstrating examples of individual organic matter will be completed soon. We are also discussing publishing a revised edition of the digital Atlas of Coal Geology.

The cooperation between TSOP and ICCP has been a subject that resulted in numerous, sometimes heated, discussions this year. The Organizing Committee of the 2004 TSOP meeting in Sydney has invited ICCP to actively participate in the meeting and the ICCP Council positively responded to the invitation. I am looking forward to this and other joint efforts of the two societies.

This year TSOP introduced some other changes. All members can find the newsletter on our Web page, in addition to receiving a printed copy. We are also now offering a discount for multi-year membership. An amount of $100 could cover your dues for 5 years. Several members have already taken advantage of this discount.

In my previous address I suggested that the one-year presidential term should be extended, and invited you to express your opinions about this issue. Many of you who wrote or talked to me and supported my idea and voiced very strong opinions that the president should have a longer term (most of you suggested two years). As a matter of fact, I did not receive any dissenting opinions. Based on this I think that our Society should introduce this change and make adequate preparation steps towards it.

Finally, I have to say that I am very pleased with the results of the latest elections The newly-elected TSOP officers are excellent; I have no doubts that the Society will be in good hands in the following years.

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Council Changes

In the recent election, Colin Ward, Leslie Ruppert, and Zhonsheng Li were elected and David Glick was re-elected. The Society thanks Bill Huggett for his efforts as Chair of the Ballot Committee, and the other candidates -- Brenda Pierce, Rui Lin, and Rachel Walker -- for their willingness to serve.

TSOP's 2003 - 2004 Council will be:

President	Robert Finkelman
President-Elect	Colin Ward
Vice-President	Leslie Ruppert
Secretary-Treasurer	Mike Avery
Councilor ('02 - '04)	William Huggett
Councilor ('03 - '05)	Zhongsheng Li
Editor	David Glick

Biographies of the newly elected members follow.

Colin Ward, President-Elect

Colin Ward received his PhD from the University of New South Wales in 1971, and has been engaged in coal research for most of the 30-year period since that time. He is currently Associate Professor in the School of Biological, Earth and Environmental Sciences at the University of New South Wales in Sydney, Australia, after an eight-year term as Head of the Department (School) of Geology at that institution. Other experience includes visiting appointments at the Illinois State Geological Survey, the University of Kentucky, the University of Sheffield and CSIRO Division of Energy Technology, as well as periods of consultancy in Australia, Malaysia and Thailand.

Colin's personal research has focussed on the nature and origin of mineral matter in coal, as well as on maceral geochemistry through application of electron microprobe and other advanced analysis methods. He has also fostered graduate student research projects on vitrinite reflectance and organic geochemistry in relation to thermal maturation, on coal basin sedimentology, and on the petrology of oil shales, and is currently involved in research on the environmental implications of fly ash disposal and use. His contributions include editing the internationally used textbook *Coal Geology and Coal Technology* (1984) and a 600 page monograph on *Geology of Australian Coal Basins* (1995), as well as over 50 refereed journal publications and more than 40 full-length conference papers.

Colin has been a member of TSOP since 1998, and is currently co-chair of the Organising Committee for the 21st Annual Meeting in Sydney (2004). He has also served on several TSOP committees, including the Awards Committee, the Honorary Member Selection Committee, the Student Grants Committee and the Committee for Promotion of Coal Science.

Leslie Ruppert, Vice-President

Leslie (Jingle) Ruppert has a B.S. and a M.S. from George Washington University (1987). Her scientific and technical specialties include inorganic petrography, mineralogy, coal and coalbed methane geology, and GIS. Currently, she is a coal geologist with the U.S. Geological Survey's Energy Team, where she has worked for 23 years. Her experience includes trace element geochemistry, modes of occurrence of elements in coal, genesis of coal beds, and coal resource assessment of Appalachian coal beds and coal zones. She is currently working in the Appalachian Basin on framework geology of oil, gas, and coal strata, coal bed methane resources and geochemistry, and trace element variability of coals at varying scales.

Jingle is a member of the TSOP 2003 Annual Meeting Organizing Committee, International Pittsburgh Coal Conference Board (current Chair, Executive Board), International Journal of Coal Geology Editorial Board, Geological Society of Washington (past Councilor and perpetual Membership Chair), and a Fellow of the Geological Society of America (past Chair of the Coal Geology Division, current Medlin and Cady Award chair).

Zhongsheng LI, Councilor

After finishing my Ph.D in New Zealand, I joined the coal research team in the University of New South Wales, Australia since 2002 and worked on projects funded by Australian Research Council and other organizations on coal petrology and coal characterization using electron microprobe, Fourier Transform infrared spectroscopy (FTIR) and other techniques. My current research activities not only further strengthens my research experience in coal petrology and broader aspects of coal geology, but also further enhances my understanding of maceral chemistry changes with coal rank advance and their implications on coal utilisation, as well as the applications of modern techniques (microprobe, FTIR, etc) on the chemical characterization of macerals and petroleum sediments. The other major research projects I did was focused on trace elements in coal and their combustion products as well as their environmental impacts.

Before returning to university to do my PhD, I worked for over 10 years at an institute of the Chinese Academy of Earth Sciences. Work at that organization allowed me to develop some key skills. For example, as a geologist and geochemist I was instrumental in carrying out and coordinating team-oriented research projects. This experience helped me to develop valuable innovative research approaches and strategies, problem-solving skills as well as client-oriented management skills. Then I subsequently worked as a "Research Scientist" in a New Zealand oil company. e

55th Annual Meeting of the International Committee for Coal and Organic Petrology (ICCP) Utrecht, the Netherlands, 2003

By Maria Mastalerz

The 55th Annual Meeting of the ICCP was held in Utrecht, 10-16 August, 2003. The meeting was organized by the Netherlands Institute for Applied Geoscience – National Geological Survey (TNO-NITG) and the faculty of the Earth Sciences Department of the Utrecht University. This year the ICCP met jointly with the International Congress on Carboniferous and Permian Stratigraphy; M. Pagnier chaired the Utrecht Organizing Committee, and P. David was Secretary of the meeting.

Seventy-two participants attended the ICCP meeting from the following countries: Australia (9), Brazil (3), Canada (3), Czech Republic (1), Denmark (1), France (2), Germany (14), Greece (6), Hungary (1), the Netherlands (7), Mozambique (1), Poland (4), Portugal (3), Romania (1), Russia (1), Serbia (1) South Africa (2), Spain (4), United Kingdom (5), and the United States (3).

The conference opened with welcoming speeches by the organizers and officials of Utrecht University. M. Dusar from the Belgium Geological Survey gave an overview of Carboniferous research and its reflection in the International Congresses of Carboniferous and Permian Stratigraphy (ICC-P). After this joint opening session, ICCP held its opening plenary session. Progress reports of the ICCP working groups were presented on August 11, 12, 14, and 15. Chairs of each of the three ICCP Commissions began with a summary of their working group activities over last four years. The closing plenary session of the General Assembly included a presentation of the Thiessen Medal. This award is given to a scientist for contributions to the field of organic petrology. It is my great pleasure to report that this year's recipient of the Thiessen Medal was James C. Hower, a colleague and a friend of many of us (see the article on p. 7).

Presidents Maria Mastalerz of TSOP and Alan Cook of ICCP break the ice during the welcoming reception.

On August 13, a symposium organized by Prof. Dr. Manuel de Sousa was held in honor of Professor M. Th. Mackowsky. Presenters included her students ©. Diessel, M. Steller), her colleagues (E. Wolf-Fischer, D. Murchison), and others who are involved in applied aspects of organic petrology (J. Hower). A very enjoyable day, it was an excellent occasion for those who knew Mackowsky personally to reflect on her life, and those who did not know her had an opportunity to learn what an extraordinary scientist and human being she was.

ICCP meeting participants enjoy the cruise before the conference dinner.

Of course, the meeting included social activities - an icebreaker reception on Sunday, a reception at the Pandhof offered by the city of Utrecht on Monday, and the conference banquet on Wednesday. The banquet took place on the party boat "Classic Lady"; it was a very enjoyable evening with live music during which the participants had a great opportunity to show off or discover their dancing talents. A one-day field trip to the province of Zeeland concluded the conference.

For more information about this ICCP meeting and ICCP activity in general, please visit the ICCP web page www.iccop.org e

Jim Hower, University of Kentucky Researcher, Wins ICCP's Thiessen Medal

UK CAER press release

Lexington, KY (September 3, 2003) Dr. Jim Hower, 25 year veteran of the University of Kentucky Center for Applied Energy Research, has won a prestigious international award. In 1956 the International Committee for Coal and Organic Petrology (ICCP) created the Reinhardt Thiessen Medal. It is awarded annually to one outstanding petrologist who has made significant contributions in the field. Dr. Hower is the 27th recipient and only the fifth American to receive the award. This award was presented to him during the 2003 ICCP conference held in Utrecht, The Netherlands in August.

Dr. Hower's successful career is comprised of a blend of academic accomplishments that have melded well with practical applied research, utilized by industry. For instance, he has served on graduate student thesis and dissertation committees at seven major universities and is an adjunct faculty member in the UK Department of Geology. However, he has also made hundreds of mine visits to collect samples and works closely with the coal and utility industries as well as conducting a major survey of post-combustion byproducts at Kentucky's coal-fired power plants.

In addition, Dr. Hower is very prolific both as an editor and writer. He is currently editor-in-chief of the *International Journal of Coal Geology* and until recently was associate editor of *Organic Geochemistry*. He has co-authored a significant number of publications in his career so far: 155 refereed publications and at least twice as many unrefereed publications and presentations.

He serves in varying capacities in professional societies including: The International Committee for Coal and Organic Petrology; The Geological Society of America, The American Association of Petroleum Geologists, The Society for Organic Petrology, The Kentucky Society for Professional Geologists, and the American Coal Ash Association. Awards received from these societies are almost too numerous to mention, but recent highlights include: American Institute of Professional Geologists, Kentucky Section, 1997 Outstanding Kentucky Geologist Award; Geological Society of America Coal Geology Division, 1997 Distinguished Service Award; American Association of Petroleum Geologists, Eastern Section Energy Minerals Division, 1996 Gordon H. Wood, Jr., Memorial Award.

Jim Hower (left) holding the Thiessen Medal, with Alan Cook, ICCP President, and Petra David, ICCP General Secretary.

In TSOP, Dr. Hower has served as Vice-President, President-Elect, and President, has hosted several annual meetings and served as annual meeting advisory committee chair, as well as advancing the various goals of the Society in numerous other activities.

Dr. Hower received an M.S. in Geology and Mineralogy from Ohio State University in 1975 and a Ph.D. in Geology from The Pennsylvania State University in 1978. e

TSOP appreciates the assistance of ICCP in permitting timely publication of this article for the benefit of TSOP members. – *TSOP Editor*

Directory Additions

Please submit corrections or changes to Directory information to Peter Warwick, Membership Committee Chair, pwarwick@usgs.gov

New student member:
Donald Walker don8959@hotmail.com
750 Ridgecrest Court # 1511 (405) 366-0146
Norman, OK 73072
USA

New member:
Art C. Stirrett stirrett@northrock.ab.ca
156 Scenic View Close N.W. Tel 403-213-7484
Calgary, Alberta T3L 124 Fax 403-514-8384
CANADA

Additional e-mail:
Jim Hower: hower@psualum.com (home)

Address change:
C. Philip Dolsen
Great Lodge Apt. 206
1000 Bay St
Rhinelander, WI 54501

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Alan Bailey

Alan Bailey, long-time TSOP member, passed away July 31, 2003. He was 64 and had taught at the University of Louisiana at Lafayette since 1981. His obituary appeared in the The Lafayette Daily Advertiser on August 2, 2003, and at
http://www.acadiananow.com/obituaries/html/

A more complete memorial article would be appropriate for the next Newsletter issue. Members with contributions for that article are requested to provide them to David Glick by November 30.

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BOOKS - Price Note

The price of the book COAL: A Human History, reviewed in the last issue, is approximately US$ 20.00 in hard cover. A softcover edition is expected to be released soon at a lower price. e

TSOP Dues Form Enclosed

For those whose paid membership expires at the end of 2003, a personalized dues notice is enclosed with this issue. Please verify your contact information, enter the rate and years being paid (note that a discounted rate of US$ 100 for 5 years is available) and return the payment to Mike Avery. Prompt payment reduces the effort required for record keeping and repeated mailing of dues notices.

You may elect not to receive the printed copy of the Newsletter by marking the box on the dues form. Portable Document Format (PDF) file versions will be available for downloading on the TSOP web site http://www.tsop.org/newsl.htm at the same time the printed issue is mailed. Each issue is available in two pdf formats, a smaller file suitable for screen viewing and a larger file including graphics at 300 dpi which will provide better appearance when printed.

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Banff 2002 Meeting Revisited

The Banff meeting group photograph appears on page 9. Society award presentations at the meeting were CSCOP's Hacquebard Award to Dr. Fari Goodarzi, TSOP's Honorary Membership to Dr. Duncan Murchison, and the Geochemical Society's Treibs Award to Dr. Archie Douglas. Text for the first two appear on pages 10 and 11. For those with full-text access to the Elsevier web site, the Treibs Award citation and response may be found on the Geochimica et Cosmochimica Acta web site, in volume 67 issue 13, at
http://www.elsevier.nl/inca/publications/store/2/1/2/

Photograph and digital editing by David Glick

CSCOP - TSOP BANFF 2002, August 31 - September 4
TSOP 19th Annual Meeting
The Banff Centre, Banff, Alberta, Canada

Hacquebard Award Presentation to Dr. Fari Goodarzi

Dr. J. Potter
President, Canadian Society for Coal Science & Organic Petrology,
September 2002

On behalf of the Canadian Society for Coal Science and Organic Petrology (CSCOP), I would like to take the opportunity of this gathering of formidable geoscientists to present the highest honour that our Society can bestow upon any of its members:

The Hacquebard Award

The Hacquebard Award is an honour reserved for members of CSCOP who have enjoyed long and distinguished careers in coal science, made significant contributions to the advancement of coal science and organic petrology in Canada and whose work, like that of former president and honorary member, Peter Hacquebard has been recognized nationally and internationally. According to our records, it is only awarded once in a blue moon - the first and so far, the only recipient of this award was the late Dr. Alex Cameron. Future recipients will therefore be in distinguished company indeed.

The Society has chosen as the second recipient of the Hacquebard Award, Dr. Fari Goodarzi.

Dr. Fari Goodarzi

Fari joined the Coal Sub-division of Geological Survey of Canada in Calgary, Alberta in 1982 where he helped to develop the Coal Petrology Laboratory at the GSC - Calgary, together with Dr. Alex Cameron and former colleague Dr. Wolfgang Kalreuth.

His long and distinguished career in coal science, began many years ago in Newcastle with his work on coal macerals, carbonization and oxidation.
At the Geological Survey of Canada, his research activities covered an incredibly broad spectrum of organic materials: the optical properties and macerals of low rank coals, dispersed organic matter in petroleum source rocks, massive bitumens, microscopic bitumens, non-conventional maturity parameters such as graptolites, scolecodonts and chitinozoans. He also carried out studies in coal combustion and regional thermal maturation studies in the Paleozoic of Arctic Canada. In recent years, his work has been mainly focused in the area of inorganic geochemistry of coal and the environmental impact of coal-fired power plants and relationship with macerals.

Dr. Goodarzi has published over 170 papers in refereed journals, has over fifty papers in Geological Survey of Canada publications to his credit, conference proceedings, one book and has edited six journal volumes. He is an editor of International Journal of Coal Geology and Energy Sources and was for many years, an editor of Fuel (1984-1988).

Through his research, he has fostered the careers of many young, and not-so-young, organic petrologists in Canada and abroad, and has supervised nineteen M.Sc. and Ph.D. students working in the fields of Organic Petrology and Coal Geochemistry at the Universities of Newcastle-Upon-Tyne, Alberta, Regina, Waterloo, Western Ontario and Victoria where, he is an Adjunct Professor.

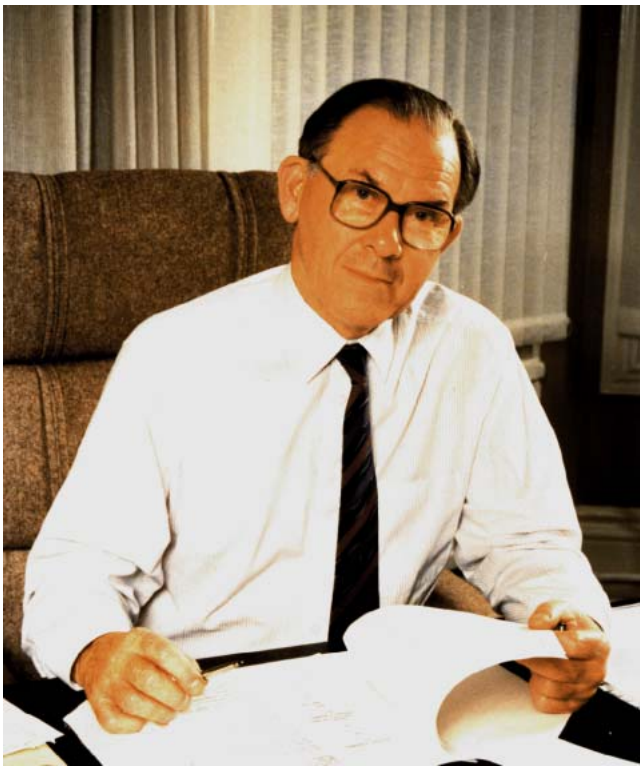
Dr. Goodarzi was President of CSCOP from 1992-1999 and it was under his direction that the Canadian Coal Petrographers Group became a formal society, CSCOP.

Dr. Goodarzi continues to pursue geochemical and environmental studies in goal science as senior research scientist with Natural Resources Canada at the Geological Survey of Canada -Calgary.

For those who have been privileged to work with him over these many years, I say with greatest sincerity, he is a gentleman, a dedicated scientist and well-deserving of the merit award he is about to receive. With this award, he becomes a lifetime honorary member of CSCOP. e

TSOP Honorary Membership Presentation to Dr. Duncan G. Murchison

Lavern D. Stasiuk
Vice President TSOP and
Chair, Honorary Member Selection Committee
September 3, 2002



Dr. Duncan G. Murchison, University of Newcastle, Newcastle Upon Tyne, is the 2002 recipient of The Society for Organic Petrology Honorary Member Award. Dr. Murchison has at once had a most profound, and predictably, will have an ever-lasting impact on the science of coal and organic petrology. Dr Murchison's national and international career and reputation has been most highly distinguished: as a research scientist, as a science educator and research supervisor, as a science and university administrator, and also as one who has been wholly dedicated and committed to scientific societies, such as TSOP.

Dr. Murchison received a B.Sc. Honours in Geology (including the Lebour Field Prize) in 1952, and a Ph D. in 1958, both from the University of Durham. Between 1958 and 1963 he was as a lecturer and research associate, also at the University of Durham. From 1963 to 1986 he held several academic teaching and research positions at the University of Newcastle including Professor of Organic Petrology, Head of the Department of Geology and Dean of Science. He was Pro-Vice Chancellor at Newcastle from 1986-1993. From 1972-1997 he was elected consecutively, 25 times to executive positions of the International Committee for Coal Petrology/ICCP, including terms as President, General Secretary and Treasurer. Dr. Murchison has also served as President and Vice-President of the Royal Microscopical Society (1975-1980) and as Vice-President of the Geological Society of London, for whom he is also currently Treasurer.As a research scientist and student supervisor Dr. Murchison has conducted and collaborated on outstanding and pioneering research (see Reference section) into the nature and distribution of organic matter in sediments and their relationship to petroleum and natural gas occurrence, the use of solid-state methods (principally optical) to define the properties of organic matter in rocks and to relate these properties to the evaluation of thermal and structural history of sedimentary basins, with special reference to defining thresholds of petroleum and natural-gas generation in rocks; the optical properties of strongly absorbing material in rocks, particularly organic substances of high molecular weight in coals, cokes and bitumens. His principal publications and works as an editor are appended, included amongst them are pioneering works in reflectance instrumentation, reflectance and absorptive properties of radioactive minerals and organic materials such as vitrinite, coke and graphite, infra-red spectrometry of resinites, sporopollenins, oil from liptinites, and reactivity of macerals in laboratory and natural environments. Also most noteworthy amongst Dr. Murchison's many and significant contributions to research and the literature, I believe, came when he led the German to English translation of *Stach's Textbook of Coal Petrology* from 1970 to 1975, solely completing an 'exacting translation' (Stach et al., 1975[1], p. IV) of the chapters written by Drs. M. and R. Teichmüller. This was indeed a landmark effort which led to unprecedented global dissemination of coal and organic petrology concepts and one for which we all owe a great thanks to Dr. Murchison.

His national and international reputation as a leader in

[1] Stach, E., Mackowsky, M.-Th., Teichmüller, M., Taylor, G. H. Chandra, D. and Teichmüller, R. 1975. *Stachs textbook of coal petrology*. Gebrüder Borntraeger, Berlin, 428p.

the field of organic petrology led to active industrial and government consultancy as well as numerous visiting professorships and the conductance of reviews and assessments of institutes in almost 40 countries. Dr. Murchison is a fellow or member of the London, Yorkshire and Edinburgh Geological Societies, the International Committee for Coal Petrology, the Royal Microscopical Society and the Royal Society of Edinburgh. In 1987 he received Thiessen Medal of the International Committee for Coal Petrology (ICCP) and in 1994 he became an Honorary Fellow of the ICCP. Dr. Murchison is currently, amongst many other duties, chairman of the Union Society Endowment and the Organising Committee for the Annual Meeting of the British Association for the Advancement of Science.

"In recognition and appreciation for being distinguished in a scientific discipline significant to The Society for Organic Petrology" it is with greatest pleasure that I bestow upon Dr. Duncan G. Murchison, the award of Honorary Lifetime Membership.

References

(selected and principal references of Dr. D.G. Murchison)

1. Reflectance of vitrinite
   Brennstoff-Chemie 1957, **29**, 47-50

2. Infra-red spectrum of resinite in bituminous coal
   Nature 1963, **198**, 254-255

3. Optical properties of uranium oxides
   Nature 1965, **205**, 663-665
   (w. J M Jones)

4. Apparatus for reflectivity measurement on reactive and radioactive materials
   J. Microsc. 1968, **88**, 503-512
   (w. J M Jones, E Scott and S Pickles)

5. *Coal and Coal-bearing Strata*
   Oliver and Boyd, Edinburgh, 1968, 418pp, 41pl, 127 figs
   (editor with T S Westoll)

6. Some recent advances in coal petrology
   C. R. 6e Congr. Intern. Strat. Geol. Carbonifer. Sheffield (1967), 1969, **1**, 351-368

7. Organic geochemistry of coal
   In *Organic Geochemistry – Methods and Results*, 1969, 699-726, (eds Eglinton & Murphy), Springer
   (w. B S Cooper)

8. Identity of sporopollenins with older kerogens questioned. Nature 1970, **227**, 194-195
   (w. B S Cooper)

9. A British meta-anthracitic coal of Devonian age
   Geol J. 1972, **8**, (1), 83-94
   (w. A C Cook and E Scott)

10. Optically biaxial anthracitic vitrinites
    Fuel Lond. 1972, **51**, 180-184

11. The accuracy of refractive and absorptive indices from reflectance measurements on low-reflecting materials
    J. Microsc. 1976, **109,** (1), 29-40
    (w. A C Cook)

12. Optical properties of graphite
    J. Microsc. 1977, **109,** (3), 289-302
    (w. B Kwiecinska and E Scott)

13. *Microscopy of Organic Sediments, Coals and Cokes: Methods and Applications*
    (proceedings of the meeting held in Oxford, 1976): *J. Microsc.* 1977, **109,** 1-167
    (organiser and joint editor)

14. Optical properties of carbonized vitrinites
    In *Analytical Methods for Coal and Coal Products*, Ch. 31, **Vol 2,** 415-464, Academic Press, 1978

15. *Microscope Photometry*
    (proceedings of the meeting held in London, 1978): *J. Microsc.* 1979, **116,** 293-399
    (organiser and joint editor)

16. Refractive index and absorption coefficient as measures of structural organisation in carbonized bitumen
    J. Microsc. 1978, **114**, (2), 199-204
    (w. G Khavari-Khorasani and H E Blayden)

17. Microscope photometry in studies of the molecular structure of carbonized bitumens and pyrobitumens
    J. Microsc. 1979, **116**, (3), 337-349
    (w. G Khavari-Khorasani and H E Blayden)

18. Provincialism and correlations between some properties of vitrinites
    Int. J. Coal Geol. 1984, **3**, 315-331
    (w. J M Jones, A Davis, A C Cook and E Scott)

19. Optical properties of organic matter in relation to thermal gradients and structural deformation
    Phil. Trans. R Soc. A 1985, **315**, 157-186
    (w. A C Cook and A C Raymond)

20. Recent advances in organic petrology and organic geochemistry: an overview with some reference to "oil from coal"
In *Coal and Coal-bearing Strata: Recent Advances* (editor A C Scott), *Geol. Soc. Sp. Publ.* 1987, **32**, 257-302

21. Order of generation of petroleum hydrocarbons from liptinitic macerals with increasing thermal maturity
Fuel Lond. 1988, **67**, 1160-1162
(w. G Khavari-Khorasani)

22. Development of organic maturation in the thermal aureoles of sills and its relation to sediment compaction
Fuel Lond. 1988, **67**, 1599-1608
(w. A C Raymond)

23. Igneous activity and organic maturation in the Midland Valley of Scotland
Int. J. Coal Geol. 1989, **14**, 47-82
(w. A C Raymond)

24. Anomalies in vitrinite reflectance gradients
Bull. Soc. geol. France 1991, **8**, (162), 183-191
(w. J Pearson and A C Raymond)

25. The relationship between organic maturation, the width of thermal aureoles and the thickness of sills in the Midland Valley of Scotland and Northern England
J. Geol. Soc. 1991, **148**, 215-218
(w. A C Raymond)

26. Petrographic aspects of coal structure: reactivity of macerals in laboratory and natural environments
Fuel Lond. 1991, **70**, 296-315

27. Effect of igneous activity on molecular-maturation indices in different types of organic matter
Organic Geochemistry 1992, **18**, 725-735
(w. A C Raymond)

28. Relationship between reflectance and volatile-matter yield at the Maudlin (H) horizon of the offshore Northumberland and Durham coalfields
Fuel Lond. 1999, **78**, 1417-1423
(w. J Pearson)

29. The anomalous behaviour of properties of seams at the Plessey (M) horizon of the Northumberland and Durham coalfields
Fuel Lond. 2000, **79**, 865-871
(w. J Pearson). e

AAAPG-2004
12-14 OCTOBER 2004
BEIJING CHINA

The Sixth International Conference on Petroleum Geochemistry and Exploration in the Afro-Asian Region is organized by China National Petroleum Corporation (CNPC), PetroChina Company Limited (PetroChina), co-organized by Guangzhou Institute of Geochemistry, Chinese Academy of Sciences.

Presentations, in either oral or poster formats, are expected to cover the following broad subjects:

Biotransformation of organic matter
Petroleum & natural gas geochemical characterization
Source evaluation and oil/source correlation
Geochemistry of regional exploration
Reservoir and production geochemistry
Petroleum alteration
Molecular and isotopic indicators
Novel geochemical technology in oil & gas exploration
Oil/gas generation & migration
Geochemical digital modeling
Surface / near surface prospecting
Geochemistry & petrology of coal-derived oil & gas
Unconventional oil & gas geochemistry

A social program and three post-conference field trips are planned.

Important Dates:
Deadline for submission of Abstracts
December 31st, 2003
Advance Registration & Hotel Reservation
Before June 30th, 2004
Conference & Submission of Manuscripts
October 12-14, 2004

For more information, please feel free to contact:

Conference Secretariat of AAAPG-2004
Post Box 910, No.20, Xueyuan Road
Haidian District, Beijing 100083, China
Phone: (86) 010 62097451
Fax: (86) 010 62097414
aaapg2004@petrochina.com.cn e

TSOP 2003 September 21 - 24

Twentieth Annual Meeting of The Society for Organic Petrology

by the 2003 Annual Meeting Organizing Committee

The 2003 The Society for Organic Petrology Annual Meeting organizing committee renews its invitation for you to attend the Annual Meeting of the Society, September 21-24, 2003. Here are some final details for meeting attendees. Additional information can be found on the web at: http://www.tsop.org/mtgdc.htm

The venue is the Hyatt Arlington Hotel in Arlington, Virginia. A map is available on the Hyatt's web site http://arlington.hyatt.com/ under "area guide." The hotel is at 1325 Wilson Boulevard, Arlington, south of the Key Bridge over the Potomac River. The hotel is close to the Rosslyn Metro stop. Pay parking is available at the hotel.

Attendees must make hotel reservations directly at http://arlington.hyatt.com/groupbooking/usgs or +1 800 233-1234.

The presentation schedule can be found on the web site http//www.tsop.org/washington/program.html and on page 16.

Oral Presentations will be in Salon A. Speakers, please email Peter Warwick (pwarwick@usgs.gov) copies of your PowerPoint presentation by September 17, or bring a CD-ROM copy to the session room 1 half hour before your session.

Audio-visual equipment available will be:
One screen in session hall
Laptop and PowerPoint projector
One Overhead projector
One 35 mm slide projector
Microphone

The Washington Monument with spring cherry blossoms. Photo by Hal Gluskoter.

TSOP Council and the Honorary member Selection Committee recently announced that **Dr. Alan Davis** will be awarded Honorary Membership, TSOP's highest honor, at this year's meeting.

Posters will be displayed in the Gallery Room of the Hyatt Arlington. Posters will be put up on Monday morning after 7:30 a.m., and taken down Tuesday afternoon before 5:00 p.m. One Velcro board (4'X 8') will be available for each poster. Official poster viewing time is during Happy Hour 5-7 pm Monday, and lunch on Tuesday.

This is the twentieth anniversary meeting of the Society and a special program has been arranged, as shown beginning on page 16. The meeting will include technical oral and poster sessions as well as short courses, and will address petroleum systems, source rocks, coal and coalbed gas. The highlight of the meeting is the ***Ron Stanton Coal Characterization Session*** on Monday. During this session, speakers will present the latest research on a range of coal-related topics. A special ***Energy and Government Session*** will be held on Tuesday. Research papers presented at the meeting will be published in the International Journal of Coal Geology. An award will be given for the best overall student paper presented at the meeting. Please plan to attend as TSOP returns to Washington, D.C., for the first time since its inaugural annual meeting in 1984. The 2003 organizing committee looks forward to seeing you at the meeting!

In addition to the technical program, three short courses and two field trips have been arranged, as described below.

Meeting Short Courses

Health Impacts of Coal: Should We Be Concerned?

This short course will sort out the facts and fallacies that have been interwoven in this sensitive issue. We will explore questions such as: Are there confirmed cases of health problems associated with coal use? Under what conditions would coal present a threat to human health? What properties of coal are most dangerous? What can the coal science community do about it?
Limit: 25 participants.

Petroleum Source Rocks and Coal in the National Petroleum Reserve in Alaska (NPRA) - A Core Workshop

The USGS archives cores from about 60 exploration wells that have been drilled in and near NPRA during the past 50 years. This workshop will feature cores selected from that archive to illustrate key attributes of the main petroleum and coal systems of the region. Petroleum systems with principal source rocks in the Triassic (Shublik), Jurassic (Kingak), and Cretaceous (HRZ), and coal systems in the Mississippian (Endicott) and Cretaceous (Nanushuk) will be emphasized.
Limit: 30 participants.

Modes of Occurrence of Trace Elements in Coal

This short course will focus on modes of occurrence of trace elements in coal and the importance of trace elements in the overall context of coal quality. Emphasis will be placed on the elements that are of technological, economic, and environmental significance. We will review the current state of knowledge and describe state-of-the-art methods for quantifying element modes of occurrence in coal. Limit: 25 participants.

FIELD TRIPS

Geology and Energy Resources of the Triassic Basins of Northern Virginia

The TSOP field trip (September 24, all day) will review the geology of the Richmond and Taylorsville Basins in the Triassic coal mining district near Richmond, Virginia. Triassic-age coal was discovered and first mined for domestic needs in this area by Huguenot settlers during Colonial times (1703), and the resource was an important source of energy in the region during the 1800's. The mines were commonly gassy and the strata are faulted, so that mining conditions were difficult as well as primitive.

Geologists study cores selected to illustrate key attributes of the main petroleum and coal systems of the National Petroleum Reserve in Alaska. Photo by Dave Houseknecht.

The field trip will visit exposures that illustrate the stratigraphy of the Richmond and Taylorsville Triassic Basins, as well as the available remnants of old mine workings. There may be a traverse of moderate length and difficulty.

A discussion of the geology and energy resources of the Triassic Basins of Northern Virginia will be presented. Field guides will be provided and there is a 25 person limit.

Tour of the Smithsonian's Natural History Museum

On Wednesday, September 24, we are planning a half-day guided tour of the Smithsonian's Natural History Museum located on the Mall in Washington, D.C. This is your chance to see parts of the museum and collections not accessible to the general public. Metro transportation tickets will be provided to registrants.

The collections staff will provide a 1-2 hour tour of the Museum's fossil collections on the morning of Wednesday, September 24, 2003. Collections examined will be at the discretion of the tour guides, but we will probably tour the invertebrate, vertebrate, and possibly paleobotany areas. Limit: 10 participants. e

Schedule for the 2003 TSOP Annual Meeting

Sunday, September 21, 2003

0830-1200 Short Course A (Health Impacts of Coal: Douglas Room, Hyatt Arlington)

0830-1200 Short Course B (Petroleum Source Rocks and Coal, a Core Workshop: Meet in hotel lobby at 0730 for transportation to the USGS)

1200-1300 **Lunch**

1300-1630 Short Course B (Petroleum Source Rocks and Coal, a Core Workshop: Transportation from the USGS to the hotel lobby at 1630)

1300-1630 Short Course C (Modes of Occurrence of Trace Elements in Coal: Douglas Room, Hyatt Arlington)

1800-2000 Ice Breaker Reception (Gallery Room, Hyatt Arlington — James Madison High School Orchestra)

1800-2000 **Dinner - OPEN**

2000-2400 Council meeting (Executive Board Room, 4th floor, Hyatt Arlington)

Monday, September 22, 2003 (All oral presentations in Salon A, Hyatt Arlington)

0800 - 1200 Technical Session A: Petroleum Systems, Source Rocks, and Coalbed Gas, *Peter Warwick, Chair*

0800-0805 Introduction

0805-0840 Cretaceous Crud from Canada – Organic Facies Analysis of the Colorado Group, Western Canada Sedimentary Basin *by Lisa Buckley and Richard V. Tyson*

0840-0915 Mechanism of Hydrogen Gas Generation in Coalbed Methane Desorption Canisters — Causes and Remedies *by Basim Faraj, Anna Hatch, Derek Krivak, and Paul Smolarchuk*

0915-0950 Application of organic petrology in Astrobiology — Ancient Terrestrial Life, and Biological Entities in Meteorites and Planetary Samples *by Lavern D. Stasiuk*

0950-1005 ***BREAK***

1005-1040 Coal Characteristics and Coalbed Methane Potential in the Jurassic Coal Measures of Tuha Basin, Northwestern China *by Liu Honglin, Zhang Jianbo, Wang Hongyan and Li Jingming*

1040-1115 Petroleum Prospects (Natural Gas, Condensates, and Gas Hydrates) of the Scotian Margin, Eastern Canada and its Significance to East Coast Energy Strategy beyond 2010 *by Prasanta K. (Muki) Mukhopadhyay*

1115-1150 M & M — A Sweet Petroleum System *by Louis L. Tsai, Li-Chung Sun, Jane Hsieh, Hsien Tsung Lee*

1200 - 1330 Lunch — TSOP Business Lunch (Judiciary Hall, Hyatt Arlington)

1330 - 1730 Technical Session B: Ron Stanton Coal Characterization Session, *Leslie Ruppert, Chair*

1330-1400 The World Coal Quality Inventory *by Susan J. Tewalt and Robert B. Finkelman*

1400-1430 Variations in Coal Maceral Chemistry and Mineral Matter Characteristics with Rank Advance in the German Creek Coal Measures of the Bowen Basin, Australia, Using Electron Microprobe and other Techniques *by Colin R. Ward, Zhongsheng Li, and Lila W. Gurba*

1430-1500 Geological Processes that Control Lateral and Vertical Variability in Coal Seam Moisture Contents — Latrobe Valley (Gippsland Basin) Australia *by GuyR. Holdgate*

1500-1530 Mercury Variation in Powder River Basin Coal Samples *by Allan Kolker, Joseph R. Hatch, Curtis A. Palmer, and Linda J. Bragg*

1530-1545 ***BREAK***

1545-1615 Distribution of Mercury in Indiana Coals *by Agnieszka Drobniak, Maria Mastalerz, and Gabriel M. Filippelli*

1615-1645 Response of Major Geochemical Thermal Maturity Parameters to Suppression of Vitrinite Reflectance, Gunnedah-Surat Basins, New South Wales, Australia *by Rushdy Othman and Colin R. Ward*

1645-1715 Coal Sample Storage — Preservation Using Foil Multilaminate Bags *by David C. Glick, Gareth D. Mitchell and Alan Davis*

1730 - 1900 Happy Hour, Poster Session (Gallery Room, Hyatt Arlington)

1900 - 2030 Conference Dinner (TSOP Banquet, Judiciary Hall, Haytt Arlington)— Marcus E. Milling, Executive Director, American Geological Institute, Speaker

2000 - 2400 Council Meeting (Executive Boardroom, 4th floor, Hyatt Arlington)

Tuesday, September 23, 2003

0800 - 1200 Technical Session C: Energy and Government Session, *Brenda Pierce, Chair; Suzanne Weedman, Co-Chair*

0800-0830 Federal Energy Policy — The Earth Science Dimension *by David Applegate,*

0830-0900 The National Academy of Sciences *by Tamara Dickinson*

0900-0930 Federal Science Policy and Science Funding *by Gene Whitney*

0930-1000 Department of Interior — Land and Minerals Management *by Patty Morrison*

1000-1015 ***BREAK***

1015-1045 The U.S. House of Representatives Resources Committee - Subcommittee on Energy and Mineral Resources *by Jack Belcher, Staff Director*

1045-1115 The USGS Energy Resources Program *by Brenda S. Pierce (Frances W. Pierce, speaker)*

1115-1145 Some perspectives on Longer-term Domestic Oil and Gas Supply Technologies and Needs in a Carbon-constrained Future *by David Beecy*

1200 - 1310 Lunch (OPEN), Poster Session (Gallery Room, Hyatt Arlington)

1315 - 1330 Group Photo (TBA)

1330 - 1730 Technical Session D: TSOP General Session,
Robert Finkelman, Chair

1330-1405 The source of the Coal in the Titanic and Effects of Exposure to Seawater *by Curtis A. Palmer, Robert B. Finkelman, Gerald H. Luttrell, Chaosheng Zhang, and Cortland Eble*

1405-1440 Influence of a Basic Intrusion on the Vitrinite Reflectance and Chemistry of the Springfield (No. 5) Coal, Harrisburg, IL *by Alexander K. Stewart, Matt Massey, Penny L. Padgett, Susan M. Rimmer, and James C. Hower (speaker)*

1440-1515 Organic Pollutants from the Recent Sediments of the Halifax Harbour, Lake Ontario, and New York Bight — A Comparative Analysis *by Prasanta K. (Muki) Mukhopadhyay, Michael A. Kruge, Gerald M. Friedman, and C. F. M. Lewis*

1515-1530 ***BREAK***

1530-1605 Integrated Approaches to Understanding the Relationship of Coal to Human and Ecosystem Health *by Joseph E. Bunnell and Robert B. Finkelman*

1605-1640 Where do the Maidens fly? Trace Elements and What Controls their Fate — Examples from the Greymouth Coalfield, New Zealand *by Zongsheng Li , A.H. Clemens, Tim A. Moore, D. Gong, S.D. Weaver, and Nelson Eby*

1640-1715 Petrographic Comparison of Several Coal Seams in Ningxia Hui Autonomous Region by Zhiwen Han

POSTERS

1. Coalbed Methane Potential(CBM-P) in the Main Bituminous Filed (SW. PA) and the Anthracite Fields (E. PA) and CBM-P in MD, VA, MA, RI (U.S.A.) *by Paul C. Lyons, R. Marc Bustin, and Antonette K. Markowski*

2. Effect of Geological Factors on the Permeability of Coal Seam Gas Reservoir *by Xingjin Wang*

3. The Inorganic Chemistry of 15 Coal Samples from the Prince Charles Mountains, East Antarctica *by Lora A. Chiehowsky, Robert B. Finkelman, Tim A. Moore, Guy R. Holdgate, Jason C. Willett, Stephen McLouglin, and Andrew N. Drinnan*

4. The Influence of Extractable Organic Matter on Vitrinite Reflectance — Implications to Liquid Hydrocarbon or Bitumen Impregnation as a Suppression Mechanism *by Charles E. Barker, Michael D. Lewan, Mark J. Pawlewicz, and Corinne L. Carlson*

5. Characterization of the Petrology, Mineralogy, and Geochemistry of Mined Coals, Western Venezuela *by Paul C. Hackley, Peter D. Warwick, and Eligio Gonzáles*

6. Prediction of CO_2 sorption in Coal Seams using Uncrushed Coal Cores under Realistic P, T and Moisture Conditions *by Rachel Walker, Maria Mastalerz, Arndt Schimmelmann, Laurence Hawkes, Jon Fong, Wilfrido Solano-Acosta*

7. Rare-earth Element Systematics in Upper Permian Mineralized Coal, Southwestern Guizhou Province, P.R. China *by Harvey E. Belkin, Baoshan Zheng, and Robert B. Finkelman*

8. Organic Geochemistry of Retained and Expelled Oil based on Hydrous Pyrolysis Experiments — An Example from the Irati Oil Shale, Brazil *by Noelia Franco, Wolfgang Kalkreuth, and Henrique Penteado*

9. Comparative Analysis of Moscow Lignite and Kama Coal Basins *by Albina Gazizova*

10. Thermodynamic Modeling of Trace Elements in South African Coals *by Fernando Martinez-Colon, Sharon Miller and Harold Schobert*

Wednesday, September 24, 2003

0730-1800 Field Trip A (All day trip — Geology and Energy Resources of the Triassic Basins of Northern Virginia: Meet in the lobby of the Hyatt at 0730)

0900-1200 Field Trip B (half day trip — Tour of the Smithsonian Natural History Museum: Meet in the lobby of the Hyatt at 0900)

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Calendar of Events

2003

October 12 - 18, 2003: Earth Science Week, sponsored by AGI.

October 20 - 22, 2003: International Ash Utilization Symposium, Lexington, Kentucky, USA. See http://www.flyash.org

Nov. 2-5, 2003: Geological Society of America Annual Meeting and Exposition, Seattle, Washington. Including Topical Session 119, Revisiting the Biogeochemistry of Black Shales and Oxygen-Deficient Marine Environments. http://www.geosociety.org/meetings/2003/

Nov. 17 - 19, 2003: Third ALAGO Workshop, Havana, Cuba. Latin-American Association of Organic Geochemistry. Theme: Petroleum Bio-degradation. See page 6 and www.alago.com.br/Tercer%20Taller%20Cuba.doc

Nov. 2 - 6, 2003: 12th International Conference on Coal Science, Cairns, Queensland, Australia. Theme: "Coal - contributing to sustainable world development." http://www.aie.org.au/iccs/

Dec. 8 -12, 2003: AGU including Black Shales sessions. See page 6 and http://www.agu.org

2004

April 18 - 21, 2004: AAPG, Dallas, Texas, including Poster Session: Oceanic Anoxic events and Source Rock Formation.

Sept. 5 - 11, 2004: 56th Annual Meeting of ICCP, Budapest, Hungary. http://www.iccop.org/56AnnualMeeting.htm

Sept. 27 - Oct. 1, 2004: 21st Annual **TSOP** Meeting, TSOP: **Organic Matter Down Under**, Sydney, Australia. See page 2 and http://www.tsop.org/mtgsyd.htm

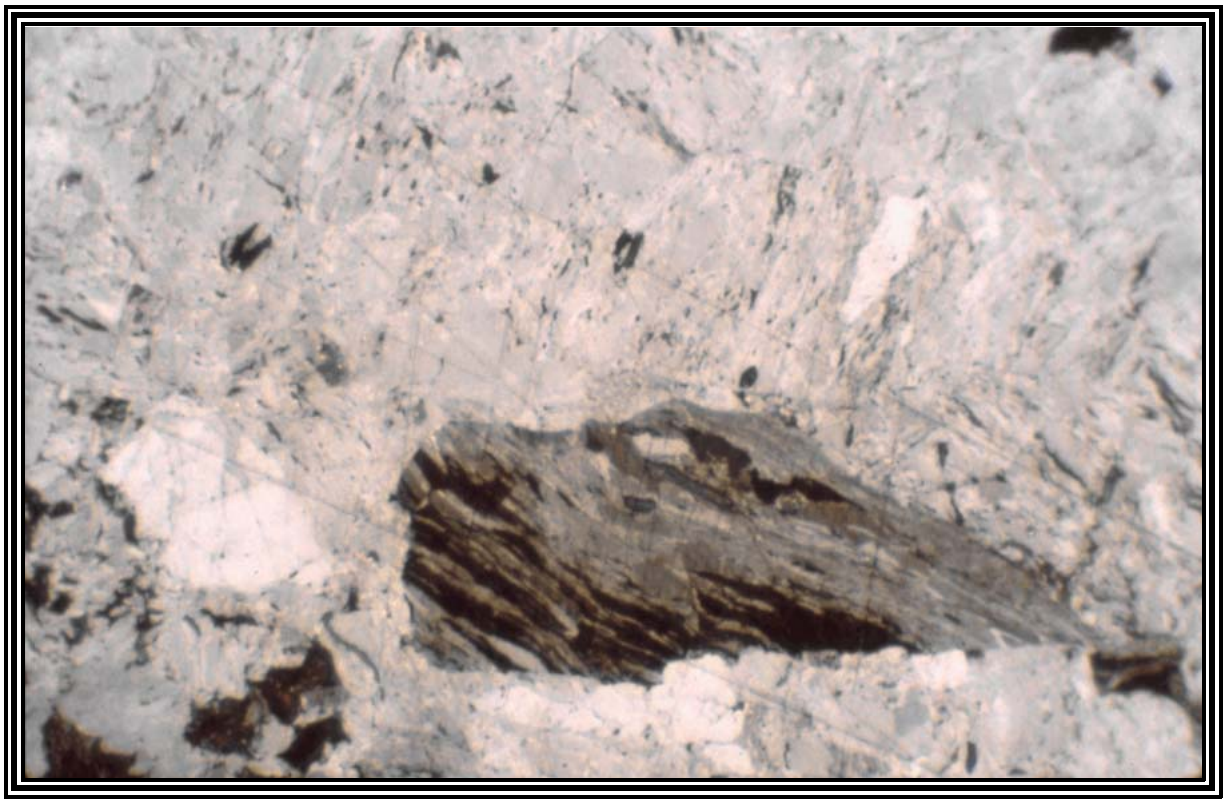
Oct. 12 - 14, 2004: AAAPG-2004, 6th Internat. Conf. on Petroleum Geochemistry and Exploration in the Afro-Asian Region, Beijing, China. See page 13.

2005

Sept. 11 - 14, 2005: 22nd Annual **TSOP** Meeting, Louisville, Kentucky, USA.

Sept. 18 - 23: 57th Annual Meeting of ICCP, Patras, Greece. Followed by a three-day excursion. http://www.iccop.org/57AnnualMeeting.htm

Photo Gallery



Mylonitized coal grains with lower reflectance clasts are observed in a specimen collected at 1.8 meters from the base of the 10-meter-thick Island Block coalbed (South Island, New Zealand). Mean maximum reflectance of the surrounding higher reflectance coal is 0.74, which is characteristic of the main part of the coalbed. The long axis of the photograph is 0.25 mm (coal sample C90-7, prism-type illuminator, 40/0.85 pol oil immersion objective, 200 ASA Ektachrome film, Zeiss USMP 50 microscope, University of Canterbury, 28 February 1990). Photo and description by Jeff Quick.