The Geochemical News

Biannual Newsletter of the Geochemical Society

Number 64 September 1983

Officers for 1984

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Organic Geochemistry Division: Chairman, George Claypool, United States Geological Survey; Secretary-Treasurer, Cindy Lee, Woods Hole Oceanographic Institution

Meetings and Symposia

GEOCHEMICAL SOCIETY 1983 ANNUAL MEETING in conjunction with the Annual Meeting of the Geological Society of America, Indianapolis, 30 October through 3 November. Hotel reservation deadline October 7. (For information on hotels see GSA News & Information Vol. 5 No. 8, August 1983, or apply to GSA Meetings Department, P.O. Box 9140, Boulder, CO 80301, Tel. 303-447-2020.)

Sunday October 30

NATIONAL SCIENCE FOUNDATION & GEOCHEMICAL SOCIETY SYMPOSIUM: TENTH ANNUAL SYMPOSIUM ON GEOCHEMICAL CYCLES (FULL DAY)
Celebration Hall, Hyatt, 9:00 a.m.

Bryan Gregor (AM) & Robert A. Berner (PM) Presiding

MORNING SESSION

1 James C.G. Walker*: IRON AND SULFUR IN THE ARCHEAN OCEAN [32002] .................. 9:00 A

COFFEE BREAK ................................................................. 10:00 A

2 Robert M. Garrels*: OXYGEN STORAGE DURING PRECAMBRIAN TIME [32003] ........... 10:30 A

3 Heinrich D. Holland*: THE PHANEROZOIC HISTORY OF SEAMATTER [21461] .......... 11:30 A

AFTERNOON SESSION

4 Thomas R. Worsley*, D. Nance, J.B. Moody: SEA LEVEL, TECTONIC CYCLES AND CARBONATE DEPOSITION [32004] .................. 2:00 P


7 Jan Veizer*, P. Lazzio, L. Jansen: BASEMENT AND SEDIMENTARY RECYCLING, AND METALLOGENIC EPOCHS [32008] .......... 5:00 P

Monday October 31

GEOCHEMISTRY I: ORGANIC AND LOW TEMPERATURE ISOTOPE GEOCHEMISTRY
Rooms 214-225, Convention Center, 2:00 p.m.

J. Bruno Risatti & William T. Holser, Presiding


5 John R. Carpenter*, Steven C. Korrer: APPLICATION OF A LINEAR UNMIXING ALGORITHM TO PROBLEMS IN ORGANIC GEOCHEMISTRY: II TERPEHOIDS AND N-ALKANES IN CRUDE OILS FROM THE WILLISTON BASIN [00298] .......... 3:00 P

Tuesday November 1

GEOCHEMISTRY III: ISOTROPIC AND ANISOTROPIC GEOCHEMISTRY
Room 226, Convention Center, 8:00 a.m.

1 Leon T. Silverb*, James A. Woodhead: URBAN AND SUBURBAN EFFECTS OF FORMALDEHYDE, DISTRIBUTION AND MIGRATION IN THE TRANCENDENTIAL CENTER, TEXAS [23055] 8:00 A.M.
4 Gianni Lombardi*, Mario Barbieri: THE TOLPA VOLCANIC ROCKS (ITALY) ALUMINIZATION PROCESS IN THE LIGHT OF NEW CHEMICAL AND STABLE ISOTOPE DATA [23045] 8:15 A.M.
5 Thomas D. Alcock*: EVIDENCE FOR CHEMICAL AND ISOTOPIC INHOMOGENEITY IN THE SOURCE REGION OF NORTHERN CALIFORNIA BASALTS [23045] 4:45 P.M.
6 Michael G. Swank, James G. Smith: EVIDENCE FOR DEPLETED MOLTEN IN 100MB LAKE FROM THE SOUTHERN U.S. AND ITS ORIGIN FROM CONVECTION-UPWARD RHEOLOGICAL PROPERTIES [23045] 4:15 P.M.
8 Robert J. Hecker*, J.C. Pankow: RARE EARTH ELEMENT AND STABLE ISOTOPE ANALYSIS OF THE SORBENT CLAY MINERAL [23045] 4:45 P.M.

Tuesday November 1 (cont.)

15 A. Zalkowskii, B. Komarek, N. Hubbard*: DATING DEEP GROUND WATER IN THE PALO DURO BASIN, TEXAS USING THE Rb AND Sr [32029] 5:00 P.M.
16 J.C. Lant, R.W. Perkens, N. Hubbard*: THE BEHAVIOR OF CO2 IN RADIOACTIVE BRINE GROUND WATER [31647] 5:15 P.M.

Wednesday November 2

GEOCHEMISTRY III: GEOCHEMISTRY OF IGNEOUS AND METAMORPHIC ROCKS
Rooms 248-257, Convention Center, 8:00 a.m.

1 Leon T. Silverb*, James A. Woodhead: URANIUM AND THORIUM CONTENT, DISTRIBUTION AND MOVEMENT IN THE TRANCENDENTIAL CENTER, TEXAS [23055] 8:00 A.M.
3 G. R. Tilton*, M.H. Grunfelder: LEAD ISOTOPIC AND STABLE ISOTOPE RELATIONSHIPS IN BILLION-YEAR-OLD CARBONATE COMPLEXES, SUPERIOR PROVINCE, CANADIAN SHIELD [21592] 8:15 A.M.
4 Gianni Lombardi*, Mario Barbieri: THE TOLPA VOLCANIC ROCKS (ITALY) ALUMINIZATION PROCESS IN THE LIGHT OF NEW CHEMICAL AND STABLE ISOTOPE DATA [23045] 4:45 P.M.
5 Thomas D. Alcock*: EVIDENCE FOR CHEMICAL AND ISOTOPIC INHOMOGENEITY IN THE SOURCE REGION OF NORTHERN CALIFORNIA BASALTS [23045] 4:15 P.M.
6 Michael G. Swank, James G. Smith: EVIDENCE FOR DEPLETED MOLTEN IN 100MB LAKE FROM THE SOUTHERN U.S. AND ITS ORIGIN FROM CONVECTION-UPWARD RHEOLOGICAL PROPERTIES [23045] 4:15 P.M.
8 Robert J. Hecker*, J.C. Pankow: RARE EARTH ELEMENT AND STABLE ISOTOPE ANALYSIS OF THE SORBENT CLAY MINERAL [23045] 4:45 P.M.
Wednesday November 2 (cont.)

9 L. Peter Gromet*, Brian Stewart: REE DISTRIBUTION AMONG MINERALS IN AN AMPHIBOLITE: IMPLICATIONS FOR SUBSOULID REE DISTRIBUTION IN PELITIC ROCKS [13415] 10:00 A

10 John Blemings*, Keith Bell, Anthony R. Delg: A MIXING MODEL FOR Rb/Sr IN THE LOCKERS BAY GRANITE, NORTHEAST NEWFOUNDLAND [32306] 10:15 A

Presentation of Awards .................. 10.30

Goldschmidt Medal & Strock Honorumard: Samuel Goldich, Colorado School of Mines

Clarke Medal: E. Bruce Watson, Rensselaer Polytechnic Institute

Treibs Medal: D. H. Welte, Nuclear Research Center, Jülich, Federal German Republic


Presidential Address ..................... 11.15

Robert A. Berner: Sedimentary Pyrite Revisited

GEOCHEMICAL SOCIETY SYMPOSIUM: SOME GEOCHEMICAL PROBLEMS IN THE PEOPLE'S REPUBLIC OF CHINA
Rooms 123-125, Convention Center, 1:30 p.m.

Robin Brett & Guangshi Tu, Presiding

1 Guangshi Tu*: MINERALIZATION RELEVANT TO GRANITOIDS, AS EXEMPLIFIED BY THE CHINESE GNEI DEPOSITS [27637] 1:30 P

2 H. P. Euster*: CARBONATITE-SULFIDE DEPOSITION AT DACHANG, GUANXI PROVINCE, S.E. CHINA [12509] 2:00 P

3 Bangjie Jiang*: APPLICATION OF A NEW INORGANIC GAS-CROMPHOTOGRAM TO RESEARCH ON GEOCHEMISTRY [28105] 2:30 P

4 R.W. Carlson*: VOLATILE FRACTIONS IN CHARACTERISTICS OF EASTERN CHINESE CENOZOIC VOLCANICS [27641] 3:00 P

COFFEE BREAK .......................... 3:30 P

5 Ziyuan Guoyang*: INVESTIGATION OF EXTRATERRESTRAL MATERIALS IN CHINA [20102] 3:45 P

6 John T. Wassen*: COMPOSITIONAL STUDIES OF 29 CHINESE NERITIDES [27634] 4:15 P

7 Yilu Yang*, Yuewu Chen, Xianjue Wang GEOCHNICAL STUDIES OF CONTINENTAL SHELF SEDIMENTS OF THE EAST CHINA SEA [29103] 4:45 P


Thursday November 3

GEOCHEMISTRY IV: HYDROTHERMAL GEOCHEMISTRY
Rooms 224-227, Convention Center, 8:30 a.m.

Bruno J. Gilletti & Peter Deines, Presiding

1 Bruno J. Gilletti*: MECHANISMS OF OXYGEN ISOTOPE EXCHANGE FOR MINERALS IN FLUIDS [27645] 8:30 A

2 Robert H. Bridge*: JAMES W. O'WAYL BEHAVIOR OF WATER DURING CRYSTALLIZATION OF A TWO-MICA PLUTON: A HYDROGEN ISOPOE STUDY [30408] 8:45 A

Thursday November 3 (cont.)

1 Cathy J. Janick*, Patrick F. Dobson: THERMODYNAMIC, ISOTOPIC, AND CHEMICAL EVIDENCE FOR EQUILIBRIUM IN THE LOS ANGELES GEOCHEMICAL SYSTEM [30414] 9:00 A


3 Harrow Craig*, Valerie Craig, Hsuan Chu: HElIUM ISOPOE AND GEOCHEMICAL STUDIES IN TIBET AND EASTERN CHINA [31515] 9:30 A

4 Kelso Watt*, Eloise M. Cameron, K. Roy Kreue: ISOTOPIC COMPOSITION OF LATE ARCHANEAN SULFUR SULFIDE FROM THE HEMOCOOLD DEPOSIT, ONTARIO, CANADA [20622] 9:45 A

5 Bruce M. Saas*, Philip E. Rosenburg: ILLITE: STABILITY IN SOLUTIONS BETWEEN 25 DEGREES AND 250 DEGREES C [28301] 10:00 A

6 James B. McWochick*, H.L. Barnes: THE ROLE OF POLYSULFIDES IN PYRITE AND MARMARITE FORMATION (31315) 10:15 A

7 Scott A. Wood*, David A. Creaser, Maria Botoriki: SOLUBILITY OF A MULTIPHASE SULFIDE SYSTEM IN HYDROTHERMAL CHLORIDE SOLUTIONS [28565] 10:30 A

8 D.R. Janeczy*, W.E. Seyfried, J.R.: HYDROTHERMAL INVESTIGATION OF MAGNETITE-HMATITE AND REDOX REACTIONS IN SOLUTION AT 300 DEGREES C, 500 BARS [19318] 10:45 A

9 Saulwood Lin, Robert K. Popp*, Andrew Haas: SOLUBILITY AND COMPLEXING OF NICKEL IN SUPERCRITICAL CHLORIDE SULFURIC SOLUTIONS [12970] 11:00 A

10 Danielle E. Elderc*, Mohammed Ibrahimuddin: GEOCHEMISTRY OF MOUNT TOLMAN COPPER-HYDROGEN PREGMEN DEPOSIT, NORTHWESTERN WASHINGTON [19192] 11:15 A

11 Donghua Zhang*: HYDROTHERMAL PHASE RELATIONS IN MAGNETITE DEPOSITS OF MIDDLE LOWER YANTZE RIVER VALLEY, CHINA [19406] 11:30 A

12 Dennis N. Bird*, R.D. Rogers: FRACTURE CONTROLLED HYDROTHERMAL ALTERATIONS OF THE SKERAGARD INTRUSION RANGERDOLIUSQUAA, EAST GREENLAND [30405] 11:45 A

GEOCHEMISTRY V: LOW TEMPERATURE KINETICS
Rooms 224-227, Convention Center, 1:00 p.m.

George R. Holdren, Jr.* & Donald Rimkit*, Presiding

1 L.E. Cary*: MODEL OF MARS FLOW AND DISSOLUTION KINETICS FOR LEACHING REACTIONS [24282] 1:00 P

2 J. Donald Rimkit*: RATES OF SOLID-GAS TRANSFORMATION DIAGENESIS [39119] 1:15 P


4 Jacob Kühnert*: THE RATE OF DISSOLUTION OF CARBONATE MINERALS IN THE PRESENCE OF SULFATE IONS [17077] 1:45 P

5 Lynette A. Murray*: TOTAL VERSUS REACTIVE SURFACE AREAS OF KEROSIL CARBONATES DURING DISSOLUTION: EFFECTS OF GRAIN SIZE AND MICROSTRUCTURE [14152] 2:00 P

6 Kevin G. Knauss*, Thomas J. Wolery: DEPENDENCE OF ALGAE DISSOLUTION KINETICS ON pH AND TIME TO 70 DEGREES C AND 25 DEGREES C [1823] 2:15 P

7 George R. Holdren, Jr.*, P.A. Mackey-Gray*: SUPERFACIAL DISSOLUTION RATE RELATIONSHIPS FOR A SODIC PLATOCIACI AT LOW TEMPERATURE [39330] 2:30 P

8 Michael A. Volker*: RATE CONTROL DURING THE NATURAL WEATHERING OF ALUMINIDE GARNET [12726] 2:45 P

9 C.L. Wietzme*: J.D. Rimkit*, REACTION OF PYRITE AND MARMARITE WITH Fe(III) AT pH 2 [19533] 3:00 P

Note. Please see questionnaire on p. 5 (this issue) relating to publication of the Annual Meeting Program in The Geochemical News.
NATIONAL CONFERENCE AND EXHIBITION ON MANAGEMENT OF HAZARDOUS WASTES AND ENVIRONMENTAL EMERGENCIES, 12-14 March 1984, Adams Mark Hotel, Houston, Texas. For information call 301-587-9390.

AMERICAN INSTITUTE OF PROFESSIONAL GEOLOGISTS 1984 ANNUAL MEETING, 17-19 October, Dutch Resort Inn/Disney World, Orlando, Florida. General Chairman Bobby J. Timmons, Timmons Associates, P.O. Box 50606, Jacksonville Beach, Florida 32250. Tel. 904-246-4533.

GEOCHEMICAL SOCIETY 1984 ANNUAL MEETING in conjunction with the Annual Meeting of the Geological Society of America, Reno, Nevada, 5-8 November. Deadline for abstracts 11 June 1984. (Abstract forms from GSA Abstracts Coordinator, P.O. Box 9140, Boulder, CO 80301. Tel. 303-447-8850.)

Membership List

The Membership List as of September 1982 was recently prepared for us by Pergamon Press and should by now have reached every member of the Society. We understand that the titles and addresses are in the form currently stored in the Pergamon computer for generating address labels. Please report any errors to the secretary-elect, Bryan Gregor, Department of Geological Sciences, Wright State University, Dayton, Ohio 45435.

American Chemical Society: Chemical Abstracts

The Geochemistry Division of the American Chemical Society is trying to persuade the ACS Chemical Abstracts Service to publish geochemistry abstracts as one of their CA Selects. The CA Selects are published every two weeks, and are devoted to specific topics. In order for the ACS to publish a CA Select for geochemistry abstracts, a commitment of about 75 subscribers would be necessary. The subscription would be about $95 per year, and publication would begin in 1985. Members of the Geochemical Society interested in subscribing to this service should write to Mr Dale B. Baker, Director, Chemical Abstracts Service, 2540 Olentangy River Road, P.O. Box 3012, Columbus, Ohio 43210.

Books


This is a highly original book about chemical processes in the ocean, with emphasis on the cycles of carbon and other nutrients as revealed by measurements of radiotracers in the sea and in marine sediments. In addition to a treatment of the present distributions of these species, consideration is given to the impact of glaciation on their past distributions. Discussions of ventilation of the deep ocean and of the main oceanic thermocline are included. Finally, the fate of the particulate matter generated in the sea by organisms is discussed. The availability of the GEOSECS data set allows this book to significantly expand the horizons of radiotracer measurement. It is suitable for a graduate-level course in geochemistry of the oceans, or as a reference book for marine-oriented geochemists.

(Reviewed by Taro Takahashi.)

Irving Breger Fellowship

A graduate fellowship in organic geochemistry will be established at the University of Maryland in memory of Irving A. Breger, who died on 13 October 1982, if sufficient funds can be collected. Donations (tax-deductible) should be made to the University
of Maryland Foundation and forwarded to Mrs Charlene Dale, Associate Director of Development, University Relations, University of Maryland, College Park, Maryland 20742. A notation should be made, either on the check or by separate letter, that the gift is designated for the Irving A. Breger Memorial Fellowship. The sponsors of this appeal are Patrick G. Hatcher, United States Geological Survey; Thomas C. Hoering, Carnegie Institution of Washington, and Cyril Ponnampерuma and Luke L.Y. Chang, both of the University of Maryland.

The Geochemical News

The Geochemical News, revived in 1980, is printed and distributed for the Geochemical Society by the Department of Geological Sciences, Wright State University. Distribution is free of charge to members in good standing; any who are not currently receiving it should communicate with the editor, Bryan Gregor, Department of Geological Sciences, Wright State University, Dayton, Ohio 45435 (Tel. 513-873-3442 or 3455), to whom announcements or news items may also be sent for inclusion in future issues as space permits.

Annual Meeting Program (see note on p. 3, this issue)

The Annual Meeting Program is printed in this issue of The Geochemical News for the first time in several years. The Council will consider whether to continue printing it in future years on the basis of response to the questionnaire below. One option might be to distribute the Program independently of The Geochemical News to those members responding "yes" to Question 2. Therefore it is important that those members who wish to continue receiving the Program return the questionnaire as soon as possible, with their names and current addresses recorded legibly in the space provided.

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Annual Meeting Program Questionnaire

Please complete and return as soon as possible to Bryan Gregor, Department of Geological Sciences, Wright State University, Dayton, Ohio 45435.

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