



The Geochemical News

Biannual Newsletter of the Geochemical Society

Number 64

September 1983

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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 SEAWATER [21661] 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
- 5 Alfred G. Fischer*, L.M. Pratt, T.D. Herbert, M.A. Arthur: ANOXIC EVENTS - A COMPARISON OF CRETACEOUS REGIMES [32005] 3:00 P
- 6 Stein B. Jacobsen*: MANTLE EVOLUTION AND THE RECYCLING OF CONTINENTAL AND OCEANIC LITHOSPHERE [32006] 4:00 P
- 7 Jan Veizer*, P. Laznicka, S. Jansen: BASEMENT AND SEDIMENTARY RECYCLING, AND METALLOGENIC EPOCHS [32008] 5:00 P

Monday October 31

GEOCHEMISTRY I: ORGANIC AND LOW TEMPERATURE ISOTOPE
GEOCHEMISTRY
Rooms 224-225, Convention Center, 2:00 p.m.

J. Bruno Risatti & William T. Holser, Presiding

- 1 J. Bruno Risatti*, J.M. Hayes: BIOGENIC ACETATE AND THE ORIGIN OF SEDIMENTARY BIOGENIC METHANE [21717] 2:00 P
- 2 Michael J. DeNiro*, Christine A. Hastorf: DIAGENETIC ALTERATION OF 13C/12C AND 15N/14N RATIOS OF PLANT MATTER [20021] 2:15 P
- 3 Sushiel R. Keswani*, Keith W. Dunham, Philip A. Meyers: ORGANIC GEOCHEMISTRY OF LATE CENOZOIC SEDIMENTS FROM THE SUBTROPICAL SOUTH ATLANTIC OCEAN [26257] 2:30 P
- 4 Arndt Schimmelmann*, Michael J. DeNiro: ELEMENTAL AND ISOTOPIC COMPOSITION OF SEDIMENTARY ORGANIC MATTER FROM A TERRESTRIAL SECTION CONTAINING THE CRETACEOUS/TERTIARY BOUNDARY [23717] 2:45 P
- 5 John R. Carpenter*, Steven C. Kornder: APPLICATION OF A LINEAR UNMIXING ALGORITHM TO PROBLEMS IN ORGANIC GEOCHEMISTRY: II TERPENOID AND N-ALKANES IN CRUDE OILS FROM THE WILLISTON BASIN [00298] 3:00 P
- 6 Steven C. Kornder*, John R. Carpenter: APPLICATION OF A LINEAR UNMIXING ALGORITHM TO PROBLEMS IN ORGANIC GEOCHEMISTRY: I N-ALKANES FROM RECENT SALT MARSH SEDIMENTS [00297] 3:15 P

Monday October 31 (cont.)

- 7 W.T. Holser*, E.S. Saltzman, T.B. Lindh, G.W. Brass: THE $\delta^{13}\text{C}$ - $\delta^{34}\text{S}$ CROSSPLOT: A MEASURE OF SHIFTS IN ATMOSPHERIC AND SEDIMENTARY COMPOSITION [23834] 3:30 P
- 8 Luis A. Gonzalez*, K.C. Lohmann: MICROSCALE VARIABILITY OF CARBON AND OXYGEN ISOTOPIC COMPOSITION IN RECENT MARINE CARBONATES: IMPLICATIONS FOR PALEOTHERMOMETRY AND STUDIES OF PALEOCEAN CHEMISTRY [28067] 3:45 P
- 9 Sachindra Prasad*, Peter K. Swart: THE ORIGIN OF MIOCENE DOLOMITES FROM FLORIDA CONSTRAINED THROUGH STABLE ISOTOPE STUDIES [23323] 4:00 P
- 10 Joel W. Hennessy*, L.P. Knauth: ISOTOPIC VARIATION IN DOLOMITE CONCRETIONS FROM THE MONTEREY FORMATION OF CALIFORNIA [19250] 4:15 P
- 11 Mary Rose Cassa*: EFFECTS OF WEATHERING ON ORGANIC GEOCHEMICAL SOURCE ROCK PARAMETERS [30376] 4:30 P
- 12 R.K. Given*, K.C. Lohmann: SPATIAL AND SECULAR VARIATIONS IN ISOTOPIC CHEMISTRY OF MARINE CARBONATE CEMENTS OF THE PERMIAN REEF [12532] 4:45 P

Tuesday November 1

GEOCHEMISTRY II: LOW TEMPERATURE AQUEOUS GEOCHEMISTRY
Room 122, Convention Center, 1:30 p.m.

M. Kastner & James I. Drever, Presiding

- 1 M. Kastner*, J. Kushnir, G.E. Anderson: DIAGENETIC RELATIONSHIPS OF DOLOSTONE - PHOSPHORITE - CHERT: A GEOCHEMICAL INTERPRETATION [17076] 1:30 P
- 2 Richard W. Arnseth*: MENISCUS CEMENT ASSOCIATED WITH DEGASSING IN A MODERN SUBMARINE SPRING, ST. CROIX, U.S. VIRGIN ISLANDS [20978] 1:45 P
- 3 Peter Kilham, Paul L. Cloke*: BIOGEOCHEMICAL EVOLUTION OF THE BASOTU LAKES, TANZANIA [32141] 2:00 P
- 4 J.N. Valette-Silver*, Milan Pavich, Louis Brown, Fouad Tera, Jeffrey Klein, Roy Middleton: VERTICAL DISTRIBUTION OF BERYLLIUM-10 IN SOIL, SAPROLITE AND SEDIMENTS [31914] 2:15 P
- 5 Alex E. Blum*, James I. Drever, Timothy J. Pahey, Joseph B. Yavitt: CONTROLS ON THE CHEMISTRY OF INFILTRATING WATER IN A FORESTED MOUNTAIN WATERSHED [16908] 2:30 P
- 6 Virginia M. Oversby*, Kevin G. Knauss: THE REACTION OF BULLFROG TUFF WITH J-13 GROUNDWATER AT 150 DEGREES C AND 90 DEGREES C. I. EXPERIMENTAL RESULTS [20492] 2:45 P
- 7 Thomas J. Wolery*, Joan M. Delaney: THE REACTION OF BULLFROG TUFF WITH J-13 GROUNDWATER AT 150 DEGREES C AND 90 DEGREES C. II. GEOCHEMICAL MODELING [20919] ... 3:00 P
- 8 Teresa S. Bowers*, Hugh P. Taylor, Jr.: CHEMICAL AND ISOTOPIC MASS TRANSFER CALCULATIONS PERTAINING TO SEAFLOOR HYDROTHERMAL SYSTEMS [17051] 3:15 P
- 9 Crayton J. Yapp*: STABLE HYDROGEN ISOTOPE VARIATIONS IN GOETHITE [24260] 3:30 P
- 10 Robert A. Zielinski*, Neil S. Fishman, Richard L. Reynolds: AUTHIGENIC HEMATITE: A SCAVENGER FOR ELEMENTS MOBILIZED DURING BLEACHING OF RED BEDS [26153] 3:45 P
- 11 H.H. Posey*, G.R. Wessel, P.D. Fullagar, P.E. Price: $87\text{Sr}/86\text{Sr}$ RATIOS OF CALCITES AND CAP ROCK OF HOCKLEY DOME, TEXAS: IMPLICATIONS FOR BRINE MOVEMENT RELATED TO SALT DOME MINERALIZATION AND CAP ROCK FORMATION [29407] 4:00 P
- 12 Robert W. Rex*: ORIGIN OF THE BRINES OF THE IMPERIAL VALLEY, CALIFORNIA [32061] 4:15 P
- 13 Mark A. Beeunas*, L. Paul Knauth: ISOTOPIC COMPOSITION OF FLUID INCLUSIONS IN PERMIAN HALITE--IMPLICATIONS FOR THE ISOTOPIC HISTORY OF SEA WATER [20918] 4:30 P
- 14 Donald Langmuir*, Arthur C. Riese, Daniel C. Melchior: BARITE-RADIUM SULFATE SOLID SOLUTION; SOLUBILITY CONTROL ON Ra-226 MOBILITY IN URANIUM MILL TAILINGS AND SALINE GROUND WATERS FROM A POTENTIAL NUCLEAR WASTE REPOSITORY [20800] 4:45 P

Tuesday November 1 (cont.)

- 15 A. Zaikowski, B. Kosanke, N. Hubbard*: DATING DEEP GROUND WATERS IN THE PALO DURO BASIN, TEXAS USING ^4He AND ^{40}Ar [32029] 5:00 P
- 16 J.C. Laul, R.W. Perkins, N. Hubbard*: THE BEHAVIOR OF NATURAL RADIONUCLIDES IN BRINEY GROUND WATERS [31647] 5:15 P

GSA PLANETARY GEOLOGY DIVISION, GEOCHEMICAL SOCIETY, MSA
SYMPOSIUM: PLANETARY VOLCANISM
Rooms 201-203, Convention Center, 1:30 p.m.

Robert I. Tilling & Grant Heiken, Presiding

- 1 Tom Simkin*, Lee Siebert: TERRESTRIAL VOLCANISM IN SPACE AND TIME [27619] 1:30 P
- 2 James W. Head III*, Lionel Wilson: A COMPARISON OF VOLCANIC ERUPTION PROCESSES ON PLANETARY BODIES [27621] 1:55 P
- 3 Sean C. Solomon*, James W. Head: PLANETARY VOLCANISM AND TECTONICS: SOME CONNECTING LINKS [27626] 2:20 P
- 4 Herbert R. Shaw*: MAGMATIC PROCESSES AND ORBITAL EVOLUTION [27618] 2:45 P
- COFFEE BREAK 3:10 P
- 5 S.W. Kieffer*: VOLCANIC PLUME DYNAMICS: EARTH AND IO [21806] 3:25 P
- 6 Harry Y. McSween, Jr.*: VOLCANISM ON METEORITE PARENT BODIES [27623] 3:50 P
- 7 John Longhi*: GEOCHEMICAL AND PETROLOGICAL CONSTRAINTS ON PLANETARY VOLCANISM [27624] 4:15 P
- 8 George P.L. Walker*: VARIATIONS IN THE SIZES OF VOLCANIC ERUPTIONS AND THEIR CONSEQUENCES [27620] 4:40 P
- 9 Thomas L. Wright*: THOLEIITIC BASALT VOLCANISM: RELATIONS AMONG TECTONIC SETTING, ERUPTION RATES, AND THERMAL BUDGET [27617] 5:05 P

Wednesday November 2

GEOCHEMISTRY III: GEOCHEMISTRY OF IGNEOUS AND METAMORPHIC ROCKS

Rooms 226-227, Convention Center, 8:00 a.m.

G. R. Tilton & Donald Langmuir, Presiding

- 1 Leon T. Silver*, James A. Woodhead: URANIUM AND THORIUM ENDOWMENT, DISTRIBUTION AND MOBILIZATION IN RADIOACTIVE-PRECAMBRIAN GRANITES. II [23603] ... 8:00 A
- 2 A.P. Dickin*, C.M. Rice, R.S. Harmon: A STRONTIUM ISOTOPE STUDY OF LARAMIDE INTRUSIONS AND ASSOCIATED MINERALISATION NEAR CENTRAL CITY, COLORADO [24345] 8:15 A
- 3 G.R. Tilton*, M.H. Grunenfelder: LEAD ISOTOPE RELATIONSHIPS IN BILLION-YEAR-OLD CARBONATITE COMPLEXES, SUPERIOR PROVINCE, CANADIAN SHIELD [21592] 8:30 A
- 4 Gianni Lombardi*, Mario Barbieri: THE TOLFA VOLCANICS (ITALY) ALUNITIZATION PROCESS IN THE LIGHT OF NEW CHEMICAL AND Sr ISOTOPE DATA [30294] 8:45 A
- 5 Thomas D. Bullen*: EVIDENCE FOR CHEMICAL AND MINERALOGICAL HETEROGENEITY IN THE SOURCE REGION OF NORTHEASTERN CALIFORNIA BASALTS [19275] 9:00 A
- 6 Michael G. Sawlan*, James G. Smith: EVIDENCE FOR DEPLETED MANTLE IN 10MYBP LAVAS FROM THE GULF OF CALIFORNIA RIFT: ORIGIN OF CONCAVE-DOWNWARD REE PATTERNS IN THE ESPERANZA BASALT [18223] 9:15 A
- 7 Asish R. Basu*, Alan M. Goodwin, Mitsunobu Tatsumoto: Sm-Nd STUDY OF ARCHEAN ALKALIC VOLCANIC ROCKS OF THE TIMISKAMING GROUP IN SUPERIOR PROVINCE OF THE CANADIAN SHIELD [17363] 9:30 A
- 8 Richard J. Walker*, J.J. Papike: RARE EARTH ELEMENT AND STABLE ISOTOPE ANALYSIS OF THE TIN MOUNTAIN PEGMATITE, BLACK HILLS, SD: EVIDENCE FOR CRYSTALLIZATION TRENDS [15290] 9:45 A

Wednesday November 2 (cont.)

- 9 L. Peter Gromet*, Brian Stewart: REE DISTRIBUTION AMONG MINERALS IN AN AMPHIBOLITE: IMPLICATIONS FOR SUBSOLIDUS REDISTRIBUTION OF REE IN PLUTONIC ROCKS [13415] 10:00 A
- 10 John Blenkinsop*, Keith Bell, Anthony R. Berger: 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 Honorarium: 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

Best Paper, Organic Geochemistry Division: Francis J. Sansone and Christopher S. Martens - Volatile fatty acid cycling in organic-rich marine sediments. *Geochim. et Cosmochim. Acta* 46, 1575-1589.

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 & Guangzhi Tu, Presiding

- 1 Guangzhi Tu*: MINERALIZATION RELEVANT TO GRANITOIDS, AS EXEMPLIFIED BY THE CHINESE ORE DEPOSITS [27637] 1:30 P
- 2 H.P. Eugster*: CASSITERITE-SULFIDE DEPOSITION AT DACHANG, GUANXI PROVINCE, S.E. CHINA [12505] 2:00 P
- 3 Bangjie Jiang*: APPLICATION OF A NEW INORGANIC GAS-CHROMATOGRAPH TO RESEARCH OF GEOCHEMISTRY [28105] 2:30 P
- 4 R.W. Carlson*, X. Zhou: ISOTOPIC CHARACTERISTICS OF EASTERN CHINESE CENOZOIC VOLCANICS [27641] 3:00 P
- COFFEE BREAK 3:30 P
- 5 Ziyuan Ouyang*: INVESTIGATION OF EXTRATERRESTRIAL MATERIALS IN CHINA [28102] ... 3:45 P
- 6 John T. Wasson*: COMPOSITIONAL STUDIES OF 29 CHINESE METEORITES [27634] 4:15 P
- 7 Yiyang Zhao*, Yuwei Chen, Xianjue Wang: GEOCHEMICAL STUDIES OF CONTINENTAL SHELF SEDIMENTS OF THE EAST CHINA SEA [28103] 4:45 P
- 8 John M. Edmond*: CHEMISTRY OF THE MAJOR RIVERS OF CHINA AND OF THE ESTUARY OF THE CHIANGJIANG (YANGTZE) [27635] 5:15 P

Thursday November 3

GEOCHEMISTRY IV: HYDROTHERMAL GEOCHEMISTRY
Rooms 226-227, Convention Center, 8:30 a.m.

Bruno J. Giletti & Peter Deines, Presiding

- 1 Bruno J. Giletti*: MECHANISMS OF OXYGEN ISOTOPE EXCHANGE FOR MINERALS IN FLUIDS [27665] 8:30 A
- 2 Robert H. Brigham*, James R. O'Neil: BEHAVIOR OF WATER DURING CRYSTALLIZATION OF A TWO-MICA PLUTON: A HYDROGEN ISOTOPE STUDY [30408] 8:45 A

Thursday November 3 (cont.)

- 3 Cathy J. Janik*, Patrick F. Dobson: THERMODYNAMIC, ISOTOPIC, AND CHEMICAL EVIDENCE FOR EQUILIBRIUM IN THE LOS AZUFRES GEOTHERMAL SYSTEM [30414] 9:00 A
- 4 M.S. Chyi*, D.A. Crerar, R.F. Stallard, R.W. Carlson: OXYGEN, LEAD ISOTOPE AND TRACE ELEMENT STUDY OF SUBMARINE HYDROTHERMAL Mn-DEPOSITS OF THE FRANCISCAN ASSEMBLAGE, CA [13687] 9:15 A
- 5 Harmon Craig*, Valerie Craig, Zuhuang Cai: HELIUM ISOTOPE AND GEOCHEMICAL STUDIES IN TIBET AND EASTERN CHINA [31515] 9:30 A
- 6 Keiko Hattori*, Eion M. Cameron, H. Roy Krouse: ISOTOPIC COMPOSITION OF LATE ARCHAIC STRATABOUND SULPHATE FROM THE HEMLO GOLD DEPOSIT, ONTARIO, CANADA [20622] ... 9:45 A
- 7 Bruce M. Sass*, Philip E. Rosenberg: ILLITE: STABILITY IN SOLUTIONS BETWEEN 25 DEGREES AND 250 DEGREES C [25801] 10:00 A
- 8 James B. Murowchick*, H.L. Barnes: THE ROLE OF POLYSULFIDES IN PYRITE AND MARCASITE FORMATION [30135] 10:15 A
- 9 Scott A. Wood*, David A. Crerar, Maria Borcsik: SOLUBILITY OF A MULTIPHASE SULFIDE SYSTEM IN HYDROTHERMAL CHLORIDE SOLUTIONS [28565] 10:30 A
- 10 D.R. Janecky*, W.E. Seyfried, Jr.: HYDROTHERMAL INVESTIGATION OF MAGNETITE-HEMATITE AND REDOX REACTIONS IN SOLUTION AT 300 DEGREES C, 500 BARS [19838] 10:45 A
- 11 Saulwood Lin, Robert K. Popp*, Andrew Hajash: SOLUBILITY AND COMPLEXING OF NICKEL IN SUPERCRITICAL AQUEOUS CHLORIDE SOLUTIONS [12970] 11:00 A
- 12 Danelle D. Elder*, Mohammed Ikramuddin: GEOCHEMISTRY OF MOUNT TOLMAN COPPER-MOLYBDENUM PORPHYRY DEPOSIT, NORTHEASTERN WASHINGTON [29192] 11:15 A
- 13 Ronghua Zhang*: HYDROTHERMAL PHASE RELATIONS IN MAGNETITE DEPOSITS OF MIDDLE LOWER YANGTZE RIVER VALLEY, CHINA [19406] 11:30 A
- 14 Dennis K. Bird*, R.D. Rogers: FRACTURE CONTROLLED HYDROTHERMAL ALTERATIONS OF THE SKAERGARD INTRUSION KANGERDLUSSUAQ, EAST GREENLAND [30405] 11:45 A

GEOCHEMISTRY V: LOW TEMPERATURE KINETICS
Rooms 226-227, Convention Center, 1:00 p.m.

George R. Holdren, Jr. & J. Donald Rimstidt, Presiding

- 1 L.E. Eary*: MODEL OF MASS FLOW AND DISSOLUTION KINETICS FOR LEACHING REACTIONS [24282] 1:00 P
- 2 J. Donald Rimstidt*: RATES OF SOLID-SOLID TRANSFORMATION DURING DIAGENESIS [19519] 1:15 P
- 3 Janet S. Herman*, William B. White: DISSOLUTION KINETICS OF DOLOMITE [24218] 1:30 P
- 4 Jacob Kushnir*: THE RATE OF DISSOLUTION OF CARBONATE MINERALS IN THE PRESENCE OF SULFATE IONS [17077] 1:45 P
- 5 Lynn M. Walter*: TOTAL VERSUS REACTIVE SURFACE AREAS OF SKELETAL CARBONATES DURING DISSOLUTION: EFFECTS OF GRAIN SIZE AND MICROSTRUCTURE [16152] 2:00 P
- 6 Kevin G. Knauss*, Thomas J. Wolery: DEPENDENCE OF ALBITE DISSOLUTION KINETICS ON pH AND TIME AT 70 DEGREES C AND 25 DEGREES C [19823] 2:15 P
- 7 George R. Holdren, Jr.*, P.A. Mackey-Speyer: SURFACE AREA-DISSOLUTION RATE RELATIONSHIPS FOR A SODIC PLAGIOCLASE AT LOW TEMPERATURE [30330] 2:30 P
- 8 Michael A. Velbel*: RATE CONTROLS DURING THE NATURAL WEATHERING OF ALMANDINE GARNET [17276] 2:45 P
- 9 C.L. Wiersma*, J.D. Rimstidt: RATES OF REACTION OF PYRITE AND MARCASITE 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

TRACERS IN THE SEA, by W.S. Broecker and T-H Peng. Eldigio Press, Lamont-Doherty Geological Observatory, Palisades, N.Y. 10964. 700 pp; 300 figs and tables. \$35.

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 radio-tracers 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-deductable) 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 Ponnampuruma 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.

	check <u>one</u>	
	YES	NO
1. I get the Program from another source and don't need a second copy
2. I don't get the Program from any other source and want to receive a copy
3. Other (please specify)		

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