



The Geochemical News

Newsletter of the Geochemical Society

Number 88

Spring 1995

Inquiries and announcements regarding *Geochemical News* should be sent to S.B. Shirey, Carnegie Institution of Washington, 5241 Broad Branch Rd., NW, Washington, DC 20015 USA. Submission of material by facsimile (202-364-8726) or electronic mail (shirey@dtm.ciw.edu) is encouraged.

In this issue:

- Letter from GS President, Tony Lasaga
- Upcoming meetings of interest to Geochemical Society members
- Spring Meeting, GS Board of Directors
- Losses
- OGD Announcements
- 5th V.M. Goldschmidt at Penn State, May 24-27, 1995
- Geochemical Society Awards for 1995
- GS Sponsored Sessions, Spring AGU Meeting
- IUGG General Assembly, Boulder, CO, July 2-14, 1995
- MSA Short Courses for 1994

LETTER TO GEOCHEMICAL SOCIETY MEMBERS FROM PRESIDENT TONY LASAGA

Many new and exciting changes are taking place in the Geochemical Society. Geochemistry is now more than ever before an essential component of society's understanding of earth system science. Thus, promotion of the multitude of geochemical studies world-wide is a major role for the society. The Goldschmidt conferences are an important contribution of the Geochemical society for the promotion of advances in the frontiers of geochemistry. A major decision was made to have the Goldschmidt conference take place every year, alternating the site between the US and abroad. The next Goldschmidt takes place at Penn State, May 24-26. The following Goldschmidt conference will be held in Heidelberg, Germany, March, 1996. The Goldschmidt conference site for 1997 in the US will be finalized next month. With the earlier success of the Goldschmidt conferences, and in particular the publication of extended abstracts by the Mineralogical Magazine for the Edinburgh Goldschmidt Conference last year, the decision has been made to make the conference abstracts part of the permanent literature. Our society is exploring the various alternatives for the publication of "extended abstracts".

The Geochemical Society is an international society for the promotion of geochemistry. One of the recent decisions of the society, therefore, has been to strengthen our ties with the European Association of Geochemistry (EAG). As a consequence, the future Goldschmidt conferences will be co-sponsored by both societies and a Goldschmidt committee composed of members from the societies is now being assembled to help with the overall planning of the conferences, including the selection of sites and of a wide variety of symposia. Another result of the ensuing discussions has been the decision to have Geochemistry Fellows from both societies. The Geochemistry Fellows would be formally appointed at the Goldschmidt conferences and would serve as promoters of international cooperation in the field.

This year we celebrate our 40th birthday! Therefore, a series of events are being planned for GSA in New Orleans. These events include a special symposium on "*Frontiers in Geochemistry*" with speaker to include Russell Hemley, Jay Ague, Alex Halliday, Gordon Brown, Bernie Wood, Mike

Hochella, Hap McSween, Thure Cerling, and Katsuo Tsukamoto as well as some festivities to be arranged in New Orleans. So plan to attend GSA and join us in this special event!

An important decision, that has not been made yet but could have a large impact on the society and geochemistry as a whole, is the upcoming contract with Permagon Press over *Geochimica and Cosmochimica Acta*. This contract involves both the Geochemical Society and the Meteoritical Society. The huge growth of the journal as well as other economic factors has led Permagon Press to demand high increases in the personal subscription rate for members after the contract expires in 1997. At this point, it is fair to say that we are looking at all the alternatives, including going with some other society or starting our own journal. I know that this was a hotly debated issue last time the contract came up. Frank Podosek heads the joint publication committee (for GS and Meteoritical Society) and Bruce Doe is heading a separate committee to advise the Geochemical Society. It is very important to hear from our membership on this critical issue.

To facilitate interaction between the members of the society, an electronic WWW page will be setup to enable feedback from our members on the *GCA* issue (<http://sandbox.geology.yale.edu/gc.html>). This site will also provide access to membership forms, list of *GCA* papers and Associate Editors and ordering of special publications. The society hopes to increase communications between its members by providing a stop on the info superhighway. Hope to hear from you!

Tony Lasaga
Geochemical Society President

UPCOMING MEETINGS OF INTEREST TO GEOCHEMICAL SOCIETY MEMBERS

May 15-19, 1995: *17th International Geochemical Exploration Symposium: Exploring the Tropics* Townsville, Queensland, Australia. Russell Myers, 171GES, National Key Centre in Economic Geology, James Cook University, Townsville, Queensland 4814, Australia. Tel: 077-814486. Fax: 61-77-815522.

May 17-19, 1995: *Geological Association of Canada-Mineralogical Association of Canada Joint Annual Meeting* Victoria, British Columbia, Canada, Contact: Chris Barnes, General Chair, SEOS University of Victoria, P.O. Box 1700, Victoria, B.C. V8W 2Y2, Canada, Fax 604-721-6200.

May 21-26, 1995: *12th International Conference on Basement Tectonics* University of Oklahoma, Norman, OK, USA. With field trips: Pre-conf: May 19-20, Llano region of Texas. Post-conf: May 27-28, Southern Okla Aulacogen (Wichita Mountains). Abstract deadline: March 1, 1995. M. C. Gilbert, School of Geology and Geophysics, University of Oklahoma, Norman, OK 73019-0628. Phone: 405-325-3253, Fax: 405-325-3140, mcgilbert@geoadm.gen.uoknor.edu.

May 24-26, 1995: *5th V.M. Goldschmidt Conference* The Pennsylvania State University, University Park, PA, USA. Technical Program Chair, Mike McKibben, Phone: 909-7873444, FAX: 909-787-4324, Email: McKibben@UCRACL.UCR.EDU, or one of General Chairs, Hu Barnes or Peter Deines, via Phone 814-865-7573, Fax 814-863-2001, or Email: Barnes@GEOSC.PSU.EDU.

May 29-June 2, 1995: *American Geophysical Union-MSA-GS Spring Meeting* Baltimore, Maryland. Information: AGU Meetings Dept., 2000 Florida Ave., N.W., Washington, DC 20009, (202)462-6900, fax(202)328-0566, Email: sbell@kosmos.agu.org.

June 3-6, 1995: *International Field Conference on Carbonate-Hosted Lead-Zinc Deposits* St. Louis, MO. Contact: Martin Goldhaber, USGS, PO Box 25046, MS 973, Federal Center, Denver, CO 80225-0046. Fax: 303-236-3200, Email: Mgold@helios.cr.usgs.gov.

June 4-8, 1995: *The Clay Minerals Society 32nd Annual Meeting* Baltimore, MD, Contact: General Chair-Dr. Delvin S. Fanning, Department of Agronomy, University of Maryland, College Park, MD 20742, Phone 301-405-1344, Fax 301-314-9041, Technical Program Chair-Dr. Virginia Colten-Bradley, U.S. Nuclear Regulatory Commission, MS7D13, 11545 Rockville Pike, Rockville, MD 20852, Phone 301-415-6616, Fax 301-415-5399.

June 21-23, 1995: *European Current Research on Fluid Inclusions, ECROFI XIII* Barcelona, Spain. Contact Dr. Carlos Ayora, XIII ECROFI, Barcelona 1995, Institut de Ciències de la Terra, CSIC, Maré l Franquès, s/n, E08028, Barcelona, Spain. Phone: 34-3-3302716, Fax: 34-3-410012, Email: ecrofi@uija.csic.es

July 2-14, 1995: International Union of Geodesy and Geophysics Meeting Boulder, Colo. Contact: IUGG General Assembly, c/o American Geophysical Union, 2000 Florida Avenue, N.W., Washington, D.C. 20009.

Aug 7-12, 1995: Sixth International Kimberlite Conference Novosibirsk, Russia. Contact: Dr. N.P. Pokhilenko, Secretary, Sixth International Kimberlite Conference, United Institute of Geology, Geophysics, and Mineralogy, Russian Academy of Sciences, Siberian Branch, 630090 Novosibirsk-90 Russia. Abstract Deadlines Sept 1, 1994 (500 words); March 1, 1995 (3 page, extended) Telex: 133123 KORA SU, Fax: 007-3832 352692, Email: chief@diamond.nsk.su

Aug 13-28, 1995: 8th International Symposium on Water-Rock Interaction (WRI-8) Vladivostok, Russia. Contact: Dr. Oleg Chudaeu, Secretary General WRI-8, Far East Geological Institute, 690022 Vladivostok, Russia, Phone 7(4232)317567, Fax: 7-50985 12430, Email: FEGI@VISENET.IASN.COM.

Aug. 22-Sept. 1: Interplate Magmatism. IGCP 336, Duluth, Minn. Contact: Penny Morton, Dept. of Geology, University of Minnesota, Duluth, Minnesota 55812. Phone: 218-726-7962. Fax: 218-726-8275. pmorton@ua.d.umn.edu

Aug 24-Sept 5, 1995: Orogenic Lherzolites and Mantle Processes 2nd International Workshop Granada, Spain, Contact: H. G. Barszczus, Géofluides GBE/ISTEEM-C.P. 057, Université de Montpellier 2, 34095, Montpellier Cedex 5, France, Phone 33-6714-3933, Fax 33-6714-4774, Email: barszczus@dstu.univ-montp2.fr.

Aug. 27-Sept. 1, 1995: Planetary Impact Events: Materials Response to Dynamic High Pressure Cancun, Mexico, Contact: Randall T. Cygan, Geochemistry Department, Sandia National Laboratories, Albuquerque, New Mexico 87185-0750, Phone: 505-844-7216, Email: rtcyan@sandia.gov

Aug 28-Sept 1, 1995: Tectonics and Metallogeny of Early/Mid Precambrian Orogenic Belts Montreal, Canada, Contact: J. A. Percival, Geological Survey of Canada, 601 Booth St., Ottawa, Ontario K1A 0E8, Canada, Phone 613-995-4723, Fax 613-995-9273, Email: jperci-val@601.C.gsc.emr.ca, or J.N. Ludden, Department de Géologie, Université de Montréal, CP 6138, Succ. A Montréal, Québec H3C 3J7, Canada, Phone 514-343-7389, Fax 514-343-5782, Email: luddenj@ere.umontreal.ca.

Aug 28-Sept 2, 1995: Third Hutton Symposium: The Origin of Granites College Park, Maryland, Contact: Michael Brown, Department of Geology, University of Maryland, College Park, MD 20742, Phone 301-405-4082, Fax 301-314-9661.

Sept 4-8, 1995: International Symposium on Environmental Biogeochemistry Rio de Janeiro, Brazil. Symposium Secretariat, Prof. Luis Henrique Melges (e-mail iseb@bruerj; fax 55-(0)21-248-4870).

Sept 4-8, 1995: 17th International European Association of Organic Geochemists (EAOG) Meeting The Basque Country, Spain. Contact: Carmen Dorronsore, 17th International Meeting on Organic Geochemistry, P.O. Box 309, 20080 Donostia-San Sebastian, The Basque Country, Spain

Sept 4-8, 1995: Third International Dyke Conference - First Announcement Jerusalem, Israel. Contact: Dr. Gideon Baer and/or Dr. Ariel Heimann, Geological Survey of Israel, 30 Malkhe Israel St., Jerusalem 95501, Israel. Phone 972-2-314231, 972-2-314254, Fax 972-2-380688, Email DIKECONF@VMS.GSI.GOV.IL.

Nov. 4-5, 1995: MSA Short Course: Weathering Kinetics of Silicate Minerals New Orleans, LA. Contact: Art White, USGS, MS-420, 345 Middlefield Road, Menlo Park, CA 94025, or Susan Brantley, Penn. State Univ., College of Earth & Mineral Sciences, 209 Deike Bldg., University Park, PA 16802.

Nov. 6-9, 1995: Annual GSA Meeting New Orleans, LA. Abstract deadline: July 12, 1995. Contact: GSA Meetings, 3300 Penrose Place, Boulder, CO 80301. Tel: 1-303-447-2020, Email: ncarlson@geosociety.org

Dec. 9-10, 1995. MSA Short Course: Structure, Dynamics, and Properties of Silicate Melts San Francisco area. Contact: D. B. Dingwell, Bayerisches Geoinstitut, Universitaet Bayreuth, 95440 Bayreuth, Germany, don.dingwell@uni-bayreuth.de or P. F. McMillan, Dept. of Chemistry, Arizona State Univ., Stanford, CA 94305 USA, mcmillan@asu.asu.edu, or J. F. Stebbins, Dept. of Geological and Environmental Sciences, Stanford Univ., Stanford, CA 94305 USA, stebbins@pangea.stanford.edu.

Dec 10-15, 1995: American Geophysical Union Fall Meetin San Francisco, CA. Information: AGU Meetings Dept., 2000 Florida Ave., N.W., Washington, DC 20009, (202)462-6900, fax(202)328-0566, Email: sbell@kosmos.agu.org.

Apr. 10-13, 1996: 6th International Symposium of Experimental Mineralogy, Petrology, and Geochemistry Bayreuth, Germany. Abstract deadline: Dec. 1, 1995. Contact: Organizing Committee EMPG-VI, Bayerisches Geoinstitut, Universitat Bayreuth, D-95440 Bayreuth, Germany.. Tel: 49-921-553-769, TAX: 49-921-553-769.

May 27-29, 1996: Geological Association of Canada/Mineralogical Association of Canada Winnipeg, Manitoba R3T 2N2, Canada. Tel: 1-204-474-8857, FAX: 1-204-261-7581.

Aug. 4-1, 1996: 30th International Geological Congress Beijing, China. Contact: Z. Xun. Deputy Secretary General, 30th International Geological Congress, PO Box 823, Beijing 100037 Peoples Republic of China, Tel: 86-1-832-7772, FAX: 86-1-832-8928.

July 22-28, 1996., Fourth International Symposium on Geochemistry of the Earth Surface Inkley, Yorkshire, England. Contact: GES-IV Conference Secretariat:, Dept. of Continuing Professional Education, Leeds University, Leeds LS2 9JT. Tel: 011322 333 241, FAX: 01132 33 240.

The Geochemical Society



40th ANNIVERSARY
1955-1995

Join other members of the Geochemical Society in celebration of its fortieth anniversary at one of the Society's cosponsored geochemical meetings this year:

**5th V.M. Goldschmidt Conference,
May 24-27, University Park, PA**

**Spring 1995 American Geophysical
Union Meeting
May 29-June 2, Baltimore, MD**

**1995 Annual Geological Society of
America Meeting
Nov 6-9, New Orleans, LA**

SPRING MEETING OF GEOCHEMICAL SOCIETY BOARD OF DIRECTORS

The 1995 spring meeting of the Board of Directors of the Geochemical Society will be held Wednesday, May 24, 1995 from 6:00-10:00 pm in University Park, PA just after the first day of the Goldschmidt Conference. The tentative room assignment is room W-4 of the Penn State Scanticon Conference Center Hotel.

LOSSES

The Geochemical Society regrets the recent passing of three of its members. **Alfred O. Nier** 82, Professor emeritus, University of Minnesota, died on May 16, 1994 from complications relating to an accident. His long and distinguished career was responsible for the development of mass spectrometers that led him to make measurements of the precise isotopic composition of numerous elements, separate some of the first fissionable ^{235}U and apply radioactive decay to the accurate determination of geologic time. In the later stages of his career, he designed and built small remote-controlled mass spectrometers that explored the atmosphere of the Earth and Mars. **John D. Hem**, 78, senior research chemist with the USGS, died on December 27, 1994 of complications from leukemia after a productive career of service to the USGS and the Nation, during which he was one of the first to use chemistry and geology to study the processes that determine the chemical composition of natural waters.

ORGANIC GEOCHEMISTRY DIVISION ANNOUNCEMENTS

Electronic communications for organic geochemists. *Org-geochem* is an electronic mail distribution list designed to be used by working scientists in organic-geochemistry and related fields such as petroleum geochemistry and environmental geochemistry. Messages sent by email to the *org-geochem* email address are automatically circulated to all members of the *org-geochem* list, and received as email in the usual way. Unlike a letter, email arrives almost immediately, and unlike a phone call the message waits for you if you are not around. If you have a message which you would like to circulate to the organic geochemical community then try sending it to *org-geochem*. If you have access to email, all you need to do in order to use *org-geochem* is to register as an *org-geochem* list user. To do this send the message: "join org-geochem firstname lastname", replacing firstname and lastname with your own names, to the Mailbase computer at: mailbase@mailbase.ac.uk. A help file will be emailed to you when you register. Mailbase manages your membership of the *org-geochem* list (and any other lists that you join). Other commands, described in the help file, can also be sent to Mailbase. For example sending: "review org-geochem" to the Mailbase address given above requests details of the current members of the *org-geochem* list. Having registered, messages which you want to send to other geochemists should be emailed to: org-geochem@mailbase.ac.uk.

New users sometimes confuse the purposes of these two addresses, but their usage is quite simple. Messages which are to be circulated to other geochemists should be sent to org-geochem@mailbase.ac.uk. Other messages such as the Mailbase commands join and review should be sent to mailbase@mailbase.ac.uk. Help can be obtained by contacting the list owner (Bryn Jones) on org-geochem-request@mailbase.ac.uk, or the Mailbase staff on mailbase-helpline@mailbase.ac.uk. Org-geochem (and other similar lists for different subjects) can now also be browsed on-line by a Telnet call to 128.240.2.118 logging in as guest with the password mailbase. Help on the on-line service can be obtained by sending the message: send mailbase on-line-guide to mailbase@mailbase.ac.uk. Org-geochem currently has over 120 members, worldwide, and all with an interest in organic geochemistry. A single email to org-geochem puts you in contact with all of them.

Meetings and Symposia of Interest to OGD members. 1) A symposium entitled "*Isotopic and molecular biogeochemistry of organic matter in ancient and modern environments*" will be held at the Chicago ACS meeting; August 20-25 1995. Contact Kate Freeman, Kate@essc.psu.edu; (814)

863-8177; (814) 863-7823; Earth and Mineral Sciences; Penn State Univ., University Park, PA 16802. 2) The Organic Geochemistry Division will hold a special symposium at the New Orleans GSA which will have as a theme "*Variability in the isotopic compositions in modern and fossil organic matter*". The symposium will focus on organic material source composition and alteration, and will include papers on biogeochemistry and petroleum geochemistry. Interested participants should contact M.H. Engel (405) 325-3253; (405) 325-3140 (FAX); ab1635@uokmvs.backbone.uoknor.edu; School of Geology and Geophysics, University of Oklahoma, Norman, OK 73019. 3) *The European Association of Organic Geochemists (EAOG)* will hold its 17th International Meeting in Donostia-San Sebastian (Spain) on 4-8 September 1995. Fifteen theme sessions will include oral and poster presentations on all aspects of organic and environmental geochemistry. Further information may be obtained from Carmen Dorronsore, 17th International Meeting on Organic Geochemistry, P.O. Box 309, 20080 Donostia-San Sebastian, The Basque Country, Spain. 4) An international conference held in North America, "*Humic Substances In The Environment - New Challenges and Approaches*" organized under the auspices of the International Humic Substances Society (IHSS) will be held for the first time since 1983. The conference, will be held on August 27 September 1, 1995 on the campus of the Georgia Institute of Technology in Atlanta, Georgia. It is intended to facilitate interactions among scientists from various disciplines in which humic substances (and natural organic matter, in general) are investigated. The tentative format for the conference includes extensive poster sessions, which are open to all attendees, and a relatively small number of in-depth oral presentations by invited speakers. A significant portion of the meeting schedule will be allocated for plenary discussions of the contributed posters and the invited oral presentations. Tentative topics include: bioavailability of organic carbon, bioavailability of trace metals, physical characterization of natural organic matter, photochemistry of natural organic matter, physical and chemical characterization of mineral-organic interfaces, natural organic matter from extreme environments, and practical applications involving natural organic matter. For further information, contact: Dr. Mike Perdue, Georgia Institute of Technology, Atlanta, Georgia, 30332, USA, 404-894-3883; (FAX) 404-853-0232; michael.perdue@eas.gatech.edu or Dr. Jim Alberts, University of Georgia's Marine Institute, Sapelo Island, GA, 31327, USA, 912-485-2221; (FAX) 912-485-2133; jalberts@uga.cc.uga.edu

Best Student Paper in Organic Geochemistry Award The OGD is giving out a yearly award for the best student paper in organic geochemistry consisting of a one-year membership in the Geochemical Society with all rights and privileges, including a GCA subscription. Nominations are hereby solicited according to the following guidelines: 1) the paper must be published in the year prior to the award (for this first award the paper must bear a 1993 publication date), 2) the paper can be submitted by the faculty advisor, a student, or other reader, 3) the nomination must be received by the OGD secretary by July 1 of the year in which the presentation is to be made. 4) the student MUST be first author on the publication, and MUST be enrolled as a student AT THE TIME OF SUBMISSION (not publication). If the student has graduated, the date of graduation should be included in the nomination letter. Members-at-Large on the Executive Committee will serve as judges.

5th GOLDSCHMIDT CONFERENCE UNIVERSITY PARK, PA, MAY 24-27, 1995

The V.M. Goldschmidt Conferences are arranged each year by the Geochemical Society and the European Association of Geochemistry. Currently, the meeting sites alternate between North America and Europe; the 1994 conference was held in Edinburgh, Scotland, the 1995 conference is being held in University Park, PA (see details below) and the 1996 conference is being planned for Heidelberg, Germany.

The fifth Goldschmidt Conference will be held May 24 through May 26, 1995 in the Scanticon Conference Hotel on the campus of the Pennsylvania State University. The meeting shortly precedes the Spring AGU meeting in Baltimore. For participants who want to attend both meetings, transportation from the Goldschmidt Conference to the AGU meeting is planned. There will be 350 papers presented in 15 Symposia plus additional topical sessions. A program for accompanying members has been arranged plus a half day field trip following the Conference. Special events of the Geochemical

Society will be the address of President Antonio Lasaga entitled "*Of Atoms, Molecules and Geochemists*" on Thursday afternoon and the Awards Luncheon on Friday.

The deadlines for Advance Conference Registration and for Accommodation Reservations have passed (April 15) but forms for late registration and reservations are included in the second circular which is found together with the first circular on the internet at either gopher.geosc.psu.edu under the menu item, Goldschmidt Conference, or also under world-wide web, WWW, at the address under Uniform Resource Locator, URL at: <http://maurice.kent.edu/goldschmidt.html> Alternatively, the late registration and reservation forms and other conference information may also be obtained by contacting the Conference Co-ordinator, Suzanne St. Pierre, at 225 Penn State Scanticon, Universtiy Park, PA 16802-7002, or by phone 814-863-5175 or by e-mail at SSP1@cde.psu.edu. Questions may be sent via e-mail to: goldschmidt-request@geosc.psu.edu The session program will be available at both the Gopher and WWW addresses after about April 15.

Topical Sessions 1. Environmental Geochemistry 2. Experimental Geochemistry 3. Geochemical Kinetics 4. Geochronology and Radioisotopes 5. Hydrothermal Geochemistry 6. Low Temperature Geochemistry 7. Marine Geochemistry 8. Mineralogy and Crystallography 9. Organic Geochemistry 10. Petrology, Igneous 11. Stable Isotope Geochemistry 12. Trace Element Geochemistry

Symposia 1. Geochemistry of Core Formation in the Earth 2. Thermodynamics of Minerals 3. Chemistry and Location of the Sources of Arc Magmas: Experimental and Geochemical Evidence 4. Radiogenic Isotopes and Trace Elements as Provenance Indicators in Clastic Sedimentary Rocks: Application to Crustal Evolution, Tectonics and Paleoclimates 5. Interrelationship between Geochemistry and Weathering, Paleoclimates and Landscape Evolution 6. Organic Geochemistry of Paleoclimate Markers: Production and Modeling 7. What's Happening in Stable Isotope Microanalysis? 8. Light Stable Isotope Partitioning: Experimental, Emperical and Theoretical Approaches 9. Reactive Transport: Fully-Coupled Heterogeneous Reaction and Fluid Flow in Geochemical Systems 10. Reactivity and Stability of Clay Minerals 11. Mineral-Water Interface Chemistry: Integrating Laboratory and Field Studies 12. Minerals and the Environment 13. Geochemistry of Metal Sulfides 14. High Spatial Resolution Elemental Analysis in Geological and Environmental Materials 15. Applications of Geochronology to the Study of Deformation

We anticipate that this Conference will carry on the tradition of scientific excellence established by the previoius Goldschmidt Conferences. We hope that you will join us and enjoy the Conference.

Peter Deines and Hu Barnes, Co-chairmen

5th Goldschmidt Conference Schedule

Tuesday, May 23

7:00-9:00 p.m. General Reception (cash bar)

Wednesday, May 24

8:30 a.m.-noon Technical Sessions

1:30-5:00 p.m. Technical Sessions

5:00-6:30 p.m. Poster Sessions* with Authors

Thursday, May 25

8:30 a.m.-noon Technical Sessions

1:30-4:30 p.m. Technical Sessions

4:30-5:30 p.m. Geochemical Society Presidential Address

5:30-7:00 p.m. Poster Sessions* with Authors

7:00 p.m. Conference Banquet

Friday, May 26

8:30 a.m.-noon Technical Sessions

noon-1:30 p.m. Geochemical Society Award Lunch

1:30-5:00 p.m. Technical Sessions

3:30-5 p.m. Poster Sessions

GEOCHEMICAL SOCIETY AWARDS FOR 1995

The V.M. Goldschmidt Award for 1995 will be given to **Robert A. Berner** (Department of Geology and Geophysics, Yale University, New Haven, CT 06511, USA) at the Geochemical Society Awards Luncheon, Friday May 26th (noon-1:30pm) at the 5th V.M. Goldschmidt Conference. The award will be presented by John W. Morse (Texas A&M). Berner will receive the Goldschmidt Award for his many outstanding contributions to the field of low temperature geochemistry such as: the theoretical framework for modeling diagenesis of recent sediments, processes that form sedimentary sulfide minerals, demonstrating that reaction kinetics control calcium carbonate accumulation in deep sea sediments, the role of surface chemistry in controlling silicate mineral weathering, study of rates of sedimentary organic matter oxidation, the use of sediment C/S ratios to define paleo-depositional environments, and production of models for carbon cycling. The 1995 Clarke Award will be awarded to **Rebecca Lange** (Department of Geological Sciences, University of Michigan, Ann Arbor, MI 48109-1063, USA) at the same ceremony. The award will be presented by Ian Carmichael (UCLA Berkeley). Lange will receive the Clarke award for her work on the chemistry of silicate melts, in particular her determination of extremely precise densities of silicate liquids which enable the calculation of partial molar volumes and compressibilities with a precision superior to previous calculations and lead to improved calculations of equations of state of magmas. The 1995 Treibs Award of the Organic Geochemistry Division will be announced the fall Geological Society of America Meeting in New Orleans and presented at the Organic Geochemistry Gordon Conference in August of 1996.

GS SPONSORED SESSIONS, AGU MEETING, BALTIMORE, MAY 29-JUNE 2, 1995

GS21A, GS31B Surface Geochemistry and Reaction Rates (joint with VGP, MSA): This session will focus on the general problem of how minerals react with aqueous solutions at both low and high temperatures. Contributions are sought from experimental, theoretical or field investigations involving the latest research in the areas of surface protonation, adsorption of cations, anions or organic species, and reaction rates both near and far from equilibrium. Convener: Dimitri A. Sverjensky, Dept. of Earth and Planetary Sciences, The Johns Hopkins University, Baltimore, MD 21218, tel.: 410-516-8568, fax: 410-516-7933, e-mail: dimitri@eve.eps.jhu.edu

V32A Origin and Evolution of the Earth's Crust: A Symposium to Honor Patrick M. Hurley (joint with VGP) In recognition of innovative research, especially focussed on origin and evolution of the continental crust, P.M. Hurley is the 1995 recipient of the Walter H. Bucher Medal. Hurley's classic papers such as "*Test of Continental Drift by Comparison of Radiometric Ages*", "*The Confirmation of Continental Drift*", "*Pre-Drift Continental Nuclei*", "*The Isotopic Composition of Strontium in Surface Water from the North Atlantic Ocean*", and "*Strontium Isotope Variation and Whole-rock Isochron Studies, Grenville Province of Ontario*" pioneered the use of radiogenic isotopic data and ages in understanding the origin, evolution of continents and reconstruction of supercontinents. Many of the problems addressed by Hurley and his colleagues remain today as critical issues in understanding the origin and evolution of continental crust. In this symposium the presentations will focus on the state of the art in using radiogenic isotopes to understand continental evolution.

H51B, H52B Transport of Metals in Subsurface Environments (joint with H): There is considerable interest in understanding processes controlling the mobility of metal and metalloid ions in subsurface environments. Elements of interest constitute a diverse group, including actinide elements, heavy metals, and metalloids such as arsenic and selenium. Despite this diversity, these elements share common features that are critical to understanding transport, such as the importance of aqueous speciation in controlling reactivity and participation in reaction networks. A complex interplay of microscale physical, chemical, and microbiological processes affects transport. Physical and chemical heterogeneities from the microscale to the field-scale influence the distribution and mobilities of these elements in subsurface systems. Progress has been made in the development of reactive solute transport models, however there are still relatively few applications of these models. The objective of this sym-

posium is to bring together scientists and engineers studying processes that influence the mobility of these elements in the subsurface environment, from laboratory studies of microscale processes to field studies of contaminated sites. Co-conveners: Robert Matzner and Douglas Kent

Calendar of Geochemical Society Events, 1995 Spring AGU Meeting

Tuesday, May 30 AM

GS21A Surface Geochemistry and Reaction Rates

Tuesday, May 30 5PM

VGP Daly Lecture: Stan Hart, Woods Hole Oceanographic Institution, "*Mantle Plums and Mantle Plumes: A Chemical Geodynamics View*".

Tuesday, May 30 6PM

VGP reception

Wednesday, May 31 AM

GS31A Surface Geochemistry and Reaction Rates

Wednesday, May 31 PM

V32A Origin and Evolution of the Earth's Crust: A Symposium to Honor Patrick M. Hurley

Friday, June 2 AM

H51B Transport of Metals in Subsurface Environments

Friday, June 2 PM

H52B Transport of Metals in Subsurface Environments

IUGG GENERAL ASSEMBLY, BOULDER, CO JULY 2-14, 1995

Almost 7000 abstracts will be presented at the IUGG (International Union of Geodesy and Geophysics) General Assembly in Boulder Colorado, July 2-14, 1995 spanning the range of interests covered by IUGG Associations - Geodesy, Geomagnetism and Aeronomy, Hydrological Sciences, Meteorology and Atmospheric Sciences, Ocean Sciences, Seismology and Physics of the Earth's Interior, Volcanology and the Chemistry of the Earth's Interior. More than 400 of these will be presented in IAVCEI- (International Association of Volcanology and Chemistry of the Earth's Interior) sponsored and co-sponsored symposia whose titles are listed below. For more information and registration materials, contact IUGG XXI General Assembly, c/o American Geophysical Union, 2000 Florida Avenue, N.W. Washington DC 20009, phone 1-202-462-6900, fax 1-202-328-0566. The full program for the General Assembly should be available on World Wide Web in early May. Here are sessions planned for the IAVCEI section: Arc Volcanism and Sedimentation, Atmospheric CO₂ and O₂: The Breathing of the Earth, Climatic Variability and Forcing over the Past Millennium, Dynamics of the Magma/Hydrothermal Interface, Earthquake Generation Processes: Environmental Aspects and Physical Modelling, Effects of Pinatubo, Electromagnetic Effects of Earthquakes and Volcanoes, Evolution of Large Volcanic Systems, Geodetic, Remote Sensing and Seismic Methods for Monitoring Volcanic Activities, Geochemical and Geophysical Signatures of Mantle Plumes, Magma Degassing and Explosive Eruptions, Mid-Tertiary to Recent Geodynamic Evolution of the Andean Region, Modelling the Earth's Interior, Origin of Large Igneous Provinces, Physical and Chemical Evolution of the Earth, Seafloor Volcanism, Subduction Zone Processes at 25-200km Depth: The Subducting Slab, Mantle Wedge, and the Slab-Mantle Interface, Use of High-Resolution Records of Volcanism in Paleoclimate Reconstruction, Volcanic Crater Lakes, Volcano Flank Instability

TWO NEW MSA SHORT COURSES FOR 1995

The Mineralogical Society of America is pleased to announce a new short course for 1995. For further information regarding the course please contact the business office of the Mineralogical Society of America: 1130 Seventeenth Street, NW, Suite 330, Washington DC 20036 Phone (202) 775-4344, or Fax (202) 775-0018

CHEMICAL WEATHERING RATES OF SILICATE MINERALS

Dates: November 4-5, 1995 (Preceding) GSA
Location: French Quarter, New Orleans, LA
Conveners: Art F. White, U. S. Geological Survey;
Susan L. Brantley, Penn State

TOPICS AND SPEAKERS/AUTHORS

1. FUNDAMENTAL APPROACHES IN DESCRIBING SILICATE DISSOLUTION AND PRECIPITATION-Antonio Lasaga, Yale University 2. MINERAL DISSOLUTION AS A LIGAND-EXCHANGE REACTION-William Casey, University of California, Davis and Christian Ludwig, University of Bern 3. DISSOLUTION KINETICS OF QUARTZ-Patricia Dove, Georgia Institute of Technology 4. DISSOLUTION KINETICS OF FELDSPARS-Alex Blum, U. S. Geological Survey and Lisa Stillings, University of Wyoming 5. DISSOLUTION KINETICS OF ORTHO- AND INOSILICATES-Susan Brantley, Pennsylvania State University 6. DISSOLUTION AND GROWTH KINETICS OF SHEET SILICATES-Kathryn Nagy, Sandia National Laboratories 7. SILICATE WEATHERING IN NATURE: A MICROSCOPIC PERSPECTIVE-Michael Hochella Jr, Virginia Polytechnical Institute and Jillian Banfield, University of Wisconsin 8. INTEGRATION OF LABORATORY AND FIELD KINETIC DATA FOR SILICATES-Harald Sverdrup, Lund University 9. SILICATE WEATHERING RATES IN SOILS-Art White, U. S. Geological Survey 10. SILICATE WEATHERING RATES IN WATERSHEDS-James Drever, University of Wyoming 11. CONNECTING PHYSICAL AND CHEMICAL EROSION-Robert Stallard, U. S. Geological Survey 12. CHEMICAL WEATHERING AND ATMOSPHERIC CO₂ ON A MULTIMILLION YEAR TIME SCALE-Robert Berner, Yale University

The Short Course will be held in conjunction with a symposium and theme sections at GSA which will provide course participants and others additional opportunities to discuss chemical weathering rates from a number of interdisciplinary perspectives.

STRUCTURE, DYNAMICS, AND PROPERTIES OF SILICATE MELTS

Dates: December 9-10, 1995 (before Fall AGU)
Location: San Francisco Area, CA
Conveners: D.B. Dingwell (Bayerisches Geoinstitut)
P.F. McMillan (Arizona State Univ.)
J.F. Stebbins (Stanford University)

Silicate melts are the essential phase of all magmatic processes. As such, melts play a key role in the chemical and physical differentiation of the Earth and terrestrial planets, as well as in more local phenomena of volcanism, plutonism, and heat and mass transfer in the crust and mantle. Equally important to this field has been the impetus provided by the use of silicate liquids and glasses in various industries. The past ten years have witnessed a tremendous growth of the literature on the structure, properties, and dynamics of silicate melts, stimulated by a number of breakthroughs in fundamental understanding. This short course will attempt to bring these new results and approaches to students and other researchers in the earth and the materials sciences. Emphasis will be placed on new findings from high T studies of liquids, on the dynamical processes that distinguish liquids from glasses, and the links between thermodynamic and transport properties.

PRELIMINARY LIST OF TOPICS

1. PHENOMENOLOGY OF STRONG AND FRAGILE LIQUIDS AND THE GLASS TRANSITION - C.A. Angell (Arizona State University) 2. X-RAY SPECTROSCOPIC STUDIES OF SILICATE MELTS - G.E. Brown (Stanford University), G. Calas (Universite de Paris VII) 3. DIFFUSION IN SILICATE LIQUIDS - S. Chakraborty (Universitat Koln) 4. OXIDE GLASSES AND MELTS: TECHNOLOGICAL PERSPECTIVES - J. Dickinson (Corning, Inc.) 5. RHEOLOGY AND RELAXATION IN MELTS - D.B. Dingwell (Bayerisches Geoinstitut) 6. THERMODYNAMIC MIXING PROPERTIES AND STRUCTURE OF SILICATE MELTS - P. Hess (Brown University) 7. VIBRATIONAL STUDIES OF SILICATE LIQUIDS - P.F. McMillan and G.H. Wolf (Arizona State University) 8. STRUCTURAL, ELECTRICAL RELAXATION, AND THE GLASS TRANSITION - C.T. Moynihan (Rennselaer Polytechnic Institute) 9. ENERGETICS OF SILICATE MELTS - A. Navrotsky (Princeton University) 10. COMPUTER SIMULATIONS OF MELTS - P.H. Poole (Dalhousie University), G.H. Wolf, and P.F. McMillan (Arizona State University) 11. CONFIGURATIONAL ENTROPY AND VISCOSITY OF SILICATE MELTS - P. Richet, Y. Bottinga (Institut de Physique du Globe de Paris) 12. DYNAMICS AND STRUCTURE OF SILICATE MELTS: NUCLEAR MAGNETIC RESONANCE STUDIES - J.F. Stebbins (Stanford University) 13. ANELASTICITY OF SILICATE MELTS - S. Webb and D.B. Dingwell (Bayerisches Geoinstitut) 14. PRESSURE EFFECTS ON MELT STRUCTURE AND DYNAMICS - G.H. Wolf and P.F. McMillan (Arizona State University)

The Geochemical Society



40th ANNIVERSARY
1955-1995

Special Prices on the Geochemical Society's Special Publication Series

<u>Vol. No.</u>	<u>Title</u>	<u>Year</u>	<u>Price</u>
1	Magmatic Processes: Physicochemical Principles <i>B.O. Mysen, Editor.</i>	1987	\$25
2	Fluid-Mineral Interactions: A Tribute to H.P. Eugster <i>R.J. Spencer and I-Ming Chou, Editors</i>	1990	\$25
3	Stable Isotope Geochemistry : A Tribute to Samuel Epstein <i>H.P. Taylor Jr., J.R. O'Neil and I.R. Kaplan, editors</i>	1991	\$25
4	Victor Moritz Goldschmidt: Father of Modern Geochemistry <i>H.P. Taylor Jr., J.R. O'Neil and I.R. Kaplan, editors</i>	1992	\$20

Prepayment in U.S. dollars required. Please remit the proper amount by check, money order or credit card. (For credit card purchases, indicate whether VISA or MASTERCARD, card number, expiration date, person named on card and supply your signature.) All payments must be made to the Geochemical Society. Order from: Dr. Donald Elthon, Department of Chemistry, the University of Houston, Houston, TX 77004. Phone: 713-743-8282. Fax: 713-743-8281. e-mail: elthon@uh.edu