

# The Lattice

## MEMBERS NOMINATE OUTSTANDING STUDENTS IN MINERALOGY FOR SOCIETY'S UNDERGRADUATE AWARD

Eighteen MSA members have taken advantage of the Society's American Mineralogist Undergraduate (AMU) Award program to recognize outstanding students who have shown an interest and ability in the discipline of mineralogy. Each student was cited by his or her department for outstanding achievement in mineralogy-related courses.

The AMU Awards allow MSA to join with individual professors to formally recognize outstanding students. Each student is presented a certificate at an awards ceremony at his or her university or college. In addition, each recipient receives a complimentary student membership, including *American Mineralogist*, for 1994.

The next deadline for nominating students is January 1, 1995. Please mark your calendars now so you can be watching for that exceptional student. To nominate a student, send a letter on departmental letterhead giving the student's full name (for the certificate), departmental address, year in school, interest area, MSA sponsor name, and the date and brief description of the award ceremony at which the certificate will be presented. The letter must be signed by the department chair. Send the letter to the MSA Business Office, 1130 Seventeenth Street, NW, Suite 330, Washington DC 20036.

The Society welcomes these exceptional students to the program's honor roll and wishes to thank the sponsors for enabling MSA to recognize these outstanding individuals.

Susan Anderson  
Louisiana State University  
*Sponsored by Barb Dutrow*

Karin R. Baird  
Mount Holyoke College  
*Sponsored by Steven R. Dunn and Andrew Wulff*

Gregory Baxter  
University of California, Davis  
*Sponsored by Howard W. Day*

Tina Marie Beals  
Michigan State University  
*Sponsored by Michael A. Velbel*

Shannon Marie Brennan  
Lafayette College  
*Sponsored by Guy L. Hovis*

Bonnie A. Eiben  
Rutgers University  
*Sponsored by Roger H. Hewins*

Michael F. Foley  
Western Michigan University  
*Sponsored by John D. Grace*

Jo-anne Goodwin-Bell  
Acadia University  
*Sponsored by Sandra M. Barr*

Daniel Kevin Haapala  
University of Oregon  
*Sponsored by Jack M. Rice*

Bruce A. Leskey  
Youngstown State University  
*Sponsored by Raymond E. Beiersdorfer*

Sheri Lyn Mazur  
Clemson University  
*Sponsored by Richard D. Warner*

Heather L. Petcovic  
Smith College  
*Sponsored by John Brady*

Rebecca S. Robinson  
Bryn Mawr College  
*Sponsored by William A. Crawford*

Kara Salizzoni  
University of Pittsburgh  
*Sponsored by Edward G. Lidiak*

Gino Tiella  
University of Massachusetts Lowell  
*Sponsored by G. Nelson Eby*

Robin West  
Laurentian University  
*Sponsored by Andy M. McDonald*

Dana C. Wood  
Keene State College  
*Sponsored by Peter A. Nielsen*

*See pages 10-11 for details about  
MSA Activities at the MSA/GSA  
Meeting in Seattle, and pages  
12-19 for meeting information.*



## From the President

Beginning in 1995 members will have the option not to receive the *American Mineralogist* and pay a correspondingly reduced membership fee (about one-half). Council hopes this added flexibility will be welcomed by those who have "space problems" with incoming journals, and that the new option will be attractive to some of the many non-members out there who are nevertheless active in mineral-related fields. All the usual advantages of membership will be retained (e.g., discounts on journals and *Reviews* volumes, reduced registration fees for GSA and AGU meetings, receipt of *The Lattice*, etc.). 1995 subscription rates will be finalized at the October Council meeting. You might mention this attractive new possibility to colleagues who you've long thought really ought to be members of MSA!

Much has been spoken about the desirability of the MSA expanding its horizons to give greater recognition to current work in some of the less traditional branches of the broad earth materials field (e.g., the Stebbins report, published in the February 1994 *Lattice*). Recognizing that this will probably not happen without action on the part of Council, we have initiated a number of Interest Areas. The idea is that these will be coordinated by 3 or 4 members who, with input from like-minded colleagues, will promote the agenda of their interest area under the umbrella of MSA. For example, they might sponsor colloquia at national meetings, propose short courses, write new volumes in the *Reviews in Mineralogy* series, organize specialist meetings, solicit high quality papers for *American Mineralogist*, engage in reachout efforts directed to the general public, recreational mineralogists, and students, and perhaps publicize career opportunities. MSA cannot afford to allow areas within our perceived domain, either of high current interest or with growth potential, to be promoted elsewhere. So far, two groups have been formed: **Environmental Mineralogy**, led by George Guthrie, Los Alamos, Mac

Ross, USGS Reston, and Robert Nolan, Brooklyn College; and **Planetary Materials**, led by Jim Papike, U. New Mexico, Brad Jolliff, Washington University, and Roger Hewins, Rutgers University. These are the people to contact with your ideas and suggestions. An interest area in **Industrial Mineralogy** is also being formed.

As a result of recommendations from the ad hoc Committee on *American Mineralogist*, some policy changes for the journal were adopted by Council at the May meeting. These changes will: (1) give Editors greater discretion when necessary to increase the size of the journal to accommodate the flow of papers and avoid creating an unacceptably high rejection rate, (2) through the appointment of additional Associate Editors, broaden the scope of the journal in the areas of environmental and health mineralogy, materials science, and mineral physics, (3) give lower priority to papers in mineralogy and petrology that are purely descriptive in nature, (4) recognize that a modest expansion in the size of the journal will take place over the next few years, with corresponding adjustments to library subscription rates, and (5) support the Editors in their efforts to reduce the average length of manuscripts and shorten the average publication time.

Celebration of our 75th Anniversary will continue at the Seattle GSA meeting, October 24-27. The 75th Anniversary Colloquium is scheduled for Wednesday afternoon, October 26. Invited speakers are: Cathy Skinner, Louie Liou, Mike Hochella, Mark Harrison, Brad Hacker, and John Brady. Gary Ernst will perform as Chair. Look for our diamond logo on the program for all the other sessions that MSA is sponsoring this year at GSA. Presidential address, business meeting and luncheon with awards ceremony will as usual be on Tuesday. Then, after the heavy stuff, come relax and join friends at the joint MSA-Geochemical Society Reception the same day (5:30-7:30 p.m.) in the Skyline Room of the Space Needle.

This is accessible from the Westlake Station of the Monorail, 4 blocks from the Convention Center. Because we plan to provide more food than we usually do for this event, we ask you to buy a \$5 ticket (students free); this can be done in advance (see page 18 of this *Lattice*), at the MSA booth, or at the greeter stand at the foot of the Space Needle where you will be given an elevator pass.

Susan Myers, MSA Office Manager, has decided to leave at the end of July and seek more challenging work in the accounting area. This explains the advertisement on page 4 of this issue of *The Lattice*, from which you will realize we are about to try something quite new. On behalf of all members, I would like to express our appreciation to Susan for all the hard work, care, and attention she has devoted to running the affairs of the Society from the Head Office in Washington during the last seven years. We wish her all success in her future career.

Bernard W. Evans



President

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## Members in the News

Richard C. Bradt, Mackay School of Mines of the University of Nevada-Reno recently received the 1994 AIME Mineral Industry Education Award. The citation read "In recognition of outstanding achievements as a teacher, mentor, engineer and researcher in the application of minerals in the refractories and metallurgical industries world-wide."

## MEETING CALENDAR 1994-1996

### 1994

#### September

- 4-9 **International Mineralogical Association (16th General Meeting of the IMA)**, Pisa, Italy. *Details:* Prof. Stefano Merlino, Organizing Committee IMA '94, Dipartimento di Scienze della Terra, Università di Pisa, Via S. Maria, 53, I-56126 Pisa, Italy. Fax: +39 (0)50 40976; E-mail: IMA94@VM.CNUCE.CNR.IT.

#### October

- 24-27 **Annual GSA/MSA Meeting**, Seattle, Washington. See details elsewhere in this newsletter.

#### November-December

- 28-2 **Fall Meeting of the Materials Research Society**, Boston, Massachusetts. *Details:* MRS, 9800 McKnight Road, Pittsburg, PA 15237. Telephone: (412) 367-3003; Fax: (412) 367-4373.

#### December

- 5-9 **AGU Fall Meeting**, San Francisco, CA. *Abstract deadline: September 7, 1994.*

### 1995

#### January

- 4-6 **Winter Meeting of the Mineralogical Society of Great Britain**, University of Sheffield. *Magmatic Processes - Do Answers Lie in the Rocks?* *Details:* Miss P. Mellor, Dept. of Earth Sciences, University of Sheffield, Dainton Bldg. Brookhill, Sheffield S3 7HF, UK. Telephone: (0742) 824940; Fax: (0742) 824207.

#### May

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

- 24-27 **1995 V. M. Goldschmidt Conference**, University Park, Pennsylvania. *Details:* Technical Program Chair - Mike McKibben, Telephone: (909) 787-3444, Fax: (909) 787-4324, e-mail: MCKIBBEN@UCRAC1.UCR.EDU; General Chairs - Hu Barnes and Peter Deines, Telephone: (814) 865-7573; Fax: (814) 863-2001, e-mail: BARNES@GEOSC.PSU.EDU.

#### May-June

- 29-2 **Joint AGU/MSA Spring Meeting**, Baltimore, Maryland.

#### June

- 4-8 **The Clay Minerals Society 32nd Annual Meeting** in Baltimore, MD. *Details:* General Chair - Dr. Delvin S. Fanning, Dept. of Agronomy, U. of Maryland, College Park, MD 20742; Telephone: (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; Telephone: (301) 415-6616; Fax: (301) 415-5399.

- 7-9 **Mineral Exploration '95**, The Third Annual International Geological Forum addressing all aspects of mineral exploration, Cornwall, UK. *Details:* Dr. Phil Newall and Dr. Alan Butcher, *Mineral Exploration '95*, CSM Associates Ltd., Pool, Redruth, Cornwall TR15 3SE, UK; Telephone: +44(0)209 717724; Fax: +44(0)209 710893. *Abstract deadline: late December 1994.*

#### August

- 19-25 **Euroclay '95 - Clays and Clay Materials Science Conference**, Leuven, Belgium. *Details:* Prof. P. Gorbet, Centrum voor Oppervlaktechemie en Katalyse, K.U. Leuven, K. Mercierlaan 92, B-3001 Heverlee, Belgium.

(Meeting Calendar continued on p. 8)



The Lattice is published quarterly (February, May, August, November) by the Mineralogical Society of America. It is distributed to MSA members as a service. Articles and letters from readers are welcome.

The Mineralogical Society of America is composed of individuals interested in mineralogy, crystallography, and petrology. Founded in 1919, the Society promotes, through education and research, the understanding and application of mineralogy by industry, universities, government and the public.

Membership benefits include: American Mineralogist, published bi-monthly; 30% discount on volumes in the Reviews in Mineralogy series; The Lattice; Membership Directory; special subscription rates for Mineralogical Abstracts, Physics and Chemistry of Minerals, Journal of Petrology, and Journal of Metamorphic Geology; reduced registration fees at MSA short courses; member rates for the MSA/Geological Society of America annual meeting and member rates at MSA's spring meeting with the American Geophysical Union; participation in a Society that supports the many facets of mineralogy.

Dues for 1994 are \$60 for professional members; \$30 for students. Membership is on a calendar year basis. Individuals who join after January 1, 1994 will be sent all back issues of the journal for volume 79, 1994.

For additional membership information and an application, and/or to receive a price list of the Society's publications, contact the Business Office.

Institutions may subscribe to the 1994 volume of American Mineralogist for the annual rate of \$250 in the US, \$255 in Canada and Mexico and \$260 in all other countries. The subscription price includes any new volumes of the Reviews in Mineralogy series published during the calendar year of the subscription. Payment must be received in full before a subscription will be started.

1994 President: Bernard W. Evans

University of Washington

Past-President: Alexandra Navrotsky  
Princeton University

Vice President: James J. Papike  
University of New Mexico

Secretary: Stephen J. Guggenheim  
University of Illinois at Chicago

Treasurer: Rosalind Helz

U.S. Geological Survey

Editor of The Lattice: Marta Flohr  
USGS, 959 National Center  
Reston, VA 22092

Mineralogical Society of America  
1130 Seventeenth Street N.W., Suite 330  
Washington, D.C. 20036  
Telephone: (202) 775-4344  
FAX: (202) 775-0018

## Proceedings of the Seventy-fourth Annual Meeting of the Mineralogical Society of America in Boston, Massachusetts

### REPORT OF THE FINANCIAL ADVISORY COMMITTEE FOR 1993

The Mineralogical Society of America's endowment is divided into three funds. The largest of these, the Endowment Fund, is for unrestricted use authorized by the MSA Council, and the other two smaller funds, the Mineralogy/Petrology Fund and the Kraus Crystallography Fund, are restricted for providing financial assistance toward future research in their respective fields. This report summarizes the fiscal year financial history of those funds. It does not include monies, such as recent contributions, not yet transferred to the endowment fund from the General Operating Fund (GOF).

The Society's Endowment Fund is invested in a \$40,000 U.S. Treasury Note, two mutual fund money market accounts and two mutual fund equity accounts, one in the Fidelity Magellan Fund and the other in the Reich and Tang Equity Fund. Two significant actions were taken with respect to the Endowment Fund during 1993. First, a total of \$26,540.50 was transferred to the GOF to pay for the Society activities funded from the Endowment and to offset the small deficit in the operating budget. Second, \$5000 per month was transferred from each of the money market funds into each of the Endowment's equity funds. An additional \$10,000 was also transferred in January 1994 to complete the total transfer of \$150,000 authorized by Council in November 1992. At year end the Endowment Fund was invested 80% in equities, 16% in cash equivalents, and 4% in the U.S. Treasury Note.

No reallocations occurred in the two restricted funds for 1993. The Mineralogy/Petrology Fund and the Kraus Crystallography Fund are each invested in separate Fidelity Equity-Income Fund accounts.

**Table 1. Mineralogical Society of America Endowment**

	1993 Cost	1993 Market	1992 Cost	1992 Market
<b>Fund Type</b>				
Endowment	\$877,542	\$1,122,463	\$817,256	\$1,007,257
Mineralogy/Petrology	81,361	102,783	78,017	85,109
Kraus Crystallography	56,958	70,632	54,056	57,938
<b>Investment Type</b>				
U.S. Treasury Notes	40,000	40,000	40,000	40,000
Mutual Funds-Equities	796,982	1,076,999	590,835	791,809
Cash Equivalents	178,879	178,879	318,494	318,495

Table 1 shows that the Society registered significant gains for 1993 in all areas of its endowment. The market value of the Endowment Fund increased more than 11% to \$1,122,463 while the market values of the Mineralogy/Petrology and Kraus Crystallography Funds increased approximately 21% and 22% to \$102,783 and \$70,632, respectively. The successful actions of the Council to bring the budget into near balance and the growth in the financial markets have resulted in strengthening the already solid financial position of the Society.

Respectively submitted,  
D. HEWITT, Chairman  
W. CARLSON, Chairman of the  
Management Committee  
R.T. HELZ, Treasurer  
C. GUIDOTTI  
D. RUMBLE  
J. STOUT

The following ad will appear in *Eos* in late July and early August.

### Scientific Administrator for MSA

The Mineralogical Society of America (MSA) seeks a Ph.D.-level geoscientist to manage its business office in the Washington D.C. area, and to help provide dynamic leadership in the areas of new society-supported scientific initiatives, membership building, and outreach programs. Qualifications include expertise in one or more aspects of the mineral sciences, strong organizational, managerial, and computer skills, and familiarity with basic accounting procedures. This is a full-time, permanent administrative position which will be filled at an entry-level academic salary. MSA is an international society with approximately 2100 members. The Society independently publishes *American Mineralogist*.

Applicants should send a cover letter, resume, and the names, addresses, fax and phone numbers of three references to: Prof. William Carlson, Dept. of Geological Sciences, University of Texas at Austin, TX 78712. Applicants should ensure that applications and letters of reference arrive by the closing date of September 15, 1994. Interviews of candidates on the short-list will take place at the G.S.A. meeting in Seattle, October 24-27, and employment of the successful candidate will begin soon thereafter.

## MSA Short Courses

### SILICA

#### Physical Behavior, Geochemistry, and Materials Applications

**Date:** October 20-23, 1994  
**Location:** Pack Forest Conference Center, Eatonville, WA  
**Conveners:** Peter J. Heaney, Charles T. Prewitt, and Gerald V. Gibbs

The many phases and related derivatives of silica include some of the most important minerals on Earth and are essential components of many industrial materials. Quartz alone comprises an estimated 12% of the Earth's crust by volume, and it is equally common in sedimentary, igneous and metamorphic environments. Because of its predominance, quartz is one of the most thoroughly investigated petrologic resources; it has served as an indicator of processes ranging from gold mineralization to meteorite impacts.

This short course will review the physics, chemistry, and applications of the silica phases, with particular attention to advances made over the past three decades. Topics include:

- *Silica Polymorphs: An Overview* (P.J. Heaney - Princeton)
- *Thermochemistry of Silica Phases* (A. Navrotsky - Princeton)
- *High Pressure Transformations of Silica* (K. Kingma, C. Prewitt, R. Hemley - Carnegie Inst.)
- *Quartz as a Tectonophysical Indicator* (H.-R. Wenk - Berkeley)
- *Hydrogen Speciation in Quartz* (A. Kronenberg - Texas A&M)
- *Structural Characteristics of Microcrystalline Silica* (H. Graetsch - Bochum)
- *Petrogenesis of Microcrystalline Quartz* (P. Knauth - ASU)
- *Stuffed Derivatives of Silica Polymorphs* (D. Palmer - Cambridge)
- *Coloration in Quartz* (G. Rossman - CIT)
- *Solubility Behavior in the Silica System* (P. Dove - GIT, D. Rimstidt - VPI)
- *Physics of Amorphous Silica* (R. Hemley, C. Meade - Carnegie Inst.)
- *The Elusive Si-O Bond* (G.V. Gibbs - VPI)
- *Energy Calculations of Silica Phases* (R. Cohen - Carnegie Inst.)
- *Lattice Dynamics of Silica* (G. Dolino, M. Vallade - CNRS, Grenoble)
- *Industrial Applications of Silica* (G. Beall - Corning)
- *Sol-Gel Processing of Silica Glass* (K. Keefer - Cincinnati)
- *High-Silica Zeolites* (J. Higgins - Mobil)
- *Health Hazards of Silica Dusts* (D. Goldsmith - Western Consortium for Public Health)

**Location:** The short course will be held at the Pack Forest Conference Center located near the town of Eatonville, WA about 60 miles southeast of SeaTac Airport. Mt. Rainier is

only 22 miles away and there will be time in the schedule for those who want to visit Mt. Rainier National Park. Bus transportation will be provided from SeaTac Airport to Pack Forest on Thursday, October 20, and from Pack Forest to the airport and downtown Seattle hotels on Sunday afternoon, October 23.

**Registration:** See the short course registration form on p. 6 for registration fees. These fees include housing and meals during the short course. Student scholarships will also be available. Contact the MSA Business Office for details.

**Field Trip:** Washington State offers some of the finest quartz collecting localities in North America. If a sufficient number of people express interest, there will be a field trip on Thursday, October 20 to one of several possible quartz deposits (quartz clusters, scepter quartz, Japan-twinned quartz) that will be exposed by blasting shortly before the trip. Costs will run \$85 per person, and these fees will cover transportation, lunch, and tools.

### VOLATILES IN MAGMAS

**Date:** December 2-4, 1994  
**Location:** Napa Valley Sheraton, Napa Valley, CA  
**Conveners:** Mike Carroll and John Holloway

#### TOPICS AND INSTRUCTORS

1. MAGMATIC VOLATILES IN HIGH-TEMPERATURE VOLCANIC GASES - R.B. Symonds and T.M. Gerlach
2. ANALYTICAL METHODS FOR VOLATILES IN GLASSES - P. Ihinger, R. Hervig, P. McMillan
3. EXPERIMENTAL DETERMINATIONS OF H<sub>2</sub>O AND CO<sub>2</sub> SOLUBILITIES AND SPECIATION IN SILICATE MELTS - J. Blank, C.W. Burnham, J.R. Holloway, P. McMillan, E.M. Stolper
4. SOLUBILITIES OF THE LESS ABUNDANT VOLATILE SPECIES: SULFUR, NOBLE GASES, NITROGEN, CHLORINE, FLUORINE - M.R. Carroll and J.D. Webster
5. THERMODYNAMIC MODELS OF VOLATILE SOLUBILITIES - J.R. Holloway, C.W. Burnham, E.M. Stolper
6. DIFFUSION OF DISSOLVED VOLATILES IN MAGMAS - E.B. Watson
7. EFFECTS OF VOLATILES ON PHYSICAL PROPERTIES OF MELTS - R. Lange
8. PRE-ERUPTIVE VOLATILE CONTENTS OF MAGMAS - A.T. Anderson, M. Johnson, M.J. Rutherford
9. PHYSICS AND CHEMISTRY OF MAGMA DEGASSING PROCESSES - K.V. Cashman, M.T. Mangan, R.S.J. Sparks
10. VOLCANIC GAS EMISSIONS, EARTH DEGASSING AND LARGE-SCALE GEOCHEMICAL CYCLING OF VOLATILE ELEMENTS - A. Jambon, W. Rose

**Registration:** See short course registration form on p. 7. For additional information, contact the MSA Business Office.

## Registration Form

### MSA Short Course Silica: Physical Behavior, Geochemistry, and Materials Applications October 20-23, 1994

Return this registration form, completed, to the MSA Business Office, 1130 17th Street, N.W., Suite 330, Washington, D.C. 20036. FAX: (202) 775-0018. Payment must accompany this form. Registration is limited to 100 individuals on a first-come, first-served basis. Please type or print. All cancellations must be made in writing and received by October 1. No refunds will be made on cancellation notices after this date.

Name \_\_\_\_\_  
(first) (middle initial) (last)

Address \_\_\_\_\_

\_\_\_\_\_  
(city) (state) (zip/postal code) (province) (country)

Telephone numbers \_\_\_\_\_  
(office) (fax)

Please circle the appropriate registration category.

Professional:	in double room	<u>Member</u> \$375	<u>Non-Member</u> \$435*
Student:	in double room	\$200	\$230*

\*includes MSA dues for 1995.

\_\_\_\_ I plan to attend the field trip (Thursday, October 20) and my payment includes an additional \$85.

Please check method of payment:

\_\_\_\_ Enclosed is a check or money order in the amount of \$ \_\_\_\_\_.  
\_\_\_\_ Please charge my \_\_\_\_ Visa \_\_\_\_ Mastercard  
\_\_\_\_ Diner's Club \_\_\_\_ American Express card in the amount of \$ \_\_\_\_\_.

(Your credit card will be charged when the registration form is received.)

\_\_\_\_\_  
(card number) (name on card--please print)

\_\_\_\_\_  
(signature) (exp. date)

Please list any special requirements regarding meals.

# Registration Form

## MSA Short Course

### VOLATILES IN MAGMAS

December 3-4, 1994

Return this registration form, completed, to the MSA Business Office, 1130 17th Street, N.W., Suite 330, Washington, D.C. 20036. FAX: (202)775-0018. Payment must accompany this form. Registration is limited to 100 individuals on a first-come, first-served basis. Please type or print. All cancellations must be made in writing and received by November 15. No refunds will be made on cancellation notices after this date.

Name \_\_\_\_\_  
(first) (middle initial) (last)

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (city) (state) (zip/postal code) (province) (country)

Telephone numbers \_\_\_\_\_  
(office) (fax)

Please circle the appropriate registration category.

	<u>Member</u>	<u>Non-Member</u>
Professional	\$225	\$290*
Student	\$100	\$130*

\*includes MSA dues for 1995

Participants are responsible for making their own hotel arrangements. The Inn at Napa Valley is offering single or double rooms for \$99.00 plus tax per night. Please call (707) 253-9540 or 1 (800) 433-4600 to make your reservation.

Please check method of payment:

\_\_\_\_\_ Enclosed is a check or money order in the amount of \$ \_\_\_\_\_  
\_\_\_\_\_ Please charge my \_\_\_\_\_ Visa \_\_\_\_\_ Mastercard \_\_\_\_\_ Diner's Club  
or \_\_\_\_\_ American Express card in the amount of \$ \_\_\_\_\_

(Your credit card will be charged when the registration form is received.)

\_\_\_\_\_ (card number)

\_\_\_\_\_ (name on card--please print)

\_\_\_\_\_ (signature)

\_\_\_\_\_ (exp. date)

Please list any special requirements regarding meals.

## WELCOME!

The following new members and students have joined MSA. Welcome! Applications for membership may be obtained from the MSA Business Office, 1130 Seventeenth Street, N.W., Suite 330, Washington, DC 20036.

**Akers, William**, UCLA, ESS, 595 Circle Drive East, Los Angeles, CA 90024, USA. O:(310)206-8075. F:(310)825-2779. (ST-94)GE IP. Sponsors: David Rothstein and Wayne A. Dollase.

**Brown, Mary Anne**, Geology & Geophysics, Rice University, PO Box 1892, Houston, TX 77251, USA. O:(713)527-4880. F:(713)285-5214. (ST-94)IP MP. Sponsors: John C. Stormer, Jr. and Virginia B. Sisson.

**Colyer, Ronald G.**, 8202 Harvest Bend Lane, Apt. 37, Laurel, MD 20707, USA. O:(301)405-4437. Email:rc113@umd.edu (ST-94)GE SP. Sponsor: MSA.

**Giuli, Gabriele**, University di Camerino, Dip Scienze Terra, 62032 Camerino, ITALY. (ST-94). Sponsor: MSA.

**Giery, Reto**, Geophysical Laboratory, Carnegie Institution, 5251 Broad Branch Road, Washington, DC 20015, USA. O:(202)686-2485. F:(202)686-2419. (ME-94)MI CC. Sponsor: MSA.

**Ernst, Gerald G.J.**, Department of Geology, University of Bristol, Bristol BS8 1RJ, ENGLAND. O:(272)30.30.30 F:(272)253.385 (ST-94)IP SP. Sponsors: George Helffrich and Michael R. Carroll.

**Fischer, Tobias**, Department of Geology, Arizona State University, Tempe, AZ 85287, USA. (ST-94). Sponsor: MSA.

**Olanrewaju, Johnson N.**, 36 Summit Drive, Smithtown, NY 11787, USA. O:(516)265-6204. F:(516)632-8240. (ST-94)GE. Sponsors: Qiang Zeng and John Rakovan.

**Pili, Eric**, Lab. Sci. Terre E.N.S. Lyon, 46 Allée d'Italie, F-69364 Lyon, FRANCE. O:(33)72728407. F:(33)72728000. (ST-94)GE MP. Sponsors: Philippe Gillet and Michel P. Semet.

**Smith, Chad**, Rice University, Department of Geology, Houston, TX 77251, USA. O:(713)527-4880. F:(713)285-5214. (ST-94)MP OT. Sponsors: John C. Stormer, Jr. and Virginia B. Sisson.

**Weigel, D.A.**, 3 Welland Place, Northcote 9, 1309 Auckland, NEW ZEALAND. O:64(09)4181460. (ME-94)GE MI. Sponsor: MSA.

**White, Art F.**, Water Resources Division, MS 420, 345 Middlefield Rd., Menlo Park, CA 94025, USA. O:(415)329-4519. F:(415)329-4538. (M-94). Sponsor: MSA.

## Meeting Calendar (continued from p. 3)

### 1995

#### August-September

**28-1 Tectonics and Metallogeny of Early/Mid Precambrian Orogenic Belts**, Montreal, Canada. *Details:* J.A. Percival, Geological Society of Canada, 601 Booth St., Ottawa, Ontario, Canada, K1A 0E8. Telephone: (613) 995-4723, Fax: (613) 995-9273; e-mail: jpercival@601C.gsc.emr.ca.

**28-2 Third Hutton Symposium: The Origin of Granites**, College Park, Maryland. *Details:* Michael Brown, Dept. of Geology, University of Maryland, College Park, MD 20742. Telephone: (301) 405-4082, Fax: (301) 314-9661.

#### November

**6-9 Annual GSA/MSA Meeting**, New Orleans, Louisiana.

### 1996

#### May

**27-29 Geological Association of Canada-Mineralogical Association of Canada, Joint Annual Meeting**, Winnipeg, Manitoba. *Details:* G.S. Clark, Dept. of Geological Sciences, University of Manitoba, Winnipeg, Manitoba R3T 2N2, Canada; Telephone: (204) 474-8857; Fax: (204) 261-7581.

## IN MEMORIAM

We regret to announce the passing of the following MSA member. The Society extends its condolences to the families and friends of this scientist.

**Jacobs, Louis J.**  
Associated Life Member,  
1942

*Please make a note of the e-mail address for the American Mineralogist editorial office:*

*am.min@um.cc.umich.edu*



## *New from The Clay Minerals Society*

### **Clay-Water Interface and its Rheological Implications**

Volume 4 in the cms workshop lectures series

Edited by N. Güven & R. M. Pollastro

Chapters include "Molecular Aspects of Clay/Water Interactions," N. Güven; "Rheological Aspects of Aqueous Smectite Suspensions," N. Güven; "The Diffuse-Ion Swarm near Smectite Particles Suspended in 1:1 Electrolyte Solutions: Modified Gouy-Chapman Theory and Quasicrystal Formation," G. Sposito; "Interparticle Forces in Clay Suspensions: Flocculation, Viscous Flow, and Swelling," P. F. Low; "Particle Associations in Clay Suspensions and their Rheological Implications," H. van Olphen; and "Characteristics and Mechanisms of Clay Creep and Creep Rupture," J. K. Mitchell. \$15.00 plus \$2.00 postage. ISBN 1-881208-04-4.

### **Computer Applications to X-ray Diffraction Analysis of Clay Minerals**

Volume 5 in the cms workshop lectures series

Edited by R. C. Reynolds, Jr., & J. R. Walker

Chapters include "An Introduction to Computer Modeling of Powder X-ray Diffraction Patterns of Clay Minerals: A Guided Tour of NEWMOD<sup>®</sup>," J. R. Walker; "Inverting the NEWMOD<sup>®</sup> X-ray Diffraction Forward Model for Clay Minerals using Genetic Algorithms," D. R. Pevear and J. F. Schuette; "Three-Dimensional Powder X-ray Diffraction from Disordered Illite-Simulation and Interpretation of the Diffraction Patterns," R. C. Reynolds, Jr.; "Studies of Clays and Clay Minerals Using X-ray Powder Diffraction and the Rietveld Method," D. L. Bish; "Illite Crystallite Thickness by X-ray Diffraction," D. D. Eberl and A. Blum; and "A Computer Technique of Rapid Decomposition of X-ray Diffraction Instrumental Aberrations from Mineral Line Profiles," R. C. Jones and H. U. Malik. \$15.00 plus \$2.00 postage. ISBN 1-881208-06-0.

### **Kaolin Genesis and Utilization**

Special Publication Number 1

Edited by H. H. Murray, W. M. Bundy, & C. C. Harvey

Papers include: "Kaolins, Kaolins, and Kaolins," H. H. Murray and W. D. Keller; "Review of the Structural Relationships of the Kaolin Minerals," S. W. Bailey; "The Diverse Industrial Applications of Kaolin," W. M. Bundy; "Theories of Origin for the Georgia Kaolins: A Review," T. Dombrowski; "Recrystallization of Kaolinite in Gray Kaolins," G. N. White, J. B. Dixon, R. M. Weaver, and A. C. Kunkle; "SEM Investigation of a Lateritic Weathering Profile, Saline County, Arkansas," T. L. Salter and H. H. Murray; "The Mineralogical and Geochemical Controls that Source Rocks Impose on Sedimentary Kaolins," R. J. Pruett and H. H. Murray; "The Genesis of China Clays of South-west England—A Multistage Story," C. M. Bristow; "Mobility of U and Granite-Kaolinization in Southwest England," B. B. M. Dewu and E. M. Durrance; "First Occurrence of Dickite in 'Varicolored Clays' in the Northern Apennines (Oltrepo Pavese), Italy," F. Celle, P. Granata, M. Setti, and F. Veniale; "The Geology, Mineralogy and Exploitation of Halloysite Clays of Northland, New Zealand," C. C. Harvey and H. H. Murray; "Mineralogical and Physical Properties of the Maoming Kaolin from Guangdong Province, South China," J. Yuan and H. H. Murray; "Genetic Significance of Paramagnetic Centers in Kaolinites," J-P. Muller and G. Calas; "The Nature, Detection, Occurrence, and Origin of Kaolinite/Smectite," R. E. Hughes, D. M. Moore, and R. C. Reynolds, Jr.; and "The Hydrothermal Synthesis of Kaolinite up to 350°C," G. Lahodny-Sarc, Z. Dragcevic, and W. D. Keller. Clothbound. \$20.00 plus \$2.00 postage. ISBN 1-881208-05-4.

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Other volumes in the CMS Workshop Lectures Series

**Quantitative Mineral Analysis of Clays**, CMS Workshop Lectures, Volume 1, Pevear & Mumpton, editors, **\$14.00**

**Electron-Optical Methods in Clay Science**, CMS Workshop Lectures, Volume 2, Mackinnon & Mumpton, editors, **\$18.00**

**Thermal Analysis in Clay Science**, CMS Workshop Lectures, Volume 3, Bish, Mumpton, & Stucki, editors, **\$10.00**

Package price: Volumes 1, 2, and 3, CMS Workshop Lectures, **\$21.00.**

Send orders to The Clay Minerals Society, P.O. Box 4416, Boulder, CO 80306, USA. Telephone: 303-444-6405; fax: 303-444-2260. Please use U. S. dollars drawn on a U.S. bank or Visa or MasterCard. If using a credit card, please include name as it appears on the card, telephone number, card number, and expiration date.

## MSA ACTIVITIES AT GSA

Each year MSA and other associated societies of the Geological Society of America (GSA) work together prior to the annual meeting to review and select abstracts and schedule symposia and poster sessions. It is the combined efforts of these individuals that consistently produce a quality meeting. Special thanks are due this year to MSA representative Robert W. Luth, University of Alberta, conferee Raymond Joesten, University of Connecticut and abstractor Lawrence M. Anovitz, University of Arizona.

In addition to handling the review of abstracts and scheduling technical sessions, the MSA representative coordinates with the Business Office to schedule the Society's social activities. This cooperation, in conjunction with GSA staff, keeps Society activities from overlapping technical sessions and attempts to put these activities in conveniently located meeting rooms.

While this scheduling involves many individuals, its purpose is to benefit the members of MSA. To this end, you are encouraged to participate in the MSA sponsored activities and to express your suggestions and needs to the Business Office and GSA.

### MSA Booth, #707-709

*Sunday, October 23*

5:00 p.m. - 8:00 p.m.

*Monday, October 24*

9:00 a.m. - 5:00 p.m.

*Tuesday, October 25*

9:00 a.m. - 5:00 p.m.

*Wednesday, October 26*

9:00 a.m. - 4:00 p.m.

Be sure you visit the MSA booth at the Washington State Convention & Trade Center. Available at the booth will be volumes in the *Reviews in Mineralogy* series, including the newest volume on Silica, Frank Spear's text, *Metamorphic Phase Equilibria and Pressure-Temperature-Time Paths* and Don Bloss' *Crystallography and Crystal Chemistry*. Stop by and talk to other members, meet Society officers, the MSA Business Office staff and the managing editor of *American*

*Mineralogist*.

### Third Meeting of the 1994 Council

*Sunday, October 23*

Sheraton Seattle Hotel & Towers

Room: 418

7:30 a.m. - 5:30 p.m.

The 1994 Council will act on recommendations from the Nominating Committee for Officers, the Nominating Committee for Fellows, the Roebling Medal Committee, the MSA Award Committee, and the Research Grant (Mineralogy/-Petrology) Committee at its final meeting. The report of the Tellers Committee will also be certified. Council actions will be announced at the Business Meeting on Tuesday, October 25. As discussed in previous newsletters, any interested member is welcome to attend this meeting.

### MSA 75th Anniversary Symposium and Other Symposia

Washington State Convention & Trade Center

MSA will be involved in several symposia during the annual meeting. On Monday afternoon, Peter Heaney, Princeton University and Patricia Dove, Georgia Institute of Technology, will convene "Advances in Silica Geochemistry." With the Geochemical Society, MSA is sponsoring a symposium in memory of Andrew J. Gratz entitled, "Frontiers of Mineral Surface Geochemistry." This will be held on Wednesday morning and will be convened by Michael F. Hochella, Jr., Virginia Polytechnic Institute and State University. The MSA 75th Anniversary Symposium, cosponsored by the 1994 GSA Annual Meeting Committee, will be held on Wednesday afternoon. This symposium, convened by W. Gary Ernst, Stanford University, will focus on the current advances and changing trends in mineralogical research.

### Presidential Address

Annual Business Meeting

*Tuesday, October 25*

Washington State Convention & Trade Center

Room: To be announced

10:30 a.m. - Noon

MSA President Bernard W. Evans will give his presidential address, "Thermodynamics and Petrology of Cummingtanite," beginning at 10:30 a.m. The address will be followed by an open business meeting. MSA bylaws require that such a meeting be held annually whereby the membership is provided reports by the officers to familiarize themselves with Society activities. All members are encouraged to attend.

### Annual Awards Luncheon

*Tuesday, October 25*

Sheraton Seattle Hotel & Towers

Room: Grand Ballroom A

12:15 p.m. - 2:00 p.m.

William A. Basset, recipient of the 1994 Roebling Medal, Ronald E. Cohen, recipient of the MSA Award for 1994, and Konrad B. Krauskopf, recipient of the Distinguished Public Service Medal for 1994 will be honored at this annual luncheon. Following these presentations, 1994 President Bernard W. Evans will pass the gavel to the 1995 President and a new Council will take office. The Annual Luncheon provides members with an opportunity to meet colleagues and to recognize outstanding contributors to the science.

### MSA Reception

*Tuesday, October 25*

The Space Needle

Skyline Level

5:30 - 7:30 p.m.

All MSA members and scientists interested in mineralogy, petrology, and crystallography are invited to attend and enjoy this time to socialize with colleagues while enjoying the view from ten stories above the Seattle Center grounds. In celebration of the

75th Anniversary, this year the reception is being expanded to include a sampling of hors d'oeuvres as well as beer, wine and soft drinks. To help cover the costs of the reception and to allow us an approximate idea of how many members plan to attend, please purchase a ticket from the MSA Business Office (see order form on page 18). **The reception will be free for student members!** Tickets will also be available at the MSA booth and at the foot of the Space Needle on the evening of the reception. As in previous years the reception will be held jointly with the Geochemical Society.

#### **First Meeting of the 1995 Council**

*Tuesday, October 25*

Sheraton Seattle Hotel & Towers

Room: Douglas

7:45 - 11:00 p.m.

Members of the 1995 Council will hold a dinner meeting to set goals and priorities for the coming year. This is the first opportunity for new Council members to participate in the ongoing activities of Council.

#### **MSA Theme Sessions at the GSA/MSA Meeting**

MSA will sponsor or cosponsor several theme sessions at the Seattle meeting. David Frank and Roseanne M. Lorenzana, U.S. Environmental Protection Agency, Seattle, Washington, are organizing a session on *Speciation, Mobility, and Bioavailability of Metals in Mining Wastes*. *Advances in the Geology and Metallogeny of Gold Deposits*, organized by Michael Rasmussen, Echo Bay Exploration, Inc., Spokane, Washington, is cosponsored with the Society of Economic Geologists. *Boron: Mineralogy, Petrology, and Geochemistry in Earth's Crust* will be the topic of a session convened by Edward S. Grew, University of Maine and Lawrence M. Anovitz, University of Arizona. *Advances in Silica Geochemistry*, organized by Peter J. Heaney, Princeton University and Patricia Dove, Georgia Institute of Technology, will compliment the MSA Short Course and symposium on Silica. *Phase Transformations: Mechanisms and Kinetics of Mineral Reactions*, organized by Bradley Hacker, Stanford University and Steven R. Bohlen, U.S. Geological Survey, Menlo Park, and *Magmatic Evolution of Circum-Pacific Arc Systems*, organized by Robert J. Stern, Center for Lithospheric Studies, University of Texas at Dallas, round out the MSA theme sessions.

#### **GSA/MSA Meeting Information**

The 1994 Annual GSA/MSA Meeting will be held October 24-27 in Seattle, Washington. Registration, housing, and transportation information, the meeting registration form, the housing request form, and the abstracts volume order form are included in this newsletter. Additional information about the meeting, including description of symposia, theme sessions, field trips, and short courses may be obtained from the GSA Meetings Department: (303) 447-2020 or 1-800-472-1988; fax - (303)-447-0648; e-mail: mball@geosociety.com.

#### **The Alexander von Humboldt Foundation Offers Opportunities for International Research Collaboration**

The Alexander von Humboldt Foundation of Bonn, Germany, a privately chartered foundation funded by the German Federal Government, promotes International scholarly cooperation through research and supporting activities. The Foundation North American Office in Washington, D.C., provides information on collaborative research opportunities to American scholars. Since 1953 the Foundation has enabled more than 3000 highly qualified individuals from the United States to participate in collaborative projects conducted in Germany.

The **Research Fellowship Program** provides support to qualified post-doctoral researchers under 40 years of age for the conduct of research in any academic discipline in Germany for a period of up to 24 months. Each year approximately 80 American researchers are among those selected in world-wide competition. The **Humboldt Research Award for Senior American Scientists** honors some 75 Americans each year on the basis of internationally recognized scientific achievement. Further collaboration between American and German scholars is made possible through the **Feodor Lynen Fellowship Program**. This program enables young post-doctoral researchers to spend up to three years in the United States with former Humboldt Fellows and Awardees acting as hosts and mentors.

The **Bundeskanzler Scholarship Program** provides the opportunity for a limited number of outstanding young Americans to spend a year in Germany on a research project of their own design.

From 1953 to 1990, nearly 14,000 scholars from 100 nations have been sponsored by the Humboldt Foundation. The Foundation maintains contact with these scholars through its **Follow-Up Program**. This program includes, among others, support for subsequent short research stays in Germany, the donation of scholarly literature and scientific equipment (the latter applies only in exceptional cases to U.S. scholars), and grants to cover printing costs and expenses of attending academic conferences in Germany and elsewhere abroad.

Qualified individuals are encouraged to apply for these programs. For more information, please contact Dr. Bernard Stein, the Alexander von Humboldt Foundation, Suite 903, 1350 Connecticut Ave., N.W., Washington, D.C. 20036; Tel.: (202) 296-2990; Fax: (202) 833-8514.

Recently **MSA President Dr. Bernard W. Evans**, University of Washington, was selected as an American Research Host for Dr. Uwe Herrmann under the Feodor-Lynen program of the Alexander von Humboldt Foundation. Dr. Dale Guthrie, University of Alaska, and Dr. Hartmut Spetzler, University of Colorado, each received the Humboldt Award for Senior American Scientists in the field of geology.

**MAIL TO: GSA ANNUAL MEETING  
P.O. BOX 9140  
BOULDER, CO 80301-9140**

## GSA/MSA MEETING INFORMATION - OCTOBER 24-27, 1994

### REGISTRATION

***New For Registrants - Badges and tickets will be mailed to you on October 7.***

**Preregistration Deadline:  
Must be received no later than September 16, 1994**

All registration forms received at GSA by September 16 will be processed by a new registration system. If you preregister, you will not have to wait in long registration lines to pick up materials in Seattle because badges will be mailed to you around October 7. We hope this will make the registration process more convenient for you. Save yourself time and money - preregister today!

1. There is a \$15-\$30 savings in fees if you register before the preregistration deadline! Advance registration is suggested for many of the special activities because of participation limits. Use the preregistration form provided in this announcement.
2. Badges must be worn for access to ALL activities, 10:00 a.m. Sunday through 5:00 p.m. Thursday.
3. Registration discounts are given to both GSA and Associated Society members. Associated Societies that qualify for this discount are indicated on the registration form. Please indicate your affiliation(s) and register using the member rates. Nonmembers who become GSA members by October 1, 1994, can register at the member rate.
4. Full payment MUST accompany registration. Unpaid purchase orders are NOT accepted as valid registration. Charge cards are accepted as indicated on the preregistration form. If using a charge card, please recheck the card number given. Errors will delay your registration. The confirmation card will be your receipt for charge-card payments. No other receipt will be sent.
5. Register one professional or student per form. Copy the form for your records.
6. Guest registration is required for those attending guest activities, technical sessions, or the exhibit hall. Guest registrants MUST be accompanied by either a professional or student registrant. A guest is defined as a nongeologist spouse or friend of a professional or student registrant.
7. Students must show a CURRENT student ID in order to obtain student rates. Students not having a current student ID when registering on-site will be required to pay the professional fee.
8. Because of GSA's new registration process, it is imperative that ALL preregistrations be RECEIVED by the preregistration deadline of September 16. All registrations received after September 16 will be held for on-site processing and charged at the on-site rates.

### Cancellations, Changes, and Refunds

All requests for registration additions, changes, and cancellations must be made in writing and received by September 23, 1994. GSA will refund or credit preregistration fees for cancellations received in writing by September 23. **NO REFUNDS WILL BE MADE ON CANCELLATION NOTICES RECEIVED AFTER THIS DATE.** Refunds will be mailed from GSA after the meeting. Refunds for fees paid by credit card will be credited according to the card number on the preregistration form. There will be NO refunds for on-site registration and ticket sales.

### On-Site Registration Schedule

Saturday, October 22	12:00 noon to 4:00 p.m.
Sunday, October 23	9:00 a.m. to 7:30 p.m.
Monday, October 24	7:00 a.m. to 4:30 p.m.
Tuesday, October 25	7:00 a.m. to 4:30 p.m.
Wednesday, October 26	7:00 a.m. to 4:30 p.m.
Thursday, October 27	7:00 a.m. to 11:00 a.m.

Registration Fees:	Advance (by Sept. 16)	On-Site
Professional Member	\$180	\$210
Professional Member One Day	\$105	\$105
Professional Nonmember	\$220	\$250
Professional Nonmember One Day	\$125	\$125
Student Member	\$65	\$80
Student Member One Day	\$40	\$40
Student Nonmember	\$85	\$100
Student Nonmember One Day	\$50	\$50
Guest or Spouse	\$75	\$90
Field Trip or Continuing Ed. Course Only	\$25	\$25
K-12 Teachers	\$25	\$35

### Join GSA Now and Save!

If you're planning to attend this year's Annual Meeting but are not yet a GSA member, now is the time to join. When you do, you'll save \$40 on your meeting registration by paying the member rate - almost the same amount you pay to join GSA. That's like joining GSA for free. Likewise, students who pay the basic membership dues of \$20 to become a Student Associate will receive a \$20 discount on their Annual Meeting registration. Again, like joining GSA for free! These discounts apply only to full-meeting paid registrants; not to one-day or complimentary registrations.

The \$40 registration discount for members mentioned above applies to professional members of GSA or an Associated Society. The Associated Societies that qualify are listed on the registration form. Save time by joining before the meeting. Membership applications are available from GSA headquarters. During the meeting, they can be picked up at the Membership Booth in the registration area of the Washington State Convention and Trade Center.

### TRAVEL

#### Getting To Seattle

**By Air.** Seattle-Tacoma (SeaTac) International Airport is located 18 miles from the Washington State Convention and Trade Center. It is served by most major airlines. GSA's official travel agent, Cain Travel Group, has negotiated discounted rates with the major Seattle carriers. Cain can also assist you with the special discounts and coupon offerings in your area. Call today for the best availability.

To make a reservation, call Cain Travel (1-800-346-4747 toll free; (303) 443-2246 collect from outside the U.S.; fax (303) 443-4485; 8:30 a.m. - 5:30 p.m. MT, Mon.-Fri.) and identify yourself as a GSA traveler. Tickets can be paid for by check (payable to Cain Travel), or by major credit card, or invoiced to your company. Final payment must reach Cain Travel no later than 10 days prior to departure to allow for mailing time. All tickets will be mailed via certified mail upon receipt of payment unless requested otherwise. After tickets are issued, you are protected from fare increases; if a fare decreases, call Cain Travel for adjustment.

As with all airline reservations, please use caution regarding change and cancellation penalties that accompany low-fare tickets. This especially applies to field trip participants whose trips may be canceled after the September 16 preregistration deadline. Be sure you understand the restrictions on the type of ticket you purchase.

Cain Travel will have an on-site Customer Service Desk at the Washington State Convention and Trade Center during the meeting.

Make your Seattle reservations through Cain Travel Group and become eligible to win one round-trip ticket on United Airlines anywhere within the contiguous United States. The drawing will be held November 15, 1994. Cain Travel Group, GSA's official travel agent, guarantees the lowest possible fares for the Seattle Annual Meeting.

*(Travel information continued on next page)*

## Travel information (continued)

**By Car.** Interstate 5 is Seattle's north-south link with Pacific coast cities from Canada to Mexico. Interstate 90 runs east from Seattle to midwestern and eastern United States cities. There is ample, relatively inexpensive parking at the Convention Center.

**By Bus, Train.** Greyhound Bus Lines connect Seattle with major cities in the United States and Canada and south to Tijuana, Mexico. For Greyhound Bus information, call 1-800-231-2222. The METRO (Municipality of Metropolitan Seattle) is a county-wide bus system with a ride-free zone in Seattle's downtown district. AMTRAK serves Seattle, providing passenger service from major United States locations. For AMTRAK information, call 1-800-872-7245.

## Student Travel Grants

The GSA Foundation has awarded matching grants up to a total of \$3500 each to the six GSA sections. The money, when combined with equal funds from the Sections, is used to assist GSA Student Associates traveling to Section Meetings and to the Annual Meeting in Seattle. For applications, contact your Section Secretary:

Cordilleran	Bruce Blackerby, (209) 278-2955
Rocky Mountain	Ken Kolm, (303) 273-3932
North-Central	George Hallberg, (319) 335-4500
South-Central	Rena Bonem, (817) 755-2361
Northeastern	Ken Weaver, (410) 554-5532
Southeastern	Mike Neilson, (205) 934-5102

## Getting To Your Hotel

Seattle-Tacoma (SeaTac) International Airport is located approximately 18 miles or 30 minutes from the Washington State Convention and Trade Center. Your options for getting to and from downtown include:

**Gray Line Airport Express.** This bus service is the most economical and convenient for getting to and from downtown. Gray Line operates from 5:00 a.m. to 12:00 midnight daily. Fares are \$12 round trip or \$7 one way. Tickets can be purchased at the Gray Line booths located at the north and south ends of the baggage claim area in the main terminal, or from the driver. Buses depart from outside the baggage claim level every 30 minutes. Look for their buses and minivans outside the baggage claim level. Gray Line picks up from all major downtown hotels. Your hotel bell captain has information about pick-up and departure times. No reservation is necessary. For information call (206) 626-6088.

**Taxicabs.** Several taxicab companies serve the city of Seattle. Taxicab service to and from the airport and within the city is easy to obtain and a convenient way to travel. Taxicab stands are located throughout the city, or you can hail a cab on the major streets. Taxicabs cost a minimum of \$1.50 and \$0.20 for each 1/7 mile thereafter, plus all toll fees and an additional \$1 for cabs originating at SeaTac Airport. Approximate cost from the airport to downtown is \$30.

**Car Rental.** Alamo is the official car rental agency for the meeting. Identify yourself as a GSA delegate by giving Group ID number 85204 and Plan Code GR to get guaranteed, discounted, daily/weekly rates as follows: economy \$20/\$99; compact \$23/\$109; midsize \$26/\$139; full-size \$34/\$159; luxury \$39/\$199. An additional convention discount may be available by having your Alamo agent check Rate Code 7G. Rates include unlimited mileage. An Alamo rental counter is located on the baggage claim level at SeaTac International Airport. Look for the blue and yellow Alamo vans. Advance reservations are recommended. Call Alamo at 1-800-732-3232.

## Getting Around in Seattle

Although hilly, Seattle is an excellent walking city with a compact downtown and convention area. Take advantage of the reliable county bus system, which offers a free ride zone in the central business district.

GSA will be providing an evening shuttle service to cover activities after 5:00 p.m. It is easy to get around downtown on foot, but you should plan for a vigorous walk from downtown hotels to the Washington State Convention and Trade Center. Refer to the hotel descriptions and the map for exact distances. If you have special needs to accommodate a disability, please contact Becky Martin, GSA headquarters.

## ABSTRACTS WITH PROGRAMS

### Advance-Copy Purchase 1994, Volume 26, Number 7 PRICE \$22 NET EACH

If you reside in the United States, Canada, or Mexico you may take advantage of the advance-copy purchase option of the Annual Meeting Abstracts with Programs. Due to the prohibitive airmail costs and delays for overseas mailings, we regret that we cannot make this offer to everyone. Copies will be mailed about three weeks prior to the meeting. Price includes shipment by first-class mail. No additional discounts may be applied to this offer.

The volume will also be for sale at the meeting. Note: Your registration does not include a copy of the Abstracts volume. Please check to make sure that you have not already purchased a copy on your membership dues statement or through GSA Publication Sales. No refunds will be given for duplicate orders.

### TO PLACE YOUR ORDER

Prepayment is required. Check, money order (in U.S. funds, payable on U.S. banks), or major credit cards are accepted. Order directly from GSA Publication Sales by mail, phone, or fax. To assure receipt prior to the meeting, all orders must be received by Friday, September 9.

*By mail or fax, use the form provided. By phone, call toll-free 1-800-472-1988, or use our business phone (303) 447-2020 during office hours (8:00 a.m. to 4:30 p.m. MT).*

### ON-SITE PURCHASE

Copies of Abstracts with Programs will be for sale in the registration area of the Washington State Convention and Trade Center. Price: \$22 net each. No additional discounts will apply.

### ADVANCE-COPY PURCHASE ORDER FORM

#### 1994 Abstracts with Programs

#### Volume 26, Number 7

Return this form by Friday, September 9. This purchase option is only for those residing in the U.S., Canada, and Mexico. No refunds given for duplicate orders. Copy this form for your records.

SHIP TO: ☐ Check here if GSA Member

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Address

City  State  ZIP

Daytime Phone

Quantity  at \$22 net each (no additional discounts)

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Name of cardholder (print)

Signature of cardholder

Send to: GSA Publication Sales, P.O. Box 9140, Boulder, CO 80301  
1-800-472-1988; (303) 447-2020; fax 303-447-1133

*Orders must be received by September 9*

## LODGING

Downtown Seattle offers a wonderful convention setting, and most of the GSA hotels are within walking distance of the Washington State Convention and Trade Center. GSA has booked rooms at 13 properties - six within four blocks of the Convention Center and all, except The Edgewater, within one mile of the Convention Center. The properties include a cross section of lodging that should suit a variety of tastes and budgets.

Activities will take place at the Washington State Convention and Trade Center, as well as GSA's headquarters hotel, the Sheraton Seattle Hotel & Towers, and the Stouffer Madison Hotel. The Sheraton is a first-class property within a five-minute walk of the Convention Center. No other hotel in GSA's block matches the Sheraton for accommodations and service.

It is highly recommended that GSA attendees get their reservations in as early as possible. All hotel reservations must be processed by the Seattle Housing Bureau to get the special discounted GSA rates.

### To Make Your Hotel Reservation

Fill out the Official Housing Request Form and mail or fax it to the Seattle Housing Bureau at the address shown on the form. Reservations will not be accepted by phone. All reservations must be RECEIVED BY FRIDAY, SEPTEMBER 23. From the September 23 deadline until September 30, the Housing Bureau will continue to accept reservations by mail or fax, but rooms will be on a space-available basis only. Most properties will be full at this time; therefore, it is important that you make your reservation early. The Housing Bureau will continue to process reservations until September 30.

AFTER Friday, September 30, you should contact the GSA hotel of your choice directly, or you may contact the Housing Coordinator at GSA headquarters for information on hotel availability. Note that most hotels will be filled by September 23, and hotels will only be able to offer the special GSA rate on an as-available basis. Under no circumstance should they be offering a room at a higher rate.

If you are interested in a suite, please call the hotel of your choice directly for information. When you have selected the suite you would like by type and rate, complete the Housing Form and mail it to the Housing Bureau with the suite type and rate written in. Please disregard this procedure for the Plaza Park Suites, since all of their rooms are suites and do not vary. Just complete the Housing Form normally and send it to the Housing Bureau. Suites are also handled on a space-available basis. If a hotel block is full, suites will not be available through the Housing Bureau.

### Assignment

Hotel rooms will be assigned on a first-come, first-served basis as requests are received by the Housing Bureau. Please list your first four hotel choices in order of your preference. If the hotels you have chosen are sold out, the Housing Bureau will review your selection preference on the Housing Form. Be sure to mark either (1) proximity to convention center or (2) comparable room rate. You will receive an acknowledgment from the Housing Bureau with your hotel assignment. Check all information carefully for accuracy, including arrival date, departure date, and guarantee information. If you do not receive an acknowledgment within three weeks, contact the Housing Bureau by fax or mail to check the status of your reservation.

Within two weeks from the time you receive the Housing Bureau acknowledgment, you should receive a confirmation from your hotel. This is notice that the hotel has received your reservation from the Housing Bureau and that the reservation has been entered into their system. Please check the confirmation carefully.

### Room Deposits and Guarantees

Reservations must be guaranteed. A first night's room deposit will guarantee your reservation, assuring you that no matter what time you arrive on your scheduled arrival day, your room will be held until 6:00 a.m. the following morning.

Deposits can be made by (1) providing credit card information on the Housing Form, or (2) sending payment directly to the hotel once you have received your confirmation. The deposit amount should be the cost of one night's stay plus tax at your assigned hotel. Note that the Housing Bureau will accept ONLY credit cards, not checks or cash. When making payment directly to the hotel, be sure to give your confirmed reservation number.

## Changes and Cancellations

Changes and cancellations BEFORE Friday, September 30, should be communicated to the Housing Bureau by fax, 206-461-5853, or mail. Please supply your hotel reservation confirmation number. For all last-minute inquiries, cancellations, changes or problems, contact your assigned hotel, or call the Housing Coordinator at GSA headquarters.

AFTER September 30, you should contact the hotel directly with any changes. Please note that a cancellation notice must be received by the hotel AT LEAST 48 hours in advance to receive a refund on your first night's room deposit. The hotel has the right to bill you for one night's housing if you fail to properly cancel a guaranteed reservation. Please show courtesy as a professional by notifying the hotel if your plans change.

### Special Needs

Barrier-free hotel rooms will be made available to GSA registrants. Those with special needs should specify this on the Housing Form. After inspecting all GSA properties, we recommend that disabled registrants consider staying at the Sheraton, Seattle West Coast Plaza Park Suites, or the Seattle Hilton. These properties are reasonably close to the Washington State Convention and Trade Center. If you have questions, please contact Becky Martin, GSA headquarters.

### Student Housing

Just outside of the downtown area, reasonably priced rooms have been reserved at four properties. Walking to Washington State Convention and Trade Center will take approximately 20-25 minutes. For evenings, the GSA Shuttle will stop near all of these properties except for the YMCA. Make your reservation for all of these properties, except the YMCA, with the Seattle Housing Bureau on the Housing Request Form. To make reservations at the YMCA, call direct.

**Quality Inn City Center** \$49 (1-4 people) 35 rooms blocked  
2224 Eighth Avenue  
Seattle, WA 98121  
(206) 624-6820

Complimentary continental breakfast, free covered parking, free local calls.

**Days Inn Town Center** \$58 (1-4 people) 30 rooms blocked  
2205 Seventh Avenue  
Seattle, WA 98121  
(206) 448-3434

Free parking, Greenhouse Cafe and Lounge in the hotel for meals.

**Ramada Inn Downtown Seattle** \$72 (1-4 people) 50 rooms blocked  
2200 Fifth Avenue  
Seattle, WA 98121  
(206) 441-9785

Parking \$9.50 for 24 hours with in and out privileges, coffee makers in all rooms, Ramada's Slipknot Cafe serves breakfast, lunch, and dinner.

**Travelodge, Downtown** \$49 (1-4 people) 30 rooms blocked  
2213 Eighth Avenue  
Seattle, WA 98121  
(206) 624-6300

Free parking, free local calls, coffee makers in all rooms, 24-hour restaurant next door.

**Seattle Downtown YMCA** Single \$34-\$36, Double \$38-\$41  
909 Fourth Avenue Triple \$43-\$45, Quad Not Available  
Seattle, WA 98104 (rates above include tax)  
(206) 382-5000

Common bathroom facilities, full use of athletic facilities.

### Alternative Lodging

Beating the high cost of lodging is a priority for GSA staff and the 1994 Annual Meeting Committee.

Check your library copy of the Hotel and Motel Redbook, which lists metro properties. Because of the hundreds of properties in the area, GSA cannot provide a complete list.

Call 1-800-555-1212 or check the Yellow Pages to learn the 800 number for your favorite hotel chains, such as Super 8 Motel or Comfort Inn, which have properties outside the downtown area. You will need to provide your own transportation.

After September 30, the Seattle Housing Bureau offers a Seattle Hotel Hotline, 1-800-535-7071, 8:30 a.m. to 5:00 p.m. Pacific Standard Time, Monday through Friday. They will do their best to help you find a hotel.

## A decorative element consisting of fifteen small, dark grey diamonds arranged horizontally across the page.



## Housing Deadline: September 23

***Do NOT send checks or cash with this form.***

## GSA Convention Rates

	Single	Double	Triple	Quad
Sheraton Seattle Hotel & Towers	\$128	\$142	\$162	\$182
Stouffer Madison	\$122	\$132	n/a	n/a
Pacific Plaza	\$69	\$69	n/a	n/a
Holiday Inn Crowne Plaza	\$112	\$112	\$112	\$112
Seattle Hilton	\$103	\$113	\$123	\$133
Plaza Park Suites	\$112	\$122	\$132	\$142
The Roosevelt	\$99	\$99	\$99	\$99
WestCoast Camlin	\$66	\$76	\$86	\$96
Mayflower Park	\$94	\$94	n/a	n/a
WestCoast Vance	\$68	\$68	\$78	\$88
Sixth Avenue Inn	\$68	\$68	\$80	\$92
The Warwick	\$89	\$89	\$104	\$119
Edgewater - city view/water view	\$108/123	\$108/123	\$108/123	\$108/123

	Single	Double	Triple	Quad
<b>Student Housing</b>				
Quality Inn City Center	\$49	\$49	\$49	\$49
Days Inn Town Center	\$58	\$58	\$58	\$58
Ramada Inn	\$72	\$72	\$72	\$72
Travelodge, Downtown	\$49	\$49	\$49	\$49
Seattle Downtown YMCA	\$34-\$36	\$38-\$41	\$43-\$45	n/a

## GSA Hotels

Please make your reservation with the Seattle Housing Bureau.

Note: All rooms are subject to a 15.2% hotel and sales tax.

Note: Numbers of hotels listed below are keyed to numbers on the street map (p. 19)

### 1 Sheraton Seattle Hotel & Towers (Headquarters)

1400 Sixth Avenue, Seattle, WA 98101; (206) 621-9000

1/2 block from the Convention Center

Single \$128, Double \$142 (550-room block)

Within minutes of the Convention Center, the Sheraton could not be more convenient. The building's triangular shape gives each room a sweeping view of the city, Puget Sound, or the mountains. The hotel boasts the largest permanent collection of original contemporary Northwest artwork in the Pacific Northwest, with more than 2000 beautifully placed pieces throughout the hotel. You can also expect excellent Sheraton service, convenience, and comfort. For a casual breakfast, lunch, or dinner, try Banner's restaurant. Or enjoy the fine Northwest cuisine and fresh seafood in award-winning Fuller's. Andiamo Presto is another option, with dine-in or take-out Italian deli selections. The hotel offers two additional lounges. Complete with a view, the health club on the 35th floor includes a pool, sauna, whirlpool, exercise equipment including a treadmill, stair climber, rowing machine, and bikes. Self and valet parking are available for \$13 and \$15 respectively. For an added touch, a Sheraton Tower Room (on floors 32 to 34) is available for \$165 single and \$185 double. The Tower Club offers separate check-in, a private lounge, concierge, free continental breakfast daily, and other special services. Check-in time is 3:00 p.m. Check-out time is 12:00 noon.

### 2 Stouffer Madison Hotel

515 Madison Street, Seattle, WA 98109; (206) 583-0300

6 blocks from the Convention Center

Single \$122, Double \$132 (325-room block)

This AAA four-diamond deluxe high-rise hotel is Seattle's newest luxury hotel, offering beautiful views of Elliott Bay. As with all Stouffer hotels, enjoy complimentary coffee and a newspaper with your wake-up call. Dine on northern Italian cuisine at Prego, or for more casual fare, try Maxwell's Cafe, open for breakfast, lunch, and dinner. In the evening, visit the Lobby Court Lounge. Maintain a healthy life style in the hotel's health club, which includes a pool, jacuzzi, and exercise equipment. Within walking distance to Pike Place Market. Covered self parking is \$12. Check-in time is 3:00 p.m. Check-out time is 1:00 p.m.

### 3 Pacific Plaza

400 Spring Street, Seattle, WA 98104; (206) 623-3900

3 blocks from the Convention Center

Single \$69, Double \$69 (100-room block)

A classic value in downtown Seattle, with a great location and reasonable price. Built in 1928, the hotel has a European flavor with updated decor and furnishings. They offer a complimentary continental breakfast daily. Off the hotel lobby is a casual restaurant serving lunch, dinner, and cocktails. The Pacific Plaza considers itself one of Seattle's "best little secrets." Self parking is \$9 per day with in and out privileges. Check-in time is 4:00 p.m. Check-out time is 11:00 a.m.

### 4 Holiday Inn Crowne Plaza

1113 Sixth Avenue, Seattle, WA 98101; (206) 424-1980

3 blocks from the Convention Center

Single \$112, Double \$112 (150-room block)

With only 15 rooms per floor, you are assured of maximum privacy in this modern 34-story hotel. All rooms have panoramic views and in-room movies. Other services include a health club with jacuzzi, sauna, and exercise equipment; the forget-something program; room service 6:00 a.m. to 12:00 midnight; and lobby concierge. The hotel restaurant, Seneca Square Cafe, offers American cuisine for breakfast, lunch, and dinner. There is also the Parkside Lounge for relaxing. Valet parking is available for \$13 per day. Check-in time is 4:00 p.m. Check-out time is 12:00 noon.

### 5 Seattle Hilton

Sixth and University, Seattle, WA 98101; (206) 624-0500

2 blocks from the Convention Center

Single \$103, Double \$113 (150-room block)

Nine stories above the street, the Hilton lobby is the welcome beginning to 29 floors of spectacular views. The decor throughout is modern and oriental. Macaulay's Restaurant offers friendly casual service for breakfast and lunch beginning at 6:00 a.m. daily. For dinner you will want to visit The Top of the Hilton, the hotel's rooftop lounge and dining room featuring Northwest cuisine. The hotel has easy access to shopping in Rainier Square via an underground concourse. This concourse also will take you to the Convention Center. There is ample self parking at \$9.50 per day. Check-in time is 3:00 p.m. Check-out time is 12:00 noon.

### 6 Plaza Park Suites

1011 Pike Street, Seattle, WA 98101; (206) 682-8282

1 block from the Convention Center

Single \$112, Double \$122 (75-room block)

Downtown Seattle's only all-suite hotel features fully-equipped kitchens and a spacious living and dining area. Each suite is serviced daily by housekeeping. You will feel at home enjoying the complimentary full continental breakfast served in their comfortable hospitality lounge, with a library and big-screen television. After a long day, stop by the exercise room with stair climber, Lifecycle, and Universal gym, or visit the heated outdoor pool and jacuzzi. This new hotel also offers free in-town shuttle service, laundry, and grocery shopping service. Secured valet parking for \$9 per day. Check-in time is 2:00 p.m. Check-out time is 12:00 noon.

### 7 The Roosevelt

1531 Seventh Avenue, Seattle, WA 98101; (206) 621-1200

2 blocks from the Convention Center

Single \$99, Double \$99 (100-room block)

While the building's facade and main interior reflect the hotel's grand past, the newly renovated guest rooms have all the modern conveniences. After a full day, stop by the fitness center, complete with a Universal gym. Be sure to visit the lobby to listen to jazz piano played nightly. Sample the Northwest cuisine in Von's Grand City Cafe, a local favorite, with friendly service and reasonable prices. Secured valet parking is available for \$9.75 per day. Check-in time is 2:00 p.m. Check-out time is 12:00 noon.

**8 WestCoast Camlin Hotel**

1619 Ninth Avenue, Seattle, WA 98101; (206) 682-0100

2 blocks from the Convention Center

Single \$66, Double \$76 (100-room block)

An older European-style hotel offering tastefully renovated rooms, many larger than average. Dining is available at Seattle's first roof-top restaurant, The Cloud Room. Located on the eleventh floor, The Cloud Room features Northwest cuisine, while providing a spectacular view of downtown. Enjoy live music at the piano bar in the lounge. Self parking is \$9 per day. Check-in time is 2:00 p.m. Check-out time is 12:00 noon.

**9 Mayflower Park Hotel**

405 Olive Way, Seattle, WA 98101; (206) 623-8700

5 blocks from the Convention Center

Single \$94, Double \$94 (125-room block)

Built in 1927, the hotel sparkles with crystal chandeliers and gleaming brass. High ceilings, tall windows, and fresh flowers contribute to the feeling of Old World charm and the ambiance of a small European-style hotel. Fine dining is available in the award-winning restaurant Clippers. Oliver's provides a quiet setting for casual breakfast, lunch, or cocktails. It's located just beside the Westlake Center, giving you direct access to fine shopping, restaurants, the Monorail Terminal, and Underground bus tunnel. Valet parking is \$8. Check-in time is 3:00 p.m. Check-out time is 12:00 noon.

**10 WestCoast Vance Hotel**

620 Stewart Street, Seattle, WA 98101; (206) 441-4200

4 blocks from the Convention Center

Single \$68, Double \$68 (100-room block)

Built in the 1920s, this restored hotel has preserved much of the lobby's original rich wood accents, stained glass windows, and marble details. Guest rooms are comfortable, and each one is slightly different. For breakfast, lunch, or dinner you will want to drop by Salute in Città Ristorante for tantalizing southern Italian specialties in a casual atmosphere. The hotel offers complimentary coffee service in the lobby 5:00 a.m. to 9:00 a.m. daily, laundry, and on-command video library. Covered valet parking is \$9 per day. Check-in time is 2:00 p.m. Check-out time is 12:00 noon.

**11 Sixth Avenue Inn**

2000 Sixth Avenue, Seattle, WA 98101; (206) 441-8300

8 blocks from the Convention Center

Single \$68, Double \$68 (85-room block)

This motor-lodge-style hotel combines economy and comfort, offering pleasant, spacious guest rooms. The Sixth Avenue Bar and Grill serves Northwest favorites for breakfast, lunch, and dinner at value prices, beginning at 6:30 a.m. weekdays, 7:00 a.m. weekends. In the evening enjoy the fireplace lounge, with free popcorn and big-screen television. Parking is free for hotel guests. Check-in time is 2:00 p.m. Check-out time is 12:00 noon.

**12 The Warwick Hotel**

401 Lenora Avenue, Seattle, WA 98121; (206) 443-4300

7 blocks from the Convention Center

Single \$89, Double \$89 (150-room block)

A luxury AAA four-diamond hotel offering a restaurant and lounge, room service, concierge, laundry, and a health club with a pool, jacuzzi, sauna, and exercise room. The hotel restaurant, The Liaison, features Northwest cuisine and is open for breakfast, lunch, and dinner. You might want to visit The Lounge, with live piano music on weekends. Enjoy the warm hospitality and personal service in the Warwick tradition. Parking is \$10.50 per day. Check-in time is 3:00 p.m. Check-out time is 1:00 p.m.

**13 Edgewater Inn**

2411 Alaskan Way, Seattle, WA 98121; (206) 728-7000

12 blocks from the Convention Center

City View \$108 Single or Double, Water View \$123 Single or Double (50-room block)

Located on Pier 67, the Edgewater Inn is downtown Seattle's only waterfront hotel. Built in 1962, this local landmark has been renovated to create the relaxing atmosphere of a Pacific Northwest bayside resort, complete with pine vaulted ceilings. The hotel lounge and Ernie's Bar and Grill restaurant provide sweeping views of Elliott Bay to go with their regional cuisine. In the evening, relax next to the fireplace and watch the ferries glide through the water. Self parking is \$8 per day. Check-in time is 3:00 p.m. Check-out time is 12:00 noon.

Please send me \_\_\_\_\_ tickets @ \$5 each to attend the MSA reception on Tuesday, October 25 during the MSA/GSA Annual Meeting in Seattle.

\_\_\_\_\_ Payment enclosed

Ship to (please print):

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☐ American Express ☐ Diners Club

Card Number \_\_\_\_\_

Exp. Date \_\_\_\_\_

Please send order to the MSA Business Office, 1130 17th Street, NW, Suite 330, Washington, DC 20036. Phone (202) 775-4344, Fax (202) 775-0018.

## Geowriting Short Course Offered

The Geoscience Information Society (GIS), the American Geological Institute (AGI), and the Association of Earth Science Editors (AESE) will co-sponsor the short course *Geowriting: Guidelines for Writing and Referencing Technical Articles* at the 1994 GSA Annual Meeting in Seattle. Learn the methods of technical writing and bibliographic research in the geosciences. The morning session will focus on technical reporting and will use the new revised book *Geowriting*, published by AGI, as a resource and text. The afternoon session will focus on library research and referencing: the use of library catalogs and bibliographic databases, the compilation of references, and the use of software for compiling references and bibliographies.

**When:** Saturday, October 22, 1994, from 8 a.m. - 5 p.m.

**Where:** Seattle Sheraton Hotel, Seattle, Washington

**Limit:** 35, preregistration required

**Fee:** Professional, \$140 (\$120 for early registration prior to August 1); Student, \$99. Fees include handouts and a copy of the *Geowriting* text.

**Details:** Julie Jackson, American Geological Institute, 4220 King St., Alexandria, VA 22302; Telephone: (703) 379-2480; fax: (703) 379-7563; e-mail: [lar@aip.org](mailto:lar@aip.org)

### *Downtown Seattle*



## CMMP'94: Structural Instabilities in Silicates

The Mineralogical Society of Great Britain is involved in sponsoring two symposia sessions on Mineral Physics at the Institute of Physics' "Condensed Matter and Materials Physics" meeting, Warwick University, 18th-21st December 1994 inclusive. Entitled *Structural Instabilities in Silicates*, the symposia will coincide with a plenary lecture given by Prof. Ekhard Salje, and will take place on the afternoon of Tuesday 20th December and the morning of Wednesday 21st December. Invited speakers include Prof. R. J. Kirkpatrick (Univ. Illinois) who will talk on the application of high-temperature NMR to the study of phase transitions in silica polymorphs. The symposia include poster session as well as oral presentations. Offers of contributions and requests for further details should be directed to:

Dr. Simon Redfern  
Dept. Earth Sciences  
University of Cambridge  
Downing Street  
Cambridge  
CB2 3EQ  
United Kingdom

Telephone: +44 223 333475  
e-mail: [satr@esc.cam.ac.uk](mailto:satr@esc.cam.ac.uk)

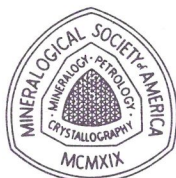
## General Manager Position - ICDD

The International Centre for Diffraction Data, a scientific database corporation in the Philadelphia area, is seeking a General Manager. The non-profit corporation operates from a new headquarters facility and serves a world-wide community. Required qualifications include proven managerial and business experience, a degree (minimum BS) in physical or materials sciences or engineering, and experience in XRD work and electronic data handling. Duties are interesting and diversified and include supervision of 30+ employees and cooperation with about 100 international scientific volunteers.

The deadline for applications is 1 September 1994. Send resumes to:

ICDD  
2200 Kings Highway  
Bldg. L-3, Suite No. 54  
Port Charlotte, FL 33980.

**THE DEADLINE FOR THE  
NOVEMBER ISSUE  
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