

# The Lattice

## THE FIRST MINERALOGICAL SOCIETY OF AMERICA MID-CAREER AWARD – A CALL FOR NOMINATIONS

The MSA Mid-Career Award of the Mineralogical Society of America recognizes outstanding scientific contributions through original research in mineralogy by a mid-career scientist. The science of mineralogy is defined broadly for purposes of this award. The awardee's published research should be related to the mineralogical sciences and should make outstanding contributions to them. Service to mineralogy, teaching, and administrative accomplishment are not to be considered primary merit for the award. Nominees should not be eligible for the MSA Award (the MSA award is either for research before the age of 35 or for research completed within 7 years of the degree award date). The nominee should not be a logical candidate for the Roebling Medal (the highest award of the society for scientific eminence, typically presented to later career scientists). Nationality and place of employment are not considered. The recipient will be asked to present a lecture at a national or international meeting chosen to best suit the awardee's

topic. Current members of the Mid-Career Award Committee are ineligible for the award.

Nominations should consist of a cover letter outlining the candidate's qualifications in light of the criteria above and two to five supporting letters, and the nominee's curriculum vitae. The nomination materials must be received by June 1, 1999.

We request that, if possible, nomination materials be sent by e-mail to the Committee Chair (jill@geology.wisc.edu) so that the committee work can then be done by e-mail. This is especially important in light of the involvement of international committee members and nominators. If printed materials are supplied, mail six (6) copies to:

**Prof. Jill Banfield, Chair,**  
MSA Mid-Career Nomination Committee:  
Department of Geology and Geophysics, University of  
Wisconsin-Madison, 1215 W. Dayton St., Madison WI  
53706, Fax: 608 262 0693

### *A Matter of Scales - From Chain Silicate Crystal Chemistry to Paleo-Plate Tectonics of the Northern Appalachians and Scandinavia: A Special Session in Celebration of the Career of Peter Robinson*

Professor Peter Robinson of the Department of Geosciences, University of Massachusetts, Amherst, has had a most influential 35-year plus career doing research and training students on a spectacular range of geologic scales and topics. His macro-scale work has molded many of our modern views of the igneous, metamorphic and general tectonic history of New England and parts of Scandinavia. He and his students and associates have also examined in great detail the inner workings of the metamorphic process, virtually all the way down to the unit-cell scale in pyroxenes and amphiboles. This special session in his honor has been conceived as a way for his former students, his research colleagues, his "intellectual grandchildren" - students of his students - and anyone else who has been influenced by his work to gather in his New England "backyard" and to display the latest and (continued on p. 6)

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## *From the President*

### *MSA participation in scientific meetings*

In my last letter I remarked that the increasing scientific diversity of MSA, while testimony to the Society's good health and relevance, was causing some problems. One of these is a growing feeling among some MSA members that the way that the Society currently participates in meetings is not serving the membership well. Not only have there been calls for changing the configuration of meetings that MSA co-sponsors, but there also have been proposals for MSA to consider new types of meetings entirely. MSA Council has carefully listened to these comments, criticisms, and suggestions. Last year MSA President Bruce Watson commissioned the MSA Meetings Committee to evaluate several new possibilities for MSA's involvement in scientific meetings and to prepare a report for Council. In addition, Council held its own discussions at its spring and fall 1998 meetings. This letter provides an overview and announces some new developments.

As background, I'll first review the current configuration of the meetings MSA formally participates in. The Society does not hold meetings on its own, but does so by co-sponsoring meetings organized by other societies, specifically the Geological Society of America in the fall and the American Geophysical Union in the spring. In the opinion of some members, both meetings are decreasingly relevant to the interests of MSA members, and MSA should terminate its co-sponsorship of them. In the case of the GSA meeting, this view is not substantiated by the numbers compiled by Larry Anovitz in his Report of the Joint Technical Program Committee to the fall

Council meeting. Over the last decade, the annual number of MSA abstracts at the GSA meeting has held steady at 200-300. MSA consistently contributes 9-12% of the total number of abstracts at the GSA meeting. Picking two years as arbitrary benchmarks, the number of MSA abstracts was 235 in 1991 and 255 in 1998. Numbers of abstracts are correlated not with time but with geography (Boston was a more popular venue than Cincinnati). Furthermore, the participation of mineralogists appears to have increased in the last decade. Between the same benchmark years of 1991 and 1998, presentations in mineralogy increased from about 10% to 35% of the total number sponsored by MSA. The numbers for MSA's participation in the Spring AGU meeting tell a different story. In 1991 MSA sponsored or co-sponsored 22 technical sessions with 246 abstracts. By 1997 these numbers had declined to 6 sessions and 63 abstracts. Last year, however, Spring AGU appears to have been rejuvenated by its move to Boston; MSA sponsored or co-sponsored 11 sessions with 115 abstracts. Although the participation of MSA members in Spring AGU seems to have slipped, the most recent level represents a respectable showing equivalent to approximately half that of a GSA meeting. MSA members, of course, attend and give presentations at numerous other meetings such as Fall AGU, Goldschmidt Conferences, and annual meetings of the European Union of Geosciences, the Mineralogical Association of Canada, and the Clay Minerals Society. Because MSA does not officially co-sponsor these meetings, it's difficult to gauge the Society's participation on a numerical basis.

A second piece of background to Council's discussion of MSA's participation in scientific meetings was the proposal by Jeff Post, P Heaney, and Charlie Prewitt in the May 1998 issue of *The Lattice* for MSA to hold a separate meeting. Their open letter argued that MSA needs a meeting where mineralogical research is the focus of attention rather than "squeezed in at the margins" and that such a meeting would attract both mineralogists and scientists from non-traditional fields who feel out of place at GSA and AGU meetings. Bruce Watson requested that the MSA Meetings Committee consider the proposal as well as other possible configurations of meetings and that the Chair, John Jones, report back to Council. The Jones Report reveals yet another set of opinions among MSA members concerning the Society's involvement in meetings. Of the 12 members who responded to John's polling, no one was positively in favor of a separate MSA meeting. On the other hand, this group expressed little satisfaction with MSA's current involvement with GSA or Spring AGU. When asked whether they approve of MSA's continued or new co-sponsorship of other established scientific meetings, only 2 respondents approved of GSA and 1 of Spring AGU. The only co-sponsorship arrangement that the majority of the survey group approved (7 votes) was the Geochemical Society's Goldschmidt Conference.

A third piece of background was the formal offer last fall by the officers of the Geochemical Society for MSA to serve as a co-sponsor of the 2001 Goldschmidt Conference in Roanoke, Virginia. Planning for the 1999 Conference in Cambridge is too far along for MSA to become

involved. Logistical details make MSA co-sponsorship of European Goldschmidt Conferences problematic. Our co-sponsorship in 2001 would involve no financial obligation and does not necessarily represent anything more than a one-time involvement. If MSA's participation in the 2001 Goldschmidt Conference is a success, however, the door is open for the Society's co-sponsorship of future Goldschmidts held in North America.

Council discussed the question of MSA's participation in scientific meetings against this background at its fall 1998 meeting. Three points of consensus emerged from Council's deliberations, summarized below.

1. The debate about MSA's involvement in meetings appears to be an example of honest differences in opinion among serious people. Given the current diversity of MSA membership, there probably is no single meeting that will meet the needs of all or possibly even the majority of the Society's members. Any particular meeting will benefit some members but not others. MSA therefore should work towards sponsoring or co-sponsoring a wider range of meetings.

Accordingly, Council voted approval for MSA to co-sponsor with the Geochemical Society the 2001 Goldschmidt Conference in Roanoke. It is not too early to begin thinking about topics and participants in symposia and special technical sessions. Should Roanoke 2001 be a success, Council recommends MSA consider becoming a permanent co-sponsor of Goldschmidt Conferences when they are held in North America. Council remains open to consideration of MSA's co-sponsoring meetings with other societies.

2. MSA members may find their needs met within the structure of existing meetings through more active participation. In any case, it is probably not in MSA's best interest to turn its back on the two largest organizations of professional geoscientists in the U.S. and drop its co-sponsorship of GSA and AGU meetings. Nothing at GSA and Spring AGU meetings prevents MSA members from having almost any configuration of activities they wish - MSA members simply need to come forward with ideas and proposals. At both GSA and Spring AGU MSA can have as many technical sessions as it wishes; the only limitation is the number of submitted abstracts. While GSA has strict limits on the number of Keynote Symposia, MSA can submit proposals for any number of Topical Sessions. Although formally these compete with other submissions, last year all of MSA's proposals for Topical Sessions were approved. In Toronto last October, for example, 70 of 88 MSA presentations in mineralogy were at special sessions. Thus at both GSA and Spring AGU the only practical limitation on the number of special sessions is the number of proposals MSA members submit. Proposals for Topical Sessions at GSA should be sent to Alex Speer who will pass them along to the MSA Executive Committee. Proposals for special sessions at Spring AGU should be routed through our contacts on the AGU Spring Meeting Program Committee, Pamela Burnley and James Brenan. The range of MSA activities other than technical sessions is currently scheduled at the GSA meeting, including the Business Meeting, a Council Meeting, the Awards Luncheon, the Presidential Address, and the MSA-GS Reception. Some or all of these

activities could also be arranged at the Spring AGU meeting if members prefer. The wide latitude in configuring special sessions and non-technical functions at GSA and Spring AGU makes it possible for MSA members to hold a "meeting within a meeting" whose scope and size are limited by us not by GSA or AGU. The technical sessions will be "squeezed in at the margins" by other sessions only to the extent that participants find non-MSA sessions more interesting to attend. If physical separation and consolidation is an issue, GSA is willing to schedule MSA sessions at another physical location - a downtown hotel rather than the convention center, for example. Finally, I note that GSA and AGU perform numerous services for us, such as reserving hotel and conference rooms, handling abstract submissions and registrations, and publishing abstracts in a widely-circulated volume, which do not cost MSA a nickel. In this regard, AGU and GSA financially support MSA meetings perhaps to the extent of several tens of thousands of dollars annually. Any other arrangement costs MSA members real money either in dues or registration fees.

MSA participation at Fall AGU likewise has great possibilities. Unlike at Spring AGU, MSA is not allowed to be a co-sponsor of the Fall AGU meeting. Nevertheless, within the framework of the different AGU sections, MSA members can organize many configurations of technical sessions. Good examples were the 9 special sessions and symposia, with a total of 118 abstracts, organized at the Fall 1997 AGU meeting in honor of Charlie Prewitt. Proposals for special sessions should be submitted to the AGU Fall Meeting Program Committee through the appropriate contact persons on the committee,

Quentin Williams and Mary Reid. Abstracts are then sent to the appropriate AGU section. MSA participation in special sessions could be recognized by including the Society's initials in the session's title. Now (i.e., this spring) is the time to put forth ideas for special sessions at the Fall AGU meeting. Fall AGU, however, currently cannot accommodate MSA's activities other than technical sessions. At Fall AGU, time for these activities would have to be carved out of time already allocated to the other AGU sections; negotiations to accomplish this would probably be difficult.

3. MSA Council had a number of reservations about a separate MSA meeting based both on its questioning the scientific justification for such a meeting and its concern over the potential financial burden on the Society. Nevertheless, Council recognized that a group of MSA members may have needs for a meeting that either are not met by the GSA or AGU meeting structures or are unlikely to be met with our new co-sponsorship of the Goldschmidt Conference. Council would be very happy to consider specific proposals for other arrangements. The model for a more general meeting might be the Geochemical Society's Goldschmidt Conference. The model for a meeting more focused by topic might be the MSA Short Courses (with the instructional presentations replaced by technical presentations). Both kinds of meetings are organized by a small group of 2-4 dedicated volunteers with minimal assistance from the sponsoring society's staff. Both must be financially self-supporting, a critical factor considering MSA's current financial state. Council is looking for proposals, similar to those expected for new MSA Short Courses, that carefully provide both a scientific justification for the meeting and a plan for the meeting's financial self-sufficiency. If the proposal is sound, Council will be delighted to assist the organizers in whatever way it can to make sure the meeting will be a success.

This letter should not be misinterpreted as the "last word" on MSA's participation in scientific meetings. Rather it is an attempt to summarize recent discussions and developments. I look forward to continued discussion and new ideas. I hope both for MSA's more effective utilization of existing meeting structures and for our devising some exciting new ones.

*John Ferry*



*MSA President*

## *Notes from Washington*

- Renewal Notices and the accompanying Member Upd and Census form were sent to members and subscribers December 22, 1998. If you have not yet received yours, please contact the Business Office. Return your renewal as soon as possible to save your Society the expense of a second renewal notice.

- The Business Office often receives comments about nominees for MSA awards and offices on the various correspondences it receives. The opportunity for having a voice in these many decisions is now. Elsewhere in this issue is the list of 1999 Committee Chairs to contact regarding MSA Award and Office and Nominations for 2000. If you have suggestions, pass them on. Concrete suggestions from members make the committee's work easier. In some instances it would be as simple as passing on names. The award suggestions require a bit more work, in that written justifications are required. I often hear the comment that MSA ought to consider so-and-so for a certain award; however, the proposer is too busy to make the recommendation and someone else should. Well, that someone else is also busy, or is busy doing the work to support her or his own candidate.

- A book review by Karen M. Salvage on *Reviews Mineralogy*, Volume 34, Reactive Transport in Porous Media edited by P. C. Lichtner, C. I. Steffel, and E. H. Oelkers appeared in *EOS* 80, pp. 39 & 41. It is a rather detailed description of the book contents. If the topics interest you, order a copy using the order form in this issue.

- There have been a number of MSA staff changes in the last 3 months. Andy Pratt, MSA Membership Coordinator, left 12/4/98 to take a position as office manager with a health workers union in Miami Beach, Florida. Andy was the staff member with the longest employment at MSA and was a significant asset to MSA. We wish him well in his new job opportunity. Everett Johnson, previously American Mineralogist Assistant Editor, moved into the position of Membership Coordinator. Paula Tustin started 12/7/98 as Production Editor of the American Mineralogist. Kristin Wheeler, part-time Editorial Assistant of the American Mineralogist left 1/27/99 to start a fulltime position. Kris added immeasurably to the efficient running of the editorial office. Sara E. Tiner started 1/11/99 as the Editorial Assistant. Christopher S. Holm, undergraduate geology major at George Washington University, started 2/16/99 part-time administrative assistant to help process orders.

*J. Alex Speer, MSA Administrator*

## MSA distinguished lecturers for 1999-2000

Since its inception the Lecture Program of the Mineralogical Society of America has proven to be a great success. The varied and interesting lectures presented by MSA Distinguished Lecturers have been appreciated by students and faculty at many colleges and universities in the United States and Canada. The Council of the Mineralogical Society is again offering the program for the 1999-2000 academic year with the arrangement that the MSA will pay travel expenses of the Lecturers, and the host institutions will be responsible for local expenses, including accommodation and meals.

The Mineralogical Society of America is pleased to announce that its Distinguished Lecturers for 1999-2000 will be

**DR. MICHAEL HOHELLA** (Virginia Polytechnic Institute & State University) who will offer lectures on:

1. *Mineral-environment interfacial processes: How the solid earth talks to the hydrosphere, atmosphere, and biosphere*
2. *Nuclear and mining wastes: A scientific and societal look at lessons we have (and haven't) learned*

**DR. TRACY RUSHMER** (University of Vermont) who will offer lectures on

1. *Cracks, fractures, and flow: Magmatic journeys through the Earth's crust*

*Earth's core: The great unexplored inner space*

If your institution is interested in requesting the visit of a MSA Distinguished Lecturer, please contact Lecture Program Administrator:

**Dr. Guy L. Hovis** Via his secretary at:  
**Department of Geology** [leslie@lafvax.lafayette.edu](mailto:leslie@lafvax.lafayette.edu)  
**Lafayette College** Tel: 610-330-5193  
**Easton, PA 18042-1768** Fax: 610-330-5717

The Lecture Program is designed to run from late September, 1999, through April, 2000. Lecturer requests received by May 3, 1999, will be given priority. Late applications will be considered on a space-available basis. In making your request please include (1) airport proximity from, and travel time to, your institution, (2) the name of a contact person at your institution for the month of May (when Lecturer schedules will be assembled), (3) contact e-mail addresses and phone numbers, and (4) flexibility on Lecturer preference. (5) Canadian schools should indicate the end date for spring-term 2000 classes. Please note that because of travel and schedule constraints it is normally not possible to satisfy requests for tightly constrained dates such as seminar days.

### ***A Plea from the MSA Secretary - "You can run, but you can't hide"***

Members, please remember to update the MSA Business office with any changes to your address. We accept any form of notification; e-mail, snail mail, fax, phone, or direct changes to the membership directory on the MSA website. You will save the Secretary much frustration when she tries to contact you! And, she will find you. Please, save MSA money and time by keeping your addresses current. Thanks!



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 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; 25% discount on volumes in the *Reviews in Mineralogy* series; *The Lattice*; 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 1999 are \$80 for professional members who elect to receive *American Mineralogist* and \$50 for those who elect not to receive the journal, but who do receive all other membership benefits; membership is \$30 for students. Membership is on a calendar year basis. Individuals who join after January 1, 1999 will be sent all back issues of the journal for volume 84, 1999.

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 1999 volume of *American Mineralogist* for the annual rate of \$350 in the US, \$325 in Canada and Mexico and \$360 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.

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**MSA Administrator:** J. Alexander Speer

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## **Robinson special session**

*(continued from page 1)*

most up-to-date fruits of his many years of research and inspiration. We anticipate numerous contributions in a variety of areas ranging from silicate crystal chemistry to thin-section scale metamorphic and igneous processes to regional tectonic modeling - an array of presentations that will truly reflect the breadth of Pete Robinson's interests.

Convenors:

### **Robert J. Tracy**

*Department of Geological Sciences,  
Virginia Polytechnic Institute and State  
University, Blacksburg VA 24061-0420.  
Tel. 540-231-5980, E-mail [rtracy@vt.edu](mailto:rtracy@vt.edu)*

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*Institute of Meteoritics, Department of  
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of New Mexico, Albuquerque, NM 87131.  
Tel. 505-277-9159, E-mail:  
[cshearer@unm.edu](mailto:cshearer@unm.edu)*

*Editor's note: The announcement for the Robinson special session was intended to be in the November issue of The Lattice. However, due to cyber-gremlins, the information did not reach the editor for that issue.*

## **Annual Student Research Award**

This is an annual grant of \$400 to a student using CL in his or her research. Please send in a proposal (maximum 600 words), a bibliography of related papers, a cover letter, and a supporting letter from a research advisor by April 15, 1999 to:

### **Jinny Sisson**

*Department of Geology and Geophysics,  
6100 Main St., MS-126, Rice  
University, Houston, TX 77005-1892,  
Phone: (713) 285-5234, FAX: (713) 285-  
5214*

## **50- and 25-Year MSA Members**

The following individuals reach 50 or 25 years of continuous membership in the Society during 1999. Their long support of the Society is appreciated and is recognized by this list and by 25- or 50-year pins mailed in early January. If you should be on this list and are not, or have not received your pin, please contact the Business Office.

### **50-year Members**

Dr. Arthur A. Socolow  
Mr. Thomas W. Stern  
Ms. Nancy G. Ryan  
Dr. Gordon L. Davis  
Dr. Jack A. Redden  
Mr. Robert F. Shurtz  
Dr. Arthur J. Boucot  
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Dr. Spencer R. Titley  
Dr. Richard VanEmburch  
Dr. David T. Vaniman  
Ms. Namok C. Veach  
Dr. John D. Winter

## **In Memoriam**

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

**Julian R. Goldsmith** (Life Fellow - 1950)

**Gerald D. Jungles** (Member - 1970)

**Robert A. Laudise** (Fellow - 1959)

**Bruce E. Nesbitt** (Fellow - 1977)

**W. Arthur White** (Life Fellow - 1.

## **In Memoriam Revisited**

We are pleased to announce that Su-Chun Su has not passed away as reported in the last issue of the Lattice. Incorrect information reached the MSA office. Su-Chun Su, and several others, corrected the error. As Mark Twain so eloquently put it, "News of my demise have been greatly exaggerated."

## **Anthony Autobiography**

Any colleagues, students, or friends of John Williams Anthony who would like a copy of his posthumous, privately published autobiography (*From My Early Days*, 189 pp.) can contact Ryan Anthony, 4462 E Seventh Tucson, AZ 85711-2912, (520) 3. 5373, [hamsterranch@yahoo.com](mailto:hamsterranch@yahoo.com).

## Members Nominate Outstanding Students for Society's Undergraduate Award

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 the individual faculty 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 *Reviews in Mineralogy* or *Monograph* volume chosen by the sponsor, student, or both.

Deadlines for nominating students are January 1 and July 1 of each year. Mark these dates on your calendars and let us know about your exceptional student. If you are interested in presenting the award at a particular ceremony, please remember that time is required to produce certificates. To nominate a student, send a letter on departmental letterhead to Dr. J. Alexander Speer, MSA Business Office, 1015 Eighteenth St. NW Ste. 601, Washington, DC 20036-5274. With the nomination, please include the student's full name that would be suitable for the certificate, a mailing address of the student that will be current at the time the award is made, year in school, the MSA sponsor's name, the choice of *Reviews in Mineralogy* or *Monograph*, and the date and brief description of the award ceremony at which the certificate will be presented. The letter must be signed or co-signed by the department chair.

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

**Steve P. Becker**

University of Missouri-Rolla  
Sponsored by Dr. Richard D. Hagni

**Bruce E. Brinson**

Rice University  
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**Jan Renee Conder**

University of Oklahoma  
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**Stephanie P. Cox**

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**Lizabeth Guijarro**

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West Virginia University  
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**Lisa Melanie Mensink**

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# *The Mineralogical Society of America*

Announces the 2000

## **GRANT FOR RESEARCH IN CRYSTALLOGRAPHY**

*From the Edward H. Kraus Crystallographic Research Fund with contributions from MSA membership and friends*

And the 2000

## **MSA GRANT FOR STUDENT RESEARCH IN MINERALOGY AND PETROLOGY**

*from an endowment created by contributions from the MSA membership*

**The Grant for Research in Crystallography** is a \$3500 grant for research in crystallography. There are no restrictions on how the grant funds may be spent, as long as they are used in support of research. The only restrictions on eligibility for the grant are that the applicant must have reached his or her 25th birthday but not yet have reached his or her 36th birthday on the date the grant is given, and that the person is not a MSA Councilor.

**MSA Grant for Student Research in Mineralogy and Petrology** is a \$3500 grant for student research in mineralogy and petrology. Students, including graduate and undergraduate students, are encouraged to apply. There are no restrictions on how the grant funds may be spent, as long as they are used in support of research.

Selection will be based on the qualifications of the applicant, the quality, innovation, and scientific significance of the research, and the likelihood of success of the project. Grants will be made in January 2000. There are no restrictions on how the grant funds may be spent, as long as they are used in support of research. Application forms for the grant may be obtained from the MSA worldwide web home page, <http://www.minsocam.org> or Dr. J. Alex Speer, MSA Business Office, 1015 Eighteenth St., NW, Suite 601, Washington, DC, 20036-5274, USA (phone: 202-434-4344, fax: 202-775-0018, e-mail: [j\\_a\\_speer@minsocam.org](mailto:j_a_speer@minsocam.org)). Completed applications must be returned to the MSA Business Office by June 1, 1999.

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### *Year 2000 candidates for MSA office*

The First MSA council Meeting of 1999 was held prior to the Annual GSA meeting in Toronto, Ontario, Canada on Sunday, October 25, 1998. During this meeting, the year 2000 MSA candidates for offices were approved. By-laws of the Society require that the members be notified prior to voting. The following MSA members have agreed to be considered for MSA offices for the year 2000 term.

#### **Candidates for year 2000 MSA offices are:**

**President:** *William Carlson*

**Vice President:** *Cornelius Klein and Jonathan F. Stebbins*

**Secretary:** *David Jenkins*

**Treasurer,** *Brooks Hanson (remains in office)*

**Councilors (2),** *David L. Bish, Robert J. Bodnar, James I. Drever, Jeffrey E. Post*

Ballots will be mailed to the membership in May, with voting taking place over the summer. Please be sure to return your ballot! Contact any current MSA officer or J. Alex Speer at MSA's business office if you have suggestions and/or questions. For the current, most up-to-date information on MSA committee assignments, consult MSA's website (<http://www.minsocam.org>).

***Barb Dutrow, MSA Secretary***

### ***The E. E. Foord Memorial Pegmatite Symposium***

Announcing a special symposium on NYF-pegmatites for September, 1999.

A symposium on all aspects of NYF-type pegmatites will be held in honor of the late Eugene E. Foord in Denver, Colorado. The meeting is scheduled for the week of the Denver Gem and Mineral Show, 11<sup>th</sup> through 14<sup>th</sup> of September. Two days of talks and a fieldtrip to the NYF-pegmatites of the Pikes Peak batholith are planned. If you are interested in participating, please respond by email to Skip Simmons ([wsimmons@uno.edu](mailto:wsimmons@uno.edu)). Respondents will receive a second circular, which will contain additional information and instructions for abstract submission.

## *MSA Award and Office Nominations*

Member participation is essential to the formation and continuation of MSA programs. Involvement can take several forms: nominate a candidate for an award, volunteer to serve on a committee next year, or offer your name or that of a colleague as a possible candidate for office. It is through the involvement of individual members that the Society's programs develop to meet the needs of its members. Please take a minute to read the brief committee descriptions below and consider getting involved. More information about each award and the list of 1999 MSA Committee members are available at the MSA website at [www.minsocam.org](http://www.minsocam.org). Contact the appropriate Committee Chair with your recommendations.

<b>Award/Office</b>	<b>Deadline</b>	<b>Committee Chair</b>
<b><i>Roebing Medal</i></b> - The highest award given for eminence as represented by outstanding published original research in mineralogy.	June 1	<b><i>John R. Holloway</i></b> , Dept. of Geology, Arizona State University, Tempe AZ 85287-1404. Tel: (602) 965-6907, Fax: (602) 965-8102, E-mail: <a href="mailto:John.Holloway@asu.edu">John.Holloway@asu.edu</a>
<b><i>Mineralogical Society of America "Mid-Career" Award</i></b> . Any area broadly defined as mineralogy, such that the research that would be suitable for publication in the <i>American Mineralogist</i> . The nominated individual should not be at a point in their career that they would be a logical nominee for the Roebing medal or eligible for the MSA award.	June 1	<b><i>Jillian F. Banfield</i></b> , Dept of Geology & Geophysics, University of Wisconsin, 1215 W. Dayton Street, Madison, WI 53706. Tel: 608-262-0915, Fax: 608-262-0693, E-mail: <a href="mailto:jill@geology.wisc.edu">jill@geology.wisc.edu</a> .
<b><i>Mineralogical Society of America (MSA) Award</i></b> - Outstanding published contribution prior to 35th birthday or within 7 years of the Ph.D.	June 1	<b><i>Mark S. Ghiorso</i></b> , Department of Geological Sciences, Box 351310, University of Washington, Seattle, WA 98195-1310. Tel: 206-685-2482, Fax: 206-543-3836, E-mail: <a href="mailto:ghiorso@u.washington.edu">ghiorso@u.washington.edu</a>
<b><i>Distinguished Public Service Medal</i></b> - Awarded for distinguished contributions to public policy and awareness about mineralogical topics.	June 1	<b><i>Bernard W. Evans</i></b> , University of Washington, Dept of Geological Sciences, Box 351310, Seattle, WA 98195-1310. Tel: (206) 543-1750, Fax: (206) 543-3836, E-mail: <a href="mailto:evans@geology.washington.edu">evans@geology.washington.edu</a>
<b><i>Fellowship</i></b> - Society recognition of a member's significant scientific contributions. Nomination undertaken by one member with two members acting as co-sponsors. Form required, contact committee chair or MSA home page.	June 1	<b><i>Pier Francesco Zanazzi</i></b> , Dept Scienze della terre University of Perugia, Piazza Università, I-06100 Perugia, ITALY. Tel: 39-75-585-3212, Fax: 39-75-585-3203, E-mail: <a href="mailto:zanazzi@unipg.it">zanazzi@unipg.it</a>
<b><i>Officers</i></b> - Any member or fellow of the Society. One-year terms for President and Vice-President; two-year terms for treasurer and secretary; three-year term for Councilors.	June 1	<b><i>Robert W. Luth</i></b> , C.M. Scarfe Laboratory of Experimental Petrology, Department of Earth and Atmospheric Sciences, University of Alberta, Edmonton, Alberta T6G 2E3 CANADA. Tel.: 403-492-2740, Fax: 403-492-2030, E-mail: <a href="mailto:robert.luth@ualberta.ca">robert.luth@ualberta.ca</a>
<b><i>Committees</i></b> - Any member or fellow of the Society. Terms usually from one to six years. In addition to above committees, there are committees on Management, Meetings, Financial Advisory, Publications, Short Course, Tellers, Committee on Committees, Outreach, Arts Council. If you are interested in serving, contact the chair.	April 30	<b><i>William Carlson</i></b> , Department of Geological Sciences, University of Texas – Austin, Austin, TX 78712-1101. Tel.: (512) 471-4770, Fax: (512) 471-9425, E-mail: <a href="mailto:wcarlson@mail.utexas.edu">wcarlson@mail.utexas.edu</a> .

## 1999 Spring Meeting, June 1-4, 1999, Boston, Massachusetts

### Sponsors

The **American Geophysical Union (AGU)** is an international scientific society of 35,000 members, more than 30% of whom come from outside the United States. As a society we are dedicated to advancing the understanding of Earth and its environment in space and making results available to the public.

The **Geochemical Society (GS)** is a nonprofit scientific society founded to encourage the application of chemistry to the solution of geological and cosmological problems. Membership is international and diverse in background and encompasses such fields as organic geochemistry, high- and low-temperature geochemistry, petrology, meteoritics, fluid-rock interaction, and isotope geochemistry.

The **Mineralogical Society of America (MSA)** provides a forum for individuals interested in mineralogy, crystallography, and petrology.

### Spring Meeting Returns to Boston!

Due to an overwhelming response in 1998, with a record attendance of 3600, the Spring Meeting will return to Boston in 1999. Scientific sessions will again be held at the John B. Hynes Veterans Memorial Convention Center.

Boston is one of the most popular and desirable visitor destinations in the world. As an international center for education, high technology, finance, architecture, and medicine, Boston maintains its reputation as a world-class city. Boston claims the highest student population in the United States, with more than 60 colleges and universities. Boston is also a city rich in history, culture, and excitement. Boston's many museums, concert halls, theatres, nightclubs, and shopping areas are always buzzing with activity. With a wide array of diverse and interesting attractions, visitors to Boston are never at a loss for something to do.

### Program

This meeting will cover topics on all areas of geophysical sciences. In addition to special sessions (see below), other sessions will be developed by the Program Committee, and therefore **contributed papers on any topic in geophysics are encouraged.**

### Abstract Submissions

Abstracts must be received at AGU headquarters by **February 18, 1999** (postal/express mail) or **February 25,**

1999 (interactive Web form). Complete instructions for submitting abstracts are available on the AGU Web site: <http://www.agu.org>.

### Special Sessions

A complete list of special session titles (as of January 18, 1999) is provided below. Complete descriptions and convener information are available on the AGU Web site.

### Union

- U01 Yucca Mountain: The Future High-Level Nuclear Waste Repository?
- U02 Student and Scientist Partnerships: Programs and Methods of Involving Precollege Students in Earth System Science Research
- U03 Integrated Assessment of the Impacts of Climate Variability and Change
- U04 Earth's Deep Interior and Surface Observations: How Are They Linked and What Can We Learn?

### Advertisements in The Lattice

*The Lattice* accepts paid advertisements. Rates:

Ad frequency:	1 time	4 times
Ad type	<i>(per insertion)</i>	
<b>Full page:</b>	<b>\$500</b>	<b>\$400</b>
<b>Half page:</b>	<b>\$250</b>	<b>\$200</b>
<b>Quarter page:</b>	<b>\$125</b>	<b>\$100</b>
<b>Eighth page:</b>	<b>\$75</b>	<b>\$50</b>

Details may be obtained from the MSA Business Office: J. Alex Speer, Mineralogical Society of America, 1015 Eighteenth Street, N. W., Suite 601, Washington D. C. 20036, Telephone: 202-775-4344, Fax: 202-775-0018, E-mail: [business@minsocam.org](mailto:business@minsocam.org). Only camera-ready copy of advertisements can be accepted, and should be sent directly to the MSA Business Office.

### THE DEADLINE FOR THE MAY LATTICE IS APRIL 19!

**[Editor's note: this is an earlier deadline than previous issues. Late contributions will be considered for the following issue of the Lattice.]**  
Contributions may be sent to Darrell Henry via sur mail at Department of Geology and Geophysics, Louisiana State University, Baton Rouge, LA 70803 or via E-mail at [glhenr@unix1.sncc.lsu.edu](mailto:glhenr@unix1.sncc.lsu.edu).

- U05 Contaminated Groundwater and Litigation: Lessons From the Woburn Case
- U06 Saving Our Coasts
- U07 Linking Science Research and Education to Improve Undergraduate Geoscience Programs and K-12 Earth Science Teacher Preparation
- U08 Geodetic Monitoring of the Earth System (Joint with EGS)
- U09 Highlights of Planetary Exploration

### Atmospheric Sciences

- A01 Infrasound and Monitoring the CTBT
- A02 Statistical Downscaling for Climate Change Impact Assessment (Joint with H)
- A03 Three-Dimensional Radiative Transfer in the Cloudy Atmosphere: A Tribute to Georgii Titov (1948-1998)
- A04 Advances in GPS Science and Technology for the Study of Global Change and Natural Hazards Phenomena (Joint with G, OS, and SPA)
- A05 Behavior of the Global Tropopause
- A06 Modeling Stratospheric Constituents: How Well Are We Doing?
- A07 The South China Sea Monsoon Experiment (SCSMEX)
- A08 Urban Emissions and Atmospheric Chemistry
- A09 Continuing the Future in Atmospheric Science
- A10 Results From the Tropical Rainfall Measuring Mission (TRMM)

### Geodesy

- G01 The North American Geoid: Supporting Leveling by GPS
  - G02 Vertical Signals in Geodetic Measurements (Joint with H)
  - G03 North American East Coast Dynamics (Joint with H and T)
  - G04 Complimentary Studies in Geodesy and Physical Oceanography
  - G05 Time Variations of Gravity and Earth Rotation
  - G06 Impact of Geodetic Observations for the Atmospheric Sciences (Joint with A)
- Geomagnetism and Paleomagnetism
- GP01 Geomagnetic Paleointensity
  - GP02 Magnetic Anomalies of the Antarctic
  - GP03 Paleomagnetism and Tectonics
  - GP04 Environmental Magnetism
  - GP05 GIS and Remote Sensing Tools Applied to Tectonics

## The Fersman Mineral Database

This excellent software product is a comprehensive database of all known mineral species through early 1998, compiled by the scientists at the Fersman Mineralogical Museum in Moscow. Information for each mineral includes chemistry, mineral group, X-ray data and space group, optical data, other physical properties as well as type locality and literature references!

The program has powerful search capabilities, for any data element, whether by fragment of the mineral name, X-ray data, distinctive physical properties, type locality (or any portion thereof) or chemistry. For example, you can enter or exclude any combination of elements, add or exclude any other properties, and the software quickly provides an English or Russian output list *based on any parameters* you have established! Plus, there are two user fields that can be modified for your own purposes and included in any search!

We have utilized this software extensively, and it functions well under any Windows environment with an IBM-compatible system. We have prepared a full English installation package and instruction guide for our clients, and this excellent software package is *just \$99-* plus nominal \$4- shipping and handling. Visa, MasterCard, American Express accepted. Order from:

### **Excalibur Mineral Company**

1000 North Division Street - Peekskill, NY 10566  
Tel: (914) 739-1134 - Fax: (914) 739-1257  
E-Mail: [excalmin@bestweb.net](mailto:excalmin@bestweb.net)

- GP06 The Magnetic Fields of Solar System Planets and Moons: New Insights and Unanswered Questions (Joint with P and SM)

### Hydrology

- H01 Carbon Sequestration and Biogeochemistry of Soils (Joint with A)
- H02 Environmental Tracers of Biogeochemical Processes in Aquatic Systems
- H03 Cation Supply and Surface Water Acidification
- H04 Use of Remotely Sensed Data for Parameterizing and Validating Land-Use Water Quality Models
- H05 The Scientific Basis of Water Quality Monitoring
- H06 Remote Sensing of Precipitation (POSTER ONLY)
- H07 Towards a Common Research Agenda in Surface Hydrology and Hydroclimatology: Recent Progress and Future Directions

- H08 Characterizing Coastal Aquifers Using Hydrologic, Geophysical, and/or Geochemical Techniques
- H09 Scientific Principles in Distributed Hydrologic Process Modeling: Is More Complexity Better?
- H10 Watershed Processes in Urbanizing Systems
- H11 Geomorphology and Water Quality
- H12 Role of the Vadose Zone for Groundwater Contamination: Barrier or Pathway?
- H17 Low- and Midlatitude Ice Cores: Unique and Globally Diverse Sites for Reconstructing Paleoenvironmental Records
- H18 Innovative Applications of Geochemical Modeling to Groundwater Contamination Problems
- H19 Effective Characterization of Aquifer Heterogeneity and Incorporation Into Flow and Transport Models
- H20 Harnessing Natural Forces for Aquifer Characterization and Remediation
- H21 Innovative, in Situ DNAPL Characterization and Remediation Technologies
- H22 Arsenic in Groundwater
- H23 Water Quality of Hydrologic Systems (POSTER ONLY)
- H24 Hillslope and Fluvial Processes (POSTER ONLY)
- H25 Remote Sensing and Land Surface Hydrology
- H26 Watershed Hydrology: Processes, Modeling, and Policy
- H27 Towards Improved Incorporation of Hydrologic Research Into Water Management Practices and Policies
- H28 Climate Variability and Flood Risk Assessment

### **Ocean Sciences**

- OS02 Foraminiferal and Ostracode Shell Chemistry: Innovations and Applications to Paleoclimatology
- OS03 Bed Form Processes and Patterns (Joint with H)
- OS04 Late Quaternary Sea Level Change and Coastal Evolution
- OS05 Physical Processes in Estuaries and Inner Shelf
- OS06 Recent Advances in Underwater Vehicle Technology
- OS08 Coastal Wave Breaking, Bubbles, and Sprays
- OS09 Human Response to Global Change: The Past as a Guide to the Future
- OS10 Atlantic Circulation and Climate Experiment (ACCE)
- OS11 Paleooceanography of the South Atlantic Sector of the Southern Ocean (ODP Leg 177 and Related Studies)
- OS12 Estuarine Exchange, Transformations, and Trapping

- OS13 Complex Patterns of Climate Change During the Pleistocene-Holocene: New Insight Into Mechanisms of Past Climate Variability?
- OS14 Paleoceanography and Paleoclimatology: Observations and Models

### **Planetary Sciences**

- P01 The Near-Earth Asteroid Rendezvous Mission: A First Look at 433 Eros
- P02 Latest Results From Mars Global Surveyor
- P03 The Earth in Context: Why Are Our Neighboring Planets So Different?

### **Seismology**

- S01 Case Studies of the July 9, 1997, Cariaco Earthquake, Eastern Venezuela
- S02 Seismic Scattering in the Lower Mantle: What Does It Tell Us About Lower Mantle Processes?
- S03 Seismic Structure and Dynamics of Continental Lithosphere
- S04 Upper Mantle Discontinuities: Seismic Observations and Laboratory Constraints

### **SPA: Aeronomy**

- SA01 The Mesosphere/Lower Thermosphere Region: Structure, Dynamics, Composition, and Emission (Joint with A)
- SA02 Ionosphere-Magnetosphere Coupling (Joint with SM)
- SA03 Atomic and Molecular Processes in the Upper Atmosphere and Ionosphere of the Earth and Other Planets (Joint with P)
- SA04 Large-Scale Ionosphere Structure and Dynamics (Joint with G)
- SA05 Current Understanding of the Upper Atmospheres, Ionospheres, and Solar Wind Interaction Regions of Mars and Venus (Joint with P)
- SA06 Strategic Planning for Space Physics and Aeronomy (Joint with SH, SM, and P)
- SA07 Low-Latitude Dynamics and Irregularity Formation Processes: Memorial Session for Dr. Edward J. Weber
- SPA: Heliospheric Physics
- SH01 Multispacecraft Determination of Solar Wind Scales
- SH02 Abundance Variations of Solar Energetic Particles and the Solar Wind

### **SPA: Magnetospheric Physics**

- SM01 IMPACT! Education and Public Outreach in SPA: Outcomes, Assessment, and Opportunities (Joint with SA and SH)

- SM02 New Perspectives in Dynamics and Coupling in Inner Magnetospheric Physics
- SM03 Probing Magnetic Storm and Substorm Connections With Global Imaging
- SM04 Equatorial ISTP Science and Equator-S
- SM05 Self-Organized Criticality in Space Plasma Processes (Joint with SA and SH)
- SM06 Space Weather: Observations, Models, and Products (Joint with SA and SH)

### **Tectonophysics**

- T01 Fault Interactions Over the Earthquake Cycle: Observations, Experiments, and Theory (Joint with G and S)
- T02 The Earliest Magmatism of the Circum-Atlantic Large Igneous Province (Joint with OS and V)
- T03 Evolution of Oceanic Spreading Centers and Their Discontinuities
- T04 Gas Hydrates: New Results From Laboratory and Field Experiments (Joint with OS and H)
- T05 Gas Hydrates: Addressing Fundamental Questions Through Modeling (Joint with OS and H)
- T06 Tectonic Evolution of the Himalayas and Tibet
- T07 Rates and Styles of Extension Along Rifted Passive Margins
- T08 Recent Advances in Geodynamic Modeling of Orogenic Belts: Results and Applications
- T09 New Magnetic, Gravity, and Seismic Studies in the Arctic Ocean
- T10 Driving Forces of Continental Rifting and Collision and the Structural Style of Lithospheric Deformation
- T11 Deformation Associated With Oblique Rifting
- T12 The Plan View of Spreading: From Kinematics to Dynamics Recorded in Ridges and Ophiolites
- T13 Integrated Studies of Plate Boundary Zones (Joint with G)

- T14 Characterizing the High-Temperature, High-Pressure Environment in Solid Media Devices (Joint with MSA)
- T15 Fault Growth and Interaction Over Geologic Timescales: Mechanisms and Applications (Joint with S)
- T16 Percolation Theory in Rock Physics and Rock Mechanics (Joint with H and MSA)
- T17 Deformation of Polyphase Materials
- T18 Melt Migration Mechanisms in the Upper Mantle and Lower Crust (Joint with OS and V)

### **Volcanology, Geochemistry, and Petrology**

- V01 The Physical and Chemical Dynamics of Subduction: Insights From Convergent Margin Transect Studies
- V02 Recent Developments in Trace Element Partitioning
- V03 The Role of Water in the Origin of Komatiites
- V04 Accessory Minerals: Powerful Tools for Unlocking the Secrets of Metamorphic and Magmatic Systems
- V05 High-precision Microanalysis of Stable Isotopes: What Is It Good For?
- V06 A Matter of Scales, From Chain Silicate Crystal Chemistry to Paleo-Plate Tectonics of the Northern Appalachians and Scandinavia: A Special Session in Celebration of the Career of Peter Robinson (Joint with T and MSA)
- V07 Explorations of Labrador, Layered Intrusions, Liquid Lines of Descent, and Large (Massif) Anorthosites: A Special Session in Celebration of the Career of Stearns A. Morse (Joint with MSA)
- V08 Experimental and Geochemical Constraints on Planetary Formation and Evolution Hypotheses (Joint with T)
- V09 Magmatic Sulfide in the Crust, Mantle, and Core
- V10 Partial Melting Under Pressure

### **Social Activities and Business Meetings**

For ticketed social events, we strongly encourage you to purchase tickets in advance with your registration form. Tickets may not be available for purchase at the meeting.

#### **Ice Breaker Reception**

Monday, May 31  
5:00 - 7:00 P.M.  
Hynes Convention Center

### **Complimentary Refreshments**

Tuesday through Friday  
9:30 A.M. - 10:30 A.M.  
2:30 P.M. - 3:30 P.M. Exhibit Halls  
A&B, Hynes Convention Center

### **Section Events**

#### **Section Luncheons (Ticketed)**

Tuesday, June 1  
12:00 - 1:30 P.M.  
Atmospheric Sciences  
Hydrology  
Space Physics and Aeronomy  
Tickets: \$22.00

### **Section Receptions**

Tuesday, June 1  
5:30 - 7:00 P.M.  
Geodesy/Seismology/  
Tectonophysics (Joint)  
Geomagnetism and  
Paleomagnetism  
Volcanology, Geochemistry, and  
Petrology

### **Honors Evening**

Join in and pay tribute to the  
1999 AGU medalists and fellows.  
Wednesday, June 2

5:30 P.M. - 7:00 P.M. Ceremony  
Reception immediately following  
ceremony  
7:30 P.M. Banquet (Ticketed)  
Tickets: \$40.00

### **AGU Council Meeting**

Thursday, June 3  
5:30 P.M. - 7:30 P.M.

### **Meeting Services**

Member services staff will be available at the AGU Booth, Tuesday through Thursday, 8:30 A.M. - 5:00 P.M. and Friday, 8:30 A.M. - 3:00 P.M., to provide information regarding:

- AGU Memberships
- Renewals
- Journal Subscriptions
- Other AGU Publications and Products

With on-line access at this area, staff will provide immediate access to member accounts, update information, and display on-line member services available to AGU members, such as:

- Membership Directory
- GAP On-line
- Publications and Journals
- AGU Meetings
- Contribution Options

### **Message and Information Center**

A telephone message and information center will be located in the registration area of the Hynes Convention Center, Tuesday through Friday, 8:00 A.M. - 7:00 P.M. Limited fax and photocopying services will also be available.

### **Public Information**

As part of AGU's goal to promote public understanding of geophysics, AGU operates a newsroom and holds news conferences at its national meetings. News releases and copies

of journal articles about research being presented at the meeting are made available to reporters in the newsroom.

If you are presenting research that could be of interest to the general public, you should contact the public information office at your institution or agency in advance of the meeting for help in writing a news release. For more information about planning news conferences or other public information activities, contact Harvey Leifert, Public Information Manager, American Geophysical Union, 2000 Florida Avenue, N.W., Washington, DC 20009, USA, Tel: +1-202-939-3212, Fax: +1-202-328-0566, E-mail: hleifert@agu.org.

### **Job Center**

The Job Center will be located in the Hynes Convention Center, Tuesday through Thursday, 8:30 A.M. - 5:00 P.M., and Friday, 8:30 A.M. - 3:00 P.M.

Employers: Need to fill a position? Take advantage of AGU's Job Center service. Register at the center and post your positions. You can also review hundreds of resumes, free of charge.

Job Candidates: Looking for a new position? Come to the Job Center daily and view the job postings. Bring five copies of your resume for review by potential employers. All job candidates must be registered for the meeting.

### **Child Care**

KiddieCorp will offer professional child care services at the Spring Meeting, Tuesday, June 1 through Friday, June 4, 8:15 A.M. - 5:15 P.M. Fees are \$6.00 per hour, with a 2-hour minimum.

For more information on how to register for child care at the Spring Meeting, contact KiddieCorp, Tel: +1-619-455-1718, E-mail:

letsplay@kiddiecorp.com, Web site: <http://www.kiddiecorp.com>. Advance reservations are required.

Child care services are a contractual agreement between each individual and the child care company. AGU assumes no responsibility for the services rendered.

### **E-mail**

Several e-mail terminals will be available in Exhibit Hall A of the Hynes Convention Center, Tuesday through Friday, 7:30 A.M. - 6:00 P.M.

### **Accessibility for Registrants with Disabilities**

AGU wants to ensure that all people have access to the sessions and events they wish to attend at this meeting. If you have special needs, AGU will work with its vendors to provide reasonable support in those cases. Such cases may include, are not limited to, providing wheelchairs, specially equipped hotel sleeping rooms, or TDD systems. Contact AGU's Meetings Department at +1-202-462-6910, ext. 242, for more information on these services.

### **Exhibits**

Exhibits will be located in Exhibit Hall A of the Hynes Convention Center. Be sure to make plans to stop and visit with the exhibitors. The various exhibits on display will include instrumentation equipment, computer software programs, books, and programs sponsored by government agencies, plus many more.

Exhibits will be open Tuesday through Thursday, June 1-3, 8:30 A.M. - 5:00 P.M. The AGU Booth will remain open Friday, June 4, 8:30 A.M. - 3:00 P.M. The AGU Booth will sell books, journals, maps,

memberships, gift items, and memorabilia.

Exhibitors: AGU offers you the opportunity to present your geophysical instruments, computer software and hardware, equipment, books, and educational, research, association, and government programs as an exhibitor at the 1999 Spring Meeting. The exhibit booth fee includes complimentary meeting registration(s), abstract volume(s), and program(s). For additional information please contact Francine Bennett, Tel: +1-202-939-3205, Fax: +1-202-939-3229, E-mail: exhibits@agu.org.

### Student Van Pool/Car Pool Program

AGU is allocating funds to assist students to attend and participate in the Spring Meeting. Travel grants will assist groups of four or more students who are willing to van pool or car pool to Boston. Tentative support rates (dependent upon number of applications received) will be \$.31 per mile round-trip, with a minimum round-trip distance of 200 miles, and a maximum grant of \$300.00. Applications are due April 17, 1999.

Preference will be given to

- (a) groups traveling with larger number of passengers,
- (b) those traveling from further distances, and
- (c) a geographical distribution of institutions.

Students are encouraged to apply to their academic departments for matching travel grants to provide further assistance to attend the Spring Meeting.

For more information and to request an application form, please contact the AGU Meetings Department, Tel: 1-800-966-2481 or +1-202-462-6910, ext. 215, Fax: +1-

202-328-0566,  
meetinginfo@agu.org.

E-mail:

registration received at AGU will be immediately processed.

### Workshop for Teachers

Geophysical Information for Teachers (GIFT)

Wednesday, June 2 and Thursday, June 3

8:30 A.M. - 4:30 P.M.

A workshop will be offered for teachers of precollege students, giving teachers a chance to meet the scientists doing the research that is defining our physical world and its environment in space. For further information, please contact Frank Ireton at AGU, Tel: 1-800-966-2481 or +1-202-462-6900, ext. 243, E-mail: fireton@agu.org.

### Registration Information

**Preregistration Deadline: April 23, 1999**

To take advantage of preregistration rates, the registration form with payment must be received by April 23, 1999. After this date, registrations must include a \$35.00 late fee. Registrations will be accepted at the AGU office only until May 7, 1999. *After this date, individuals must register on-site. We strongly encourage you to preregister and avoid waiting in long lines at on-site registration.*

Payment can be made only by American Express, VISA, Mastercard, check (payable to AGU), postal money order, or bank draft. Purchase orders will not be accepted for payment of registration. At the meeting, U.S. dollars are also acceptable. If a registration is received after April 23, 1999, AGU will automatically charge the \$35.00 late fee.

### How to Register

Please do not submit your registration more than once, as each

### Electronic Registration

The fastest, easiest way to register for the Spring Meeting is to use the interactive registration form located on the AGU Web site: <http://www.agu.org>. Electronic registrations must be accompanied by credit card payment.

Registration by Mail, Fax, or Phone

Complete the enclosed registration form and send it directly to AGU via mail or fax.

#### MAIL:

1999 Spring Meeting  
American Geophysical Union  
2000 Florida Avenue, N.W.  
Washington, DC 20009 USA

#### FAX:

+1-202-328-0566 (credit card payments only)

### Phone Registration

Call the AGU Service and Information Center at 1-800-966-2481 or +1-202-462-6900 (credit card payments only).

### On-Site Registration Hours

On-site registration will be located in the Hynes Convention Center, adjacent to Exhibit Hall A. *We strongly encourage you to preregister for the meeting and avoid waiting in long lines at on-site registration.* The registration desk will be open during the following hours:

Monday, May 31

4:00 - 7:00 P.M.

Tuesday, June 1 to Thursday, June 3

7:30 A.M. - 4:00 P.M.

Friday, June 4

7:30 A.M. - 2:00 P.M.

## Social Event Tickets

To ensure that you will be able to attend the ticketed social events at Spring Meeting, we strongly recommend that you purchase tickets in advance via your registration form. Tickets may not be available for purchase at the meeting.

## Guest Registration

Guests or spouses not attending the scientific sessions may register at the meeting at no charge. Guests who wish to attend a section event or the Honors Banquet must purchase tickets in advance. Tickets may not be available for purchase at the meeting.

## Receipt

If you preregister for the meeting, an official receipt will be attached to your badge, which will be given to you at the preregistration desk on-site.

## Cancellations

You must send written notification of cancellations to AGU headquarters. The full registration fee will be refunded if written notification is received at AGU headquarters by May 15, 1999.

Between May 15, 1999, and May 21, 1999, a \$20.00 processing fee will be deducted from the amount paid. Refunds will not be processed after May 21, 1999. Notification to cancel tickets for social events will not be honored unless received 96 hours prior to the event. The meeting facilities require AGU to place a final guarantee of attendance for each event at this time.

## Registration Rates

	Until 4/23	After 4/23
Regular Member		
(More than 1 Day)	\$225	\$260
(1 Day)	\$113	\$148

Student Member		
(More than 1 Day)	\$100	\$135
(1 Day)	\$50	\$85
Undergraduate*		
(More than 1 Day)	\$30	\$40
(1 Day)	\$15	\$20
Retired Senior Member**		
(More than 1 Day)	\$100	\$135
(1 Day)	\$50	\$85
Nonmember		
(More than 1 Day)	\$265	\$300
(1 Day)	\$133	\$168
Student Nonmember		
(More than 1 Day)	\$140	\$175
(1 Day)	\$70	\$105

\* Student ID required at time of registration.

\*\* Age 65 or older and retired from full-time employment.

## Hotel Accommodations

### Housing Opening Date: February 17, 1999

AGU has blocked rooms at several properties in Boston, within walking distance of the Hynes Convention Center, that will suit a variety of budgets and tastes. Rooms have been selected on the basis of location, availability, price, safety, and desirability.

Rooms are available in the following hotels. For all hotels listed, check-in time is 3:00 P.M. and checkout time is 12:00 P.M. Room rates do not include 12.45% state and local taxes.

1. Boston Marriott Copley Place (Headquarters Hotel)  
Rates: \$136 single or double
2. Sheraton Boston  
Rates: \$140 single or double
3. Back Bay Hilton  
Rates: \$135 single, \$155 double
4. Boston Park Plaza  
Rates: \$140 single or double
5. MidTown Hotel  
Rates: \$117 single or double
6. John Hancock Conference Center  
Rates: \$120 single, \$130 double

## To Make Reservations

### Housing Deadline: April 23, 1999

Hotel reservations must be made directly through the Housing Bureau between February 17, 1999, and May 21, 1999. To take advantage of the special AGU discount rates, be sure to **make your reservation by April 23, 1999**. After April 23, 1999, reservations will be accepted on a space-available basis only and rates are subject to change. **Please note that rooms will be taken quickly, so we advise you to make your reservation early.**

Hotel rooms will be assigned on a first-come, first-served basis. Please have three choices in mind when making your reservation. If the hotels you have selected are sold out, the Housing Bureau will assign you to a comparable hotel.

### Reservations can be made through the Housing Bureau by

**INTERNET:** Use the interactive housing form on the AGU Web site (<http://www.agu.org>) to reserve your room and receive an immediate confirmation. **You will need the following code in order to book online: "AGUATN699."**

**TELEPHONE:** Call the Housing Bureau, 9:00 A.M. - 7:00 P.M. EST, Monday through Friday, at 1-877-823-1612 (toll free) or +1-416-385-9031.

**FAX/MAIL:** To make reservations by fax or mail, please contact the AGU Meetings Department to request a housing form, Tel: +1-202-462-6910, ext. 215, Fax: +1-202-328-0566, E-mail: [meetinginfo@agu.org](mailto:meetinginfo@agu.org).

In Boston, all hotels require a deposit of \$150 US per room. Payment can be made by providing an American Express, VISA, Mastercard, or Discover credit card

number. Credit card deposits will be charged by the hotel holding your reservation on or after April 23, 1999. **Please note, if a deposit is not received, your hotel reservation will be returned.**

### Confirmation of Reservation

The Housing Bureau will send you a confirmation. Review it carefully for accuracy. Room confirmation will only be sent to the primary person requesting the reservation. If you do not receive a confirmation via e-mail, fax, or mail within 14 days after sending the request, please contact the Housing Bureau toll-free at 1-877-823-1612.

### Changes/Cancellations/Refund Policy

The Housing Bureau will have the only record of your reservation until May 21, 1999. Please notify the Housing Bureau of any **changes** to your reservation and all **cancellations** by writing, faxing, or calling before May 21, 1999. Beginning May 22, 1999, you will need to call the hotel holding your reservation directly for changes and cancellations.

Cancellations will be accepted without penalty until April 23, 1999, except reservations with check deposits. These will be assessed a \$17.00 processing fee if canceled. All cancellations received between April 23, 1999, and May 21, 1999, will be assessed a \$17.00 processing fee. Any cancellations made after May 21, 1999, will forfeit their entire deposit.

### Student Housing at Boston University

#### Housing Deadline: April 30, 1999

AGU has blocked rooms at Boston University to offer a discount housing option for students. Accommodations will be located in

Warren Towers, 700 Commonwealth Avenue, a non-air-conditioned dormitory. Bathroom facilities are shared (two main bathroom areas on each floor). No telephones or clocks are provided in the rooms. Pay phones are available for outgoing calls, and messages for incoming calls may be received at the Warren Towers front desk. The room rates are \$45 per night for a single room, or \$70 per night for a double room.

An optional meal plan is available for breakfast. Breakfast is served in the dining hall daily, 7:00 A.M. - 9:00 A.M. and costs \$6.00 per day. In addition, there are several fast-food restaurants within walking distance of the dorm for your convenience.

Overnight parking is available to guests for a fee of \$10.00 per day. The parking lot is located approximately one block from the dorm, at 766 Commonwealth Avenue.

Access to the Case Athletic Center is available to guests for a fee of \$5.00 per day. Transportation to and from the Spring Meeting activities at the Hynes Convention Center is an easy ride on Boston's subway system (The T). Depart from the Boston University Central station to the Hynes Convention Center station. The Hynes station is located on Massachusetts Avenue between Newberry and Boylston Streets. The Convention Center is located on Boylston Street, just one block from the corner of Boylston Street and Massachusetts Avenue. To return to Boston University, take the Green line "B" train to the Boston University Central stop. A one-way fare is approximately \$0.85. Exact change and/or tokens are accepted by the conductor.

### To Make Reservations

Please print the student housing form from the AGU Web site: <http://www.agu.org>. If you do not have access to the World Wide Web, please contact the Meetings Department to request a reservation form, Tel: 1-800-966-2481 or +1-202-462-6910, ext. 215, Fax: +1-202-328-0566, E-mail: [meetinginfo@agu.org](mailto:meetinginfo@agu.org). Complete and return the form with full payment by April 30, 1999, to

Spring Meeting Student Housing  
American Geophysical Union  
2000 Florida Avenue, N.W.

Washington, DC 20009

Fax: +1-202-328-0566 (credit card payments only)

### Changes/Cancellations/Refund Policy

Changes or cancellations must be made in writing directly to AGU. Cancellations for full refund must be made by April 30, 1999. Cancellations between April 30 and May 15 are subject to a \$20 cancellation fee. No refunds will be made after May 15, 1999.

### Travel Information

#### Airline Discounts

Save money on your travel costs to Boston! Book early and take advantage of the special discount fares that give you the greatest savings! United Airlines is the official airline for the Spring Meeting. United is offering a 10% discount off the unrestricted mid-week coach fare or 5% discount off the lowest applicable fares, including First Class. **An additional 5% discount will apply when tickets are purchased at least 60 days in advance of your travel date.** Discounts also apply on United Express and Shuttle by United flights. Mileage Plus members

receive full credit for all miles flown to this meeting.

To obtain these special discount fares, you or your travel agent must call United's toll-free number, **1-800-521-4041** and refer to the **Meeting ID Number 558II**. Dedicated reservationists are on duty 7 days a week from 7:00 A.M.- 12:00 midnight Eastern Standard Time.

#### **Travel Insurance**

Participants traveling from outside the United States may wish to

purchase accident and medical insurance protection during their visit to Boston. Seabury and Smith, an association service organization, offers coverage through their Gateway USA program. Insurance must be purchased for a minimum of 15 days, up to a maximum of 60 days. Prices will vary depending upon the individual's age and choice of benefit package. For more information, please contact Seabury and Smith at +1-202-457-6842.

For more information, please contact

AGU Meetings Department  
2000 Florida Avenue, N.W.  
Washington, DC 20009 USA  
Phone: 1-800-966-2481 or +1-202-462-6900  
Fax: +1-202-328-0566  
E-mail: [meetinginfo@agu.org](mailto:meetinginfo@agu.org)  
Web Site: <http://www.agu.org>

## **Meeting Calendar 1999-2000**

### **1999**

#### **March**

##### **15-18 30th Lunar and Planetary Science Conference.**

Houston, TX. *Details:* L. Simmons, Conference Administrator, LPI Publications and Program Services Department, 3600 Bay Area Boulevard, Houston, TX, 77058-1113. Tel.: (281)-486-2158, Fax: (281)-486-2160, E-mail: [simmons@lpi.jsc.nasa.gov](mailto:simmons@lpi.jsc.nasa.gov)

##### **25-31 Geological Society of America Penrose**

##### **Conference: Mid-Cretaceous to Recent Boundary Processes in the Southwest Pacific.**

Canterbury, New Zealand. *Details:* S. Baldwin, Geosciences Department, University of Arizona, UA PO Box 210077, Tucson, AZ 85721 USA ; Tel.: (520)-621-9688; Fax: (520)-621-2672; E-mail: [baldwin@geo.arizona.edu](mailto:baldwin@geo.arizona.edu)

#### **March-April**

##### **28-1 European Union of Geosciences (EUG 10).**

Strasbourg, France. *Details:* EUG Office, 5 rue Rene Descartes, 67084 Strasbourg Cedex, France ; Tel.: +33-3-88-45-01-91; Fax: +33-3-88-60-38-87; E-mail: [eug@eost.u-strasbg.fr](mailto:eug@eost.u-strasbg.fr); WWW: [eost.u-strasbg.fr/EUG](http://eost.u-strasbg.fr/EUG).

#### **April**

**7-8 Hydrocarbon-bearing Inclusions in Crustal Rocks - Study Methods, Applications and Case Histories.** Galway, Ireland. *Details:* Martin Feely, Dept. of Geology, National Univ. of Ireland,

Galway, Ireland. Tel. 353 091 524411 ext. 2129, E-mail: [martin.feely@ucg.ie](mailto:martin.feely@ucg.ie)

#### **May**

##### **6-7 GEOVISION 99 (1st Symposium on Imaging in Geology).**

Liege, Belgium. *Details:* Prof. Eric Pirard, University of Liege, Mica Geomaterials Characterization, Avenues des Tilleuls, 54, 4000 Liege, Belgium. Tel.: 32-4-3669528; Fax: 32-4-3669520; E-mail: [eric.pirard@ulg.ac.be](mailto:eric.pirard@ulg.ac.be); WWW: <http://www.lgih.ulg.ac.be/geovision>.

##### **17-21 9th Meeting of the Russian Mineralogical Society.**

St. Petersburg, Russia. *Details:* Dr. Mikhail Morozov, 9th Mineralogical Society Meeting, Russian Mineralogical Society, 21st line 2, 199026, St. Petersburg, Russia. Tel.: 7 (812) 218-86-40, Fax: 7 (812) 327-73-59, E-mail: [vmo@mineral.ras.spb.ru](mailto:vmo@mineral.ras.spb.ru) or [meeting@mvm.usr.spmi.spb.ru](mailto:meeting@mvm.usr.spmi.spb.ru), WWW: <http://www.ripn.net/relarn/members/vmo/conf/m99e.html>.

##### **21-23 4th Annual Penn State Mineral Symposium – The Mineralogy of Gems and Precious Metals.**

State College, Pennsylvania. *Details:* Penn State Mineral Symposium, c/o Mineral Museum, 122 Steidle Bldg., University Park, PA 16802. Tel. (814)-865-5427; E-mail: [sicree@geosc.psu.edu](mailto:sicree@geosc.psu.edu).

##### **26-28 Geological Association of Canada - Mineralogical Association of Canada Joint**

**Annual Meeting.** Sudbury, Ontario. *Details:* GAC-MAC Sudbury 1999, Dept. of Earth Sciences, Laurentian University, Sudbury, Ontario, Canada P3E 2C6, Tel.: 705-673-6572; Fax: 705-673-6508; E-mail: [gacmac99@nickel.laurentian.ca](mailto:gacmac99@nickel.laurentian.ca); WWW: <http://www.laurentian.ca/www/geology/gacmac99.htm>.

### **May-June**

**31-4 AGU Spring Meeting.** Boston, MA. *Details:* AGU Meeting Department, 2000 Florida Ave., NW Washington, DC 20009. Tel.: 202-462-6900; Fax: 202-328-0566, E-mail: [meetings@kosmos.agu.org](mailto:meetings@kosmos.agu.org), WWW: <http://www.agu.org/meetings>.

### **June**

**13-18 Gordon Research Conference on Origins of Solar Systems.** Henniker, New Hampshire. *Details:* A. Boss, DTM-Carnegie Institution of Washington, 5241 Broad Branch Road NW, Washington, DC 20015-1305 USA ; Tel.: (202)-686-4370; Fax: (202)-364-8726; E-mail: [boss@dtm.ciw.edu](mailto:boss@dtm.ciw.edu); WWW: [www.grc.uri.edu](http://www.grc.uri.edu)

**14 XV ECROFI (European current research on fluid inclusions).** Potsdam, Germany. *Details:* Mrs., Claudia Rohl, GeoForschungsZentrum Potsdam, Telegrafenberg, D--14473 Potsdam, Germany. Tel.: 49(0) 331 288 1436; E-mail: [ecrofi@gfz-potsdam.de](mailto:ecrofi@gfz-potsdam.de).

**21-24 International Gemological Symposium.** San Diego, CA. *Details:* Dona Dirlam, Gemological Institute of America, 5345 Armada Dr., Carlsbad, CA 92008, Tel.: (760) 603-4154, Fax: (760) 603-4256, E-mail: [ddirlam@gia.edu](mailto:ddirlam@gia.edu).

**21-27 GSA Penrose Conference: Terrane Accretion along the Western Cordilleran Margin: Constraints on Timing and Displacement.** Seattle and Winthrop, Washington. *Details:* J. B. Mahoney, Department of Geology, University of Wisconsin - Eau Claire, WI 54702-4004, E-mail: [mahonej@uwec.edu](mailto:mahonej@uwec.edu)

### **June-July**

**36th Clay Minerals Society Annual Meeting.** West Lafayette, Indiana. *Details:* Patricia Eberl, Manager, The Clay Minerals Society, P. O. Box 44-

5, Boulder, CO 80306. Tel.: 303-444-6405; Fax: 303-444-2260; E-mail: [peberl@clays.org](mailto:peberl@clays.org).

### **July**

**7-18 Inside Silicic Calderas - CEV Field Workshop.** Birmingham, UK. *Details:* Michael Brantly, Geology Dept., Leicester University, University Road, Leicester LE1 7RH, UK. Tel.: +44 116 252 3647 Fax: +44 116 252 3647, E-mail: [mjb26@le.ac.uk](mailto:mjb26@le.ac.uk).

**11-16 62nd Annual Meteoritical Society Meeting.** Johannesburg, South Africa. *Details:* W. U. Reimold, Dept. of Geology, University of Witwatersrand, Private Bag 3, P.O. Wits 2050, Johannesburg, South Africa, Tel.: 27 11 716 2946, Fax: 27 11 339 1697, E-mail: [065wur@cosmos.wits.ac.za](mailto:065wur@cosmos.wits.ac.za)

**12-16 Orogenesis in the Outback - A Look at Cyclicity in Orogenic Belts** (Specialist Group in Mineralogy, Geochemistry and Petrology; Geological Society of Australia), Alice Springs, Australia. *Details:* Jodie Miller ([jmiller@orion.earth.monash.edu.au](mailto:jmiller@orion.earth.monash.edu.au)); Ian Buick ([I.Buick@latrobe.edu.au](mailto:I.Buick@latrobe.edu.au)). WWW: <http://www.earth.monash.edu.au/sggmp/SGGMP.html>

**18-23 5th International Conference on Mars.** Pasadena, California. *Details:* Arden Albee, Graduate Office, Mail Stop 02-31, California Institute of Technology, Pasadena, CA 91125. Tel.: (626) 395-6367, Fax: (626) 577-9246, E-mail: [5thMars99@caltech.edu](mailto:5thMars99@caltech.edu).

**19-30 22nd General Assembly of the International Union of Geodesy and Geophysics.** Birmingham, UK. *Details:* IUGG99, School of Earth Sciences, The University of Birmingham, Edgbaston, Birmingham B15 2TT, UK. Fax: 44121414 4942, E-mail: [IUGG99@bham.ac.uk](mailto:IUGG99@bham.ac.uk). WWW: <http://www.bham.ac.uk/IUGG99/>.

**22-25 SGA-IAGOD 1999.** London, UK. *Details:* C. J. Stanley, Dept. of Mineralogy, Natural History Museum, Cromwell Road, London SW7 5BD. E-Mail: [cjs@nhm.ac.uk](mailto:cjs@nhm.ac.uk)

**26-30 Asteroids, Comets, Meteors (ACM).** Ithaca, New York. *Details:* B.E. Clark, ACM Conference, Space

Sciences Building, Cornell University, Ithaca, NY  
14853-6801 USA ; Tel.: +1-607-254-8895; Fax:  
+1-607-255-9002; E-mail:  
[acm@scorpio.tn.cornell.edu](mailto:acm@scorpio.tn.cornell.edu); WWW:  
[scorpio.tn.cornell.edu/ACM/](http://scorpio.tn.cornell.edu/ACM/);

[ce0@wpmail.paisley.ac.uk](mailto:ce0@wpmail.paisley.ac.uk)), Giles Droop  
([Giles.droop@man.ac.uk](mailto:Giles.droop@man.ac.uk))

## **August**

**4-13 XVIII International Union of Crystallography Congress and General Assembly.** Glasgow, Scotland. *Details:* G. Houston, Northern Networking Congress Central Office, Bellway House, 813 South Street, Glasgow, G14 0BX, Scotland, UK, E-mail:  
[crystal@glasconf.demon.co.uk](mailto:crystal@glasconf.demon.co.uk), WWW:  
<http://www.chem.gla.ac.uk/iucr99/>.

**12-20 5th International Symposium on the Geochemistry of the Earth's Surface (GES-5).** Reykjavik, Iceland. *Details:* S. R. Gislason or G. Xander, GES-5 Conference Secretariat, Science Institute, University of Iceland, Dunhagi 3, 107 Reykjavik, Iceland. Tel.: +354 525 4800, Fax: +354 552 8911, E-mail: [ges5@raunvis.hi.is](mailto:ges5@raunvis.hi.is). WWW:  
<http://www.raunvis.hi.is/ges5.html>.

**22-27 9th Annual V. M. Goldschmidt Conference.** Cambridge, Massachusetts. *Details:* L. Simmons, Conference Administrator, Lunar and Planetary Institute, Publications and Program Services Department, 3600 Bay Area Boulevard, Houston, TX 77058-1113 USA ; Tel.: +1-281-486-2158; Fax: +1-281-486-2162; E-mail:  
[simmons@lpi.jsc.nasa.gov](mailto:simmons@lpi.jsc.nasa.gov); Abstract Deadline: May 14, 1999

## **August-September**

**28-1 Gemeinschaftstagung - annual meeting of the German and Austrian Mineralogical Societies together with the Hungarian Geological Society, Vienna, Austria.** *Details:* Minwien 1999, Institute of Petrology, University of Vienna, Geozentrum, Althanstraße 14, A-1090, Vienna, Austria, E-mail:  
[mineralogie@univie.ac.at](mailto:mineralogie@univie.ac.at) or WWW:  
[www.univie.ac.at/Mineralogie/Oemg.htm](http://www.univie.ac.at/Mineralogie/Oemg.htm).

**31-2 Exhumation of Metamorphic Terranes (Metamorphic Studies Group).** Rennes, France. *Details:* Michel Balleve ([michel.balleve@univ-rennes1.fr](mailto:michel.balleve@univ-rennes1.fr)), Simon Cuthbert ([## \*\*September\*\*](mailto:cuth-</a></p></div><div data-bbox=)

**4-10 Euroclay 1999.** Banska Stiavnica, Slovakia. *Details:* WWW: <http://www.ing-pan.krakow.pl>.

**11-16 European Research Conference - The Deep Earth: Theory, Experiment and Observation.** Acquafredda di Maratea, Italy. *Details:* John Brodhof, University College London, London, UK or George Helffrich, University of Bristol, Bristol, UK. WWW:<http://slamdunk.geol.ucl.ac.uk/~brodhof/euroconference.html>.

**12-15 Third International Workshop on Orogenic Lherzolites and Mantle Processes.** Pavia, Italy. WWW: [http://www\\_crystal.unipv.it](http://www_crystal.unipv.it).

**13-16 Modern Approaches to Ore and Environmental Mineralogy,** Pretoria, South Africa. *Contact:* Dr. M. Cloete, Council for Geoscience, Private Bag X112, Pretoria 0001, South Africa, [mcloete@geoscience.org.za](mailto:mcloete@geoscience.org.za), [www.geoscience.org.za](http://www.geoscience.org.za)

## **September-October**

**26-1 Migration '99 - Chemistry and Migration Behavior of Actinides and Fission Products in the Geosphere.** Lake Tahoe, California. *Details:* Cynthia Palmer, Lawrence Livermore National Laboratory, P.O. Box. 808, L-231, Livermore, CA 94551-9989. Tel. (925) 422-5693, Fax: (925) 422-2105, E-mail: [palmer2@llnl.gov](mailto:palmer2@llnl.gov), WWW:  
<http://www.aer.wsu.edu/migration/migration.html>.

## **October**

**25-28 Geological Society of America.** Denver, Colorado. *Details:* Becky Martin, GSA Meetings Dept. Boulder, CO 80301-9140. Tel.: (303)-447-2020, Fax: (303)-447-1133. WWW:  
<http://www.geosociety.org/meetings/index/htm>.

## **December**

**13-17 AGU Fall Meeting.** San Francisco, CA. *Details:* AGU Meeting Department, 2000 Florida Ave., Washington, DC 20009. Tel.: 202-462-6900; Fax: 202-328-0566, E-mail: [meetings@kosmos.agu.org](mailto:meetings@kosmos.agu.org), WWW: <http://www.agu.org/meetings>.

## 2000

### January

- 17-22 2000 Annual Meeting of the American Association for the Advancement of Science (AAAS).** Washington, DC. *Details:* Program Committee, AAAS, 1200 New York Avenue, NW, Washington, DC 20005 USA ; Tel.: +1-202-326-6450; Fax: +1-202-289-4021; Abstract Deadline: March 22, 1999

### April

- 16-19 8th International Symposium on Experimental Mineralogy, Petrology and Geochemistry (EMPG VIII).** Bergamo, Italy. *Details:* EMGG VIII Organizing Committee, Dipartimento Scienze della Terra, Università di Milano, Via Botticelli 23, 20133 Milano, Italy. WWW: <http://imiucca.csi.unimi.it/~spoli/empg.html>.

- 16-19 Fractal 2000 – Complexity and Fractals in the Sciences.** Singapore. *Details:* Dr. M. M. Novak, School of Physics, Kingston University, Kingston-upon-Thames, Surrey KT1 2EE, UK ; Tel. +44-181-547-7481; Fax: +44-181-547-7562; E-mail: [novak@kingston.ac.uk](mailto:novak@kingston.ac.uk); WWW: [www.kingston.ac.uk/fractal/](http://www.kingston.ac.uk/fractal/)

### May

- 15-18 Geology and Ore Deposits 2000: the Great Basin and Beyond.** Reno-Sparks, Nevada. *Details:* Geological Society of Nevada, PO Box 12021, Reno, NV 89510 USA ; Tel: +1-702-323-3500; Fax: +1-702-323-3599; E-mail: [gsnsymp@nbmg.unr.edu](mailto:gsnsymp@nbmg.unr.edu); WWW: [www.seismo.unr.edu/GSN](http://www.seismo.unr.edu/GSN); Abstract Deadline: October 1, 1999

### May-June

- 30-3 AGU Spring Meeting.** Washington DC. *Details:* AGU Meeting Department, 2000 Florida Ave., NW Washington, DC 20009. Tel.: 202-462-6900; Fax: 202-328-0566, E-mail: [meetings@kosmos.agu.org](mailto:meetings@kosmos.agu.org), WWW: <http://www.agu.org/meetings>.

### July

- 16-22 6th International Council for Applied Mineralogy (ICAM 2000).** Göttingen and Hannover, Germany. *Details:* ICAM 2000 Office, P. O. Box 510153, D-30631 Hannover, Germany. WWW: <http://www.bgr.de/ICAM2000>

- 18-22 International Association of Volcanology and Chemistry of the Earth (IAVCEI) General Assembly 2000.** Bandung, Indonesia. *Details:* Secretariat, Volcanological Survey of Indonesia, Jalan Diponegoro 57, Bandung 40122, Indonesia. Tel.: 62-22-772606, Fax: 62-22-702761, E-mail: [iavcei@vsi.dpe.go.id](mailto:iavcei@vsi.dpe.go.id) WWW: <http://www.vsi.dpe.go.id/iavcei.html>.

### August

- 6-17 31st International Geological Congress.** Rio de Janeiro, Brazil. *Details:* Secretariat Bureau, 31st International Geological Congress, Av. Pasteur, 404, Anexo 31 IGC, Urca, Rio de Janeiro, RJ, CEP 22.290-240, Brazil. Tel.: 55-21-295-5847, Fax: 55-21-295-8094, E-mail: [31igc@31igc.org.br](mailto:31igc@31igc.org.br).

### September

- 3-8 Goldschmidt 2000.** Oxford, UK. *Details:* P. Beattie, Cambridge Publications, Publications House, PO Box 27, Cambridge, UK CB1 4GL. Tel.: 44-1223-333438, Fax: 44-1223-333438, E-mail: [gold2000@camppublic.co.uk](mailto:gold2000@camppublic.co.uk), WWW: <http://www.camppublic.co.uk/science/conference/Gold2000/>

### November

- 13-16 GSA Annual Meeting.** Reno, NV. *Details:* GSA Meetings Dept. Boulder, CO 80301-9140. Tel.: (303)-447-2020, Fax: (303)-447-1133. WWW: <http://www.geosociety.org/meetings/index/htm>

### December

- 15-19 AGU Fall Meeting.** San Francisco, CA. *Details:* AGU Meeting Department, 2000 Florida Ave., NW Washington, DC 20009. Tel.: 202-462-6900; Fax: 202-328-0566, E-mail: [meetings@kosmos.agu.org](mailto:meetings@kosmos.agu.org), WWW: <http://www.agu.org/meetings>.

# Mineralogical Society of America Membership Application

To join the MSA, please send a completed copy of the application below, along with the required payments in U.S. funds, to the Mineralogical Society of America, 1015 Eighteenth St., NW, Suite 601, Washington, DC 20036-5274

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**Areas of Interest:** (Circle main, check secondary) \_\_\_\_\_

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**Personal Information:** \_\_\_\_\_

Highest Degree earned:  Doctorate  Masters  Bachelors  No College Degree

Institution at which Highest Degree was earned \_\_\_\_\_ Year \_\_\_\_\_

Employer \_\_\_\_\_ Job Title \_\_\_\_\_

Job Function(s): \_\_\_\_\_

What other professional societies do you belong to? \_\_\_\_\_

**Student Certification:** (Applicants for student membership must supply the following certification of status.) \_\_\_\_\_

The applicant is known to me and is a bona fide student at (Name of School): \_\_\_\_\_

Address of School (Please Print): \_\_\_\_\_

Faculty Member (Please print): \_\_\_\_\_

Signature (you need not be a member of the Society): \_\_\_\_\_

**Payment:** \_\_\_\_\_

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International surface airlift service for above	\$40.00
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<i>Physics and Chemistry of Minerals</i> , published eight times a year by Springer-Verlag (*rate not yet determined)	\$46 <sup>5</sup>
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# Mineralogical Society of America

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The following individuals joined MSA during October, 1998 through January, 1999. We welcome them to the Society. The areas of interest are: Mineralogy (MI), Crystallography/Crystal Chemistry (CC), Material Properties (PP), Igneous Petrology (IP), Metamorphic Petrology (MP), Sedimentary Petrology (SP), Geochemistry (GE), Phase Equilibria (PE), Economic Geology (EG), Clay Mineralogy (CM), Industrial Mineralogy (IM), Environmental Mineralogy (EM), Gems (GM), Planetary Materials (PM), Teaching (TC), Topologic

Mineralogy (TP), Biological-Mineral Interactions (BM), and others as indicated.

If you know of someone who would like or should join MSA, give them the membership application that appears in this issue of *The Lattice*, or is available from MSA's web site (<http://www.minsocam.org/MSAmember/MBRfrm96.html>) or the MSA Business Office, 1015 Eighteenth St NW Ste 601, Washington, DC 20036-5274, USA.

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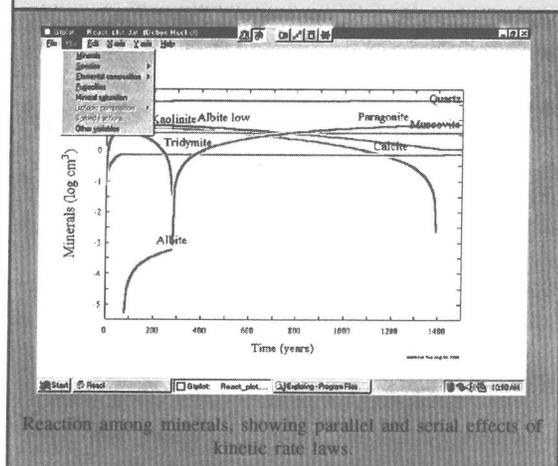
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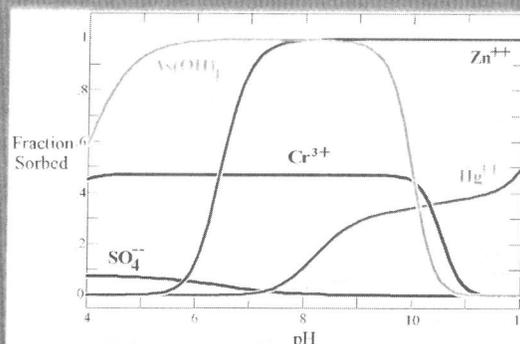
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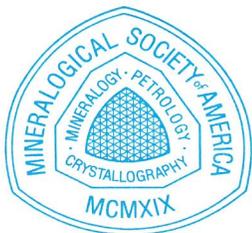
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