

The Lattice

**The Newsletter of the
Mineralogical Society of
America**

Subscription and member-
ship information
is on page three.

1015 18th Street, N.W.,
Suite 601,
Washington, DC 20036-5212
U.S.A.
ISBN 1526-3746

Table of Contents

President's Letter	p. 2
ICDD grants	p. 4
Notes from Washington.....	p. 6
Secretary's report	p. 8
Speaker's needed	p. 12
New members	p. 14
Meetings Calendar.....	p. 23
Lattice Deadline.....	p. 24
Members in the News.....	p. 25
AP Geology	p. 25
Symposium	p. 25
Rocks and Minerals	p. 25
Advertisement info.....	p. 26
Thanks.....	p. 26
Outreach News	p. 27
GMR contents	p. 27

MSA presents awards at luncheon during 2000 GSA meeting

by Darrell Henry

The eighty-first Awards Luncheon of the Mineralogical Society of America was held on November 14, 2000 during the 2000 Geological Society of America meeting in Reno, Nevada.

Robert C. Reynolds, Jr. was awarded the Roebling Medal, the highest honor given by MSA, for fundamental work on the X-ray diffraction characteristics of mixed-layered clay minerals. After two years in the U.S. Army Air Force, he graduated from Keystone Junior College and then completed a B.S. in Geology at Lafayette College in 1951. He then moved to St. Louis with his wife RoseAnn where he completed a Ph.D. at Washington University in 1955. There he studied the metamorphism of olivine gabbros from south Norway, and after graduation, was employed at the Tulsa Research Center of Stanolind where he studied clay minerals in collaboration with John Hower. He joined the Department of Geology at Dartmouth College in 1960 where he remained until his retirement in 1997. In the 1960s he was supported by the U.S. Army Cold Regions Research and Engineering Laboratory, and it was then that he did his initial work on the X-ray diffraction of mixed layer clay miner-

als, a field that, together with the origin of mixed-layer illite-smectite, remained his primary interest. In the 1970s, he published on other topics that include the formation of clay minerals in the alpine environment, and the kinetics of calcium carbonate precipitation. In 1980 he returned to clay mineralogy, concentrating on computer simulations of the three-dimensional X-ray diffraction patterns of disordered minerals. Duane M. Moore served as the citationist for the award and highlighted many of the other activities in Robert Reynold's

Continued on page 3



Roebling Medal awarded to Robert C. Reynolds. MSA President Bill Carlson presented the Medal to Richard Birnie who accepted the Medal in Reynolds' behalf. Citationist Duane Moore is in the back.

Letter from the President



New editor to welcome; update to the Spring Council meeting plans

by Cornelis Klein

During the Geological Society of America meetings in Reno, Nevada, last month, I was able to meet with a considerable number of MSA members, be it during Council sessions, at professional presentations, or during the very successful joint reception for members of MSA and the Geochemical Society. However, because so few of our international members attend such meetings, I think I should briefly introduce myself as the President of MSA for 2001.

I was born in Haarlem, The Netherlands. A common, short nickname for Cornelis in Holland is "Kees," which has in North America become anglicized to "Kase." I completed my high-school (gymnasium) diploma in the Netherlands, and after that enrolled as an undergraduate in Geology at McGill University in Montreal, Quebec, Canada. I received two degrees from McGill, a B.Sc. (1958) and an M.Sc. (1960). I completed my Ph.D. in Geology at Harvard University (1965) and have served on the faculty at Harvard (until 1972), Indiana University (Bloomington, IN) until 1984, and am now at the

University of New Mexico, as Professor in the Department of Earth and Planetary Sciences. My main research interest, since 1958, has been Precambrian iron-formations, their mineralogy, metamorphism, and origin. These interests have involved extensive fieldwork in many parts of eastern and northwestern Canada, in Western Australia, South Africa and in the state of Minas Gerais in Brazil. So much for the introduction.

For a detailed review of all the very successful activities that have taken place in the prior year, under the auspices of MSA, please consult the report of the secretary of MSA, David Jenkins, which is part of this edition of the *Lattice*.

Let me now highlight a future change in the editorial office of *American Mineralogist* and make some comments about the upcoming Goldschmidt Conference.

During the spring MSA Council Meeting, held at the time of the AGU meetings in Washington in May, 2000,

Continued on page 5



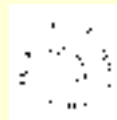
Richard Fiske receiving the Distinguished Public Service Award from MSA President Bill Carlson with citationist Sorena Sorensen looking on.

Awards, Continued from page 1

prolific career. Richard W. Birnie, chair of the Department of Earth Sciences of Dartmouth College, accepted the award for Robert Reynolds who was unable to attend due to an impending operation.

The Distinguished Public Service Award was presented to Richard S. Fiske for his outreach efforts in volcanology, mineralogy and geology. Richard Fiske attended Princeton University and obtained a B.S.E. and M.S.E. in Geological Engineering in 1954 and 1955, respectively. After a year of employment with the Union Oil Company in California, he returned to Johns Hopkins, earning his Ph.D. in geology in 1960, specializing on studies in Mount Ranier National Park, Washington. During a 1960-1961 postdoc at the University of Tokyo he studied submarine pyroclastic rocks of Miocene age under the guidance of Professor Hisashi Kuno. He joined the U.S. Geological Survey in 1963, serving on the staff of the Hawai'ian Volcano Observatory (1965-1968) and as Assistant Chief Geologist for Geochemistry and Geophysics (1972- 1976). He moved to the Smithsonian Institution in 1976 and was Director of the National Museum of Natural History from 1980 to 1985. His involvement with museum exhibits programs expanded greatly during those years. After rotating out of the directorship, he was the chief organizer of Natural History's exhibit "Inside Active Volcanoes: Kilauea and Mount St. Helens," which attracted record audiences in Washington, D.C., before traveling to 11 other U.S. cities. He and Natural History colleagues collaborated during the 1990s to curate the Museum's new permanent exhibit "Geology, Gems, and

Continued on page 4



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 and Geochemistry* series; *The Lattice*; special subscription rates for *Mineralogical Abstracts*, *Physics and Chemistry of Minerals*, *Journal of Petrology*, and *Rocks and Minerals*; 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 2001: professional members \$50; student members \$5. *American Mineralogist* subscription: professional members add \$30; student members add \$25. Membership is on a calendar year basis. Individuals who join after January 1, 2001 will be sent all back issues of volume 85 for 2001.

Additional membership information and an application, and/or a price list of the Society's publications are elsewhere in this newsletter, or contact the Business Office.

Institutions may subscribe to the 2001 volume of *American Mineralogist* for the annual rate of \$480 in the US and \$490 for non-US addresses. The subscription price includes any new volumes of the *Reviews in Mineralogy and Geochemistry* series published during the calendar year of the subscription. Payment must be received in full before a subscription will be started.

2001 President: *Cornelis Klein*, Univ. of New Mexico

Past-President: *William D. Carlson*, Univ. of Texas-Austin

Vice President: *Rodney C. Ewing*, Univ. Michigan

Secretary: *David Jenkins* Binghamton Univ.

Treasurer: *James G. Blencoe*, Oak Ridge Nat. Lab.

Editor of The Lattice: *Darrell J. Henry*, Louisiana St. Univ.

MSA Administrator: *J. Alexander Speer*

Production Manager: *Rachel A. Russell*

Mineralogical Society of America

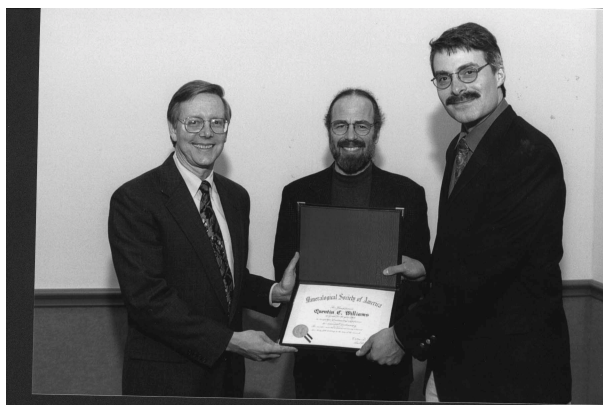
1015 Eighteenth Street N.W., Suite 601

Washington, D.C. 20036-5212, U.S.A.

Tel: (202) 775-4344; Fax: (202) 775-0018

E-mail: business@minsocam.org,

j_a_speer@minsocam.org



Awards, Continued from page 3

Minerals,” now visited by several million people annually. His current research interests include present-day submarine rhyolitic calderas (and associated Kuroko-type polymetallic sulfide deposits) and the newly recognized (and extraordinarily energetic) explosive eruptions of Kilauea Volcano, Hawaii. Sorena Sorensen gave a lively citation of the career and impact of Richard Fiske.

Quentin Williams received the Mineralogical Society of America Award for outstanding research early in one’s research career. Quentin Williams was born in 1964 in Delaware, U.S.A., the fifth child of a solid state physicist and a mechanical engineer. He graduated from Princeton University with an A.B. in chemistry in 1983, and then entered graduate school at the University of California at Berkeley. He has spent the subsequent 17 years in the University of California system. His Ph.D. (in geology)

was based largely on spectroscopic work at high pressure on mantle minerals and glasses, and was advised by Raymond Jeanloz. During his time as a graduate student, he learned less than he should have about real rocks from Ian Carmichael and his group. In 1988, he became an Assistant Research Geophysicist in the Institute of Tectonics at the University of California at Santa Cruz, a position he held until becoming an Assistant Professor in the Earth Sciences Department at UCSC in 1991. He’s now a full Professor, and has co-run a high pressure/spectroscopy lab since his arrival at UCSC. As such, he worries a lot about the high-pressure behavior of planetary materials, and collaborates with seismologists, geochemists, and the occasional structural geologist or archaeologist. He is married to the Chair of his department (Elise Knittle), and they have three kids. Raymond Jeanloz served as citationist and recognized Williams as a very talented and creative researcher.

MSA cited Michael F. Hochella, Jr. and Tracy Rushmer as the 1999-2000 MSA distinguished lecturers. MSA-sponsored lecturers travel from September through April giving talks at colleges and universities in the United States and Canada about new directions in mineralogy. Each Lecturer may visit as many as 15 schools throughout the US, Canada, and Europe in the year. During the 1999-2000 academic year Michael F. Hochella, Jr., Virginia Polytechnic Institute and State University, offered lectures on *Mineral-environment interfacial processes: How the solid earth talks to the hydrosphere, atmosphere, and biosphere* and *Nuclear and Mining wastes: A scientific and societal look at lessons we have (and haven’t) learned*. Tracy Rushmer, University of Vermont, lectured on *Cracks, fractures, and flow: Magmatic journeys through the Earth’s crust and Earth’s core: The great unexplored inner space*.

Darrell Henry was recognized by MSA for outstanding service to MSA as the second editor of *The Lattice* for the past five years. Barb Dutrow was cited by MSA for serving as Secretary of MSA for four years.

Finally, Bill Carlson passed on the gavel of the MSA Presidency to Kase Klein. Kase started his presidential term with the closing of the 2000 MSA Awards Luncheon, effectively as supplement lines found on the ICDD

The ICDD Grant-in-Aid Program

The International Centre for Diffraction Data (ICDD) has increased grant-in-aid funding for the 2000-2001 grant cycle in order to allow more grants to be supported.

The ICDD is interested in obtaining high quality experimental powder dif-

fraction patterns to add to its internationally renowned database, the Powder Diffraction File (PDF). The ICDD’s Grant-in-Aid Program is designed to give limited financial support to those institutions interested in supplying new patterns. A grant can be used most

to existing funded projects involving the preparation and characterization of new materials using X-ray powder diffraction. There are two grant cycles with proposal deadlines of: Cycle I 31 January and Cycle II 31 July

For more information, please review the guide-

web site, <http://www.icdd.com>, or contact Ms. Shelley Wolkov, Grant Coordinator, International Centre for Diffraction Data, 12 Campus Boulevard, Newtown Square, PA 19073-3273 U.S.A. Telephone: 610.325.9814 Fax: 610.325.9823 E-mail: wolkov@icdd.com. □

President Letter, Continued from page 2

the Council charged me (as Vice President at that time) with the task of finding a new co-editor for *American Mineralogist* for January 2001. This came about because one of our present co-editors, Anne Hofmeister, had indicated that she would like to leave that position, after three years, by the beginning of the year 2001. I am happy to be able to announce that after a quite extensive search, the MSA Council has approved the appointment of Lee A. Groat, Associate Professor in the Department of Earth and Ocean Sciences at the University of British Columbia in Vancouver, British Columbia, Canada. This means that, as of early January 2001, the two co-editors of *American Mineralogist* will be Robert F. Dymek and Lee A. Groat. Welcome on board Lee! The Society is most grateful to you for accepting this important position. Bob's continuation as co-editor will greatly aid the smooth transition in the co-editorship from Anne to Lee. Bob has indicated that he may wish to continue as co-editor for another three years, which is great news for the Society as well as the journal. Let me take this opportunity to thank Anne Hofmeister, on behalf of the Society for three years of very conscientious and hard work as co-editor of *American Mineralogist*. Anne, we wish you all much good luck in your research endeavors for which there will soon be lots more time! Again, many, many thanks for all you have done for the Society.

The other issue, again good news, is that of the Goldschmidt Conference, planned jointly by MSA, the Geochemical Society, and the European Association of Geochemistry, for May 20–24, 2001 in The Homestead, Hot Springs, Virginia. The scientific program of six general and 41 topical sessions is a wonderful mix of mineralogy, petrology, and geochemistry. The two organizers for the meetings are Bob Bodnar and Mike Hochella. The deadline for hard-copy abstract submission is February 9, 2001 and for electronic abstract submission it is February 16, 2001. Please consider participating in this joint mineralogy-geochemistry meeting, which promises to be a great success. The Goldschmidt website (<http://www.lpi.usra.edu/meetings/gold2001/>) provides extensive information on the Conference. Let me quote "If you



Outgoing President Bill Carlson passing the gavel of the MSA presidency to new President Kase Klein.

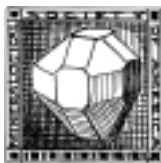
do anything with geochemistry or with minerals, there will be something at this meeting for you."

In closing, let me take this opportunity to express our collective "thank yous", on behalf of MSA, to the outgoing members of Council who have worked hard during their respective terms to keep the Society scientifically and financially successful. They are the outgoing president, Bill Carlson; the outgoing treasurer, Brooks Hanson; and the two outgoing councilors, Mark Ghiorso and Bob Luth. On behalf of the Society I also welcome the incoming vice president, Rod Ewing; our new treasurer, Jim Blencoe; and two incoming councilors, Craig Manning and Kathy Nagy. Congratulations are due to Alex Speer, who used to be known as MSA's Scientific Administrator, but will from now on be the Society's Executive Director, with expanded responsibilities for Society matters.

The MSA website (<http://www.minsocam.org/>) lists the addresses, phone numbers, and e-mail addresses for all of the Society's officers. If you have suggestions about matters relating to the present-day operation or future of the Society please communicate them to me personally.

Wishing you all a happy 2001! □

MSA web site: click it out!
www.minsocam.org



Notes from Washington

by J. Alexander Speer

• As many members saw on their computers one day in September, MSA started membership renewal by internet this year. Messages were sent to all MSA members for which we had e-mail address. There were 1534. 73 were returned as bad addresses. 1240 electronic reminders were sent to all members (except the life members) who had not renewed by 10/11/00. By 10/16/00, the deadline specified in the original message, 526 members had renewed (119 fellows, 334 members, 64 students, 3 senior members, and 6 senior fellows). Most renewed the 2-3 days before the deadline. 415 members and 63 students renewed their *American Mineralogist* subscriptions. \$7693 was collected in contributions: Endowment \$3553, Kraus \$850, Min/Pet \$2205, Outreach \$1085. These appear to be goodly amounts compared to previous years, and participation seems much more widespread. However, it may be awhile before this can be confirmed. Members who renewed online may be a self-selected group more inclined to donate. By 11/10/2000, 134 members had responded to the online survey.

There were few problems reported to us. The largest problem was members identifying themselves to the database. These were solved by searching on just their last name, city, or member ID alone. (This same trick applies to MSA online searchable directory, in case you encounter the same problem there). Others had problems with their browser or server set-up. Several members wrote to say that they do not trust electronic commerce or that their institutions require original hardcopy dues invoices. Unexpected was the large amount of correspondence generated by the electronic renewal of members making a wide range of inquiries. Usually the only large and concentrated one-on-one contact between MSA members and the MSA offices is at meetings where we have a booth in the exhibit hall.

• MSA membership paper renewals were mailed in early November to members whose electronic renewals were not received by 10/16/2000. If you have not received yours, please let the MSA Business Office know. You can save your Society money by renewing promptly. You can renew by either returning the paper form with payment or you can still use the online renewal with a credit card. Electronic renewal can be reached from the MSA website at www.minsocam.org.

• In this issue of the *Lattice* there is an announcement of the 2002 Grant for Research in Crystallography from the Edward H. Kraus Crystallographic Research Fund and

the 2002 MSA Grant for Student Research in Mineralogy and Petrology Research from an endowment created by contributions from the MSA membership. Council has increased the grants to \$5000 for 2002. This is possible because of the continued generous contributions from MSA members and the healthy investment climate of the last three to four years. Awards are currently \$3500 from both funds; two Mineralogy/Petrology research awards are given. The present \$3500 amount was last increased from \$1500 in 1986. Adjusted for inflation, \$3500 in 1986 would now be worth about \$5000. This inflation adjustment will keep the awards meaningful, and such inflation increases will be balanced in the future with increasing the number of awards. For the 2001 grants there were 43 applicants. Only three could be funded, though many more were deserving.

• The *Lattice* has a new feature starting with this issue, a Table of Contents for MSA's electronic journal, *Geological Materials Research*. If you have not done so thus far, you should look at the articles published there. Consider publishing any of your manuscripts that could take advantage of this electronic format: unlimited color, animation, large data sets, rapid publication, worldwide access, and no page charges in a refereed journal. At least one published paper has been popular; MSA has gotten several requests to reproduce figures from v1n3, *Real-time AFM diagrams on your Macintosh*, by Frank S. Spear. They are animated AFM diagram showing how mineral assemblages and compositions change with changes in *P* and *T*. If you or your students always had difficulty understanding AFM graphical representations, this is the article to look at.

• The *Ask-a-Mineralogist* section of the MSA website is picking up business. There are 34 threads with 89 messages as of 11/22/2000. Questions are rather diverse. Most ask about specific minerals and rocks, or how to identify something they have. Examples of other questions include how natural opals form, how to measure the amounts of different hydrous copper sulfates in mixtures from oxidized porphyry copper deposits, how to get started collecting minerals, and formation of CuI₂ in Ordovician sedimentary rocks. We appreciate Pete Modreski, Gordon Nord, and especially David Von Bargen responding to these questions. If you have a few moments in your office, consider sharing your knowledge and answering a question or two, or expanding on an existing answer. The effort is appreciated. "Susan" just had to say thanks for taking the time to answer her question on finding a list of "officially approved" mineral species by the IMA so thoroughly. She thought this is a great service.

• Speaking of the MSA website, if you have not added your name to the MSA-Talk list consider doing so. You are

Continued on page 11

SPRING MEETING RETURNS TO BOSTON!

John B. Hynes Convention Center

Sponsors

American Geophysical Union (AGU)
Geochemical Society (GSC)
Mineralogical Society of America (MSA)
American Astronomical Society, Solar
Physics Division (AAU/SPD)



Important Deadline Dates

■ Abstract Deadlines

Meet: March 1, 2001
(Send all abstracts to the AGU office)

Write: March 8, 2001
(Respond to the AGU office by noon
GMT)

■ Registration and Housing Deadlines

April 26, 2001

■ Barker Travel Fellowship Applications

January 31, 2001

■ Student Van Pool/Car Pool Program Applications

April 20, 2001

Meeting Activities

Career Center

On-Site Child Care Service

Section Events

Agency Night

Honors Program

Exhibit Hall, including AGU books
and products

Geophysical Information for
Teachers (GIFT) Workshop

Press Briefings

Programs for Students

Outstanding Student Paper
Awards

Registration & Housing
Discounts

Student Travel Grants &
Fellowships

Student Van Pool/Car Pool
Program

100-001

Secretary's Report to the 81st MSA Annual Business Meeting

by David M. Jenkins, *MSA Secretary*

The 81st annual business meeting of the Mineralogical Society of America was held on Tuesday, November 14, 2000, in Ballroom E of the Atlantis-Casino Resort, Reno, Nevada. What follows is a brief overview of the main actions taken by the council, executive committee, society election results, and other actions since the last business meeting.

MEMBERSHIP

As of Sept 29th the total membership of the society stands at 1935. This represents a significant drop of about 60 members compared to the nearly constant membership of 1998 and 1999. Council is well aware of the decline in membership and has taken two steps to make renewal easier and to broaden its membership base. First, it initiated membership renewal through the web. Those for whom MSA has e-mail addresses (roughly 75% of the membership) were contacted by e-mail on Sept. 28, 2000, to make them aware of this new renewal process. Even better, council allowed a \$5 dollar discount in membership dues to those who renew their membership before 12/31/2000. Student members can also renew through the web by indicating a departmental contact for student verification. Second, council initiated a new student-member category. For \$5 a student can receive the *Lattice* and other membership privileges without receiving the *American Mineralogist*.

The box to the right gives a complete summary.

The total institutional subscriptions have leveled off this year and did not show the rate of decline as seen in previous years.

Please encourage your colleagues and especially your student advisees to become a member. Council continues to hold student membership prices as low as possible (\$30, \$5 for membership, \$25 for the journal).

NEW FELLOWS

I am pleased to announce the following eight new Fellows of the Society:

Michael B. Baker
Jay D. Bass
Patrick R. L. Browne
Anastasia Chopelas
Patricia M. Dove
Thomas W. Sisson
Takamitsu Yamanaka
Michael E. Zolensky

The society extends its congratulations to these individuals! To the society members, let me assure you that

the Committee on Fellows welcomes your nominations for fellows.

MEDALISTS/AWARD WINNERS:

Congratulations to all of the award and research-grant recipients (see box below). Council encourages you to nominate individuals for the various awards (detailed information can be found in the February *Lattice* and

MSA membership figures are currently:

Regular members:	1113
Life members:	72
Fellows	313
Life fellows	142
Senior members	22
Senior fellows	57
Students	213
Honorary members	3
Domestic Institutions	601
Foreign institutions	304

2001 MEDALISTS/AWARD WINNERS:

I am pleased to announce and congratulate the following Medallists and Research Grant Recipients.

Roebling Medallist is *Peter Wyllie*.

Distinguished Public Service Medallist is *Jeffrey E. Post*.

MSA Award recipient is *Peter C. Burns*.

Kraus Crystallographic Research Grant recipient is *Steven D. Jacobsen* for studying the "Elasticity of single-crystal (Mg,Fe)O and a new method for generating GHz-frequency shear waves."

Mineralogy/Petrology Research Grant recipients are:

Carlotta B. Chernoff, for the study of the "Distribution of trace metal contents in black shales and their metamorphic equivalents" and

Kaye Sawyer Savage, for the study of "Efflorescent uptake of trace oxyanions: effect on crystal structure and distribution."

Secretary Report, continued from page 8

on the MSA website). Please encourage students and younger colleagues to apply for the various research grants. Council has recently approved increasing the grant awards from their current amount of \$3500 to \$5000.

As a result of the recent council meeting the Mid-Career Award will be known henceforth as the Dana Medal, in honor of the contributions of James D. and Edward S. Dana. The recipient of the 2002 Dana Medal will be announced at the Goldschmidt conference this spring.

As a reminder, MSA offers the Undergraduate Award to outstanding undergraduates recommended by faculty members. In addition to providing recognition to deserving students, these awards can help make the society a more tangible entity for undergraduates and their parents. Details on nominating undergraduates can be found on the MSA website.

SHORT COURSES

The Short Course Transformation Processes in Minerals was held on Sept. 1 and 2 of this year at Cambridge, England. This course preceded the Goldschmidt Conference at Oxford. The conveners were Simon Redford, Michael Carpenter, Ekhard Salje, and Friedrich Seifert. The short course hosted 70 registrants. With this short course comes the first Reviews in Mineralogy and Geochemistry, or "RiMG" volume 39. It has been produced with a so-called sheet-fed press with enhanced figure quality.

Sulfate Minerals: Geochemistry, Crystallography, and Environmental Significance was held November 11 and 12 in Tahoe City, California, just prior to this GSA annual meeting. The conveners were Charles N. Alpers, John L. Jambor, and D. Kirk Nordstrom. The short course was very well attended with more registrants than expected (over 89). Publication of the accompanying RiMG volume 40 is expected by the end of 2000.

Next year will be a banner year for short courses. Each of the following short courses is planned for the year 2001:

Molecular Modeling Theory and Applications in the Geosciences which is co-sponsored with the Geochemical society, held prior to the Goldschmidt Conference on May 19 and 20 in Roanoke, Virginia. Conveners are Randy Cygan and Jim Kubicki.

Stable Isotope Geochemistry will be held prior to the GSA meeting in Boston, Massachusetts. Conveners are John W. Valley and David R. Cole.

Nanocrystals in the Environment and Technology will be held prior to the Fall AGU meeting in Davis, California. Conveners are Jillian Banfield and Alex Navrotsky

In 2002 there will be *Phosphates: Geochemical, Geobiological and Materials Importance* being organized by Matthew J. Kohn, John Rakovan, and John Hughes to

be held before the GSA meeting in Denver, Colorado

Plastic Deformation and Deformation Microstructures of Minerals and Rocks to be held in conjunction with the Fall AGU meeting. Conveners are Shun-ichiro Karato and H-R. Wenk.

In 2003 there will be:

Biom mineralization co-sponsored with the Geochemical Society and convened by Patricia Dove, James De Yoreo, and Steve Weiner

PUBLICATIONS

Volume 41 of the Reviews in Mineralogy and Geochemistry series titled "High-Temperature, High-Pressure Crystal Chemistry", edited by Bob Hazen and Bob Downs, is nearly complete. There is no accompanying short-course.

AMERICAN MINERALOGIST

The MSA website continues to expand in its capabilities for searching on items related to the *American Mineralogist*. It is possible at present to search and view on line

Continued on page 10

2000 ELECTION RESULTS

The results of the spring 2000 elections are:

President: Cornelis "Kase" Klein

Vice President: Rodney Ewing

Secretary: David Jenkins
(continuing in office)

Treasurer: James G. Blencoe

New Councilors:

Craig E. Manning

Kathryn L. Nagy

Continuing councilors:

Sorena Sorensen

Michael Carpenter

David Bish

Jeffrey Post

A total of 603 ballots was received by the August 1st deadline, representing 31% of the membership. As is usual with a strong slate of nominees, the election results were quite close. Let me extend a special thanks to those who ran for office.

Continued from page 9

the titles, authors, and abstracts of the *American Mineralogist* from 1997 to 2000. Council has just approved online access to the *American Mineralogist* for members starting January 1, 2001. This will be free to those who subscribe to the paper version. An option to subscribe only to the electronic version will be available in 2002.

After some delay in establishing a procedure for identifying the recipient of the Best Paper award, we are pleased to announce that the MSA Best Paper Award for 1999 goes to G. Morin, J. D. Ostergren, F. Juillot, P. Ildefonse, G. Calas, and G. E. Brown, Jr., for the paper "XAFS determination of the chemical form of lead in smelter-contaminated soils and mine tailings: Importance of adsorption processes", which appeared in Vol. 84 of the *American Mineralogist*.

NEW EDITORS

We thank Anne Hofmeister for her service as co-editor of the *American Mineralogist* since 1997 and welcome Lee A. Groat as the new co-editor. Lee will work with Robert Dymek who has agreed to stay on as editor for three more years to provide a valuable overlap training period for the new editor.

Similarly, we extend a hearty thanks to Darrell Henry for editing the *Lattice* for the past 5 years and welcome Andrea Koziol as the new editor of the *Lattice*. Keep a look out for a new appearance of the *Lattice* associated with the change in editors.

ELECTRONIC JOURNAL

The editors of the electronic journal *Geological Materials Research* are as convinced as ever that this form of publishing is the way to go. Electronic publishing should be particularly attractive to those who (1) would like to use color and animation, (2) incorporate large data sets, (3) have rapid publication, (4) worldwide access, and (5) no page charges in their publishing should consider this venue for publishing.

MSA LECTURE PROGRAM

This year the Lecture Program series was expanded to include a European lecturer along with the two North American lectures who are normally involved in the Lecture tour. They are:

● *John Holloway* (Arizona State University), who is speaking on "Mid-ocean ridge black smokers: Biogeochemical Cauldrons on the Seafloor" and "The upside-down world of subduction zones: Cold slabs to Explosive Volcanoes"

● *Rhian Jones* (University of New Mexico), who is speaking on "From stardust to asteroids: Meteorites and their record of solar system formation" and "Martian me-

teorites: A sneak preview of samples from our neighbor planet"

● *Ian Parsons* (Cambridge University), who is speaking on "Self-organization in crystals: Feldspar weathering, and the origin of life" and "Twelve orders-of-magnitude: How nanoscale features of minerals solve problems on the kilometer scale: The Klokken intrusion, South Greenland"

MSA heartily thanks these folks for their time and effort in speaking to colleges and universities around North America and Europe, and to Helen Lang for coordinating this program. The feedback that Helen has received emphasizes the positive impact that the MSA lecturer program can have on undergraduate and graduate students.

We also thank last year's speakers Michael Hochella and Tracy Rushmer.

DEATHS

The following MSA passed away this year:

Howard T. Evans, Life Fellow, 1941

William T. Holser, Life Fellow, 1946

Arthur Montgomery, Life Member, 1928

Bernard L. Murowchick, Life Member, 1950

Harold L. James, Life Fellow, 1947

Louis S. Walter, Fellow, 1959

Anyone who wishes to prepare a memorial, please contact J. Alex Speer, in the Business Office, who is now serving in the capacity of the memorialist.

COMMITTEES

MSA's operations depend not only on our office staff, but also on a host of volunteers. Being the one who has the privilege of contacting many of you to serve on these committees, let me extend a special "thank you" for taking the time to help MSA and to promote its many endeavors. Without your help, MSA could not undertake its many functions to educate, grant money, and continue to serve our profession.

I would like to highlight the work that is currently being done by the K-12 component of the Outreach Committee. Co-Chair Nancy McMillan has outlined a series of projects ranging from student-interactive web-site activities on mineral identification and the rock cycle to teacher preparation information consistent with the National Science Education Standards. MSA members are encouraged to submit their activities in mineralogy and geology appropriate to K-12 education to Nancy. She especially welcomes digital images of common rock-forming minerals.

Let me conclude by saying that it is an honor to serve this first year as the secretary of MSA. I want to thank Barb Dutrow for her advice and Alex Speer for his patience while I feel my way around learning just what a secretary does. □

**Notes from Washington,
Continued from page 6**

missing out on interesting and important discussions and announcements that are not so numerous as to be an annoying addition to your daily e-mail. You can sign-up by selecting MSA-Talk List on the bottom left hand of the MSA webpage. You will go to short and easy to do instructions on how to subscribe and unsubscribe to the list, as well as easy to follow instructions about how to post a message.

- There is a new MSA publication: Reviews in Mineralogy and Geochemistry (RiMG) volume 39: *Transformation Processes in Minerals*. This is the first RiMG volume. The book accompanied the Transformation Processes in Minerals short course in Cambridge, England, September 1–2, 2000 (preceding the Goldschmidt 2000 Meeting). MSA's newest monograph, *Optical Crystallography* by F. Donald Bloss, was reviewed by Thomas Feininger in *Canadian Mineralogist*, 38, 775–776 and R. Kanaris-Sotiriou, in the August 2000 issue of the *Mineralogical Magazine*. If you have not yet bought your copies, use the publication order form in this issue of *The Lattice*, or order them online. □

The Mineralogical Society of America

announces the 2002

GRANT FOR RESEARCH IN CRYSTALLOGRAPHY

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

and the 2002

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 **US\$5000** 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 Counselor.

MSA Grants for Student Research in Mineralogy and Petrology are two **US\$5000** grants 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, innovativeness, and scientific significance of the research, and the likelihood of success of the project. Grants will be made in January 2002. There

are no restrictions on how the grant funds may be spent, as long as they are used in support of research. Application instructions and forms for the grants 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 Ste 601, Washington, DC, 20036-5274, USA (ph: 202-775-4344, fax: 202-775-0018, e-mail: j_a_speer@minsocam.org. Completed applications must be returned by June 1, 2001.



THE DIAMOND COLLECTION!

DIAMONDS of the WORLD- Our most popular collection of twelve (12) different natural diamond crystals! These will include several different colors, a variety of different forms such as cubes, octahedrons, masses etc., and all from twelve different countries! Total weight in these collections will average about three carats, and crystal sizes will range from about 2.5mm to 5mm. Every specimen is individually packaged and labeled with complete locality data, and each collection is offered at an exceptionally low, competitive per carat price @ only \$99- per collection plus \$5.00 shipping (USA).

THE NEW CD-ROM!

The Photographic Guide to Mineral Species

An astounding 5400 never-before-published photographs depicting 3100 different mineral species are pictured in this remarkable CD, four times the number of different minerals seen in any other product! Completely hyperlinked among species names, localities and associations, this outstanding photographic record captures many of the rarely-seen, frequently-overlooked phases. An invaluable teaching aid and reference work, this multi-featured, dual platform CD includes Netscape Communicator 4.5 and will operate in both Windows and Mac operating systems! Only \$69.95 plus \$4.00 shipping (USA).

THE NEW BOOK!

LANGBAN - The Mines, Minerals, Geology & Explorers

A superb 215+ page hardcover book printed on exquisite heavy stock that tells the complete story of this prolific Swedish mineral locality. Filled with excellent color photos as well as black and white images of the rich mineralogy and history of this famous area, this book is a long-awaited masterpiece of regional mineralogy that every library should have! Full descriptive mineralogy of the hundreds of species that occur there, coupled with a marvelous historical treatment make this an instant classic! Large format (30x22cm), superb printing quality @ \$75.00 plus \$6.50 shipping (USA).

THE BEST DATABASE!

The Fersman Museum Mineral Database

This excellent software product is a comprehensive database of all IMA-approved mineral species through early 1999, 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! *Most importantly, every field or combination of fields is fully searchable!* Plus, there are two user fields that can be modified and included in any search!

This DOS-based program works well in any Windows environment with an IBM-compatible system. We have prepared a full installation package and instruction guide for our clients, and this excellent software package is just \$99.00 plus \$4.00 shipping (USA).

Use your Visa, MasterCard, or American Express card.
Institutional purchase orders accepted via mail or fax.

Excalibur Mineral Company

Rare Minerals, Meteorites & Analytical Services
1000 North Division Street - Peekskill, NY 10566
Tel: (914) 739-1134 - Fax: (914) 739-1237
E-Mail: excalmin@bestweb.net
Website: www.bestweb.net/~excalmin

Speakers Needed for Earth Sciences

Dear Colleagues,

I'd like to ask for your help. In conjunction with the **Mineralogical Society of America** and the national **Friends of Mineralogy**, I'm assembling a *Directory of Earth Sciences Speakers* and want to list you in our *Directory*.

Many mineral clubs, museums, Scout groups, school classes, business organizations, etc., are constantly on the lookout for good speakers to talk to their groups about the earth and mineral sciences, but they don't know how to find people willing to speak. These groups are looking for people like you—people who are willing and able to talk to the public about some aspect of the earth sciences. I hope to assemble a *Directory of Earth Sciences Speakers* which will be a vital resource for these groups—a place to find speakers willing to address their organization.

Initially, we hope to have the *Directory* installed as a searchable list connected to the Mineralogical Society of America's Web page. A printed copy will also eventually be prepared for those who cannot access the Web.

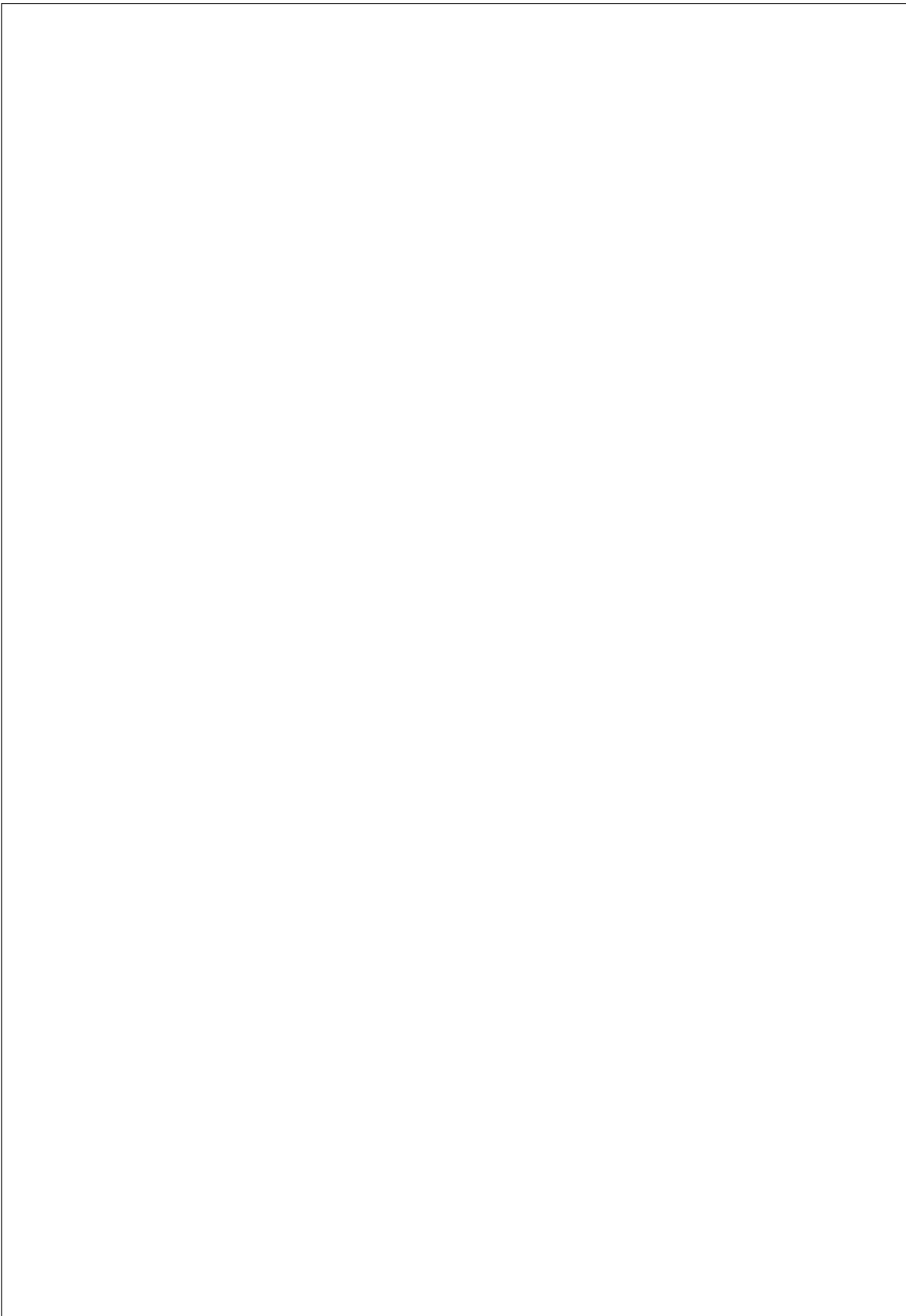
For the *Directory of Earth Sciences Speakers*, we need people who can speak about minerals, metals, volcanoes, rocks, mining, weather, the oil industry, mining history,

gold panning, prospecting, lightning, tornadoes, meteorites, stone quarrying and aggregate production, fossils, dinosaurs, Mars, gemstones, and much more. In short, **we need you**. You've written papers on earth science topics or spoken to clubs in the past, so you know the importance of bringing good science to the general public. Please look over the enclosed form. Fill it out, sign at the bottom and send it back to me (before March 15th, 2001, please) at: Dr. Andrew Sicree, (EMS Museum Director), P. O. Box 10664, State College, PA 16805. You do not need to be a member of the Mineralogical Society of America or the national Friends of Mineralogy to be included, by the way.

I hope you'll want to be listed in our *Directory of Earth Sciences Speakers* and I look forward to hearing from you. If you have any questions about this project, please feel free to contact me at the above phone number or email address. Thank you in advance for your participation!

Sincerely,
Dr. Andrew A. Sicree,
Director, Penn State
Univ. Museum
P.O. Box 10664
University Park, PA
16805

Phone: (814) 865-6427
E-mail:
sicree@geosc.psu.edu



Welcome New Members

We welcome the following as members of the Society. If you know of someone who would like to join MSA, or should join MSA, use the membership application appearing elsewhere in this issue of *The Lattice* or obtain one from either MSA's home page (http://www.minsocam.org/MSA/Member-ship_Appl.html) or the MSA Business Office, 1015 Eighteenth St NW Se 601, Washington, DC 20036-5274, USA; ph: (202) 775-4344; fax: (202) 775-0018; e-mail: business@minsocam.org. The areas of interest on the application form have been increased in an attempt to cover the increasingly broader interests of our membership. They 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.

Al, Dr. Tom Anthony, Univ of New Brunswick,

Dept of Geology, PO Box 4400, Fredericton NB E3B 5A3, CANADA. Ph: (506) 447-3189. Fax: (506) 453-5055. E-mail: tal@unb.ca (M-00).

Alberico, Dr. Augusta V., Univ degli Studi di Torino, Dpt Sci Mineralogiche e Petrologiche, Via Valperga Caluso 35, Torino I-10125, ITALY. Ph: +39 (11) 670 7134. Fax: +39 (11) 670 7128. E-mail: augusta@dsmp.unito.it (M-00).

Allen, Ms. Cynthia A., 101 McKinnish Cove Rd, Asheville NC 28806-9630. Ph: (828) 658-2711. Fax: (828) 254-3538. E-mail: (S-00). MI, CC, GE, EM, GM, TP, BM.

Andreozzi, Dr. Giovanni B., Univ Degli Studi di Padova, Dipt Mineralogia e Petrologia, Corso Garibaldi 37, Padova TX I-35137, ITALY. Ph: +39 (49) 827 2032. Fax: +39 (49) 827 2010. E-mail: gianni@dmp.unipd.it (S-00).

Baron, Dr. Dirk, California State Univ-Bakersfield, Dept of Geology, 9001 Stockdale Hwy, Bakersfield CA 93311-1099. Ph: (661) 664-3044. Fax: (661) 664-2040. E-mail: dbaron@csusb.edu (M-00).

Benison, Dr. Kathleen Counter, Central Michigan Univ, Dept of Geology, 314 Brooks Hall, Mount Pleasant MI 48859-0001. Ph: (517) 774-4494. Fax: (517)

774-2142. E-mail: benis1kc@cmich.edu (M-00).

Bird, Dr. Dennis K., Stanford University, Dept Geol & Environ Sci, MC 2115, Stanford CA 94305-2115. Ph: (650) 723-1664. Fax: (650) 725-0979. E-mail: bird@pangea.stanford.edu (M-00). GE,

Bonneau, Ms. Charlotte F., Arizona State Univ, Cen-

ter for Solid State Science, Box 87 1704, Tempe AZ 85281-1704. Ph: (480) 965-6634. E-mail: charlotte.bonneau@asu.edu (S-00). MI, CC, PP, MP, PE, IM, TC, OTHER, CERAMICS

Boram Jr., Mr. Lawrence H., 417 S Cedar St, Laramie WY 82072-7001. Ph: (307) 742-9101. E-mail: boram@uwyo.edu



NEW

Handbook of MINERALOGY Anthony • Bideaux • Bladh • Nichols **NEW - NOW AVAILABLE**

Vol. IV Arsenates, Phosphates, Vanadates
680 p., 2000 (ISBN 0-9622097-3-2)

AND STILL AVAILABLE

Vol. I Elements, Sulfides, Sulfosalts
588 p., 1990 (ISBN 0-9622097-0-8)

Vol II Silica, Silicates in two books
904 p., 1995 (ISBN 0-9622097-1-6)

Vol. III Halides, Hydroxides, Oxides
628 p., 1997 (ISBN 0-9622097-2-4)

"...well established as the definitive
reference work in mineralogy..."
P.J. Dunn, Smithsonian Institution

25% MSA member discount
Use MSA order sheet

\$5 REWARD
paid for each error found
For details visit mineraldata.com

(S-00). MI, CC, GE, PE, CM, EM, TC,

Breu, Dr. Josef, Univ-ersität Regensburg, Inst Anorganische Chemie, Univ-ersitätsstr. 31, Regensburg D-93040, GERMANY. Ph: +49 (941) 943 4523. Fax: +49 (941) 943 3261. E-mail: josef.breu@chemie.uni-regensburg.de (M-00). CM, CC.

Briggs, Mr. Paul H., P.O. Box 25046, Denver CO 80225-0046. Ph: (303) 236-2453. Fax: (303) 236-3200. E-mail: pbriggs@usgs.gov (M-00).

Brinkmann, Mr. Christian, Maximilianstrasse 36, Muenster D-48147, GERMANY. Ph: +49 251 8997202. E-mail: cbrinkm@uni-muenster.de (S-00).

Calvin, Dr. Wendy M., Univ of Nevada, Dept of Geological Sci, MS 172, Reno NV 89557-0001. Ph: (775) 784-1785. Fax: (775) 327-2235. E-mail: wcalvin@unr.edu (M-00).

Camara, Dr. Fernando, CNR-Centro di Studio Per la, Cristallochimica e Cristallo-grafica, Via Ferrata 1, Pavia I-27100, ITALY. Ph: +39 (382) 505891. Fax: +39 (382) 505887. E-mail: camara.crystal.univpv.it (M-00).

Capitani, Dr. Gian C., Univ des Sci Tech de Lille, LSPES, ESA-CNRS 8008, Bat C6, Villeneuve D'Ascq Cedex F-59655, FRANCE. Ph: +33 (320) 436966. Fax: +33 (320) 436591. E-mail: gian-carlo.capitani@univ-lille1.fr (M-00).

Carlson, Mr. Christopher P., P.O. Box 7921, Madison WI 53707-7921.

Ph: (608) 267-0856. Fax: (608) 267-2768. E-mail: carlsc@dnr.state.wi.us (M-00).

Carpenter, Mr. Steven B., U.S. Borax Inc., 26877 Tourney Rd, Valencia CA 91355-1847. Ph: (661) 287-5558. Fax: (661) 287-5450. E-mail: steve.carpenter@borax.com (M-00).

Castillo, Mr. Fernando Rojas, Parkway Apartments, 101 Spruce Rd Apt C-104, Elko NV 89801-8424. Ph: (775) 753-4339. E-mail: pascua@ctnis.com (M-00).

Cayzer, Mrs. Nicola J., Univ of Edinburgh, Dept of Geology & Geophysics, West Mains Road, Edinburgh Scotland EH9 3JW, United Kingdom. Ph: +44 (131) 668 3184. Fax: +44 (131) 668 3184. E-mail: nicola.cayzer@glg.ed.ac.uk (S-00).

Chaplin, Dr. Tracey, Univ College London, Dept of Geological Sciences, Gower Street, London England WC1E 6BT, UNITED KINGDOM. Ph: +44 (207) 679 2397. Fax: +44 (207) 388 7614. E-mail: t.chaplin@ucl.ac.uk (M-00).

Coler, Mr. David G., Philips Analytical, 12 Michigan Dr, Natick MA 01760-1316. Ph: (508) 647-1182. E-mail: david.coler@philips.com (M-00). MI, IP, GE, CM,

Colonero, Ms. Carolyn, Krueger Enterprises, Inc., Geochron Laboratories, 711 Concord Ave, Cambridge MA 02138-1002. Ph: (617) 876-3691. Fax: (617) 661-0148. E-mail: ccolonero@geochronlabs.com (M-00).

Crane, Mr. Daniel T.

USDOL-OSHA, 1781 South 300 West, Salt Lake City UT 84115-1802. Ph: (801) 487-0073. Fax: (801) 487-1190. E-mail: dau@osha-slc.gov (M-00). MI, CC, PP, EG, CM, IM, EM, GM, TP, OTHER, INDUSTRIAL HYGIENE

Crichton, Dr. Wilson A., European Synchrotron Radiation Facility, ID30, BP220, Grenoble Cedex F-38043, FRANCE. Ph: +33 (04) 7688 2269. Fax: +33 (04) 7688 2907. E-mail: crichton@esrf.fr (M-00). CC,

Davenport, Mr. Peter A., 42492 E Deerfoot Ln, Steamboat Springs CO 80487-9104. Ph: (970) 879-6637. E-mail: peted@springsips.com (M-00).

De Harde, Ms. Amina E., 1611 Bradley Ave, Rockville MD 20851-1437. Ph: (301) 762-7807. Fax: (301) 314-9661. E-mail: deharde@geol.umd.edu (S-00). MI, CC, IP, MP, SP, GE, EG, CM, IM, EM, GM, PM, TC, TP,

Destrampe, Ms. Rochelle R., 610 E Gilbert Dr Apt 240, Tempe AZ 85281-2039. Ph: (480) 784-6605. E-mail: rochelle_d@hotmail.com (S-00). MI, EG, EM, GM,

Deyell, Ms. Cari L., Univ of British Columbia, Dept Earth & Ocean Sci, 6339 Stores Rd, Vancouver BC V6T 1Z4, CANADA. Ph: (604) 221-7817. Fax: (604) 822-8238. E-mail: cdeyell@eos.ubc.ca (S-00).

Dold, Mr. Bernhard S., Univ of Waterloo, Dept of Earth Sciences, 200 University Ave W, Waterloo ON N2L 3G1, CANADA. Ph:

(519) 888-4567. Fax: (519) 746-3882. E-mail: bdold@sciborg.uwaterloo.ca (S-00).

Edmunson, Ms. Jennifer Elizabeth, 2 Moon Shadow Ct, Placitas NM 87043-9438. Ph: (505) 867-6905. E-mail: sej.edmunson@worldnet.att.net (S-00). MI, CC, IP, MP, SP, GE, PM,

Ellemann-Olesen, Ms. Rikke, Piusallee 62, Muenster D-48147, GERMANY. Ph: +49 (251) 83 33405. Fax: +49 (251) 83 38397. E-mail: olesen@nwz.uni-muenster.de (S-00). MI, CC, IP, MP, GE, PE, TP,

Engelhardt, Ms. Astrid, Universitat Hamburg, Mineral-Petro Institut, Grindelallee 48, Hamburg D-20146, GERMANY. Ph: +49 4042 2832062. Fax: +49 4042 8382422. E-mail: aengelhardt@mineralogie.uni-hannover.de (S-00).

Eubank, Mr. David L., 12 Fenwick Pl NE, Sandy Springs GA 30328-1037. Ph: (770) 394-4369. E-mail: dyouville1@aol.com (M-00). MI, CC, PP, GE, EG, CM, IM, EM, PM, TC, TP, BM, OTHER,

Feldman, Dr. Steven B., Barrick Goldstrike Mines, Inc., P.O. Box 29, Elko NV 89803-0029. Ph: (775) 778-8482. Fax: (775) 778-8161. E-mail: sfeldman@bgmi.com (M-00).

Fewless, Mr. Thomas A., 1515 Bissonnet Unit 158, Houston TX 77005-1866. Ph: (713) 524-9010. E-mail: ichowur@hotmail.com (S-00). MI, CC, GE, EM, PM, BM,

Fox, Dr. Phyllis, 2530 Etna St, Berkeley CA

94704-3115. Ph: (510) 843-1126. Fax: (510) 845-0983. E-mail: fox@aeroaquaterra.com (M-00).

Gale, Ms. Vanessa, Petra Science Consultants Inc, 3995 W 24th Ave, Vancouver BC V6S 1M1, CANADA. Ph: (604) 222-4642. Fax: (604) 222-4642. E-mail: anne@petrascience.com (M-00).

Gallardo-Cruz, Dr. Carmen, Univ de Sevilla, Dept de Fisica de la Mat Condensada, Avda. Reina Mercedes, Sevilla ES-41012, SPAIN. Ph: +34 (954) 550947. Fax: +34 (954) 612097. E-mail: mcgallar@cica.es (M-00).

Gareth, Mr. Seward, Liverpool University, Dept of Earth Sciences, Liverpool England L69 3GP, UNITED KINGDOM. Ph: +44 (151) 794 5203. Fax: +44 (151) 794 5196. E-mail: gseward@liv.ac.uk (S-00).

Gasharova, Ms. Biliana, ITC-WGT, Dept Tech Min, B. 342, Forschungszentrum Karlsruhe GmbH, Hermann-von-Helmholtz-Platz 1, Leopoldshafen D-76344, GERMANY. Ph: +49 (7247) 825572. Fax: +49 (7247) 824476. E-mail: biliana.gasharova@itc-wgt.fzk.de (S-00).

Gillot, Dr. Florence S., Univ of Delaware, Dept of Plant and Soil Sci, Newark DE 19716-0000. Ph: (302) 831-2997. Fax: (302) 831-0605. E-mail: gillot@udel.edu (M-00). MI, GE, CM, EM, GM, BM,

Goettlicher, Dr. Joerg, ITC-WGT, Dept Tech Min, B. 342, Forschungszentrum

Karlsruhe GmbH, Hermann-von-Helmholtz-Platz 1, Leopoldshafen D-76344, GERMANY. Ph: +49 (7247) 823969. Fax: +49 (7247) 824476. E-mail: joerg.goettlicher@itc-wgt.fzk.de (M-00).

Grant, Dr. Steven A., CRREL, 72 Lyme Rd, Hanover NH 3755. Ph: (603) 646-4446. Fax: (603) 646-4561. E-mail: steven.a.grant@usace.armil.mil (M-00).

Gray, Mr. Floyd, U.S. Geological Survey, 520 N Park Ave Ste 355, Tucson AZ 85719-5305. Ph: (520) 670-5582. Fax: (520) 670-5571. E-mail: fgray@usgs.gov (M-00). 47

Guo, Mr. Ying, LeYuan Hotel, Rm 108 No.15, YangRou HuTong, XiSi, XiCheng District, Beijing 100034, PEOPLES REPUBLIC OF CHINA. Ph: +86 (10) 8232 0410. Fax: +86 (10) 6616 8373. E-mail: tianbaoboshi@yahoo.com (S-00). MI, CC, PP, MP, PE, GM,

Hammond, Dr. Robert P., Chalk River Laboratories, Neutron Program for Materials Res, Bldg 459 Stn 18, Chalk River ON K0J 1J0, CANADA. Ph: (613) 584-8811. Fax: (613) 584-4040. E-mail: robert.hammond@nrc.ca (M-00). MI, CC,

Hanna, Mr. Braden T., 724-1/2 N Montana Ave, Bozeman MT 59715-2921. Ph: (406) 586-6728. E-mail: bradenn@mailexcite.com (S-00). CC, GE, EM, PM, BM,

Hauff, Ms. Phoebe L., Spectral International, Inc.,

PO Box 1027, Arvada CO 80001-1027. Ph: 303-403-8383. Fax: (303) 403-8385. E-mail: pusa@rmi.net (M-00).

Hawisher, Mr. Thomas H., 603 W Church St, Savoy IL 61874-9703. Ph: (217) 352-8031. Fax: (217) 352-8165. E-mail: tomhhsts@prairienet.org (M-00). MI, PP, SP, GE, PE, EG, CM, IM, EM, GM, BM, OTHER, CERAMIC MINERALOGY AND THERMOCHEMISTRY

Hayward, Dr. Stuart A., Univ de Sevilla, Dept Fisca de la Materia Condensada, Sevilla ES-41080, SPAIN. Ph: +34 (95) 455 0047. Fax: . E-mail: stuart@cica.es (M-00).

Herman, Mr. Stephen W., 4801 Colley Ave Apt A, Norfolk VA 23508-2090. Ph: (757) 440-5795. E-mail: sherman@odu.edu (S-00). MI, MP, SP, EG, CM,

Hiss, Dr. William L., 1130 Grizzly Park Blvd, Berkeley CA 94708-1704. Ph: (415) 439-3466. Fax: (415) 439-3348. E-mail: bill.hiss@chase.com (M-00). MI, EG,

Holmes, Mr. Jack Wayne, 6507A Hane Ln, Rosedale MD 21237-1201. Ph: (410) 485-8414. Fax: (410) 485-0188. E-mail: (M-00). IP, MI, GM, TP,

Holzapfel, Mr. Christian, Univ Bayreuth, Bayerisches Geoinstitut, Bayreuth D-95440, GERMANY. Ph: +49 (921) 553746. Fax: +49 (921) 553769. E-mail: christian.holzapfel@uni.bayreuth.de (S-00).

Hovey, Mr. Andrew G., Pennsylvania State Univ,

307C Holmes Hall, North Halls, University Park PA 16802-0000. Ph: (814) 862-8017. E-mail: andrew_hovey@hotmail.com (S-00). GE, EG, EM, BM, HYDROGEOLOGY

Howard, Dr. Christopher J., Australian Nuclear Sci & Tech Org, Private Mail Bag 1, Menai NSW 2234, AUSTRALIA. Ph: +61 (2) 9717 3609. Fax: +61 (2) 9543 7179. E-mail: cjh@ansto.gov.au (M-00).

Hughes, Ms. Karrie-Ann, 528N Jefferson Estates Ln, Mishawaka IN 46545. Ph: (219) 258-4921. E-mail: khughes1@nd.edu (S-00).

Huminiacki, Ms. Danielle M.C., 559 Cathcart St, Winnipeg MB R3R 0S6, CANADA. Ph: (204) 889-1779. E-mail: umhumini@cc.umanitoba.ca (S-00).

Hunerlach, Mr. Michael P., 6000 J St-Placer Hall, Sacramento CA 95819-6129. Ph: (916) 278-3133. Fax: (916) 278-3013. E-mail: hunerlac@usgs.gov (M-00).

Icenhower, Dr. Jonathan P., Pacific Northwest Nat'l Lab, Applied Geol & Geochem Group, PO Box 999, K6-81, Richland WA 99352-0999. Ph: (509) 372-0078. Fax: (509) 376-5368. E-mail: jonathan.icenhower@pnl.gov (M-00). GE, IP,

Jamieson, Dr. Heather E., Queen's Univ, Dept Geol Sci & Geol Eng, Kingston ON K7L 3N6, CANADA. Ph: (613) 533-6181. Fax: (613) 533-6592. E-mail: jamieson@geol.queensu.ca (M-00). PE,

Jephcoat, Mr. Andrew P., University of Oxford,

Dept of Earth Sciences,
Parks Road, Oxford England
OX1 3PR, UNITED KING-
DOM. Ph: +44 (1865)
272067. Fax: +44 (1865)
272072. E-mail: andrew@
earth.ox.ac.uk (M-00). 13,

Juliani, Dr/Prof
Caetano, Rua do Lago, 562,
San Paulo 05508-900, BRA-
ZIL. Ph: +55 (11) 3818
4030. Fax: +55 (11) 3818
4258. E-mail: cjuliani@
usp.br (M-00). IP, MP, GE,
EG, TC,

Jun, Ms. Young-Shin,
10 Soden St Apt 28, Cam-
bridge MA 02139-3132. Ph:
(617) 876-4758. E-mail:
kokoliko@ deas.harvard.
edu (S-00). MI, CC, PP, GE,
PE, CM, IM, EM, BM,

Keffelew, Mr.
Berhan, Div of
Minerals & Geol-
ogy, 1313 Sherman St Ste
215, Denver CO 80203-
2243. Ph: (303) 866-3567.
E-mail: berhan.keffelew
@state.co.us (M-00). *

Kenedi, Ms. Catherine
Lewis, Univ of Michigan,
Dept of Geological Sci-
ences, 425 E University Ave,
Ann Arbor MI 48109-1063.
Ph: (734) 647-5533. Fax:
(734) 763-4690. E-mail:
katelk@umich.edu (S-00).
IP, TC,

Kimball, Dr. Briant A.,
2329 W Orton Cir, West Val-
ley City UT 84119-2047. Ph:
(801) 908-5047. Fax: (801)
908-5001. E-mail: bkimball
@usgs.gov (M-00).

Kirkaldy, Ms. Jennifer,
SENE Consultants Ltd,
121 Granton Dr Unit 12,
Richmond Hill ON L4B
3N4, CANADA. Ph: (905)
764-9389 x366. Fax: (905)
764-9386. E-mail: jkirkald@
senes.on.ca (M-00).

Kleppe, Ms. Annette K.,
Univ of Oxford, Dept of
Earth Sciences, Parks Rd,
Oxford England OX1 3PR,
UNITED KINGDOM. Ph:
+44 (1865) 282119. Fax:
+44 (1865) 272072. E-mail:
annette.kleppe @earth.
ox.ac.uk (S-00).

Knight, Dr. Kevin S.,
Rutherford Appleton Lab,
ISIS Facility, Chilton,
Didcot, Oxfordshire En-
gland OX11 02X, UNITED
KINGDOM. Ph: +44 1235
445220. Fax: +44 1235
445720. E-mail: k.s.knight
@rl.ac.uk (M-00).

Koski, Mr. Randolph
A., U.S. Geological Survey,
MS 941, 345 Middlefield
Rd, Menlo Park CA 94025-
3591. Ph: (650) 329-5499.
Fax: (650) 329-5491. E-
mail: rkoski@usgs.gov (M-
00).

Kristensen, Dr. Jorgen
H., Univ of Cambridge,
Dept Earth Sciences, Down-
ing Street, Cambridge En-
gland CB2 3EQ, UNITED
KINGDOM. Ph: +44 (1223)
333441. E-mail: jorgen00@
esc.cam.ac.uk (M-00).

Larsen, Dr.
Flemming H.,
Univ of Cam-
bridge, Dept of Earth Sci-
ences, Downing Street,
Cambridge England CB2
3EQ, UNITED KING-
DOM. Ph: +44 (1223)
333373. Fax: +44 (1223)
333450. E-mail:
flar00@esc. cam.ac.uk (M-
00).

Lauterbach, Mr.
Stefan, Universitaet
Bayreuth, Bayerisches
Geoinstitut, Bayreuth D-
95447, GERMANY. Ph:
+49 921 553878. Fax: +49
921 553769. E-mail:

stefan.lauterbach@uni-
bayreuth.de (S-00).

Lee, Mr. Yongjae, State
Univ New York-Stony
Brook, Dept of Geosciences,
Stony Brook NY 11794-
2100. Ph: (631) 632-1440.
Fax: (631) 632-8240. E-
mail: yollee@ic.sunysb.edu
(S-00). MI, CC, EM,

Lemmens, Mr Herman
J., Univ of Antwerpen,
EMAT-RUCA, Groenen
borgerlaan 171, Antwerpen
B-2020, BELGIUM. E-
mail: helem@ruca.ua.ac.be
(S-00).

Lengke, Ms. Maggy F.,
4775 Summit Ridge Dr
#1014, Reno NV 89557-
0001. Ph: (775) 787-8033.
Fax: (775) 784-1833. E-
mail: lengke@mines.
unr.edu (S-00). MI,

Leonardson, Mr. Rob-
ert W., 732 Spring Creek
Pkwy, Spring Creek NV
89815-6100. Ph: (775) 753-
4160. E-mail: rleonardson
@elko.net (M-00).

Long, Mr. John Allen,
9906B Gates St, Fort Drum
NY 13603-3411. Ph: (315)
773-4188. E-mail: (S-00).
MI, IP, GE,

Lowe, Miss Emily
Whitehurst, Heidelberg
Universitaet, Mineralogisches
Inst, Im Neuenheimer Feld
236, Heidelberg D-69120,
GERMANY. E-mail:
ewlowe@hotmail.com (S-
00). MP, GE, IP,

Marion, Dr. Giles
M., Desert Re-
search Inst, 2215
Raggio Pkwy, Reno NV
89512-1095. Ph: (775) 673-
7349. Fax: (775) 673-7485.
E-mail: (M-00).

Marion, Dr. Stefan,
Univ Oslo, Ctr for Materials
Science, Guastadalleu 21,

Oslo 349, NORWAY. Ph:
+47 2295 8726. Fax: +47
2295 8749. E-mail: stefanm
@kjemi.uio.no (M-00).

Maritan, Dr. Lara, Univ
Degli Studi di Padova, Dipt
Mineralogia e Petrologia,
Corso Garibaldi 37, Padoova
I-35137, ITALY. Ph: +39
(49) 827 2032. Fax: +39 (49)
827 2010. E-mail: maritan@
dmp.unipd.it (S-00).

Masun, Ms. Katharine
M., 1300 W Walsh St, Thun-
der Bay ON P7E 4X4,
CANADA. Ph: (807) 473-
5558. Fax: (807) 473-5660.
E-mail: masunk@kcitbay.
com (M-00). MI, IP, GE, EG,

McKay, Ms. Nicki A.,
Lakefield Research Ltd, 185
Concession St, Lakefield
ON K0L 2H0, CANADA.
Ph: (705) 652-2102. Fax:
(705) 652-3123. E-mail: (M-
00).

Misic, Prof. Miha, Geo-
logical Survey of Slovenia,
Dimiceva 14, Ljubliana
1000, SLOVENIA. Ph:
+386 (61) 4367598. Fax:
+386 (61) 4367596. E-mail:
miha.misic1@guest.arnes.si
(M-00). MI, CC, CM, BM,

Morgan, Miss Sally,
2949 Portage Bay W Apt
123, Davis CA 95616-2827.
Ph: (530) 758-0272. Fax: .
E-mail: sjmorgan@email.
com (S-00).

Nicholas, Mr. Jason
D., 1319 S State St,
Champaign IL
61820-6556. Ph: (217) 356-
6912. E-mail: jd_nich-
olas@hotmail.com (S-00).
MI, CC, PP, PE, GM, TC,
TP,

Nunes, Miss Carmen
M.D., Rua Henrique
Schaumann No. 136, Apto.
401, San Paulo 05413-010,
BRAZIL. Ph: +55 (11) 852

8985. Fax: +55 (11) 3818 4129. E-mail: cdnunes@usp.br (S-00). MI, IPEG,

Olsen, Mr. Ernest, 687 Woodland Dr, Sierra Madre CA 91024-1445. Ph: (626) 355-9315. Fax: (310) 574-2070. E-mail: ernest_h_olsen@teledyne.com (S-00).

Palmer, Dr. Carl D., INEEL, P.O. Box 1625, Idaho Falls ID 83415-2107. Ph: (208) 526-4478. Fax: . E-mail: palmcd@inel.gov (M-00). GE,

Parsons, Mr. Michael B., Geol Survey of Canada (Atlantic), Bedford Inst of Oceanography, P.O. Box 1006, Dartmouth NS B2Y 4AZ, CANADA. Ph: (902) 426-7363. Fax: (902) 426-4104. E-mail: parsons@agc.bio.ns.ca (S-00).

Posey, Mr. Harry H., Div of Minerals & Geology, 1313 Sherman St Ste 215, Denver CO 80203-2243. Ph: (303) 866-3927. Fax: (303) 832-8106. E-mail: harry.posey@state.co.us (M-00).

Price, Mr. Jason R., 301 S Holmes Sr Apt 2, Lansing MI 48912-2051. Ph: (517) 353-3988. Fax: . E-mail: jas.price@aol.com (S-00). MI, GE, SP, CM,

Rainbow, Ms. Amelia, Queens University, Dept Geol Sci & Geol Eng, Miller Hall, Kingston ON K7L 3N6, CANADA. Ph: (613) 533-2597. Fax: (613) 533-6592. E-mail: rainbow@students.geol.queensu.ca (S-00).

Robey, Ms. Ellen M., 228 Springdale Ave, Knoxville TN 37917. Ph: (865) 522-2693. E-mail: erobey

@utk.edu (S-00). MI, IP, MP, PE, BM,

Saquet, Ms. Michelle A., 313-960 Chancelor Dr, Winnipeg MB R3T 2K1, CANADA. Ph: (204) 261-7401. E-mail: michellesaquet@hotmail.com (S-00).

Savage, Miss Kaye S., Stanford Univ, Dept Geological & Environmental Sci, MC 2115, Stanford CA 94305-2115. Ph: (650) 723-8017. Fax: (650) 725-2199. E-mail: savage@pangea.stanford.edu (S-00). MI, CC, GE, PE, EG, EM, TC,

Selkin, Mr. Peter A., Scripps Inst of Oceanography, Univ of California-San Diego, Mail Code 0220, La Jolla CA 92093-0220. Ph: (858) 822-4789. E-mail: pselkin@uscd.edu (S-00). MI, CC, PP, IP, PE, PM,

Sexsmith, Ms. Kelly S., 800-580 Hornby St, Vancouver BC V6C 3B6, CANADA. Ph: (604) 601-8405. Fax: (604) 687-5532. E-mail: ksexsmith@srk.com (M-00).

Shanks, Mr. Wayne C., U S Geological Survey, 973 Denver Federal Center, Denver CO 80225-0001. Ph: (303) 236-2497. Fax: (303) 236-3200. E-mail: pshanks@usgs.gov (M-00).

Shaw, Dr. Cliff S.J., Univ Bayreuth, Bayerisches Geoinstitut, Bayreuth D-95440, GERMANY. Ph: +49 (921) 553728. Fax: +49 (921) 553769. E-mail: cliff.shaw@uni.bayreuth.de (M-00). MI, IP, GE, PE,

Shaw, Dr. Sam, Univ of Manchester, Dept of Earth Sciences, Oxford Rd, Williamson Bldg, Manchester M13 9PL, UNITED

KINGDOM. Ph: +44 (161) 275 6908/4647. Fax: +44 (161) 275 3947. E-mail: shaw@fs1.ge.man.ac.uk (M-00).

Shaw, Ms. Shannon C., 580 Hornby St Ste 330, Vancouver BC V6C 3B6, CANADA. Ph: (604) 684-8072. Fax: (604) 684-8073. E-mail: shannon@infomine.com (M-00).

Singh, Mr. G., 2470 S Dairy Ashford St #153, Houston TX 77077-5716. Ph: (713) 779-1600. Fax: (713) 988-5977. E-mail: (M-00).

Smirnov, Mr. Alexander, State Univ New York-Stony Brook, Dept of Geosciences, Stony Brook NY 11794-2100. Ph: (631) 216-2427. E-mail: asmirnov@ic.sunysb.edu (S-00). MI, CC, GE, PE, EG, EM,

Smith, Dr. Kathleen S., U.S. Geological Survey, Denver Federal Center, MS 973, P.O. Box 25046, Denver CO 80225-0046. Ph: (303) 236-5788. Fax: (303) 236-3200. E-mail: ksmith@usgs.gov (M-00).

Sporleder, Mr. Brad A., State Univ New York-Binghamton, Dept of Geological Sciences, Binghamton NY 13902-0000. E-mail: bj92684@binghamton.edu (S-00). MI, CC, IP, MP, GE, PE,

Stanton, Mr. Mark R., US Geological Survey, Denver Federal Center, Box 25046, MS 973, Denver CO 80225-0046. Ph: (303) 236-1924. Fax: (303) 236-3200. E-mail: mstanton@usgs.gov (M-00).

Suitt, Mr. Steven Curtis, 24370 Canyon Lake Dr N Ste 9, Canyon City CA

92587-8041. Ph: (909) 244-6447. Fax: (909) 244-6047. E-mail: suittrob@pe.net (M-00).

Sutter, Mr. Jason W., P.O. Box 31362, Phoenix AZ 85046-1362. Ph: (602) 485-9019. E-mail: jsutter@asu.edu (S-00).

Tait, Ms. Kim T., 20 Woodchester Pl, Winnipeg MB R3R 3E8, CANADA. Ph: (204) 474-8395. Fax: (204) 474-7623. E-mail: umtait02@cc.umanitoba.ca (S-00).

Taku, Dr/Prof Rup K., Block 208 Flat 206, Sembel Reidential Complex, Asmara, ERITREA. Ph: +291 1150621. E-mail: ruptaku@phys.uoa.edu.er (M-00). MI, GM,

Tempel, Prof. Regina N., 11160 Bondshire Dr, Reno NV 89511-6232. Ph: (775) 784-4706. Fax: (775) 784-1953. E-mail: gina@mines.unr.edu (M-00).

Terry, Dr. Michael P., Old Dominion Univ, Dept Ocean, Earth & Atmos Sci, Norfolk VA 23529-0276. Ph: (757) 683-4911. Fax: (757) 683-5303. E-mail: mterry@odu.edu (M-00). CC, MPE, G,

Thompson, Ms. Anne, Petra Science Consultants Inc, 3995 W 24th Ave, Vancouver BC V6S 1M1, CANADA. Ph: (604) 222-4642. Fax: (604) 222-4642. E-mail: anne@petrascience.com (M-00).

Tirado, Mr. Pedro Silva, Parkway Apartments, 101 Spruce Rd Apt C-104, Elko NV 89801-8424. Ph: (775) 753-4339. E-mail: pascua@ctnis.com (M-00).

Titkemeier, Ms. Kelly R., 1919 W Main St Apt 20,

Houston TX 77098-3425. Ph: (713) 529-4867. E-mail: kelly_titkemeier@hotmail.com (S-00). MI, CC, SP, GE, EM, GM, PM, TP, BM,

Tristano, Mr. Giovanni, Via Pietro Rubens, 5, Palermo I-90145, ITALY. Ph: +39 (347) 6976302. Fax: +39 (91) 587609. E-mail: giovannitri@hotmail (S-00). MI,

Tuttle, Dr. Michele L.W., US Geological Survey, Denver Federal Center, P.O. Box 25046 MS 973, Denver CO 80225-0046. Ph: (303) 236-1944. Fax: (303) 236-1983. E-mail: mtuttle@usgs.gov (M-00).

Varela, Mr. Juan C., Galleguillos Lorca 1610, Antofagasta, CHILE. Ph: +56 (55) 252577. Fax: +56 (55) 227348. E-mail: jcv@

entelchile.net (M-00). MI, EG,

Vaughan, Mr. R. Greg, Univ of Nevada, Dept of Geological Sci, MS 172, Reno NV 89557-0000. Ph: (775) 784-1031. Fax: (775) 327-2235. E-mail: vaughan@mines.unr.edu (S-00).

Viray, Ms. Ela Lita E., Univ of the Philippines-Diliman, Nat'l Inst of Geol Sci, Quezon City 1101, Philippines. Ph: +63 (2) 929 6046. Fax: +63 (2) 929 6047. E-mail: elave_1@yahoo.com (S-00). MI, CC, IP, MP, GE, EM,

Vlassopoulos, Mr. Dimitri, S.S. Papadopoulos & Associates Inc, 7944 Wisconsin Ave, Bethesda MD 20814-3620. Ph: (301) 718-8900. Fax: (301) 718-8909. E-mail: dimitri@sspa.com (M-00). MI,

Walker, Mr. Donald D., 1400 Asp Ave,

Walker Tower #1224 East, Norman OK 73072-7133. Ph: (405) 325-2317. E-mail: don8959@hotmail.com (S-00). MI, SP, EG, IM, BM,

White, Mr. John C., 903 E Brown Ave Apt 110, Alpine TX 79830-3239. Ph: (915) 837-9909. E-mail: trachyte@brooksdata.net (S-00). MI, IP, GE, IM, TC,

Whittington, Dr. Alan G., Univ of Illinois-Urbana/Champaign, Dept of Geology, 1301 West Green St Ste 245, Urbana IL 61801-2999. Ph: (217) 244-1246. Fax: (217) 244-4996. E-mail: awhittin@uiuc.edu (M-00). PP, IP, MP, GE, PE

Whyte, Ms. Dyan C., 1515 Clay St Ste 1400, Oakland CA 94612-1482. Ph: (510) 622-2441. Fax: (510) 622-2459. E-mail: dcw@rb2.swrcb.ca.gov

(M-00).

Wright, Ms. Carrie Lee, 3892 Silax Dr, Hamilton OH 45013-9554. Ph: (513) 738-3177. E-mail: wrightc2@muohio.edu (S-00). MI, CC, PP, GE, CM, IM, EM, GM, TC,

Wright, Mr. Winfield G., US Geological Survey, 103 Sheppard Dr Ste 110, Durango CO 81301-3401. Ph: (970) 247-4140. Fax: (970) 247-4296. E-mail: wgwright@usgs.gov (M-00).

Yamanaka, Dr. Taka-mitsu, Osaka University, Dept of Earth & Space Sci, 1-1 Machikaneyama Toyonaka, Osaka 560-0043, JAPAN. Ph: +81 (6) 6850 5793. Fax: +81 (6) 6850 5793. E-mail: b61400@center.osaka-u.ac.jp (10-00). CC, PP, PE

**18th General Meeting of the
INTERNATIONAL MINERALOGICAL ASSOCIATION IMA 2002
*Mineralogy for the New Millennium***

**Edinburgh, United Kingdom, 1st to 6th September 2002
at the Edinburgh International Conference Centre**

**First Announcement
Organized by the Department of Geology and Geophysics, University of Edinburgh and
the Mineralogical Society of Great Britain and Ireland**

Dates: The meeting follows directly after the **Edinburgh International Festival** of music and the arts, regarded as the world's foremost arts festival. Conference participants may like to note the following dates:

- Edinburgh Festival: 11th – 31st August
- Military Tattoo: 2nd – 24th August
- Goldschmidt Conference, Davos, Switzerland
17–23 August
- Festival Fringe: 4th – 26th August
- Festival Fireworks 31st August

Scientific programme: The meeting will cover mineralogy in the broadest sense, in designated or general symposia, including:

- Mineral physics and phase equilibria
- Crystal growth and defects
- The mineralogy–geochemistry interface
- The mineralogy–biology interface
- Environmental and clay mineralogy
- Petroleum reservoirs and rock physics
- Applied and industrial mineralogy
- New minerals and mineral heritage
- Igneous and metamorphic petrology
- Mineralogy of the deep Earth
- Planetary and cosmic mineralogy

Sessions will be held in the **Edinburgh International Conference Centre (EICC)**, a new conference venue near the city centre, from Monday 2nd September to Friday 6th. The first event will be an icebreaker reception on the evening of Sunday 1st September. A programme of plenary lectures by leading mineralogists will be published as a special issue of *Mineralogical Magazine*, providing an overview of mineralogy as we enter a new millennium. All Abstracts will be published as a special supplementary volume of *Mineralogical Magazine*. Contributions may be presented orally or as a poster. There will be strictly one abstract per first author. All contributions must be in English.

Workshops on a number of practical topics will be held before or after the meeting, including:

- *In situ* microanalytical techniques (staff of Edinburgh University Ion Microprobe Unit and the Isotope Geology Unit of the SUERC, East Kilbride)
- Modern approaches to ore and environmental mineralogy (A.J. Criddle and C.J. Stanley, Natural History Museum)
- e-mineralogy: application of computational methods to minerals (M. Dove, Cambridge University).

Field excursions, 1–5 days in length, will be held (if interest is sufficient) during, before and after the meeting. These will demonstrate the highlights of classic Scottish localities.

Social programme will include an icebreaker reception hosted by the Mineralogical Society of Great Britain & Ireland in celebration of its 125th Anniversary, in the Dynamic Earth exhibition, a practical introduction to the distilling of Whisky, and a conference banquet in the beautiful Main Hall of the Royal Museum of Scotland. There will be a full programme for accompanying members.

Timetable: the Second Circular giving full details meeting, costs and abstract form will be sent in June 2001 to those e-mailing their details to the e-mail address given below. The deadline for all abstracts and for early payment discounted registration fees will be 31 March 2002.

For further information please e-mail:
ima2002@ed.ac.uk
(Edinburgh Organizing Committee, Chairman Ian Parsons)

To register your interest in receiving the 2nd circular please e-mail your name and postal address to:
info@minersoc.org
(Mineralogical Society, Executive Secretary Adrian Lloyd-Lawrence)

Meeting Website www.minersoc.org/IMA2002

Meeting Calendar 2001

January

3–5 Mantle Materials, Processes and Products. Durham, UK. Details: Dougal Jerram, E-mail: D.A.Jerram@durham.ac.uk.

11–12 S-type Granites and Related Rocks: the Allan White Symposium. Melbourne, Australia. Details: Peter D. Fleming, Dept. of Earth Sciences, La Trobe University, Bundoora, Australia 3083; Tel. 61-3-9479-1649 E-mail: p.fleming@latrobe.edu.au, WWW: www.geology.latrobe.edu.au.

April

8–12 Symposium on “Transformation Processes in Minerals” at the European Union of Geosciences meeting. Strasbourg, France. Details: WWW: <http://eost.u-strasbg.fr/EUG>

May

20–24 11th Annual V. M. Goldschmidt Conference. Roanoke, VA. Details: Bob Bodnar (bubbles@vt.edu) or Mike Hochella (hochella@vt.edu).

27–30 St. John’s 2001, Geological Association of Canada–Mineralogical Association of Canada Annual Joint Meeting. St. John’s, New Foundland, Canada. De-

tails: St. John’s 2001, c/o Department of Mines and Energy, St. John’s, New Foundland, A1B 4J6; Tel. 709-729-2301; Fax: 709-729-3493; E-mail: dmp@zeppo.geosurv.gov.nf.ca.

June

9–24 Field Course on Rare Earth Pegmatites. Madagascar. Details: Federico Pezzotta - Museo Civico di Storia Naturale, Corso Venezia 55, 20121 Milan, Italy. E-mail: fpezzotta@yahoo.com, FAX: (+39) 02 76022287, Phone: (+39) 02 781312 Wm. B. “Skip” Simmons – University of New Orleans, Department of Geology & Geophysics, New Orleans, LA 70148, USA. E-mail: wsimmons@uno.edu, FAX: (504) 280 7396, Phone: (504) 280 6791

24–28 Earth Systems Processes–A Global Meeting. Edinburgh, Scotland. Details: Ian Dalziel, E-mail: Ian@utigig.utexas.edu or Ian Fairchild, E-mail: i.j.fairchild@keele.ac.uk, WWW: <http://www.geolsoc.org.uk>.

24–29 Workshop on Solid Solutions. Lubeck, Germany. Details: Charles Geiger. E-mail: chg@min.uni-kiel.de, WWW: www.ifg.uni-kiel.de/Veranstaltungen/mader.html.

July

1–6 Advances in Environmental Materials. Singapore. Details: Tim White, Environmental Technology Institute, Innovation Centre, NTU, Block 2, Unit 237, Nanyang Drive, Singapore 637723. E-mail: tjwhite@eti.org.sg, FAX: 65-792 1291, Phone: 65-794 1509; WWW: <http://www.mrs.org.sg/icmat2001>.

August

26–29 6th Biennial SGA meeting. Krakow, Poland. Details: Wojciech Mayer, University of Mining and Metallurgy, Faculty of Geology, Geophysics and Environmental Protection, av. Mickiewicza 30, 30-059 Krakow, Poland. Tel.: 48-12-6172385, Fax: 48-12-63332936, E-mail: wmayer@geol.agl.edu.pl, WWW: <http://galaxy.uci.agh.edu.pl/~sga>.

September

1–7 Sixth International Eclogite Conference in Japan. Niihama, Ehime, Japan. Details: Masaki Enami, Department of Earth and Planetary Sciences, Graduate

Geochemical Society and Mineralogical Society of America Short Course: Molecular Modeling Theory and Applications in the Geosciences

Saturday and Sunday, May 19 and 20, 2001 (preceding the Goldschmidt Conference)

Location: Hotel Roanoke and Conference Center, Roanoke, Virginia, USA

The course will focus on techniques and applications for modeling a wide variety of problems in mineralogy and geochemistry. Those interested in using molecular modeling in research or understanding papers in computational chemistry should attend.

Organizers: Randall T. Cygan and James D. Kubicki,

Website: www.sandia.gov/eesector/GSCourse.htm

At the annual meeting of the American Crystallographic Association, July 21–26, 2001, in Los Angeles, (<http://www.hwi.buffalo.edu/ACA/ACA-Annual/LosAngeles/LosAngeles.html>) a full-day session is being sponsored by the Neutron Scattering Special Interest Group entitled

“Gas Clathrates, Ices, and Planetary Materials,”

Sunday July 22, which will include:

Morning Session, mostly Gas Clathrates & Ices

Session Chair: Bryan Chakoumakos, Oak Ridge National Laboratory

Invited speakers:

E.D. Sloan, Colorado School of Mines (structural stability) CONFIRMED

L.A. Stern, US Geological Survey, Menlo Park (synthesis & metastability) CONFIRMED

C.J. Rawn, Oak Ridge National Laboratory (neutron powder diffraction studies) CONFIRMED

W.F. Kuhs, Universität Göttingen (elastic and inelastic scattering studies) CONFIRMED

J.S. Loveday, University of Edinburgh (polymorphism at high pressure) CONFIRMED

J.S. Tse, National Research Council of Canada, Ottawa (dynamics and modeling)

W.B. Durham, Lawrence Livermore Laboratory (planetary ices) CONFIRMED

Afternoon Session, mostly Neutron Scattering in Earth Sciences

Session Chair: Lee Groat, University of British Columbia

Invited speakers:

G.A. Lager, University of Louisville (hydrogen bonding at high-pressures) CONFIRMED

J.B. Parise, State University of New York, Stony Brook (high pressure behavior) CONFIRMED

N.L. Ross, Virginia Tech (mineral physics) CONFIRMED

S.A.T. Redfern, Cambridge University (order-disorder in minerals) CONFIRMED

C. Benmore, Argonne National Laboratory (supercritical fluids) CONFIRMED

T. Sabine, Australia Nuclear Science & Technology Org. (fractal petrography) CONFIRMED

K. Bennett, Los Alamos National Laboratory (texture studies) CONFIRMED

You are invited to present your own research on these subjects, as well as any neutron scattering applications to crystallography, in a third half-day session of oral presentations and lively poster sessions that will be held throughout the meeting.

An evening lecture on “Planetary Ices” will also be given **Tuesday, July 24**, by Dave Stevenson, Caltech, showing-off the latest and greatest pictures of icy objects in our solar system.

ABSTRACT DEADLINE: March 1, 2001

Deadline

Material for the February 2001 Lattice is January 16, 2001.

Contributions may be sent to Andrea Koziol via surface mail at the Department of Geology, University of Dayton, Dayton, OH 45469-2364 or via e-mail at koziol@notes.udayton.edu. □

Read the
*American
Mineralogist.*

now 8 times

a year!

Table of
contents,
deposits,
abstracts

on the web

free!

PDF articles
in 2001...

School of Science, Nagoya University, Nagoya 464-8602, Japan; Tel. and fax 81-52-789-3005 E-mail: enami@eps.nagoya-u.ac.jp; WWW: ganko.eps.nagoya-u.ac.jp/iec2001/index.html.

6–8 CL 2001 – Cathodoluminescence in Geosciences: New Insights from CL in combination with other techniques. Freiberg, Germany. Details: CL 2001 Secretariat, Freiberg University of Mining and Technology, Department of Mineralogy, Brennhaushausgasse 14, D-09596 Freiberg, Germany; Tel.: +49-(0)3731-392628, Fax: +49-(0)3731-393129 E-mail: goetze@mineral.tu-freiberg.de; WWW: www.mineral.tu-freiberg.de □

Advanced Placement Geology

We are not teaching geology to the vast majority of our high school students. Top science students around the country are enrolling in Advanced Placement (AP) courses, written by the College Board. If they pass the AP, they will either receive college credit or advanced placement into upper level science courses in college. There is one problem. There is no AP course in geology. Not only do our brightest high school students miss the opportunity to learn about geology, but having no introduction to the earth sciences in high school, they are unlikely to enroll in earth science courses in college.

Geoscience educators across the country agree that the institution of an AP Geology course would be an effective way to increase the exposure of our students to the Earth Sciences. In September Wendy Van Norden of Harvard-Westlake School Steve Kluge of Fox Lane High School, Mike Smith of AGI, Jeff Niemitz of NAGT, and Diana Stordeur of GSA met with Lee Jones of the College Board to discuss the possibility of an AP Geology exam. They brought a letter of support from twenty member societies of AGI. Their proposal was for a physical geology course because it is a course taught in most colleges, and would therefore

fit the criteria for an AP course. The College Board is interested and is preparing an on-line survey to determine the level of interest among high school teachers across the country. The survey will be posted soon at <http://www.collegeboard.org/ap/>

If you are interested in teaching AP Geology, or you know someone who is,

or if you just want to keep current with our progress, please contact Wendy Van Norden, Harvard-Westlake School, 3700 Coldwater Canyon, No. Hollywood, CA, 91604, (818) 487-6665, E-mail: wvannorden@harvardwestlake.com or sign up for the AP Geology listserv at <http://www.bedford.k12.ny.us/flhs/science/apgeohome.html>. □

22nd FM-TGMS-MSA Mineralogical Symposium

The twenty-second annual Mineralogical Symposium will be held on February 10, 2001 at the Tucson Gem and Mineral Show. The Friends of Mineralogy, the Tucson Gem and Mineral Society, and the Mineralogical Society of America cosponsor it. The topic of the symposium is *Minerals of Russia*, the

THE MINERALS OF
RUSSIA
in conjunction with the
Friends of Mineralogy,
Tucson Gem and Mineral
Show,
February 10, 2000.

Tucson Show's theme for 2001. Papers on descriptive mineralogy, paragenesis, classic and new localities, and related subjects about the minerals of Russia are welcome. An audience of amateur and professional mineralogists and

Members in the News

At the 37th annual meeting of The Clay Minerals Society in Chicago, June 24-29, **Jillian Banfield** received the Marion L. and Chystie M. Jackson Mid-Career Award, **William Moll** was recognized as the 2000 Pioneer in Clay Science, and **D. M. Moore** received the Brindley Award. □

geologists is expected. Presentations will twenty minutes, followed by a period for questions. The abstracts will be published in the January/February 2001 issue of the *Mineralogical Record*. For more information contact Raymond W. Grant, Mesa Community College, 1833 W. Southern Ave., Mesa, AZ 85202, (480) 461-7008 (phone), (480) 461-7234 (fax), rwgrant@mail.mc.maricopa.edu (e-mail). □

News from Rocks and Minerals

Marie Huizing, Managing Editor, Rocks & Minerals

Rocks and Minerals Magazine often publishes special issues that correspond with the theme of the Tucson Gem & Mineral Show. The current January/February issue of Rocks & Minerals is devoted to the Minerals of Russia, theme of the 2001 Tucson Gem & Mineral Show. The issue features articles on the history

of collecting in Russia, new finds in the Kola Peninsula, and the collection at the Fersman Museum in Moscow, all by Russian authors. American authors wrote about the collection of Russian minerals at the Carnegie Museum of Natural History, sperrylite from Russia, Russian mineral artist Gregory I. Ivanyuk, collecting adventures in

Russia, and Russian Faberge treasures that will be on display at the Tucson Show in February. Also included is a review of the recently published Mineral Collections of Russia.

Special consultants for the issue were Michael Leybov and Ludmilla Egorova of the Russian publication Mineralogical Almanac (formerly World of Stones). □

Advertisements in *The Lattice*

The Lattice accepts paid advertisements.

Rates:

Ad frequency: 1 time 4 times

Ad type (per insertion)

Full page: \$500 \$400

Half page: \$250 \$200

Quarter page: \$125 \$100

Eighth page: \$75 \$50

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. Electronic advertisements in tiff or eps formats, or Word, can be accepted, and should be sent directly to the MSA Business Office.

Rocks and mins
AD

Thanks from Mike Holdaway

I am writing to let you know how much I appreciate the warm send-off you gave me at the Reno GSA meeting. The theme session, organized by Barb Dutrow and chaired by Barb Dutrow and Darby Dyar included some of the best talks I have heard in years and the "roasting" I received was great fun. It continued into the evening at the SMU cocktail party. I especially appreciated the remarks of Barb Dutrow, Darby Dyar, Sorena Sorensen and Bob Gregory because of their more personal nature, but I enjoyed all the other talks as well. I saw many other SMU alumni and friends, some of whom I hadn't seen in several years.

I will be giving a seminar in the Department in early December in which I plan to reminisce about my four decades in geology. I plan to retire from SMU in January, and Angie and I plan to move to Colorado in June. I won't stop doing my work on geobarometers and geothermometers, but I also hope to broaden my interests and enjoy the mountains and scenery of the great west. We would love to have you visit us in Colorado. □

MIKE HOLDAWAY

Thanks from the outgoing Lattice editor

I thank the members of MSA for the input that has made *The Lattice* a dynamic platform for information for the Society. The past five years has seen *The Lattice* grow in size from 12 pages to more than double that size. This could only have happened with the interest of the members and officers of MSA. Of particular note is Alex Speer who has provided not only much of the content of *the Lattice*, but also well-considered counsel on issues affecting the Society and *The Lattice*.

With this current issue of *The Lattice* there is a new "look". This issue marks a transition from publication based on my word processor to a proper desktop publishing format. Rachel Russell is now the new production manager and will handle this aspect of *The Lattice* publication. The next issue will see a new *Lattice* editor, Andrea Koziol. I greatly appreciate her agreeing to shepherd *The Lattice* into this new realm. □

DARRELL HENRY

Get
your
RiMGs!

Geological Materials Research Contents

VOLUME 2 2000

v2n1 Richard A. Ketcham, Raymond A. Donelick, and Margaret B. Donelick, *AFTSolve: A program for multi-kinetic modeling of apatite fission-track data* (Published 15 March 2000, 18 pages, 2 tables, 12 figures)

v2n2 J.L. Crowley, E.D. Ghent, S.D. Carr, P.S. Simony, and M.A. Hamilton, *Multiple thermotectonic events in a continuous metamorphic sequence, Mica Creek area, southeastern Canadian Cordillera* (Published 24 May 2000, 23 pages, 2 tables, 14 figures)

v2n3 David M. Hirsch, Richard A. Ketcham, and William D. Carlson, *An evaluation of spatial correlation functions in textural analysis of metamorphic rocks* (Published 2 June 2000, 21 pages, 1 table, 20 figures, 5 3DMF figures, 3 appendices)

VOLUME 1 1998-1999

v1n1 Frank S. Spear, Christopher G. Daniel, *3-dimensional imaging of garnet porphyroblast sizes and chemical zoning: Nucleation and growth history in the garnet zone* (Published 30 October 1998, 17 pages, 3 tables, 19 figures, 4 movies)

v1n2 John B. Brady, John T. Cheney, Amy Larson Rhodes, Angela Vasquez, Chris Green, Mathieu Duvall, Ari Kogut, Lewis Kaufman, Dana Kovaric, *Isotope geochemistry of Proterozoic talc occurrences in Archean marbles of the Ruby Mountains, southwest Montana, U.S.A.* (Published 31 December 1998, 16 pages, 3 tables, 19 figures)

v1n3 Frank S. Spear, *Real-time AFM diagrams on your Macintosh* (Published 25 May 1999, 10 pages, 8 figures, 1 interactive figure, 3 movies)

v1n4 J. Alcock, Kevin Myer, P.D. Muller, *Three-dimensional model of heat flow in the aureole of the Marcy anorthosite, Adirondack Highlands, New York: Implications for depth of emplacement* (Published 22 September 1999, 11 pages, 1 table, 7 figures)

v1n5 Barry R. Bickmore, Eric Rufe, Steve Barrett, and Michael F. Hochella, Jr., *Measuring Discrete Feature Dimensions in AFM Images with Image SXM* (Published 23 November 1999, 10 pages, 9 figures, 1 movie)

v1n6 Joseph M. Pyle and Frank S. Spear, *Yttrium zoning in garnet: Coupling of major and accessory phases during metamorphic reactions* (Published 14 December 1999, 23 pages, 2 tables, 21 figures)

Outreach Committee News

I have taken on the responsibility of developing/coordinating MSA's web outreach to the K-12 community. The plan is to build a web site that offers the following to teachers and students:

- ➡ Links to excellent web sites that support the concepts in the National Science Education Standards (NSES).

- ➡ Additional information for teachers related to the concepts in the NSES that cannot be found on other web sites.

- ➡ An interactive rock cycle web page.
- ➡ An interactive mineral identification web page.
- ➡ A special version of Ask-a-Mineralogist, JUST for teachers.

I'm very much interested in your help. Here's a list of items that would help in this phase of the effort:

- ➡ Nice digital (or scanned) photos of common minerals for the mineral identification web page.
- ➡ Nice photos of rocks and geologic processes for the rock cycle page.
- ➡ Any activities you have developed for K-12 classes,

especially ones that require hands-on inquiry with easy-to-find materials that you would like to publish on the web site.

- ➡ Volunteers for the Teachers-Ask-a-Mineralogist. In this project, teachers will email their questions to a central person (yes, that would be ME!). I will sort the questions and email them to the person with the closest match of expertise. In this way, you will not be pestered by numerous trivial questions; neither will you be required to "check in" on a regular basis. You would e-mail the answer directly to the teacher.

MSA is well-poised to make an impact on future mineralogists and geologists through this effort! □

NANCY J. McMILLAN

*Dept. of Geological Sciences, Dept. 30001, Box 3AB
New Mexico State University, Las Cruces, NM
88003*

phone: (505) 646-5000

fax: (505) 646-1056

E-mail: nmcmilla@nmsu.edu