The Lattice

MSA sponsors two upcoming short courses

The Newsletter of the Mineralogical Society of America

Subscription and membership information is on page three.

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The Mineralogical Society of America will hold a short course in Golden, CO, on October 25-27, 2002, immediately prior to the annual meeting of the Geological Society of America (Denver). The short course, entitled "Phosphates: Geochemical, Geobiological, and Materials Importance," will cover some of the most recent advances in using the chemistry of phosphates to investigate geochronology, petrology, and biogeochemistry. Co-conveners are Matthew J. Kohn and John Rakovan.

A comprehensive *Reviews* in Mineralogy volume on phosphate mineralogy, geochemistry, geobiology, and materials applications is being published. However the short course will focus on 3 rapidly developing areas in the Earth sciences-geochronology, petrology, and biogeochemistry. The geochronology of phosphates has been revolutionized by new thermochronologic and analytical methods. Petrologic applications include understanding of phosphate mass balance in rocks, and the use of the chemistry of phosphates for inferring physical and chemical conditions of rock formation. Stable and trace element geochemistry of modern and fossil bioapatites now yield insights into (paleo-) ecologies and climates. The

short course will provide a lively forum for interdisciplinary discussion.

A short course on "Plastic Deformation of Minerals and Rocks" will be held before the Fall American Geophysical Union meeting December 4 to 5, 2002 at the Holiday Inn-Bay Bridge, Emeryville, CA. Conveners are Shun-ichiro Karato of Yale University and Hans-Rudolph Wenk of University of California-Berkeley.

This short course will cover some fundamentals of mineral and rock deformation as related to various geological and geophysical processes. The state of the art of mineral physics studies of plastic deformation and deformation-related microstructures will be reviewed. This will also include discussion of methods to investigate deformation features and to characterize deformed materials. In addition, there will be lectures from experts in seismology, geodynamics and engineering.

Further information and registration forms can found in this issue of the *Lattice*.



The Dana Medal of the Mineralogical Society of America was awarded to Michael F. Hochella, Jr. (center), of the Virginia Polytechnic Institute and State University, at the Spring American Geophysical Union 2002 meeting in Washington, D.C. Rodney C. Ewing, MSA President (left), presented the award; Robert J. Bodnar (right) was the citationist. Following the presentation, Dr. Hochella gave his Dana Medal Lecture titled "Nanoscience and Technology—The Next Revolution in the Earth Sciences." The Dana Medal recognizes continued outstanding scientific contributions to the mineralogical sciences through original research by an individual in the midst of their career. Dr. Hochella studies the atomic structure and composition of mineral surfaces in reactions with water and gases. Letter from the President



Developments from Council

by Rod Ewing

ne MSA Council met on May 29th in conjunction with the spring meeting of the American Geophysical Union in Washington, D.C. Thanks to the hard work of the MSA representative to AGU, Y. Fei, there were a number of sessions that featured a wide variety of topics in mineral science: "Advances in Mineral Physics Using Synchrotron Radiation (organized by T. Duffy and G. Shen); "Transformations in Earth Materials: Electronic, Magnetic, and Structural Transitions" (V. Stuzhkin and N.L. Ross); "Viewing Seismic Observations Through the Lens

of Mineral Physics" (**P. Silver** and **Y. Fei**); "Mineral Structures and Stabilities" (**P. Burns** and **J.E. Post**), as well as a number of joint sessions, such as "Determining Diamond Provenance" (**P.J. Heaney** and **E.P. Vicenzi**). A high point of the meeting was the presentation of the Dana Medal to **Mike Hochella** of Virginia Tech and his lecture, "Nanoscience & Technology – The Next Revolution in the Earth Sciences."

The next Spring meeting will be held with the Clay Minerals Society in Athens, Georgia, June 7-11, 2003 (for further information see: http:/ //www.gly.uga.edu/ CMS2003/). I encourage MSA members to propose and organize symposia for this meeting. The MSA meeting representative is **Jim Kirkpatrick** at the University of Illinois (kirkpat@uiuc. edu). The symposia at this meeting should reflect the full range of topics that typically characterize MSA sessions at GSA or AGU.

From the Council meeting, there were three important developments that I want to report to the members of the MSA.

Through the generosity of Richard A. Bideaux, the assets of Mineral Data Publishing and the *Handbook of Miner*- *alogy* have become the property of the MSA. Our goal is to provide access to these five volumes via our website. Volume II on silica and the silicates is already available as 904 PDF files on the MSA website. We are presently developing an editorial structure to provide for regular updating of these files. This should provide an invaluable resource to our members and the wider mineral science community.

In cooperation with the Mineralogical Society of Great Britain and Ireland, the *American Mineralogist* and *Mineralogical Magazine* will feature special issues on En-



vironmental Mineralogy during 2003. Both societies have issued a call for papers (see the MSA call in this issue of the Lattice), and I urge authors to consider publication in the special "Green" issue of each journal. Four special associate editors have been appointed for the American Mineralogist issue: Udo Becker at the University of Michigan, John Jambor at University of British Columbia, Gregory Lumpkin at the Australian Nuclear Science & Technology Organization; and Jill Pasteris at Washington University in St. Louis. The special editors for the Mineralogical Magazine issue are: David Manning at the University of Newcastle upon Tyne and Eva Valsami-Jones at the Natural History Museum in London. I encourage authors of presentations at the Goldschmidt conference in Davos and the IMA in Edinburgh to consider submitting their papers to one of these special issues. This joint effort by both Societies is meant to emphasize the importance and impact of mineral sciences to a broad range of topics in the environmental sciences.

As discussed in my previous column in the Lattice, a topic of continuing concern is the rather low profile of mineral sciences within the broader communities of earth science, materials science and the environmental sciences. Declining enrollments in mineralogy programs, nearly static numbers of members in mineralogical societies, and indeed, our lack of visibility at national and international meetings are all symptomatic of our failure, as a community, to visibly contribute to the important scientific and technical issues of our time. As a partial response to this problem, I have proposed to Council that we create a monthly magazine, highlighting topics in mineral science and geochemistry. I envision a magazine that is a mixture of the features of a number of other monthly magazines, such as Geotimes, GSA Today, Science and the Bulletin of the American Ceramic Society - but something closer to the Materials Research Society Bulletin.

Before dismissing this idea as too grand, read on. First, the proposal would rely on the cooperation of a number of mineralogical and geochemical societies. Although each society or interest group has their own archival journals for their disciplinary specialty, as a larger community we have no unifying publication. Not only do we not have a means of communicating among ourselves, we have no medium for presenting our work to the larger scientific audience outside of the mineralogical and geochemical communities. Concerning the required resources, consider that many societies, including the MSA, are investing heavily in newsletters that are increasingly sophisticated and interesting-but go only to their members. A collective effort could produce a very attractive and informative monthly publication under the aegis of all of the participating societies. The content of such a magazine would include material that is now typical of our present newsletters (e.g., society news, short course announcements, calendars of events and advertisements), but it would also include profiles of members, book reviews, and most importantly, short review articles written for a technical audience. As an example, the MRS Bulletin features thematic issues (e.g., nanocomposites,

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The Lattice is published quarterly (February, May, August, November) by the Mineralogical Society of America. It is distributed to MSA members and subscribers 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, Rocks and Minerals,* and *Mineralogical Record*; 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 2002: professional members \$50; student members \$5. American Mineralogist subscription: members add \$35 (paper and electronic); \$10 electronic. Membership is on a calendar year basis. Individuals who join after January 1, 2002 will be sent all back issues of volume 86 for 2002.

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 2002 volume of *American Mineralogist* for the annual rate of \$530 in the US and \$550 for non-US addresses. The subscription price includes any new volumes of the *Reviews in Mineralogy and Geochemistry* series and issues of the *Lattice* published during the calendar year of the subscription. Payment must be received in full before a subscription will be started.

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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



Notes from Washington

by J. Alexander Speer

• Ballots for the 2002 election of 2003 MSA officers and councilors were mailed to members at the end of April 2002. They are due back in the Business Office by August 1, 2002. Voting is an important responsibility for MSA members because the individuals you elect to office decide on the direction of the Society. Final (paper) dues renewal notices were sent to those 2001 members from whom we had not received a 2002 renewal through April 15, 2002. If you have not yet received a ballot, or a renewal notice if you need one, please contact the MSA Business Office. This will be the last *Lattice* mailing to members who have not renewed for 2002.

• At its 2002 Spring Meeting, MSA Council voted to keep 2003 professional member dues at the 2002 cost of \$50. Student dues also remain at \$5. Member subscriptions to the paper copy *American Mineralogist* will remains at \$35, the electronic version at \$10. Institutional subscriptions to the paper journal were increased to \$580 for subscribers with U.S. addresses and \$600 for subscribers with non-U.S. addresses. Included in these increases in institutional subscription rates is access to the electronic journal starting in 2003.

• MSA 2003 membership renewals will start with an electronic reminder and online membership renewal at the beginning of September. If you have never shared your current e-mail address with MSA and would like to participate in the online renewal, please send us your address. Hard copy renewal notices will be sent by the end of October for those who have not renewed by then. You can save your Society money by renewing early whether you chose to use the electronic version in September or the traditional paper version in October. As encouragement there will again be a \$5 discount on the professional membership dues for renewals received before December 31, 2002.

• The Editors of *Geological Materials Research* (GMR) posted examples of the dynamic and interactive formats available for papers published in the journal at (http://gmr.minsocam.org/). The examples are fascinating in and of themselves, but in examining them consider whether your next paper might be improved by electronic publication in GMR. The editors of GMR are willing to help with the technical details.

• Postal rates increased on June 30, 2002 and will possibly again at the end of the year. There is a 3¢ per letter increase on first class, a 10.3% increase in nonprofit periodicals that is partially offset by an increase in automation discounts (that is, for supplying our mailing label information to Allen Press in US Postal Service-approved format), and 7.1% increase in non-

profit standard (bulk) mail. As I write this there is no information about international surface mail rates, rates MSA relies heavily on for overseas book shipments. I do not expect as large and disruptive increase as there was in 2001. MSA began charging separately shipping on book orders as a result of last year's increase. This extra charge appears not to have impacted book sales, but has covered the additional postal expense imposed last year.

• Volumes I and II of the *Handbook of Mineralogy* have essentially sold out. They are now only available as part of a set (volumes I–IV) at \$446 for non-members. MSA members get a 25% discount on these, so the cost is \$334.50. Volume V is expected to be printed in early 2003. MSA now has a stock of the newest volume in the Mineralogical Society of Great Britain and Ireland Series: *Environmental Mineralogy: Microbial Interactions, Anthropogenic Influences, Contaminated Land and Waste Management*. Edited by J. D. Cotter-Howells, L. S. Campbell, E. Valsami-Jones and M. Batchelder (2000) 414 pp. Cost is \$52.50, after a 25% discount for MSA members. If you are interested in either of these books, they can be ordered online or with the order form that appears elsewhere in this issue.

• The MSA *Society and Membership Description* brochure is updated. Forming the cover design is a list of member interests. These are given in the box on the next page and make an interesting statement about what mineralogy is today. If you joined MSA in the last 3 years or visited the MSA booth at a meeting, you have probably seen one of these brochures. If you have not, and would be interested in a copy, request one from the Business Office. The brochure describes MSA as an organization. MSA needs brochures describing mineralogy and careers as well. If you are interested in composing one of these other brochures, please let us know.

• The Table of Contents for *American Mineralogist* 1916present by volume (year) is now available online though Collector's Corner portion of the MSA website. More specifically, it can be found at (http://www.minsocam.org/msa/ collectors_corner/amtoc/index.htm).

• MSA Council at its spring Meeting approved a second MSA short course for 2003—*Zircon*, organized by John Hanchar and Paul Hoskins. It will be held at the University of Freidburg, Germany April 3–4 prior to the EGS-AGU-EUG meeting in Nice, France April 6–11. The one that was previously scheduled is *Biomineralization* organized by Patricia Dove, J. J. DeYoreo and S. Weiner for the Fall of 2003.

• The workshop sponsored by the MSA Mineral Structures Special Interest Group (MSiG) on "Freely available crystallographic software for mineralogists" in conjunction with the Spring AGU Meeting in Washington, DC had 21 participants. This is the third workshop organized by MSA members. Each has been successful according to participants. Workshops are 1/2 to 1 day instructions on a much more focused topic or technique than a short course, are planned for small groups with the possibility of hands on demonstrations, generally do not result in a publication available after the course, and have very minimal costs. If you would like to organize such a workshop, please let us know.

• Thus far this year, the MSA booth was at the Tucson Gem and Mineral Show, Tucson, AZ, February 14–17, 2002 and the 2002 AGU Spring Meeting, Washington, D.C., May 28–31, 2002. There will be a small booth at IMA, Edinburgh, Scotland, September 1–6, 2002. MSA will have all of its usual social and technical functions at GSA, as well as a booth in the Exhibit Hall, October 27–30, 2002. MSA booth plans for 2003: Tucson Gem and Mineral Show, Tucson, AZ February 13–16, 2003; CMS-MSA Joint Meeting, Athens, GA June 7–11, 2003, and GSA Meeting, Seattle, Washington, October 27–30, 2003. At some meetings these will be a combined booth with The Geochemical Society, with GS displaying MSA materials at Goldschmidt Conferences.

• Aleisha Hunter, MSA Administrative Assistant, returned to work after 3-month maternity leave at the beginning of April. Khizr Amani Camps was born 01/26/2002, and he weighed in at 7.1 pounds. Leisa (Koch) Fells, off and on EO Editorial Assistant, has left again to start her own graphic design and layout company. However, she will be working for MSA on an out-source basis when needed.

Geoscience Societies to establish a full-integrated, online aggregate of journals

by J. Alexander Speer

SA was invited to be a founding member of the geoscience electronic journal aggregate originally proposed by the American Association of Petroleum Geologists (AAPG), the Geological Society of America (GSA), and The Society of Exploration Geophysicists (SEG). At its Spring 2002 Meeting, MSA Council accepted the invitation. MSA will be one of 7 founding members that will formulate the policies for the aggregate in the planning stages. If MSA decides to belong to the aggregate once the final product is known, it will have a representative on the governing board. Formation of such an aggregate may have the most powerful impact on our science in many decades.

In early 2001 GSA investigated the possibilities for an electronic publishing program and did a marketplace analysis. The conclusions of the study were unsettling, but did not fully include how societies like MSA and GSA currently price their publications. Because it appeared that the costs and risks would be high in any case for a single society, GSA approached AAPG, AGU, and SEG about combining electronic publishing efforts.

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These are the fields of interested listed on the front cover of the MSA Society and Membership Brochure. All these terms are used by MSA members to describe their interests on surveys and membership applications.

Mineralogy - Crystallography - Crystal and Mineral Chemistry - Crystal Structures - Material Properties - Mineral and Rock Physics - Mineral Surfaces - Spectroscopy - Igneous, Metamorphic, and Sedimentary Petrology, Petrography, and Petrogenesis - major and trace element Geochemistry - Isotope Geochemistry - Mineral-fluid Reactions and Geochemistry - Phase Equilibrium - Economic Geology - Ore Deposits - Experimental Mineralogy and Petrology -Clay Mineralogy - Ceramic Mineralogy, Petrology, and Thermochemistry - Industrial Mineralogy - Environmental Mineralogy and Geochemistry - Theoretical Mineral Physics - Mossbauer spectroscopy - Gem Materials - Planetary Materials - Biological Mineralogy - Biochemical Cycles - Teaching - New Minerals and Mineral Occurrences -Mineral Exploration - Igneous Petrogenesis - Engineering Geology - Mineralogical Apparatus, Techniques, and Analysis - Computer Applications and Databases - Optics - Mineralogical Nomenclature - Mineral Synthesis - Synchrotron -Materials Science - Shock Metamorphism - Photomicrography - Fluid Phase Petrology - Molecular Modeling - Geothermal Mineralogy - Mineral Thermodynamics and Thermochemistry - Cement and Concrete Mineralogy, Petrology, and Geochemistry - Volcanic Processes - Single Element Mineralogy - Microtextures and Fabrics - Heavy Mineral Sands - Crystal and Mineral Growth - Solid State Chemistry - Scanning or Transmission Electron Microscopy -Electron and Ion Microprobe Analysis - Optical Crystallography and Microscopy - Forensic Mineralogy - Microtextures and Fabrics - Mineral Classification - Fluid and Melt Inclusions - Pegmatites - Databases - Mechanisms & Kinetics of Phase Transitions - Symmetry - History of Mineralogy - Archeological Materials - Archeometry - Mineral Collection Preservation - X-ray & Neutron Powder Diffraction - Mineral Museums - Single Element Mineralogy and Geochemistry - Philosophy of Natural Sciences - Impact Mineralogy - Soil Science, Chemistry, or Minerals - Mineral Fibers -Refractories - Quantum Chemistry and Modeling - Magnetic Minerals - Experimental Geochemistry - Meteoritics -Geochronology - Mineral Processing - Nanoscience - Kinetics - Geochemical Prospecting - Structural Petrology or Geology - Atmosphere/Surface Interaction - Tectonics - Aqueous Geochemistry - Geochronology by Isotopic, Fission Track, Alpha Recoil Track, and Luminescence Techniques - Computational Chemistry - Illustration and Art of Minerals - Industrial Hygiene - Mathematical Geology - Metallography & Metallurgy - Philatelic Mineralogy - Reactive Transport - Silicate Melt Rheology - Ultrahigh Pressure and Temperature Mineralogy, Crystal Chemistry, and Metamorphism - Water-Rock Interactions - Zeolites - XAFS and XANES

Aggregate publishing, Continued from page 5

The idea was that a combination of earth science societies would have more resources and a more compelling product. If the larger earth science societies could agree then the smaller societies might be enticed to join what is otherwise a risky adventure. In November 2001 GSA, AAPG, and SEG organized a task force to evaluate the desirability and feasibility of an electronic publishing aggregate. The task force worked during November and December 2001 and concluded that it would be advantageous to all users to have an ever-increasing comprehensive online aggregate of geoscience publications that is accessible at reasonable cost. Working with a publication consultant, they compiled sufficient data to show that such an aggregate is technically and financially feasible. The task force report provided the basis for the governing boards of AAPG, GSA, and SEG to issue a statement of intent to cooperate (see box). Representatives of these three societies, and now MSA, the Society for Sedimentary Geology (SEPM), the Geological Society of London (GSL) and pending final board approval, the American Geological Institute (AGI) have started development of a plan on how the aggregate would be governed and a business model. This will be presented to their respective governing boards, other societies, and industry (for possible sponsorship). The goal is to have the aggregate up and running by January 2004.

A primary purpose of scientific societies is to disseminate scientific research results. The benefits of linked, searchable electronic journals are becoming clearer to everyone. Students and professionals are relying increasingly on electronically available literature, in many cases almost exclusively. To continue the mission of disseminating scientific research results in the future and to preserve past scientific literature, it is imperative that geoscience societies publish online, convert past issues to an electronically searchable format, and integrate their journals into the wider literature that is online. Online publishing should result in a much greater readership. It should allow journals to be more accessible to a wider audience within the scientific community, industry, and especially for developing countries.

Many of the details of the proposed electronic publishing aggregate are yet to be worked out, but a few general attributes and goals have been established. The aggregate will:

• be an electronic distribution mechanism; each journal will remain the editorial responsibility of its publishing society. The aggregate will be a separate, not-for-profit, tax-exempt 501(c)(3) organization, distinct from the geoscience societies, with its own staff, corporate bylaws, and Board of Directors.

• contain peer-reviewed, high-quality journals chosen from across all earth and space sciences nonprofit professional societies, including non-US based journals.

• be a full-text, content aggregate (complete text, figures and references; not just abstracts and titles) of journals specific to the geosciences.

• provide complete seamless search capabilities with links for all journals in the aggregate, and the ability to search all Continued on page 24

STATEMENT OF COOPERATION AND INTENT BETWEEN THE

AMERICAN ASSOCIATION OF PETROLEUM GEOLO-GISTS (AAPG), THE GEOLOGICAL SOCIETY OF AMERICA (GSA) AND THE SOCIETY OF EXPLORA-TION GEOPHYSICISTS (SEG)

TOWARD THE DEVELOPMENT OF A PUBLICATION AGGREGATE

GSA, AAPG, and SEG have each embarked on their own paths toward electronic publications, digital archiving, cross-referencing, and seamless comprehensive searchability.

Looking to the future, we believe it is timely and appropriate for our organizations to consider combining our respective publications into a single geo-science aggregate. Additionally, we would jointly encourage other geoscience publishers to participate in this aggregate. This proposed geoscience e-journal aggregate will not compromise or reduce any of the current electronic publication services and options offered to our members and institutional subscribers, but rather would enhance them and serve as a vehicle for further cross-linking of additional GIS data, maps, and other geoscience data. With the endorsement of this document by the appropriate Board representative for each organization, we agree to continue our research into the technical and economic aspects of forming a Geoscience e-journal aggregate. Acknowledging that there are many issues, both known and unknown, that must be comprehended and solved, we are committed to creating a technical plan and business plan to launch this endeavor.

Furthermore, we plan to present this plan to potential industry sponsors to seek funding for making the Geoscience e-journal aggregate a reality and to assist all interested geoscience professional societies to join the aggregate with both their archives and ongoing publications.

> **ROBBIE GRIES, PRESIDENT** American Association of Petroleum Geologists

> > ANTHONY J. NALDRETT Geological Society of America

WALTER S. LYNN The Society of Exploration Geophysicists

The Reviews in Mineralogy and Geochemistry volume 36, *Planetary Materials* has been reprinted. There are corrections as well as updating addenda, but the most important difference in this second printing is the figures. The halftone figures have been redone and the book printed on a sheetfed press. The figures are much sharper and richer. The price remains at \$40, and it can be ordered with either the order form that appears elsewhere in this issue (page 15), or online at www.minsocam.org.

All about web submissions

By Rachel A. Russell

merican Mineralogist's new web-based submission and peer review workflow system opened for submissions on April 1, 2002. This new system will make it easier for authors, reviewers, associate editors, and editors to work from any place in the world. Editors will no longer need to record dates, fill in names, and so on because the computer will do that automatically. Other bookkeeping tasks, even creating reports, will be done automatically or at the push of a button.

The first step is to register with the system. Go to http:// minsocam. allentrack.net and type in your address and other contact data. Once this step is complete, when you log in and submit a paper, the computer will complete many of the entry lines for you. As contact data changes, you can update your registration. However, keep in mind that to update MSA membership data and subscriptions you still need to contact the business office or log into http://www.minsocam.org. The registration data is private and will not be sold or given to other organizations.

One of the very important uses of the registration information is to allow associate editors to find appropriate reviewers. They can search the database by area of interest-so when you fill in your area of interest carefully consider what papers you want to review. The system will also allow associate editors to check and see the current American Mineralogist workload of a particular potential reviewer, so that ideally no one gets too

many American Mineralogist manuscripts at once.

FIRST STEP

Once registration is complete, there is a four-step process to follow, and the system walks you through it. There are lots of instructions and help boxes. First it is basically like writing a cover letter (which is no longer required) directly into the computer. For example, make sure your email address pops up correctly, type in your phone and fax numbers, and so on. Authors can suggest preferred/ not preferred associate editors assignments. There is a place for reviewer suggestions (reviewer non-preferences can be cut-and-pasted into the general comment box at the end). We still need the assurance that the material has not been previously published and will not be submitted elsewhere while in review with us, but now this is just a button to click. There is a place to type in keywords. The keywords should eventually help us create the yearly subject index.

Unlike a cover letter, there is also a place to cut and paste your manuscript title and your abstract. Authors also indicate how many files they have to upload. For example, 1 article file (with tables and figures embedded) or 1 article file, and 5 figure files and 2 table files. Any combination is possible. No need to worry, however, if you tell the computer 5 figures and then realize you have 6, you don't need to start over! You can "add a file" once you've uploaded the others!

SECOND STEP—UPLOAD-ING FILES

A wide variety of formats are allowed at this stage (accepted manuscripts have other more restricted choices), and any platform. The computer translates everything into PDF Continued on page 8

Submitting a manuscript to *American Mineralogist* over the web: an author's report

By Andrea Koziol

Have you downloaded software or other files off the WWW? Have you purchased an item on-line, bid on an auction, or posted your own web pages? If so, then submitting a manuscript to the *American Mineralogist* via the new Web-based system will not be difficult. And, context-sensitive help pages are available every step of the way.

I would like to share with *Lattice* readers a few tips based on my experience with a recent submission. First of all, the guidelines for manuscript content and format are essentially unchanged. Refer to the inside back cover of an issue of *American Mineralogist*, and/or the journal's website for details. Secondly, these guidelines are somewhat relaxed in the submission stage. Formats, figures, tables, etc. will be brought to journal standards as the manuscript proceeds towards publication.

• Familiarize yourself with the procedure beforehand. Register and choose a password for yourself. You can proceed to the first web page of the submission process and inspect it without actually submitting a manuscript.

• Have ready in a word-processing file the correct contact information for all authors, for easier cut-and-paste into the required form.

• Also have ready for cutting and pasting into forms the title, running title, abstract and key words for your manuscript.

• For flexibility a number of different file formats are acceptable (check instructions on the web page). Figures can be in separate files. I used MS Word, inserted my graphics into the Word file, and uploaded only one file. This worked well.

• After the files are uploaded and you are waiting to view and approve the PDF version, be patient. Do not click on the "back" or "reload" button of your web browser.

• Do check the PDF file and make sure that all information has made the transition successfully.

• Don't panic. You can replace or delete manuscript files as necessary before final approval.

• After you submit a manuscript this way, you will probably agree that this new procedure is very convenient!

Continued from page 7

format to be visible globally. Now, in fact a modification allows the computer to combine the tables and artwork to the text if they are submitted as separate files, so reviewers only have 1 file to open.

Materials for deposit and materials such as quick-time video should also be uploaded. The web version of the accepted manuscript could then include the video! Our special technical editor, Robert Downs, checks the deposit tables, and he will have access to the source files, which should make this process very simple.

STEP 3 AND 4

Step 3 is a passive step for the author, as the computer generates a page with the manuscript number and other comments for authors to print and keep. The computer also converts the files to PDF. Thus the fourth and final step, for the authors, is to open each PDF file the computer created and make sure it is correct. If the wrong file was uploaded, then the author can "remove" or "replace" it. Missing files can be added. Once everything is just right, the author presses the okay button. At this point, the author can no longer modify the files because once peer review starts, files can not be changed by the author. If there is some unusual situation, the author can contact the journal staff for assistance.

The receipt of a confirmation letter from the computer is final verification that the process went just as it should. Throughout peer review, the author can log in and check the status of the manuscript.

Call for Papers for the "Environmental Mineralogy" issue

In an era of rising public awareness of and scientific interest in the environmental and health effects of human activity, mineralogists clearly have an exciting new role in a multidisciplinary field. In keeping with this emerging role, the Editors of the American Mineralogist are pleased to announce the inaugural Environmental Mineralogy issue to be published in 2003. We encourage the submission of papers covering a range of environmental issues including, but not limited to, the following general research topics:

- Effects of minerals on human health
- Use of minerals to sequester deleterious materials
- Interpretation of minerals as monitors of the surficial environment
- · Biominerals as recorders of the biological and geological environment
- Minerals that form in surficial, acidic environments
- Microbe-mineral interactions of environmental significance
- Environmental applications of clay minerals.

Letters, full-length research papers, and review articles will be considered for publication in this special "green" issue. This issue will be published in addition to the regular issues. Depending upon the response from the mineralogy community, it might prove necessary to publish more than one green issue or to set aside sections of regular issues for papers on environmental mineralogy. Authors considering the submission of a review paper should consult one of the editors beforehand regarding the suitability of the proposed subject. All submissions for this issue will go through the regular peer-review process.

Prospective authors may submit their manuscripts on line at the address **http://minsocam.allentrack.net.** Firstly, you must register, then log in and follow the steps to submit your paper. Note that instead of registering your paper type as "regular", you should click "Environmental". In the Associate Editor preferences list, you can specify one of four Environmental Associate Editors listed below, or we will make the assignment on your behalf. Complete instructions are located at **http://www.minsocam.org** and authors are encouraged to read them. If you have any questions about submitting a paper, please contact the Managing Editor (see below). If you do not have e-mail/web access, contact the editorial office for alternate instructions.

The development of this special issue reflects a commitment on the part of the Editors to make environmental mineralogy an important part of the journal.

Associate Editors for the special issue: UDO BECKER (ubecker@uni-muenster.de) JOHN JAMBOR (Jljambor@aol.com) GREG LUMPKIN (grl@ansto.gov.au) JILL PASTERIS (pasteris@levee.wustl.edu)

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Frequently asked questions about web submissions

I have subscripts/superscripts or special characters in my title and abstract. What do I do?

If your title or abstract has symbols such as alphas and betas or special formatting such as subscripts and superscripts, there is a special character/formatting box that can allow you to make the title and abstract look perfect. Appearance is not important at this stage, however.

I may want to modify my title and/or abstract after the review process. Is this possible?

Yes. For the initial submission the purpose of the title and abstract is to give all the editors and reviewers a quick snapshot of the material. The material in these fields has nothing to do with the final publication version. The final version is taken from the manuscript file.

How do I choose the correct keywords to describe my manuscript?

Go to http://www.allentrack.net/amin/key_word_ instructions.pdf for instructions on how to prepare your list prior to submission.

I have a figure or a photograph that is not in a computer file, and it would be difficult or impossible to transfer it to a computer file. How can I include this as part of a web submission?

Typically in this case the editorial office can scan it at art quality and add it to your submission files. In the future, there may be interactive, programming-type files and they may upload as supplemental material, or you may need to contact the editorial office.

My manuscript is already prepared as a PDF file. Will there be any problems with this format?

No problem! The computer still "converts" it because that is what it is programmed to do, so there is still a small wait for file conversion.

What about materials already in peer review?

The cost of transferring the materials that are currently in peer review is far too high. So for a little while we'll be operating dual systems here at the office. One big advantage of this is that for a little while our accepted papers will likely come from the old system. Thus we can concentrate on making the webbased submission and peer review work very smoothly, without having to learn absolutely everything at once. In fact, as you use the help files or read the instructions, any suggestions are welcome.

What if I do not have access to the web?

Because *American Mineralogist* welcomes material from around the world, there may be some scientists with no access to the web. Those submissions can be e-mailed to us, and we can upload it. If they even lack e-mail, they should send us one hard copy and, if possible, one electronic copy on a PC-formatted diskette, zip, or CD-ROM. (Submissions already in the mail will be worked out one-by-one as they come in!)

What else do I need to know?

Our instructions for authors are on the MSA web site (www.minsocam.org) and are being continuously updated to reflect the latest developments. I encourage authors to check these instructions before submitting. Questions can also be emailed to editorial@minsocam.org.

Am Min Stats at a Glance

- 60 manuscripts submitted between April 1 and June 12, 2002 via the new system
- 4 of those manuscripts we uploaded for the author
- 12 web manuscripts with a final decision (accept, reject, or withdrawn) so far
- 2 accepts from the web submissions
- 45 of the web submissions have non-U.S. affiliations
- 57 manuscripts were submitted between April 1 and June 12, 2001 (last year)



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

PLASTIC DEFORMATION OF MINERALS AND ROCKS

- Dates:Short Course sessions are December 4th and 5th, 2002. The short course will start at 8:30 a.m. on Wednes-
day, December 4th and end in the evening of Thursday, December 5th so people can attend the American
Geophysical Union Meeting in San Francisco, CA that starts Friday, December 6, 2002. There is a
dinner reception on Wednesday, December 4th from 07:00-10:00 p.m.
- Location: Short Course sessions are from 8:30 am to 6:30 pm Wednesday and 8:30 am to 5 pm on Thursday. All events are at the Holiday Inn-Bay Bridge, 1800 Powell Street, Emeryville, CA 94608, conveniently located next to Berkeley and near the bay bridge (phone: (510) 658-9300, FAX: (510) 595-1914).
- Conveners: Shun-ichiro Karato, Yale University, Department of Geology and Geophysics, 319 Kline Geology Laboratory, New Haven, CT 06520, USA. phone: (203) 432-3147; fax: (203) 432-3134; e-mail: shun-ichiro.karato@yale.edu. Hans-Rudolf Wenk, University of California-Berkeley, Department of Geology & Geophysics, Berkeley, CA 94720-4767 USA. phone: (510) 642-7431; fax: (510) 643-9980; e-mail: wenk@seismo.berkeley.edu.
- **Registering**: Registration forms are available from the MSA Business Office, 1015 Eighteenth St NW Ste 601, Washington, D.C. 20036-5212, USA. Tel: (202) 775-4344 Fax: (202) 775-0018 e-mail: business@minsocam.org; or from the MSA Home Page (http://www.minsocam.org). Registration forms with payment must be returned to the MSA Business Office. Registration fees will be fully refunded if cancellation is received in writing on or before November 1, 2002. You can also register online with a credit card. Registration is limited to 100 participants. All participants and speakers must register.
- Practical: Registration fee includes MSA short course sessions, breakfasts, refreshments at breaks, lunch on Wednesday and Thursday, Wednesday evening banquet, the *Reviews in Mineralogy and Geochemistry* volume. Registration fee does <u>not</u> include room, incidentals, or other transportation costs to or from Emeryville, CA. Both participants and speakers must make arrangements and pay their own lodging and ground transportation to reach the short course. Preferred lodging is Holiday Inn-Bay Bridge (1800 Powell Street, Emeryville, CA 94608, conveniently located next to Berkeley and near the bay bridge (phone: (510) 658-9300, FAX: (510) 595-1914)), where a block of rooms has been reserved at a special rate (\$104 plus tax, single or double). In order to qualify for the special rate, room reservation must be made at least one month in advance of the meeting and guaranteed with a credit card.

The hotel is easily reached from San Francisco and Oakland airports with the Bayporter Shuttle Service (877-467-1800, no reservation is necessary, the shuttle leaves from the upper level at the airport), by BART train (e.g., from San Francisco or Berkeley to MacArthur Station and from there free Emery Go Round Shuttle), or car (Ashby exit on US80, free parking).

Short Course Description

This short course aims at providing a series of lectures on some fundamentals of mineral and rock deformation as related to various geological and geophysical processes. Plastic flow in minerals and rocks is the most important process of heat transfer in terrestrial planets. Unlike other properties such as elastic properties, plastic properties are time and strain-dependent. Therefore application of laboratory results at laboratory time scales to geological processes needs a large extrapolation. In addition, plastic flow in minerals and rocks is far more complicated than the flow in a simple fluid such as water. This is due to the very fact that a rock is composed of discrete crystals and has internal structure at various levels, ranging from the atomic level (point defects, dislocations etc.) to the grain level (lattice preferred orientation or shape preferred orientation). In particular, grain-scale microstructures are critical to understanding dynamics of the Earth's interior. For example, the grain-size can significantly affect the creep strength of rocks and lattice preferred orientation results in seismic anisotropy that could provide a clue to infer flow geometry in the deep interior of the Earth. An understanding of plastic deformation of minerals and rocks, as applied to the dynamics of the Earth, must involve understanding of nonelastic behavior at various time and space scales under Earth-like temperature and pressure conditions. Furthermore, factors other than temperature and pressure, e.g., fugacity of water and partial melting, can have a significant effect.

Plastic deformation can often be unstable. This instability could cause important geological processes including the formation of shear zones (mylonites) in the crust (and mantle) as well as (deep) earthquakes.

These complications are likely to have an important influence on the dynamics and evolution of terrestrial planets. Recent progress in experimental and theoretical understanding of deformation and deformation-induced microstructures has made it possible to evaluate some of these complications on the basis of crystal structure and bonding (i.e., atomistic scale). In this short course the state-of-the-art of mineral physics studies of plastic deformation and deformation-related microstructures will be reviewed. Part of it will be a discussion of methods to investigate deformation features and to characterize deformed materials. The short course also includes lectures from experts in seismology, geodynamics and engineering that are relevant for a better understanding of plasticity in minerals and rocks.

Fees on next page with more information

Topics and Speakers/Authors

Scope of workshop, Overview Deformation of crustal materials	Karato
Deformation of crustal materials	Tullis
Deformation of upper mantle materials	Hirth
Deformation of deep mantle materials Deformation of ice	Cordier
Deformation of ice	Schulson
Instability of deformation	Green
Partial melting and deformation	Kohlstedt
New development in deformation studies:	
High pressure deformation	Weidner/Durham
High strain deformation	Mackwell/Paterson
Meso- and Macroscopic modeling	Dawson
Preferred orientation and seismic anisotropy	Wenk
Seismic wave attenuation	Cooper
Rheology and geodynamics	Bercovici
Seismic anisotropy and mantle dynamics	
	•

Short Course Registration Plastic Deformation of Minerals and Rocks Berkeley, CA- December 4 and 5, 2002

Complete and return this registration form to the MSA Business Office, 1015 Eighteenth St NW Ste 601, Washington, D.C. 20036-5212, USA. Telephone: (202) 775-4344. FAX: (202) 775-0018. Please type or print. Use one form per registrant. Payment must accompany this form. Registration is limited to 100 people on a first-come, first-served basis. Payment must accompany this form, which will be fully refunded if cancellation is received in writing on or before November 1, 2002.

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Registration fee includes MSA short course sessions, refreshments at breaks, lunch on Wednesday and Thursday, and the Reviews in Mineralogy and Geochemistry volume. There is a dinner beginning 7:00 pm on Wednesday evening, December 4. All events are at the at the Holiday Inn-Bay Bridge, 1800 Powell Street, Emeryville, CA 95608, conveniently located next to Berkeley and near the Bay bridge (Phone: (510) 658-9300, FAX: (510) 595-1914), website: www.holidayinnbaybridge.com. Registration fee does not include room, other meals, or transportation costs to or from the short course site. A block of rooms has been reserved in the Holiday Inn at a special rate (\$104 plus tax, single or double). Information on the short course, lodging, ground transportation, and course updates are on the MSA Home Page (http://www.minsocam.org).

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* includes MSA membership dues for 2003.	<i>Q</i>1 70	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	Total Due \$	
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Short Course Announcement

Phosphates: Geochemical, Geobiological, and Materials Importance

- **Dates**: Saturday and Sunday October 26-27, 2002 (preceding the Mineralogical Society of American-Geological Society of America Annual meeting in Denver, Colorado)
- Location: Short Course sessions are between 8:00 am 6:00 pm Saturday, and 8:00 am 12:00 noon Sunday at the Holiday Inn Denver West Village, 14707 West Colfax Ave, Golden, Colorado 80401, U.S.A. voice: (303) 279-7611, (800) 729-2830, fax: (303) 278-1651.
- Conveners: *Matthew J. Kohn*, Department of Geological Sciences, University of South Carolina, Columbia, SC 29208, Tel: (803) 777-5565, Fax: (803) 777-6610, E-mail: mjk@geol.sc.edu. *John Rakovan*, Department of Geology, Miami University, Oxford, OH 45056, USA, Tel: (513) 529-3245, Fax: (513) 529-1542, E-mail: rakovaif@.muohio.edu.
- Registering: Registration forms are available from the MSA Business Office, 1015 Eighteenth St NW Ste 601, Washington, D.C. 20036-5212, USA. Tel: 202-775-4344 Fax: 202-775-0018 E-mail: business@minsocam.org; or the MSA Home Page (http://www.minsocam.org). Registration form with payment must be returned to the MSA Business Office.
- Practical: Registration fee includes MSA short course sessions, refreshments at breaks, Saturday lunch and evening banquet, and *Reviews in Mineralogy and Geochemistry* volume. There is an informal welcoming reception beginning 5:30 pm Friday evening, October 25 on a self-pay basis at the Holiday Inn. Registration fee does <u>not</u> include room, other meals, or transportation costs to or from Golden. Participants must contact the Holiday Inn Denver West Village, 14707 West Colfax Ave, Golden, Colorado 80401, USA voice: (303) 279-7611, (800) 729-2830, fax: (303) 278-1651 to make reservations and pay for rooms. A block of rooms is reserved for short course participants at the Holiday Inn until October 4, 2002. Use the group code 2-MIN when making reservations so that you receive the discounted group rate.

Ground transportation to and from the Denver Airport (DIA) is available. Among the services available to Golden is Golden West Commuter (800) 894-8033. It is regularly scheduled to leave DIA about every hour, reservations must be made to return from Golden to Denver of DIA. Cost ~\$24 one way, ~\$44 round trip.

Short Course Description: Phosphate minerals are an integral component of geologic and biologic systems. They are found in virtually all rocks, are the major structural component of vertebrates, and when dissolved are critical for biologic activity. Their unique chemical and physical behavior permits a wide range of geochemical applications in geology and biology. This short course reviews past work on phosphates, and explores new areas of phosphate research indicated by recent rapid developments in measuring and interpreting the geochemistry of phosphates. Although the short course is accompanied by a comprehensive *Reviews in Mineralogy* volume on phosphate mineralogy, geochemistry, geobiology, and materials applications, the shortcourse will focus on 3 rapidly developing areas in the Earth sciences-geochronology, petrology, and biogeochemistry. The geochronology of phosphates has been revolutionized by new thermochronologic and analytical methods. Examples include the in situ analysis of monazite for U-Th-Pb age, analysis of single apatite grains for U-Th/He age, and retrieval of detailed temperature-time paths from the apatites of a single rock. Petrologic applications include understanding of phosphate mass balance in rocks, and the use of the chemistry of phosphates such as monazite and apatite for inferring physical and chemical conditions of rock formation. Significantly, the chemistry of metamorphic monazites has the potential to reveal both the temperature and age of metamorphism. Sedimentary apatites are linked to surficial cycling of phosphate, a critical nutrient for bioproductivity, while the stable and trace element geochemistry of modern and fossil bioapatites now yield insights into (paleo-) ecologies and climates. While diverse, these fields are all linked crystal chemically and geochemically. The shortcourse will provide a lively forum for interdisciplinary discussion.

Topics and Speakers/Authors for RIM Volume and Shortcourse

Mineralogy and Crystal Chemistry

Introduction [Shortcourse Only] Overview [Shortcourse Only] The Atomic Arrangement of Calcium Phosphate Apatite [No Lecture] Compositions of the Apatite-Group minerals [No Lecture] Growth, Dissolution and Surface Properties of Apatite [No Lecture] Structure and Chemistry of Monazite and Xenotime [No Lecture] The Crystal Chemistry of the Phosphate Minerals [No Lecture]

Petrology

Apatite in Igneous and Hydrothermal Systems Phosphates in Metamorphic Rocks Sedimentary Phosphorites.

Biomineralization

The Global Phosphorus Cycle Calcium Phosphate Biominerals in Man [*No Lecture*] Stable isotopes of Biogenic Phosphates Trace elements in Recent and Fossil Bone Apatite

P. Piccoli & P. Candela F. Spear & J. Pyle A.C. Knudsen & M.E. Gunter

J. Rakovan & M. Kohn

Y. Pan & M.E Fleet

J.M. Hughes & J. Rakovan

D. Huminicki & F. Hawthorne

F. Hawthorne

J. Rakovan

L. Boatner

G. Filippelli J. Elliott M. Kohn & T. Cerling N. Tuross & C. Trueman

Fees on next page with more information

<u>Geochronology</u>

U-Th-Pb Dating of Phosphate Minerals (U-Th)/He Dating of Phosphate Minerals Fission Track Thermochronology of Phosphate Minerals

Materials Applications

Apatite Luminescence [*No Lecture*] Biomedical Application of Apatites [*No Lecture*] Phosphates as Nuclear Waste Forms [*No Lecture*] G. Waychunas K.A. Gross & C.C. Berndt R.C. Ewing & L. Wang

The short course will be held in conjunction with an MSA topical session (Topical Session T69) at the Mineralogical Society of America—Geological Society of American Annual Meeting, Denver, Co. If you submit an abstract for this special session, please let the short course conveners know about it.

Sponsor: U.S. Dept. of Energy

Short Course Registration Phosphates: Geochemical, Geobiological and Materials Importance. Golden, Colorado, October 26–27, 2002

Complete and return this registration form to the MSA Business Office, 1015 Eighteenth St NW Ste 601, Washington, D.C. 20036-5212, USA. Telephone: (202) 775-4344. FAX: (202) 775-0018. Please type or print. Use one form per registrant. Registration is limited to 120 people on a first-come, first-served basis. Payment must accompany this form, which will be fully refunded if cancellation is received in writing prior to September 27, 2002.

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Addres	S			
(city)	(state/Province)	(zip/postal code)	(country)	
Telepho	one: (Voice)	(Fax)	E-mail:	

Registration fee includes MSA short course session costs, break refreshments, Saturday lunch and banquet, and the *Reviews in Mineralogy and Geochemistry* volume. All MSA short course sessions are at the Holiday Inn Denver West Village, Golden, Colorado. There is an informal welcoming reception 5:30 pm Friday evening, October 25 at the Holiday Inn. Registration fee does <u>not</u> include room, other meals, or transportation costs to or from Golden. A block of rooms has been reserved for short course participants until 10/4/2002 at the Holiday Inn Denver West Village, 14707 West Colfax Ave, Golden, Colorado 80401, USA voice: (303) 279-7611, (800) 729-2830, fax: (303) 278-1651. Participants must contact the hotel to make reservations and pay for rooms. Use the group code of 2-MIN. Information on the short course, lodging, ground transportation, and course updates are on the MSA Home Page (http://www.minsocam.org).

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The Clay Minerals Society

The Clay Minerals Society's mission is to stimulate research and disseminate information relating to all aspects of clay science and technology. For information on membership, grants, awards and other activities, please see our website at http://cms.lanl.gov, or contact the society office at the address below.

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Thermal Analysis in Clay Science (1990) Vol. 3, Stucki, Bish, & Mumpton, eds.	\$18 (\$13)			
Clay-Water Interface and its Rheological Implications (1993) Vol. 4, Güven & Pollastro, eds.				
Computer Applications in X-Ray Powder Diffraction Analysis of Clay Minerals (1993)	\$23 (\$18) \$23 (\$18)			
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Scanning Probe Microscopy of Clays (1994) Vol. 7, Nagy & Blum, eds.	\$26 (\$13) \$26 (\$21)			
Organic Pollutants in the Environment (1996) Vol. 8, CMS Workshop Lectures, Sawhney, ed.	\$23 (\$18)			
Synchrotron X-ray Methods in Clay Science (1999) Vol. 9, D. Schulze, Stucki & Bertsch, eds.	\$23 (\$18)			
Other Publications				
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Welcome New Members

The following individuals joined MSA July 17 through November 17, 2001. 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 either MSA's web site (http://www.minsocam.org) and the MSA Business Office, 1015 Eighteenth St NW Ste 601, Washington, DC 20036-5212,

Montgomery, Mr. Keith, 144 Hidden Hills Place NW, Calgary AL T3A 6E2, CANADA. Ph: (403) 289-5548. E-mail: kmontgom@shaw.ca (11-00).

Mulch, Andreas, University of Lausanne, Institute of Mineralogy and Geochemistry, BFSH-2, Lausanne CH-1015, SWITZERLAND. Ph: +41-(0)21-692 4449. Fax: +41-(0)21-692 4305. E-mail: andreas.mulch @img.unil.ch (11-00).

Mullen, Ms. Emily K., P.O. Box 1245, Lyman WA 98263-1245. Ph: (360) 826-3165. Email: emullen@u.washington. edu (12-00). MI, CC, IP, MP, SP, GE, PE, EG, EM, GM, PM, TC, TP, BM

Orris, Dr. Greta J., US Geological Survey, 520 N Park Ave Ste 355, Tucson AZ 85719-5035.

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Jan Kosler, Lecturer, Department of Geochemistry, Charles University, Czech Republic; and Research Associate, Department of Earth Sciences, Memorial University of Newfoundland

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Marc Norman, Senior Research Fellow, School of Earth Sciences, University of Tasmania, Australia

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Weidner, Prof. Donald J., S.U.N.Y. @ Stony Brook, Dept of Geosciences, Stony Brook NY 11794-2100. Ph: (631) 632-8241. Fax: (631) 632-8140. E-mail: dweidner@sunysb.edu (10-00). MI, CC, PP, PE, PM, TC,

Wellman, Ms. Dawn M., 1914 George Washington Way Apt D, Richland WA 99352-2343. Ph: (509) 373-6144. Fax: (509) 376-5368. E-mail: dawn. wellman@pnl.gov (12-00). MI, CC, GE, EM, MS,

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The Reviews in Mineralogy and Geochemistry volume 33, *Boron* has been reprinted. There are corrections as well as updating addenda, and the figures have been redone. The most noticeable different is that the book is slimmer. A thinner, but more opaque paper was used. The price is \$36, and can be ordered with either the order form that appears elsewhere in this issue (page 15), or online at www.minsocam.org.

Erratum: On page 13 of the Lattice, Volume 17, Number 4, in the photograph of the MSA Awardee Peter Burns, the identities of the people with Peter were interchanged in the caption. Cornelis Klein is on the right, and Citationist Frank Hawthorne is on the left.

Meetings Calendar 2002

2002 August

6–15 19th Congress and General Assembly of the International Union of Crystallography. Geneva, Switzerland. Details: Congress Secretariat, XIX Congress and General Assembly of the IUCr, P.O. Box 50006, Tel Aviv 61500, Israel. Tel: 972 3 5140000. Fax: 972 3 5140077. e-mail: iucr@ kenes.com. Web page: http:// w w w. k e n e s. c o m/iu c r/ index.html

17–23 12th V.M. Goldschmidt Conference incorporating ICOG X. Davos, Switzerland. Details: Prof. A. Halliday, Institut fur Min.und Petrographie, ETH-Zentrum, CH-8092, Zurich. Email: halliday@ erdw.ethz.ch. Web page: http:// w w w . g o l d s c h m i d t conference.com/gold2002/.

26–31 6th High Pressure Mineral Physics Seminar (HPMPS-6) Verbania, Italy. Details: Bayerisches Geoinstitut, Universität Bayreuth, D-95440 Bayreuth; E-mail: dave.rubie@unibayreuth.de. Web Page: http:/ /www.hpmps.bgi.unibayreuth.de/2002/index. phtml

26–Sept. 3 4th International Workshop on Orogenic Lherzolites and Mantle Processes. Samani, Hokkaido, Japan. Details: Eiichi Takazawa, Tel. +81-25-262-6114. Email: takazawa@ geo.sc.niigata-u.ac.jp. Web page: http://earth.s. k a n a z a w a - u . a c . j p / LherzoliteWorkshop2002/

September

1-6 Mineralogy for the new Millennium (IMA 2002): 18th general Meeting of the International Mineralogical Association. Edinburgh, Scotland. Details: Dr. Adrian Lloyd-Lawrence, Executive Secretary, Mineralogical Society of Great Britain and Ireland, 41 Queen's Gate, London SW7 5HR, United Kingdom. Phone: 44 171 584 7516. Email: IMA@ minersoc.demon.co.uk. Web page: http://www. minersoc. org/IMA2002.

2-3 Transport and Flow **Processes within Shear Zones: Joint International Research Meeting of the Tectonic Studies Group**, Geological Society of London. London, England. Details: Ian Alsop, Crustal Geodynamics Group, School of Geography & Geosciences, University of St.Andrews, Fife, Scotland, KY16 9AL UK. E-mail: gia@standrews.ac.uk. Web page: http://www.st-and.ac.uk/ ~www_sgg/tsg2001.html

9–11 Iron Ore 2002. Perth, Australia. Details; Angie Spry, Publications Coordinator. Fax (03) 9662 3662. e-mail: publications @ ausimm.com.au. Web page: http://www.ausimm.com/ events/event_writeups/ ironore.asp

10–11 Uranium 2002-Uranium deposits from their genesis to their environmental aspects. Prague, Czech Republic. Details: Bohdan Kribek, Czech Geological Survey, Geologická 6, CZ-152 00 Praha 5, Czech Republic. Tel., Fax: +420-2-5817390. E-mail: kribeck@ cgu.cz. Web page: http:// xrd.cgu.cz/uranium.htm.

12–14 The Moon Beyond 2002: Next Steps in Lunar Science and Exploration. Taos, New Mexico. Details: David J. Lawrence, Space and Atmospheric Sciences, NIS-1, Mail Stop D466, br. Los Alamos, NM 87545. Phone: (505) 667-0945 Fax: (505) 665-7395. Email: djlawrence@lanl.gov. Web page: http://www.lpi.usra.edu/ meetings/moon2002/

26–30 Melt Inclusions: Methods, Applications and Problems. Napoli, Italy. Email: info@ ersambiente. com. Web page: http:// www.dgv.unina.it/convegni/ workshop_de_vivo.htm.

October

6–10 The Minerals, Metals & Materials Society 2002 Annual Fall Meeting. Columbus, OH. Details: TMS Programming Department, 184 Thorn Hill Road, Warrendale, Pennsylvania 15086. Tel. (724) 776-9000, ext. 237; fax (724) 776-3770. E-mail: ckobert@tms.org. Web page: http:// www.tms.org/Meetings/ Fall2002/Fall2002.html.

11–14 Mineral Diversity-

Research and Preservation. Sofia, Bulgaria. Details: Organizing Committee, Earth and Man National Museum, 4, Cherny Vrah Blvd., 1421 Sofia, Bulgaria. phone (+359 2) 656 639; Fax (+359 2) 661455. E-mail: mindiv@web.bg. Web page: http://www.lam.mus.ca.us/ ~smmp/meetings.htm.

27–30 Geological Society of America Annual meeting. Denver, CO, USA. Details: GSA Meetings, Box 9140, Boulder, Colo. 80301-9140. Phone: +1-303-447-2020, ext. 164. Fax: +1-303-447-1133. E-mail: meetings@ geosociety.org. Web page: http://www.geosociety.org/ meetings/index.htm.

December

2-6 Materials Research Society Fall Meeting. Boston, MA USA. Details: Materials Research Society, 506 Keystone Drive, PA 15086-7573, USA. Tel: 724-779-3003. Fax: 724-779-8313. E-mail info@mrs.org. Web page: http://www.mrs.org/ meetings/fall2001/

6–10 AGU 2002 Fall Meeting. San Francisco, CA, USA. Details: AGU Meetings Department, 2000 Florida Avenue, NW, Washington, DC 20009. Phone: +1-202-462-6900 (in D.C. or outside North America) or 1-800-966-2481 (toll-free in North America). Fax: +1-202-328-0566. E-mail: meetinginfo @agu.org. Web page: http:// www.agu.org/meetings.

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2-6 The Minerals, Metals & Materials Society Annual Meeting. San Diego, CA. Details: TMS, Meeting Services, 184 Thorn Hill Road, Warrendale, PA 15086 USA. Tel: (724) 776-9000 x243; Fax: (724) 776-9000 x243; Fax: (724) 776-3700. Email: mtgserv@tms.org. Web page: http://www. tms.org/Meetings/Annual-03/ AnnMtg03Home.html.

April

7–11 2003 EGS-AGU-EUG Joint Assembly. Nice, FRANCE. Details: AGU Meetings Department, 2000 Florida Avenue, NW, Washington, DC 20009 USA. Phone: +1-202-462-6900; Fax: +1-202-328-0566. Email: meetingsinfo@ agu.org. Web page: http:// www.agu.org/meetings/

15–16 The Mineralogical Society Spring meeting. Glasgow University, Scotland. Details: Martin Lee or Tim Dempster. Email: leemarti@earthsci.gla.ac.uk or tjd@earthsci.gla.ac.uk. Web page:http://www. minersoc.org/pages/meetings/ Socspring.htm.

21–25 Materials Research Society Spring Meeting. San Francisco, CA, USA. Details: Materials Research Society, 506 Keystone Drive, PA 15086-7573, USA. Tel: 724-779-3003. Fax: 724-779-8313. E-mail info@mrs.org. Web page: http:// www.mrs.org/meetings/ future_meetings.html

May

11–14 AAPG Annual Convention and Exhibition. Salt Lake City, UT. Email: convene@aapg.org. Web page: http://www.aapg.org/ meetings/slc03/index.html

12 - 16GeofluidsIV: Fourth international conference on fluid evolution, migration and interaction in sedimentary basins and orogenic belts. Utrecht, The Netherlands. Details: Mrs. Marielle Hoogendoorn, FBU Congress Bureau, Utrecht University, P.O. 80125, 3508 TC Utrecht, The Netherlands. Fax +31 30 253 58 51. E-mail: m.hoogendoorn@fbu.uu.nl. Web Page: http:// www.nitg.tno.nl/eng/ geofluid2.pdf

May 29–June 1 Geology Without Frontiers: Magmatic and Metamorphic **Evolution of the Central** Variscides. European Blansko, Czech Republic. Details: Jaromir Dr. Leichmann, No Frontiers, Dept. of Geology and Palaeontology, Masaryk University, Kotlarska 2, 611 37 Brno, Czech Republic. Phone: +420 (5) 41 12 92 61; Fax: +420 (5) 41 21 12 14. e-mail: cgs@mail.natur.cuni.cz.

June

4–15 High Pressure Crystallography. Erice, Italy. Details: Andrzej Katrusiak,

IN MEMORIAM

George E. Hesselbacher, Jr. (Senior Member - 1975) John Sinkankas (Fellow - 1956) Dept of Crystal Chemistry, Adam Mickiewicz University, ul. Grunwaldzka 6, 60780 Poznan, Poland. Phone : +48 61 86 99 181 Fax : +48 61 86 58 008. E-mail: katran@ amu.edu.pl. Web page: http:// www.geomin. unibo.it/orgv/ erice/highpres.htm.

7–11 40th meeting of the Clay Minerals Society. Athens, Georgia USA. Details: Paul A. Schroeder, University of Georgia, Department of Geology, Athens, GA 30602-2501, USA. Phone: (706) 542-2384. Email: schroe@gly.uga.edu. Web page: http://www.gly.uga.edu/ CMS2003/.

16–18 5th International Conference on the Analysis of Geological and Environmental Materials. Rovaniemi, Finland. Details: Lars-Martin Westerberg, Geological Survey of Finland P.O. Box 1237 FIN-70211 KUOPIO, Finland. Email: Lars.Westerberg@gsf.fi or geoanalysis@gsf.fi. Web page:http://www.gsf.fi/ geoanalysis2003

22–26 Euroclay 2003. Modena, Italy Details: Maria Franca Brigatti, Dipartimento di Scienza della Terra, Universita di Modena e Reggio Emilia, Largo S. Eufemia 19, 41100 Modena-ITALY . Fax: +39-059-2055887. E-mail: ec2003@ unimo.it. Web page: http:// www.unimo.it/euroclay2003/.

22–27 8th International Kimberlite Conference. Victoria, British Columbia, Canada. Details: Dr. Roger H. Mitchell, Geology Department, Lakehead University, Thunder Bay, Ontario, Canada P7B 5E1. Phone. 807-343-8287, Fax 807-623-7526. Email: Roger.Mitchell@ lakeheadu.ca. Web page: http://www.venuewest.com/ 8IKC

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July

26–31 American Crystallographic Association Annual Meeting, Cincinnati, OH. Details: Jeanette Krause Bauer, Dept. of Chemistry, Univ. of Cincinnati, P.O. Box 210172, Cincinnati OH 45221-0172. Tel. (516) 556-9226 Fax (513) 556-9239. Email: jeanette.krause @uc.edu. Web page: http:// www.hwi.buffalo.edu/ACA/

September

7–12 13th V.M. Goldschmidt Conference, Kurashiki, Japan. Details: Organizing Committee of Goldschmidt 2003, c/o International Communications Specialists, Inc. Sabo Kaikanbekkan, 2-7-4 Hirakawa-cho, Chiyoda-ku, Tokyo 102-8646, Japan. Email: gold2003@icsinc.co.jp. Web page: http:// www.ics-inc.co.jp/gold2003/

President Letter, Continued from page 3

biomaterials, polymers, etc.) with three to five invited summaries of topics relevant to each theme (examples can be seen at the Materials Research Society website: http://www.mrs.org/). These thematic issues are immensely valuable in broadening one's research perspective and presenting new developments in the field. I expect that many would also use these thematic issues as a source for lecture material.

The first steps have been taken. A draft proposal has been presented to the Mineralogical Association of Canada, the Clay Minerals Society and the Geochemical Society. If these societies find value in this proposal, a steering committee with representatives from each society will develop a detailed proposal and business plan. Other societies will be invited to join in this effort. Each society will have an opportunity to review and approve the proposal, and if the response is positive, we will begin. Please call this effort to the attention of your colleagues in other societies and invite them to contact me if they want to participate. This will only succeed if it is broadly based and inclusive.

> August 2002 Lattice DEADLINE: July 29, 2002 Andrea Koziol: e-mail: Andrea.Koziol@notes.udayton.edu

November

2–5 Geological Society of America Annual Meeting. Seattle WA USA. Details: GSA Meetings, Box 9140, Boulder, Colo. 80301-9140. Phone: +1-303-447-2020, ext. 164. Fax: +1-303-447-1133. E-mail: meetings@ geosociety.org. Web page: http://www.geosociety.org/ meetings/index.htm

December

8–12 2003 AGU Fall Meeting, San Francisco, CA, USA.

Details: AGU Meetings Department, 2000 Florida Avenue NW, Washington, DC 20009 USA. Phone: +1-202-462-6900; Fax: +1-202-328-0566. Email: meetinginfo @agu.org. Web page:http:// www.agu.org/meetings.

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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.

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Short Course Announcement

Applications of Synchrotron Radiation in Low-Temperature Geochemistry and Environmental Science

Monterey, California, Dec. 4-5, 2002

Time: Reception Tuesday evening, Dec. 3; short course Wednesday and Thursday, Dec. 4 and 5, 2002. The 2002 Fall Meeting of the American Geophysical Union is in San Francisco from Dec. 6-10, 2002.

Conveners: *Paul Fenter*, Argonne National Laboratory (fenter@anl.gov), *Mark Rivers*, University of Chicago (rivers@cars.uchicago.edu), *Neil Sturchio*, University of Illinois at Chicago (Sturchio@uic.edu), *Steve Sutton*, University of Chicago (Sutton@cars.uchicago.edu)

Registration: Registration will be handled by *The Geochemical Society* Business Office. The cost will be \$200 per professional registrant (reduced to \$100 per student) for registration before October 15, 2002. See the short course web site for more details and to register (.http://cars.uchicago.edu/ shortcourse2002/)

Practical: Registration fee includes short course sessions, refreshments at Tuesday evening reception, breakfast, lunch, and refreshments at breaks on Wednesday and Thursday, Wednesday evening banquet, and a copy of the *Reviews in Mineralogy and Geochemistry* volume. Transportation will be arranged to the Fall AGU meeting in San Francisco after the short course for those who request it. Short course participants should arrange their stay at the DoubleTree Hotel-Monterey (http://doubletreemonterey.com/) Tuesday and Wednesday night, where a block of rooms is reserved at a special rate for the short course.

Rationale: The powerful applications of synchrotron radiation in geochemistry and environmental science began to be realized about two decades ago. With the advent of third-generation synchrotron radiation sources in Europe, North America, and Japan, significant progress has been achieved in the development and application of synchrotron methods to geological and environmental materials. There has been exponential growth in the number of synchrotron users from the earth and environmental science communities. This Short Course is designed to fill the need for a comprehensive, in-depth review of the underlying theory and application of various synchrotron radiation methods as they pertain specifically to geochemical and environmental science applications.

Speakers:

Mark Rivers, University of Chicago Gordon E. Brown, Jr., Stanford University Paul Fenter, Argonne National Laboratory Michael J. Bedzyk, Northwestern University Glenn A. Waychunas, Lawrence Berkeley National Laboratory Carol Hirschmugl, University of Wisconsin at Milwaukee Satish Myneni, Princeton University Paul M. Bertsch, Savannah River Ecology Laboratory Alain Manceau, University of Grenoble Steve Sutton, University of Chicago

Sponsors: U. S. Department of Energy, Argonne National Laboratory

Aggregate publishing, Continued from page 6

geoscience journals through GeoRef (with linking if an individual/library subscribes to those journals)

contain reference linking through CrossRef

• link to existing secondary databases (i.e. Cambridge Abstracts) and have the ability to link to any digital database

• have the ability to expand to eventually include non-journal material, such as maps, charts, books, and databases

• be a full-content archive point-forward (i.e. from start date onward)

• link to a searchable electronic archive of back issues.

• share revenues with the individual societies (pricing structure determined by number of pages or journals posted, number of users, etc.)

• use third-party vendors to build, maintain, and upgrade the technology foundation and database to reduce the risks of technology evolution and associated costs

• plan for the participation by small publishers

• permit nonexclusive participation (i.e., societies can participate in more than one such arrangement).

MSA presently posts the *American Mineralogist* online, with full text available since 1998. It is taking paid subscriptions from members this year, and will provide institutional subscriber access in 2003. MSA may need to retain this capability whether or not MSA joins any other electronic distribution format. There will always be a member who is not part of an institution, or an institution that is unwilling or unable to subscribe to some electronic distribution method. For these cases an online version will be available through MSA. The print version should also be available as long as there is a demand.

There are actually two successive questions to be answered in any decision about MSA's eventually belonging to an electronic journal publishing aggregate: (1) what are the advantages of joining an aggregate, and (2) what are the advantages of any specific geoscience electronic journal aggregate chosen.

What MSA can provide on its own web site may not meet member and institutional subscriber needs for long.

• It is unlikely that MSA could continue to afford the file preparation, software, and hardware expenses for electronic publishing as it becomes increasingly more sophisticated and complex. The analogy here would be if MSA were considering buying its own printing press and then had to make sure there was enough work and income to keep the entire facility cost effective and continually updated.

• At the moment processing an institutional paper subscription order is relatively inexpensive and quick. Electronic subscriptions for library consortia will involve contracts, which likely will differ from consortia to consortia. That means MSA will need lawyers to help process these subscription orders, and there will be time spent discussing terms. For single journals this just not make economic sense for either MSA or the libraries.

• It is difficult to market a scientific journal today, especially internationally, with the hopes of increasing subscriptions. Aggregating the *American Mineralogist* with other, related high-impact journals is the first mechanism in some time that might increase circulation.

Collectively outsourcing publication paper and electronic distribution functions, either by using an outside vendor or joining with other societies to form an aggregate, would spread the facilities and management costs. This should make it less expensive and easier for MSA to provide electronic access. Wider access will keep MSA publications an attractive place for authors to publish, and a necessary journal for readers to read.

There are possible disadvantages in aggregating. Joining with others in any enterprise will always limit flexibility, and there is a danger of a loss of identity of the MSA and its publications. This is inevitable online as the literature becomes more tightly integrated and users can search seamlessly across many different types of content—journals, books, magazines and newsletters. There will be erosion of existing print and online library sales for individual titles in preference to the journal aggregate. However, if the pricing is done correctly, this should not affect the bottom line.

Understanding the current library environment is also important to appreciating the need for an aggregate.

• Large publishers are selling big packages of online and print journals to libraries and at significant fractions of library budgets. Smaller publishers (especially those tied to specific professional societies) suffer through this trend. An institution can now buy in bulk and in one simple transaction. The time involved in sorting out individual electronic subscriptions, IP addresses, and access issues is not that different for a database of many million articles as for a single society publication.

• A small but noteworthy handful of academic libraries have in the past year issued strategic plans that call for eliminating all paper subscriptions where online is available.

• Some North American libraries are insisting that print shipments stop. This is a problem for publishers who are still bundling print and online products and have not yet established an online price point for their publications.

• Linking and archiving issues dominate the attention of librarians, publishers, and vendors.

• More large publishers are turning to database aggregators for added revenue and the resistance to merging titles with other publishers in aggregated full-text databases has dropped away with the lure of rapidly growing demand in international markets. The fear of loss of brand identity has been replaced by the opportunity for maximum exposure. Some publishers of core academic journals are making exclusive deals with selected aggregators because they find that licensing to many sources undermines the subscription base.

Advantages to the this specific proposed society geoscience electronic journal aggregate, and being a founding member:

• MSA can participate in the planning of how the electronic aggregate is organized and operated.

Aggregate publishing, Continued from page 24

• Not only the *American Mineralogist*, but also the *Reviews* in *Mineralogy and Geochemistry*, and the *Handbook of Mineralogy* may be included. This would help to insure the scientific prominence and financial health of these publications.

• The goal of the aggregate is to recover content creation costs of the publication for a society.

• An aggregate of related top journals should be an attractive product for institutional subscribers. Wide availability would attract authors and readers as well.

• Earth-science industries will be asked for support during the first five years. This will minimize the risk of this unknown venture, especially for smaller societies, and might pay for putting back issues in electronic format.

Over the past few years MSA has received other proposals for electronic publishing from several different vendors and organizations. A rare few were good business proposals for MSA. Most had major financial, operational, or marketing flaws. The well-financed aggregates relied on significantly increasing library subscription prices. Hazily-financed proposals required MSA to support the journal from sources other than subscription revenues, or rely on the continued sale of paper copy subscriptions. Clearly if the future of publications is eventually electronic-only, a small publishing society would be hard pressed to generate any journal income when that day arrived. These other aggregates contained a large number of journals, but few were science- or earth science-related. MSA publications adrift in a sea of unrelated journals may not in itself bad, but it would mean the grouping would be marketed generically rather than specifically to organizations interested in MSA publications. Most proposals were a simple fee for posting service. It would get MSA publications online at a price over and above current costs, but there were no other advantages.

While not part of the start-up plans, there are discussions about expanding the capabilities of the web site hosting the aggregate, and making it an active online community:

• The journal aggregate could be accessed through a web page that also allowed access to other information about the

geoscience societies. Examples would be a link that would show all meetings, fieldtrips or short courses available through participating societies, a job site – including resume and job postings, and so on. These additions will bring more visibility to society activities and should increase the participation by nonmembers increasing the exposure of geoscientists to other societies and increasing the potential revenue from these activities. For MSA it would give more prominence to its webbased efforts of *Mineralogy 4 Kids*, *Collector's Corner*, etc., as well as short courses, workshops, meetings, awards, grants, and books.

• Citation statistics show that citing of articles increases for 5 to 7 years and then gradually tails off. Thus most users will want access to back issues during searches and for crosslinking of references. The amount of electronic archives by society publishers varies from complete to none and many are not coded to allow cross-linking similar to those required. Clearly if the aggregate is to be successful, it is necessary to convert all participating societies journal back issues to electronic versions and to code all so they can be effectively used. Support for this effort will be needed from industry or other sponsors.

• The aggregate will have the ability to expand to eventually include non-journal material, such as maps, charts, databases, books, etc.

• Following the launch of the aggregate to institutions, it is anticipated that anyone would have access to article title and abstracts. Full-text access will be available to subscribers. The initial target market for the aggregate is libraries, institutions, and corporations, but single subscriber or member subscriber options will be built into the business model.

Electronic publishing, joining a electronic publishing aggregate, and specifically joining the earth science aggregate are important decisions for MSA. You may wish to consider how your own publication needs would best be met with electronic access, determine what impact different electronic publishing formats might have on your own organization by discussing it with your librarian, and communicate your thoughts to the MSA officers and Councilors.

Spring 2003 Joint Meeting of the MSA and CMS

A Call for Symposia Organizers!

MSA is co-sponsoring the 2003 Spring Meeting with the Clay Minerals Society in Athens, Georgia from June 7–11. We invite you to organize a session in your field of interest. This is the best way to make sure that the meeting will offer a broad array of topics and that your work will be heard by the proper audience. We are looking to include symposia that represent all facets of our society.

If you have ideas for sessions, contact Jim Kirkpatrick at kirkpat@uiuc.edu today!

Comi	ng in the American Mineralogist:
1000	LETTERS Surface reconstruction and As-polymerization at fractured
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1005	H.W. Nesbitt, I. Uhlig, and R. Szargan The strength of moissanite
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1009	Uchida, and Ji-An Xu
1009	Diamond formation through carbonate-silicate interaction Yuri N. Pal'yanov, Alexander G. Sokol, Yuri M. Borzdov,
	Alexander F. Khokhryakov, and Nikolay V. Sobolev
1014	Anisotropic Fe-Mg diffusion in biotite Tadashi Usuki
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	Przemysław Dera, Charles T. Prewitt, Nabil Z. Boctor, and Russell J. Hemley
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813	Determination of molar absorptivities for infrared absorp-
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	Charles W. Mandeville, James D. Webster, Malcolm J. Ru- therford, Bruce E. Taylor, Adrian Timbal, and Kevin Faure
822	H_2O activity in H_2O-N_2 fluids at high pressure and tempera-
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	Andreas Haefner, Leonid Y. Aranovich, James A.D. Connolly, and Peter Ulmer
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853	Ultrahigh-pressure metamorphism in western Tianshan,
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	Lifei Zhang, David J. Ellis, and Wenbo Jian
861	Ultra-high pressure metamorphism in western Tianshan,
	China: Part II. Evidence from magnesite in eclogite Lifei Zhang, David J. Ellis, Samantha Williams, and Wenbo
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867	Discovery of clinoenstatite in garnet pyroxenites from the
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875	Ultrahigh-pressure (UHP) low-Al titanites from carbonate-
	bearing rocks in Dabieshan-Sulu UHP terrane, eastern China
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