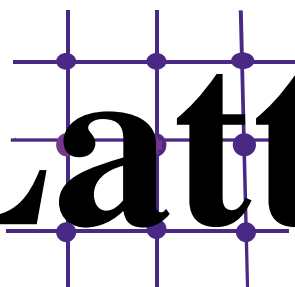


The Lattice



The Newsletter of the Mineralogical Society of America

Subscription and membership
information
is on page three.

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Members nominate outstanding students in mineralogy for society's undergraduate award

MSA members have taken advantage of the Society's American Mineralogist Undergraduate (AMU) Award program to recognize outstanding students who have shown an interest and ability in the discipline of mineralogy. Each student was cited by his or her department for outstanding achievement in mineralogy-related courses. The AMU Awards allow MSA to join with the individual faculty to formally recognize outstanding students. Each student is presented a certificate at an awards ceremony at his or her university or college. In addition, each recipient receives a *Reviews* or *Monograph* volume chosen by the sponsor, student, or both.

Deadlines for nominating students are January 1 and July 1 of each year. Mark these dates on your calendars and let us know about your exceptional student. If you are interested in presenting the award at a particular ceremony, please remember that time is required to produce certificates. To nominate a student, send a letter on departmental letterhead to Dr. J. Alexander Speer, MSA Business Office, 1015 Eighteenth St NW Ste 601, Washington, DC 20036-5212 USA. With the nomination, please include the

student's full name that would be suitable for the certificate, a mailing address for the student that will be current at the time the award is made, year in school, the MSA sponsor's name, the choice of *Reviews* or *Monograph*, and the date and brief description of the award ceremony at which the certificate will be presented. The letter must be signed or co-signed by the department chair.

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

- Jonathan Robert Buffaloe**
Furman University
Sponsored by Dr. William A. Ranson
- Lynne Jessica Elkins**
Smith College
Sponsored by Dr. John B. Brady
- Jeff A. Jacobsen**
Central Washington University
Sponsored by Dr. James Hinthorne
- Heather Paul**
Acadia University
Sponsored by Dr. Robert P. Raeside
- Dean Philip Royer**
University of Alberta
Sponsored by Dr. Alan B. Woodland

Many MSA activities in Boston this Fall

Fall seems to be the season for professional meetings, giving us time to learn about the newest research in our fields and catch up with friends and colleagues. The MSA is sponsoring a number of events of interest to its members during the Geological Society of America Meeting in Boston MA this November. Before the meeting begins, a short course on "Stable Isotope Geochemistry," convened by John Valley and David Cole, will be held Nov. 3-4. During the meeting, MSA is sponsoring a workshop on "Practical Application of XRF Techniques to the Analysis of Geological Materials," organized by David Coler, to be held on November 5. Members will also want to take note of the Pardee Keynote Symposium on "Melt in the Crust and Upper Mantle," organized by Tracy Rushmer, Michael Brown, George Bergantz, and Greg Hirth. There is information about these events in the May Lattice, and in this issue.

Tuesday November 6 will be time to mingle with friends and colleagues during the MSA Awards Luncheon and Presidential Address, and the MSA-Geochemical Society reception later that same evening. The MSA business meeting is also on this day.

Letter from the President



Review of some good and interesting past and future developments

By Cornelis ("Kase") Klein, MSA President

I want to bring the membership up to date on some important and/or interesting developments that have come about recently within the Society. Let me begin with the overall membership and our international make-up and outreach:

- The overall membership in the Society has improved considerably this year. MSA has now approximately 2100 individual members which is about equal to the membership tally in 1996-1997.

- Of this number of members 862 have non-US addresses which translates into about 41% of the MSA membership being international.

- Based on data collected

since 1996, *American Mineralogist* has accepted 1182 manuscripts since that date. Of these 666 had foreign first authors, which translates into 56% of first authors being international.

- In recognition of the very international scope of MSA's activities, MSA Council (at the Goldschmidt Conference in May, 2001) was happy to vote in support of financial co-sponsorship of the International Mineralogical Association (IMA) 18th General Meeting to be held in Edinburgh, United Kingdom between September 1 and 6, 2002. The vice president of IMA and chairman of the organizing committee is Ian Parsons. The second circuit

for these meetings is presently being put together. The Mineralogical Society of the United Kingdom is playing a very large financial and planning role in all of the organizational aspects of this meeting. As of this date, other national mineralogical societies that are financially co-sponsoring the IMA meetings are the Mineralogical Association of Canada, and the Deutsche Mineralogische Gesellschaft.

- In the year 2000-2001 Ian Parsons, of the Department of Geology and Geophysics, University of Edinburgh, was the first MSA Distinguished Lecturer who did not reside in North America. Ian lectured 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." He did two North American tours, each to four institutions, and two short tours to Europe. The other two Distinguished Lecturers were Rhian Jones and John Holloway. Rhian did a lecture tour in Europe in addition to her North American engagements.

- The first short course organized by MSA in a country outside North America was held in Cambridge, England,

Continued on page 3

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Continued from page 2

in conjunction with the 10th V.M. Goldschmidt Conference, September 1–2, 2000. The course was convened by Simon Redfern, Michael Carpenter, and Ekhard Salje and was entitled “Transformation Processes in Minerals.”

- The Society was very successful in its search for a new co-editor of *American Mineralogist* to replace Anne Hofmeister, as of January 1, 2001. The new co-editor, Lee Groat, of the University of British Columbia, Vancouver, Canada, is the first Canadian to serve the Society in this important position.

- The very successful eleventh annual V.M. Goldschmidt Conference, in May, 2001 in Hot Springs, Virginia was sponsored by the Geochemical Society, MSA, Lunar and Planetary Institute, the European Association of Geochemistry, Oak Ridge National Laboratory, and Virginia Polytechnic and State University. Among its 950 registered attendees were 296 participants from outside the USA representing a total of 28 countries.

- Over the years the Committee on Committees, which is responsible for making recommendations to MSA Council for the make-up of the various MSA committees and delegate assignments, has made great efforts to broaden the representation on the committees, by including the names of many members from abroad.

In short, it appears to me that the Society, which is so international in membership and scope, is taking the right steps in its outreach abroad.

Other items of note are as follows:

- The generosity of the membership is reflected in a major increase in contributions to the various endowment funds of MSA (the MSA Endowment Fund, the Crystallographic Fund, the Mineralogy/Petrology Fund, and the Outreach Fund). For the year 2001 the total contributions now stand at \$19,663—which reflects an increase of \$6,742 (or 52%) over last year. 77% of these contributions originated from the USA, with 23% from abroad. The Society depends in great measure on the sustained generosity of its members. Such contributions make it possible for the Society to continue its ever expanding promotion of the mineral sciences in a wide variety of programs. It is my hope that significant increases in giving can be sustained in future years.

- The Annual Meeting of the Geological Society of America, in Boston, Massachusetts, in early November, 2001 is soon approaching. MSA will have several mineralogy-based technical sessions. There will be a short course and a workshop. These are: (1) “Stable Isotope Geochemistry,” November 3–4, convened by John Valley and David Cole; and (2) “Practical Application of XRF techniques to the analysis of geological materials,” organized by David Coler for November 5. The MSA Awards Luncheon will take place on Tuesday, November 6, as will the Business meeting, the Presidential Address, and the joint MSA-Geochemical Society reception, in the mid to late afternoon that same day. During the Awards luncheon, the Roebling Medal will be awarded to Peter J. Wyllie, the MSA Award will be given to Peter C. Burns, and the Distinguished Public Service Medal will be presented to Jeffrey E. Post. This year the Awards Lun-

Continued on page 26



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 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 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.

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

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

Secretary: *David Jenkins* Binghamton Univ.

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Notes from Washington

by J. Alexander Speer

- MSA 2002 membership renewals will be mailed during October 2001. MSA will also have an online reminder and membership renewal during the month of September as we did last year. 2002 professional member dues will again be \$50. Student dues also remain at \$5. New for 2002 will be a member subscription to the electronic version of *American Mineralogist* at \$10. Member subscriptions to the paper copy of *American Mineralogist* are increased to \$35 from \$30, and will include access to the electronic version. You can save your Society money by renewing early whether you chose to use the electronic version in September or the traditional paper version. As encouragement there will again be a \$5 discount on the professional membership dues for renewals received before December 31, 2001.

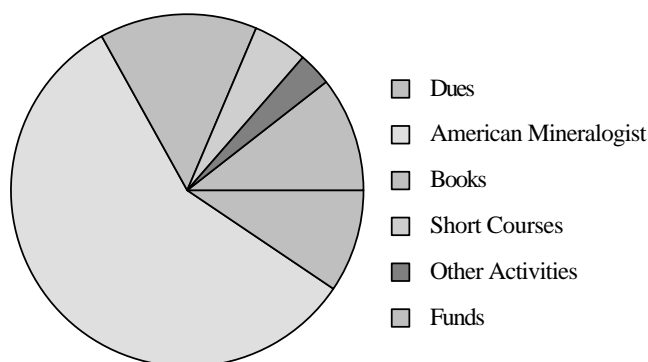
- The MSA Awards Luncheon, MSA Presidential Address, Annual Business Meeting, and joint MSA-Geochemical Society Reception at the Annual Meeting with Geological Society of America (GSA) in Boston, MA will all be on Tuesday, November 6, 2001. The Luncheon and Reception are ticketed functions. Tickets are sold by GSA and can be bought either when you register for the meeting or up to 24 hours before the event in the meeting registration area. Luncheon cost is \$25. Reception cost is \$10 for professionals and \$5 for students. MSA will have a booth in the Exhibit Hall. Further information, as well as meeting and housing registration forms are at <<http://www.geosociety.org/>>.

- US members have been receiving in the mail notices of Privacy Policy and Information Practices from various financial institutions as a result of new US federal law. While MSA is not covered by that law, I thought you might be interested in MSA practices. Aside from member names, member type, mail and e-mail addresses, scientific interests, homepage URL, and year joined that appear in the MSA membership directory online, MSA does not disclose our current or former members' or customers' nonpublic information to any third party except as required by law. Much of the information in MSA's online Directory already appears on many of our members' own institutional or personal websites. MSA does not sell or rent its mailing list to anyone, it is used only for MSA materials or sponsored events. For organizations that wish to communicate with or advertise to MSA members, we ask that they place a notice or ad in *The Lattice*, or use the voluntary-subscribed-to MSA-Talk list.

- The MSA Treasurer's Report elsewhere in this issue gives the highlights of MSA 2000 finances. If you are interested in more detail about the operational income and expenses of the society, these are summarized in the accompanying table. Income sources are also shown graphically in the pie chart. Im-

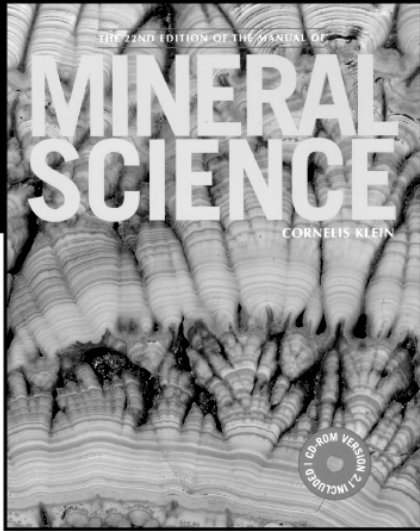
mediately obvious is the importance of the journal in the economic activity of the society, followed by the books and dues. Also apparent, is the significant portion of the Society's income that comes from its various Fund investments. Fund income supports the research grants, lectureship program, some aspects of the website, life dues and subscriptions, the various awards, as well as any operating shortfall of the Society—which for 2000 was \$29K. Also included in the Table is the budget for 2000 as projected in August 1999. It illustrates the comment by MSA Treasurer James Blencoe that MSA budgets are based on the worst case scenario of lowest possible incomes and greatest possible expenses. As can be seen the worst did not come to pass in 2000, but such a budget is a constant reminder for those spending money to exercise care. □

2000 MSA Income Sources



GENERAL OPERATING FUND SUMMARY OF ALL ACTIVITIES	2000 Actual	2000 Budget
INCOME		
Dues (current & previous years)	83,709.96	82,700.00
American Mineralogist	511,877.43	504,674.30
Reviews in Mineralogy and Geochemistry	91,318.60	104,007.50
Textbooks and Other MSA Publications	37,639.71	30,300.00
Short Courses	43,300.00	17,200.00
Other Activities	23,403.40	26,250.00
Prior Year Income	50.00	0.00
Geological Society of Washington	3,571.05	3,800.00
subtotal	794,870.15	768,931.80
ENDOWMENT TRANSFERS		
Fund Programs	66,276.42	63,150.00
Operations	29,221.01	122,470.09
TOTAL INCOME	\$ 890,367.58	\$ 954,551.89
EXPENSES		
Business Office	269,673.50	253,360.94
Council/Committee Expenses	4,967.03	12,850.00
Meeting Exhibits	9,134.21	13,500.00
Fund Programs	66,276.42	63,150.00
Other Activities	20,767.83	35,600.00
Lattice Newsletter	21,130.05	19,225.00
Amer Min, Editorial Office	176,093.42	189,070.85
Amer Min, Printing & Dist.	148,812.45	167,998.80
Reviews, Editorial Office	14,244.14	28,200.00
Reviews, Printing & Dist.	111,415.80	151,830.00
Short Courses	45,683.41	16,916.30
Prior Year Expenses	80.00	0.00
Geological Society of Washington	2,089.32	2,850.00
TOTAL EXPENSES	\$ 890,367.58	\$ 954,551.89

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Treasurer's report details budget, good news, for MSA

Jim Blencoe, MSA Treasurer

This was another good year for the MSA! The financial health of the Society remains strong. Herewith, a brief summary of notable budgetary events and developments during 2000.

- Income from investments was \$91,230, a 4% gain for the year. While not nearly as large as the increase in 1999 (\$296,365, 15% gain), the new figure is a pleasant surprise considering the recent downturn in the U.S. economy, and its effects on the stock market.

- The Society continues to benefit from the recent decision to use desktop publishing software to produce the *American Mineralogist*. As a result of this changeover, production costs per page published have dropped from ~\$120/pg to ~\$70/page.

- Income from sales of RiMG volumes lagged a bit in the second half of 2000, but have increased since that time. These opposing trends represent the net effect of two competing factors. The first is that sales of the two most popular volumes in recent years—Vol. 35, *Geomicrobiology: Interactions Between Microbes and Minerals*, and Vol. 36, *Planetary Materials*—have peaked and are now declining. The second factor, which has become predominant recently, is the rapidly rising combined sales of the recently printed: Vol. 39, *Transformation Processes in Minerals*; Vol. 40, *Sulphate Minerals—Crystallography, Geochemistry, and Environmental Significance*; Vol. 41, *High-Temperature and High-Pressure Crystal Chemistry*; and Vol. 42, *Molecular Modeling Theory and Applications in the Geosciences*. The high level of interest in recently published RiMG volumes bodes well for future MSA balance sheets. What's more, RiMG volumes currently in preparation—*Stable Isotope Geochemistry*, and *Nanocrystals in the Environment and Technology*—are certain to further bolster the Society's "bottom line."

- On the expense side of the ledger, slightly higher-than-anticipated costs were incurred by the business office this year, primarily because: (1) costs of medical benefits for employees increased sharply, and (2) credit card expenses rose as more MSA members renewed their subscriptions and purchased books through the MSA website.

- The Society's books were again audited by the firm of Rubino & McGeehin and found to be in order. On the basis of the preliminary audit report, the Society's total assets at the end of 2000 were \$2,803,575 vs. \$2,704,124 in 1999 (a 3.7% increase since the end of 1999).

- The short course *Molecular Modeling Theory and Applications in the Geosciences*—held May 19-20 in Roanoke, Virginia—was co-sponsored by the MSA and the Geochemical Society (GS). By prior agreement, costs of the short course, and its associated RiMG volume (#42), were split between the two societies on the following terms. (1) The GS will collect the registration fees for the short course, and pay all meeting costs. (2) The GS will provide up-front money to have the RiMG book printed, and will pay all editorial costs. (3) In the absence of outside support (e.g., from the U.S. Dept. of Energy), the MSA will reimburse the GS for printing and editorial expenses at cost + 10% using revenues from initial sales of the RiMG volume.

And finally (4), from the sales of the remaining RiMG books, the MSA will recover the costs of both initial and future book sales. These arrangements follow the revised co-publishing agreement with the GS requested by the MSA Council at the Second 2000 MSA Meeting. Similar financial transactions will occur in the future each time the GS sponsors a short course that prompts the production of a new RiMG volume.

- The MSA Council-approved 2001 budget projected three new RiMG volumes (those dealing with stable isotopes, nanocrystals, and zeolites), and two reprinted volumes—Vol. 34, *Reactive Transport in Porous Media*, and Vol. 36, *Planetary Materials*. However, with Volumes 41, *High-Temperature and High-Pressure Crystal Chemistry*, and 42, *Molecular Modeling*

THE MSA COUNCIL AND MSA TREASURERS HAVE TRADITIONALLY ADOPTED CONSERVATIVE ESTIMATES OF INCOME, AND LIBERAL ESTIMATES OF EXPENSES.

Theory and Applications in the Geosciences, already printed, it is evident now that five new RiMG books will be produced in 2001. In recent years, the MSA budget has been developed assuming that 2-3 new RiMG volumes would be produced during the following year. However, it seems now that, for the future, the budget should assume production of 4-5 new RiMG volumes per year.

- On 3/1/2001 the MSA and GS received official notification from the U.S. Department of Energy (DOE) that it will support six MSA and GS short courses during 2001-2003. There are two performance periods in the DOE grant: 2/1/2001 through 1/31/2002, covering the courses "*Molecular Modeling Theory and Applications in the Geosciences*," "*Stable Isotope Geochemistry*," and "*Nanocrystals in the Environment and Technology*"; and 2/1/2002 through 1/31/2004, covering the courses "*Applications of Synchrotron Radiation in Low-Temperature Geochemistry and Environmental Science*," "*Phosphates: Geochemical and Materials Importance*," and "*Biomining*." Moreover, the DOE has contributed \$25,000 to support printing of the nanocrystals RiMG volume. The MSA is deeply indebted to the DOE for their generous sponsorship of these MSA/GS activities.

- Annual dues for MSA membership will remain at \$50 (\$5 for students). However, increased costs of printing and distributing the *American Mineralogist* necessitate adjustments in subscription rates. Projected 2002 "first-copy" (production) costs for the journal are \$549 for domestic subscribers and \$572 for foreign subscribers. These prices cover the costs of eight issues of the *American Mineralogist*, five new RiMG volumes, and four issues of *The Lattice* newsletter. Bottom-line dollar amounts to break even under all assumptions are: member subscription rate, \$35.06; domestic institutional subscription rate, \$549.08; and foreign institutional subscription rate, \$572.02. This is the second year that the break-even cost of the *American Mineralogist* for members has been ~\$35. Therefore, it has become necessary to raise the paper subscription rate from \$30 to \$35.

Schedule of assets, liabilities, and net assets by fund

Item	General Operating	Roebling	Miner. & Petrology	Kraus Crystal.	Endowment	Out-reach	2000 Total	1999 Total	1998 Total	1997 Total	1996 Total
ASSETS											
Cash	\$363,228						\$363,228	\$355,843	\$168,287	\$189,799	\$7,777
Accounts receivable	36,711						36,711	25,018	45,003	28,458	33,631
Prepaid expenses	14,841						14,841	16,838	23,619	23,663	12,526
Interfund borrowings	709,714	(715,127)	6,364	(407)		(544)					
Investments	4,660	1,617,651	288,961	177,786	251,426	26,504	2,366,988	2,275,758	1,979,393	1,863,257	1,635,899
Furniture and equip.	12,883						12,883	22,743	36,255	59,489	58,254
Deposit	8,924						8,924	7,924	8,424	7,923	8,425
Assets held for others										19,245	25,658
TOTAL ASSETS	1,150,961	902,524	295,325	177,379	251,426	25,960	2,803,575	2,704,124	2,260,981	2,191,834	1,782,170
LIABILITIES & NET ASSETS											
Accounts payable	67,691						67,691	55,793	68,606	39,806	48,281
Deferred dues	45,456						45,456	27,654	1,674	1,270	30,600
Deferred subscriptions	356,755						356,755	308,780	236,581	218,980	25,565
Rent abatement	15,477						15,477	15,839	14,046	12,254	10,462
Assets held for others										19,245	25,658
TOTAL LIABILITIES	485,379						485,379	408,066	320,906	291,555	140,566
NET ASSETS											
Unrestricted	665,582	902,524					1,568,106	1,697,896	1,388,624	1,377,876	1,239,030
Temporarily restricted			213,992	75,944	98,726	5,196	393,858	266,082	243,638	232,978	132,489
Permanently restricted			81,333	101,435	152,700	20,764	356,232	332,080	307,813	289,425	270,085
TOTAL NET ASSETS	665,582	902,524	295,325	177,379	251,426	25,960	2,318,196	2,296,058	1,940,075	1,900,279	1,641,604
TOTAL LIABILITIES AND NET ASSETS	1,150,961	902,524	295,325	177,379	251,426	25,960	2,803,575	2,704,124	2,260,981	2,191,834	1,782,170

(However, the new rate includes access to the online journal, see below.) A \$5 increase represents a 17% hike in the price of the subscription. It should be noted, however, that the member subscription rate has not changed since 1992. At the same time, the increased costs of producing the journal necessitate raising institutional rates from \$480 to \$530 for domestic subscribers, and from \$490 to \$550 for foreign subscribers. These new prices are, respectively, 10% and 12% higher than they were last year. However, they still do not cover full production costs, which have increased significantly due partly to the possible larger number of RiMG volumes that are included in the subscriptions. Finally, a \$10 charge will be assessed for professional and student member access to the online journal. This price is close to the estimated break-even cost.

• It is important to recognize that annual MSA budgets are guided by the following policies and considerations. (1) Whereas institutional subscribers pay the costs of producing the *American Mineralogist*, as well as a portion of the costs of the books that are included in the subscription to the journal, member subscribers pay the costs of printing and mailing the journal issues and books they receive. (2) In preparing annual MSA budgets, the MSA Council and MSA treasurers have traditionally adopted conservative estimates of income, and liberal estimates of expenses. (3) Future income and expense figures are approved by the MSA Council 13-14 months prior to the end of the upcoming year. Many values are known within narrow limits at the time they are set. However, others are little more than educated guesses (hence the policy of adopting conservative estimates of income and liberal estimates of expenses). Chief among the "guesstimates" are: (a) costs stemming from the production and reprinting of RiMG volumes (each new RiMG volume costs ~\$30,000 to produce, costs for reprinting a volume generally range from \$3K to \$8K); and (b) income from sales of RiMG volumes, and institutional subscriptions to the *American Mineralogist*. These uncertainties cause budgets to fluctuate significantly from one year to the next. □

Contributors and Benefactors

Many members contribute to MSA each year by including a contribution with their dues. Depending on the wishes of the member, the money is deposited with the principal of the MSA Endowment, MSA Mineralogy/Petrology, MSA Outreach, or Edward H. Kraus Crystallographic Research Funds. The income of these four Funds are to support MSA's research grants in crystallography, mineralogy, and petrology; publishing of the *American Mineralogist*; the *American Mineralogist* Undergraduate Awards; the Mineralogical Society of America Award; the Distinguished Public Service Award; the Roebling Medal; the website; and the lectureship program. These Funds are described in more detail in the Financial Advisory Committee Report that appears in this issue. Continued member generosity has permitted the two Funds that support student research grants to each give three \$5000 student research grants this year. However, the need is obviously greater. For the three upcoming 2002 grants, MSA received a total of 38 proposals. More than likely the Grant Committees will again determine that more than just 3 proposals deserve funding.

Between 8/1/00 and 7/23/01 MSA members and organizations contributed \$19,662.75 to MSA Funds: Endowment \$8,355.25, Kraus \$1,995.00, and Mineralogy/Petrology Fund \$5,462.50, and Outreach \$3,850.00. This is an increase from the \$12,920.75 in contributions made during last year's campaign. Much of this increase can be attributed to Past-President Bill Carlson's request for increased giving made in the 2001 MSA membership renewals. If you have not done so previously, you might want to consider contributing at the next opportunity. Here we want to extend our gratitude to the following individuals and organizations:

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Continued on page 8

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The 2002 Goldschmidt Conference

8–23 August 2002
Davos, Switzerland

sponsored by:
The Geochemical Society
The European Association of Geochemistry
The Mineralogical Society of America
ETH Zürich

The Goldschmidt Conference is the premier annual meeting for geochemistry across the breadth of topics from presolar grains to biogeochemistry. For the first time, the meeting will incorporate ICOG, the International Conference on Geochronology. Conference convenors are Alex Halliday, Jan Kramers, and Rainer Wieler and a scientific organizing committee from across Switzerland will prepare a meeting in which the latest developments in geochemistry will be presented. The conference will include a wide range of special sessions with the help of a new international Goldschmidt Program Committee. Subjects as diverse as accretion of planets, anthropogenic components in the environment, anthropology, aquatic chemistry, arc magmatism, atmosphere formation and development, atmospheric chemistry, biogeochemistry, biomarkers, biomineralization, the carbon cycle, climate change, core formation, crustal fluids, erosion, experimental petrology, extra-solar planets, GERM and the bulk composition of the Earth, high pressure mineral physics, laser microsampling, life in extreme environments, low-temperature thermochronology, mass spectrometry, mineral surfaces, neotectonics, noble gases in groundwaters and lakes, ocean chemistry and circulation, ore deposits, plumes, pre-solar grains, the origin and development of life, the solar nebula, transition metal stable isotopes will all be included.

Location? Davos is one of Europe's largest mountain resorts, situated in spectacular alpine scenery, yet easily accessible by train or car from Zurich's Intercontinental airport. The Congress Center is an excellent meeting facility. Hotel rates are very attractive in summer, ranging between US \$25 in comfortable dormitories to less than US \$100 for a one-bed room in a five star hotel.

Other Activities? Field trips will include the Ivrea Zone tilted crust/mantle transition, classic Alpine tectonics and metamorphism, the effects of erosion and loading of sedimentary basins and Alpine glacial climatic features. Davos is also a sports paradise, in summer with hiking, golfing, mountain biking, horse riding and much more. Cultural attractions include an excellent Museum with works of the famous Expressionist painter Ernst Ludwig Kirchner.

Interested in attending? Future announcements will not be mailed out in hard copy, but will be available at the conference Website, and important updates and reminders will be announced by e-mail. To be put on the mailing list, either [1] send an e-mail to goldschmidt2002@campublic.co.uk with *Registration of Interest* in the subject line; [2] register your interest on the website www.goldschmidt-conference.com; or [3] mail or fax your name, mail address, and e-mail address to: Goldschmidt 2002, PO Box 27, Cambridge, CB1 8TR, United Kingdom, Fax: +44 1223 333438.

Logistical information? Please consult the conference web site: www.goldschmidt-conference.com or contact The Conference Office, Goldschmidt 2002, PO Box 27, Cambridge, CB1 8TR, United Kingdom, e-mail: goldschmidt2002@campublic.co.uk. fax: +44 1223 333438.

Schedule

1 January 2002 Start of electronic pre-registration and abstract submission
1 May 2002 Abstract submission and pre-registration deadline
18 June 2002 Program available on conference website
18 July 2002 Abstracts available on conference website
18-23 August Goldschmidt 2002 in Davos, Switzerland

MINERALOGICAL SOCIETY OF AMERICA SHORT COURSE ANNOUNCEMENT

STABLE ISOTOPE GEOCHEMISTRY

Dates: November 2–4, 2001 (preceding the Mineralogical Society of America-Geological Society of America Annual meeting in Boston, MA)

Times & Location: Short Course sessions are from 8:30 am to 5:30 pm Saturday and 9 am to 4:30 pm Sunday. There is an informal welcoming reception from 7 to 9 pm Friday evening, November 2. All events are at the Colonnade Hotel, 120 Huntington Avenue, Boston, MA 02116 USA phone (617) 424-7000 fax: (617) 424-1717, <http://www.colonnadehotel.com/>.

Convenors: John W. Valley, *Dept. of Geology and Geophysics, University of Wisconsin 1215 W. Dayton St., Madison, WI 53706-1692, USA. Phone: (608) 263-5659; fax: 608-262-0693; e-mail: valley@geology.wisc.edu*
David R. Cole, *Oak Ridge National Lab, Chemical & Analytical Science Division, Bldg 4500-S, MS 6110, Oak Ridge, TN 37831-6110 USA. Phone: (423) 574-5473; fax: (423) 574-4961; e-mail: coledr@ornl.gov*

Fees:		on or before 8/31/2001	after 8/31/2001
Professional Registration:	Member	\$ 265	\$ 315
	Non-member	\$ 350*	\$ 400*
Student Registration:	Member	\$ 75	\$ 125
	Non-member	\$ 110*	\$ 160*
	Speaker	none	none

* includes MSA membership dues for 2002.

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 October 5, 2001. 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, refreshments at breaks, lunches on Saturday and Sunday, and the *Reviews in Mineralogy and Geochemistry* volume. Registration fee does *not* include room, other meals, or transportation costs to or from the short course site. Participants may contact one of the GSA hotels or the Colonnade Hotel, 120 Huntington Avenue, Boston, MA 02116 USA phone (617) 424-7000 fax: (617) 424-1717, <http://www.colonnadehotel.com/> to make reservations, pay for rooms, etc. Information on the short course, lodging, ground transportation, and course updates will be on the MSA Home Page (<http://www.minsocam.org>).

Student Scholarships: A limited number of student scholarships covering some portion of the registration fee will be available. If you will be a registered student for Fall 2001, and would like to be considered for a scholarship, enclose a brief statement, less than 500 words, describing your reasons for wanting to attend the short course. Send this with your registration before August 31, 2001. This might include your background, publications, the relation of stable isotope geochemistry to your thesis research, or future plans.

SHORT COURSE DESCRIPTION

Stable Isotope Geochemistry is central to the study of the solid Earth, its atmosphere, hydrosphere, biosphere, and its extraterrestrial environment. New analytical technology of the past decade is revolutionary, causing wider application and more fundamental understanding. This short course will show how isotope ratios in minerals, rocks and fluids provide evidence for understanding a wide range of natural phenomena including: paleoclimate, marine sedimentation, geomicrobiology, biogeochemical cycles, thermal history, hydrothermal/ metamorphic fluid flow, and igneous petrogenesis. Speakers will review these topics—with emphasis on O, C, H, and S isotopes—and the principles of equilibrium and kinetic isotope exchange.

TOPICS AND SPEAKERS/AUTHORS

•*Equilibrium oxygen, hydrogen, and carbon isotope fractionation factors applicable to geological systems*, Tom Chacko and David R. Cole; •*Rates and mechanisms of isotopic exchange*, David R. Cole and Sumit Chakraborty; •*Fractionation of the isotopes of carbon and hydrogen in biosynthetic processes*, John M. Hayes; •*Stable isotope variations in extraterrestrial material*, Kevin D. McKeegan and L.A. Leshin; •*Oxygen isotope variations of basaltic lavas and upper mantle rocks*, John Eiler; •*Stable isotope thermometry*, John W. Valley; •*Metamorphic fluid flow*, Lukas Baumgartner and John W. Valley; •*Stable isotopes in seafloor hydrothermal systems: Vent fluids, hydrothermal deposits, hydrothermal alteration, and microbial processes*, W.C. Pat Shanks; •*Isotopic ratios of precipitation: On beyond paleothermometry*, Richard B. Alley and Kurt M. Cuffey; •*Isotopic evolution of the biogeochemical carbon cycle during the Precambrian*, David J. Des Marais; •*Isotopic biogeochemistry of marine organic carbon*, Katherine H. Freeman; •*Biogeochemistry of stable sulfur isotopes*, Donald Canfield; •*Causes of stratigraphic variation in marine carbon isotope ratios*, Robert L. Ripperdan

Mineralogical Society of America Short Course Registration

STABLE ISOTOPE GEOCHEMISTRY

Boston, Massachusetts, USA – November 2-4, 2001

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 October 5, 2001.

Name (first) (middle) (last)

Address (city) (state) (zip/postal code) (province) (country)

Telephone: (Voice) (Fax)

E-mail:

Registration fee includes MSA short course sessions, refreshments at breaks, lunch on Saturday and Sunday, and the Reviews in Mineralogy and Geochemistry volume. There is an informal welcoming reception beginning 7:00 pm Friday evening, November 2. All events are at the Colonnade Hotel, 120 Huntington Avenue, Boston, MA 02116 USA phone (617) 424-7000 fax: (617) 424-1717, http://www.colonnadehotel.com/. Registration fee does not include room, other meals, or transportation costs to or from the short course site. Participants may contact one of the GSA hotels or the Colonnade Hotel to make reservations, pay for rooms, etc. Information on the short course, lodging, ground transportation, and course updates are on the MSA Home Page (http://www.minsocam.org).

Registration. Mark the appropriate registration category [X] and write the appropriate fee on the cost line:

Table with columns: Registration Category, on or before 8/31/2001, after 8/31/2001, cost. Rows include Professional Registration (Member, Non-member, Speaker) and Student Registration (Member, Non-member).

* includes MSA membership dues for 2002. Total Due \$

Amount Enclosed (Indicate payment method and amount of payment enclosed)

Enclosed is a check (in US \$ drawn on a US bank) or money order in the amount of \$

Charge my: Visa Mastercard Diner's Club American Express card (Your credit card will be charged when the registration form is received) in the amount of \$

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(signature) (exp. date)

MINERALOGICAL SOCIETY OF AMERICA SHORT COURSE ANNOUNCEMENT

Nanoparticles in the Environment and Technology

Dates: Short Course sessions are December 8 and 9, 2001. The short course will start at 8 a.m. on Saturday and end early afternoon on Sunday so people can attend the American Geophysical Union Meeting in San Francisco, CA that starts Monday, December 10. There is a reception Friday, December 7 from 7:00-10:00 pm.

Location: The sessions will be held at the University of California, Davis Conference Center, 423 First Street, Davis, CA 95616, Ph: (530) 757-3259 fax: (530) 757-7943.

Conveners: *Jillian F. Banfield*, Department of Geology & Geophysics, University of Wisconsin - Madison, 1215 W Dayton St., Madison, WI 53706-1692 USA; phone: (608) 262-0915; fax: (608) 262-0693; e-mail: jill@geology.wisc.edu
Alexandra Navrotsky, Department of Chemical Engineering & Materials Science, University of California-Davis, 1 Shields Dr., Davis, CA 95616-8779 USA; phone: (530) 752-3292; fax: (530) 752-9307; e-mail: anavrotsky@ucdavis.edu

Fees:	<i>on or before 10/19/2001</i>	<i>after 10/19/2001</i>
Professional Registration: Member	\$200	\$265
Non-member*	\$285	\$350
Student Registration: Member	\$70	\$90
Non-member*	\$110	\$130
Speaker	none	none

* includes MSA membership dues for 2002.

Registering: Registration forms are available from the MSA Business Office, 1015 Eighteenth Street NW Ste 601, Washington, DC 20036-5212, USA. Ph: 202-775-4344 fax: 202-775-0018 e-mail: business@minsocam.org. You may also register online on the MSA Home Page at www.minsocam.org. Registration forms must be returned to the MSA Business Office with payment. Registration is limited to 100 participants. All participants and speakers must register. Payment must accompany this form, which will be fully refunded if cancellation is received in writing on or before November 9, 2001.

Practical: Registration fee includes MSA short course sessions, refreshments at breaks, lunch on Saturday and Sunday, Saturday evening banquet, the *Reviews in Mineralogy and Geochemistry* volume, and ground transportation from Davis, CA to the AGU Meeting on Sunday. There is a reception Friday, December 7 from 7:00-10:00 pm. Registration fee does not include room, incidentals, or other transportation costs to or from Davis, CA. Both participants and speakers must make arrangements and pay their own lodging and ground transportation to reach the short course.

	rate	address	telephone	distance
Aggie Inn	\$77-132	245 First Street, Davis, CA 95616	(530) 756-0352	1 block
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University Park Inn and Suites	\$75-\$120	1111 Richards Blvd, Davis, CA 95616	(530) 756-0910	15 minutes walk
Motel 6	\$40-52	4835 Chiles Road, Davis, CA 95616	(530) 753-3777	3.5 miles
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Palm Court Best Western	\$110-140	234 D Street, Davis, CA 95616	(530) 753-7100	4 blocks
Davis Bed and Breakfast Inn	\$60-70	422 A Street, Davis, CA 95616	(530) 753-9611	less than 1 block
University Inn Bed and Breakfast	\$55-80	340 A Street, Davis, CA 95616	(530) 756-8648	less than 1 block
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Comfort Inn	\$45-66	Woodland	(530) 666-3050	10 minute drive

Ground transportation from San Francisco International (SFO) and Sacramento Airports (SMF) is available with the Davis Airporter shuttle (800-565-5153) between 4 a.m. and 11 p.m. The Davis Airporter requires a reservation to be made 5 days in advance. One-way cost from the Sacramento airport is \$18, from the San Francisco airport is \$50. Transportation from UC Davis to the San Francisco Moscone Center, site of the Fall AGU meeting, will be provided by University of California at Davis (UCD) Fleet Services on December 9, 2001. Buses will leave Davis at 5 pm. This is included in the course registration and if you wish to use this bus service, please indicate this on the registration form.

SHORT COURSE DESCRIPTION

Nanoparticles (particles with nanometer-scale dimensions) are almost ubiquitous constituents of materials that comprise the Earth's surface and near-surface regions. They are common in atmospheric dust, they are present as suspended solids in water, and they are abundant in weathered rocks, soils, sediments, and volcanic ash. Nanoparticles are the predominant product of biomineralization reactions and are common in living organisms. The majority of the reactive surface area in the environment may be associated with nanoparticles. Through reactions such as adsorption, precipitation, dissolution, and catalysis on their surfaces, nanoparticles can control the form, distribution, and mobility of both contaminants and nutrients. Nanometer-scale particles are also important technologically, for example as catalysts, quantum-dot electronic devices, ion exchangers, battery materials, and starting materials for chemical syntheses. The aim of this short course is to introduce the concepts of size-dependent properties, processes, and behavior of nanoparticles, and to discuss the implications of phenomena associated with nanoparticles for materials science and earth and environmental science applications. The short course content and presentations will center on topics of common interest to the diversity of researchers interested in nanoscience and the format will foster linkages between researchers in these fields. The short course will be aimed largely at the geoscience community, but it will also be accessible to materials scientists and chemists interested in environmental problems.

TOPICS AND SPEAKERS/AUTHORS

- Nanocrystals in the environment, *Jillian Banfield (University of Wisconsin Madison)*; •Thermochemical considerations of nanoparticles, *Alexandra Navrotsky (University of California Davis)*; •Nanocrystal morphology and surface reactivity, *Paul Alivisatos (University of California Berkeley)*; •Clusters in solution and at surfaces, *William Casey (University of California Davis)* and *Gerhard Furrer (ETH Zurich)*; •Computational and modeling approaches to nanomineralogy, *Jim Rustad (PNNL)*, *Witek Dzwiniel (AGH Institute of Computer Science, Krakow)*, and *David Yuen (University of Minnesota)*; •Structure and growth, *Glenn Waychunas (Lawrence Berkeley National Laboratory)*; •Nanoparticles and atmospheric chemistry: formation, growth and environmental effects of nanoparticles in the atmosphere, *Cort Anastasio (University of California Davis)* and *Scot Martin (Harvard University)*; •Magnetism of earth, planetary, and environmental nanomaterials, *Denis G. Rancourt (Department of Physics, University of Ottawa, Canada)*; •Nanoparticles and transport of radionuclides, *TBA*.

Registration Form

Mineralogical Society of America Short Course
Nanoparticles in the Environment and Technology
Davis, California — December 7-9, 2001

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 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 9, 2001.

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Registration fee includes MSA short course sessions, refreshments at breaks, lunch on Saturday and Sunday, Saturday evening banquet, the *Reviews in Mineralogy and Geochemistry* volume, and ground transportation from Davis, CA to the AGU Meeting on Sunday. There is welcoming reception Friday evening, December 7. Registration fee does not include room, other incidentals, or other transportation costs to or from Davis, CA. Both participants and speakers must make and pay for their own lodging and other travel arrangements. Available lodging and ground transportation are described in the accompanying announcement. Information on the short course, lodging, ground transportation, and further course updates are on the MSA Home Page (www.minsocam.org). Transportation from UC Davis to the San Francisco Moscone Center, site of the Fall AGU meeting, will be provided by University of California at Davis (UCD) Fleet Services on December 9, 2001. Buses will leave Davis at 5 pm. This is included in the course registration and if you wish to use this bus service, please indicate this below.

Registration. Mark the appropriate registration category [X] and write the appropriate fee on the cost line:

Professional Registration:	on or before 10/19/2001	after 10/19/2001	cost
[] Member	\$ 200	\$ 265	_____
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[] Speaker	no cost	no cost	_____
Student Registration:			
[] Member	\$ 70	\$ 90	_____
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[] to San Francisco Moscone Center, 12/9/2001	no cost		_____
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Welcome New Members

The following individuals joined MSA June 1 through July 20, 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, USA.

Azmoon, Ms. Mina, C/O Ambert, No 116, Bldg 80 JFK, Jamaica NY 11430-0000. Ph: (718) 656-5555. Fax: (718) 656-5555. E-mail: a6431e@mail.com (12-00). MI,

Belliveau, Mr. Leonard P., P O Box 995, Naples ME 04055-0995. Ph: (207) 693-6847. Fax: (207) 693-4664. E-mail: xlming@pivot.net (11-00). MI, CC, PP, IP, MP, GE, PE, EG, CM, GM,

Caddick, Mr. Mark J., Univ of Cambridge, Dept of Earth Sciences, Downing St, Cambridge ENGLAND CB2 3EQ, UNITED KINGDOM. Ph: +44 7759014816. E-mail:

mark00@esc.cam.ac.uk (12-00). IP, MP, GE, PE, PM,

Catalano, Mr. Jeffrey G., Stanford University, Dept of Geol & Envn Sci, Stanford CA 94305-2115. Ph: (650) 723-7513. Fax: (650) 725-2199. E-mail: catalano@pangea.stanford.edu (12-00). MI, CC, PP, GE, CM, EM, BM,

Harris, Mr. John Robert, 7619 6th Ave NW, Seattle WA 98117-4037. Ph: (206) 781-0155. Fax: (206) 789-8424. E-mail: mail@labcor.net (11-00). MI,CC,PP,IM,EM,

Jaszczak, Dr. John A., Michigan Tech Univ, Physics Department, 1400 Townsend Dr, Houghton MI 49931-1295. Ph: (906) 487-2255. Fax: (906) 487-2933. E-mail: jaszczak@mtu.edu (11-00). MI, CC, TP, OTHER, GRAPHITE

Korobeinikov, Dr. Alexander, 309 Hannes St, Silver Spring MD 20901-1104. Ph: (301) 593-0703. E-mail: alkor@juno.com (11-00). MI, PP, IP, GE, PE, EG, EM, PM,

Regnier, Mr. Jean-Luc, Parcuss Strasse, 1, Mainz D-55116, GERMANY. Ph: +49 (6131) 216469. E-mail: regnier@mail.uni-mainz.de (12-00). MI, CC, IP, MP, GE, PE, TC,

Reno, Mr. Barry L., Trinity University, Dept of Geosciences, 715 Stadium Dr. #1932, San Antonio TX 78212-7200. Ph: (210) 999-4522. E-mail: barry.reno@trinity.edu (12-00). MI,CC,IP,MP,GE,PM,

Schultz, Ms. Emily Steiner, E1853 Rural Rd, Waupaca WI 54981-8346. Ph: (715) 258-8744. Fax: (715) 258-8744. E-mail: rapakivi_304@hotmail.com (12-00). MI,CC,IP,MP,EG,CM,GM,PM,

Simons, Ms. Kyla K., Lamont-Doherty Earth Observatory, 61 Route 9W, Palisades

NY 10964-0000. Ph: (845) 365-8660. E-mail: ksimons@ldeo.columbia.edu (12-00). MI, CC, PP, IP, MP, GE, EG, GM, PM, TP,

Swamy, Dr. Varghese, Ecole Polytechnique de Montreal, Ctr for Res in Computational Thermochem, C.P. 6079, Succusale Centreville, Montreal QC H3C 3A7, CANADA. Ph: (514) 340-4711. Fax: (514) 340-5840. E-mail: varghese.swamy@polymtl.ca (11-00). MI, CC, PP, IP, MP, GE, PE, EG, IM, EM, PM, TC, TP,

Woody, Ms. Kelly A., 16 Admiral St, Port Jefferson Sta-

tion NY 11776-1402. Ph: (631) 928-1814. E-mail: kelsters99@yahoo.com (12-00). MI, CC, IP, MP, GE, TP,

Yadmand, Mr. Abolghassan, Apollinarisstr. 26, Duesseldorf D-40227, GERMANY. E-mail: (11-00).

Yamasaki, Mr. Toru, Hokkaido University (N17W8), Div of Earth & Planetary Sci, Graduate School of Sciences, Sapporo Hokkaido 060-0817, JAPAN. Ph: +81 (11) 7065303. Fax: +81 (11) 7363290. E-mail: toru@ep.sci.hokudai.ac.jp (12-00). MI,MP,GE,PE, □



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Two Field Trips available to MSA members from the Society of Economic Geologists

Zinc and Iron Deposits of the Adirondack Mountains and New Jersey Highlands.

Tuesday, October 30 through Saturday, November 3. Trip begins and ends in Boston. Trip leaders: John F. Slack, U.S. Geological Survey, MS 954, Reston, VA 20192, Phone: (703) 648-6337, Fax: (703) 648-6383, E-mail: jfslack@usgs.gov; Craig A. Johnson, U.S. Geological Survey, MS 963, Denver, CO 80225, Phone: (303) 236-7935, Fax: (303) 236-4930, E-mail: cjohnso@usgs.gov; James M. McLelland, Department of Geology, Colgate University, Hamilton, NY 13346, Phone: (315) 824-7202, Fax: (315) 824-7831, E-mail: indian@telenet.net; Michael P. Foose, U.S. Geological Survey, MS 954, Reston, VA 20192, Phone: (703) 648-6055, Fax: (703) 648-6075, E-mail: mfoose@usgs.gov; Volkert, Richard A., New Jersey Geological Survey, P.O. Box 427, Trenton, NJ 08625, Phone: (609) 292-2576, Fax: (609) 633-1004, E-mail: richv@njgs.dep.state.nj.us; Metsger, Robert W., 69 Hunters Land, Sparta, NJ 07871, Phone: (973) 729-7824, E-mail: bobmets@ptdprolog.net; and Puffer, John H., Department of Geological Sciences, Rutgers University, Newark, NJ 07102, Phone: (973) 353-5238, Fax: (973) 353-1965, E-mail: jpuffer@andromeda.rutgers.edu.

DAY 1: Drive from Boston; northeastern Adirondack Mountains geology; Skiff Mountain and Podunk Fe mines. DAY 2: Lyon Mountain Fe mine; northwestern Adirondack Mountains geology. DAY 3: Balmat Zn mine (underground tour) and related surface geology; drive to northwestern New Jersey. DAY 4: Sterling Hill Zn mine (underground tour); Passaic and Buckwheat Open Pits; Furnace Magnetite Bed; Sterling Hill Mining Museum; Franklin Mineral Museum. DAY 5: Sulfur and Andover Fe mines; return to Boston early evening.

Limit: 30. Cost: To be determined, includes field trip transportation, all meals (except lunch on day 1 and dinner on day 5), accommodations (double occupancy), and guidebook. Preregistration required. Send registration information and check, payable to Society of Economic Geologists, Inc., 7811 Shaffer Parkway, Littleton, CO 80127; Phone (720) 981-7882; Fax (720) 981-7874; E-mail: seg@segweb.org; Website: www.segweb.org.

Environmental Geochemistry and Mining History of Massive Sulfide Deposits in the Vermont Copper Belt.

Thursday, November 8 through Saturday, November 10. Trip begins and ends in Boston. Trip leaders: Jane M. Hammarstrom, U.S. Geological Survey, MS 954, Reston, VA 20192, Phone: (703) 648-6165, Fax: (703) 648-6383, E-mail: jhammars@usgs.gov; Robert R. Seal II, U.S. Geological Survey, MS 954, Reston, VA 20192, Phone: (703) 648-6290, Fax: (703) 648-6383, E-mail: rseal@usgs.gov; John F. Slack, U.S. Geological Survey, MS 954, Reston, VA 20192, Phone: (703) 648-6337, Fax: (703) 648-6383, E-mail: jfslack@usgs.gov; Matthew A. Kierstead, PAL, Inc., 210 Lonsdale Avenue, Pawtucket, RI 02860, Phone: (401) 728-8780, Fax: (401) 728-8784, E-mail: mkierstead@palinc.com; and Ed Hathaway, U.S. EPA New England, 1 Congress Street, Suite 1100, Boston, MA 02114-2023, Phone: (617) 918-1372, Fax: (617) 918-1291, E-mail: hathaway.ed@epa.gov. Trip includes surface visits to the historic Elizabeth (1793 to 1958) and Ely (1820 to 1903) mines in east-central Vermont. The Elizabeth mine was developed for copperas (iron sulfate) production. From the 1830s on, Elizabeth produced copper. Copper was also produced at the nearby Ely mine, another Besshi-type massive sulfide deposit. These are the first metal mines in the eastern U.S. to be proposed as Superfund sites, based on ecological impacts of acid mine drainage. The trip will cover geological, environmental, historical, and societal aspects of the mine, surroundings, and ongoing EPA activities. Scientific focus will be on recent data obtained on mine wastes and waters in the vicinity of the Elizabeth and Ely mines, and the utility of such data in developing mine reclamation strategies.

DAY 1: Drive to eastern Vermont. DAY 2: Regional geology; Elizabeth Cu mine geology; mining history; geochemical and mineralogical characterization of mine tailings; geochemical settings of mine drainage; and environmental history and reclamation options. DAY 3: Ely Cu mine geology; mining history; geochemical signatures of mine waste and mine drainage; return to Boston mid-afternoon.

Limit: 30. Cost: To be determined, includes field trip transportation, all meals, accommodations (double occupancy), and guidebook. Preregistration required. Send registration information and check, payable to Society of Economic Geologists, Inc., 7811 Shaffer Parkway, Littleton, CO 80127; Phone (720) 981-7882; Fax (720) 981-7874; E-mail: seg@segweb.org; Website: www.segweb.org.

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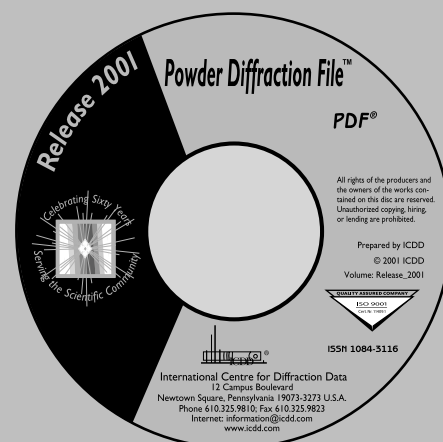
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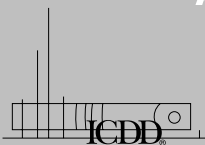
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MSA K-12 Outreach Program Seeks Virtual Field Trips

By Nancy J. McMillan

The MSA K-12 Outreach website has been experiencing major revision, thanks to the hard work of Vicki Harder. Our goal is to develop a website on mineralogy and petrology that will enhance education at all elementary and secondary levels. One area of geology that is not readily available on the web is virtual field trips. Vicki and I would like to develop a series of field trips that illustrate how minerals and rocks are found in the field and how they are used in industry and our everyday lives.

Do you have a series of photos from your last field trip to some exotic or not-so-exotic place? We are interested in working your photos, with background information, into MSA's K-12 website. We prefer digital images, of course, but we can also scan photos and slides. We will edit the information you send us to make it appropriate for several different reading levels, so that kids of all ages can share in your mineralogic adventures.

If you would like to submit photos for a virtual field trip, contact Nancy J. McMillan at nmcmillan@nmsu.edu for more details. □

Gemstone Deposits of Colorado and the Rocky Mountain Region Symposium

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A symposium on the mineralogy, geology, and field occurrences of gemstone deposits in the Rocky Mountain states will be held on the Colorado School of Mines campus, Golden, Colorado, in September, 2002. The symposium will include 1-1/2 days of lectures (September 7-8), followed by two days of field trips to selected Colorado gem localities (September 9-10). The symposium will endeavor to bring together professionals and knowledgeable amateurs involved in mining, collecting, or mineralogical research of gem materials from the Rocky Mountain region. Papers on all important gemstone deposits of the region are being solicited.

The symposium will precede the 2002 Denver Gem and Mineral Show, which will be held September 13-15; the theme of this show will be "Gemstones of Colorado."

Anyone interested in presenting a paper should submit a title and a 50-word summary by January 1, 2002, to: Pete Modreski, email pmodresk@usgs.gov, or to Friends of Mineralogy, Colorado Chapter, P.O. Box 5276, Golden, Colorado, 80401-5276. Further information about the symposium is also available at these addresses. □

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Meeting Calendar 2001

AUGUST

25–31 20th European Crystallographic Meeting (ECM 20). Krakow, Poland. E-mail: ECM2001@chemia.uj.edu.pl. Web page: <http://www.ch.uj.edu.pl/ECM2001.htm>.

26–31 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. Web page: <http://galaxy.uci.agh.edu.pl/~sga>.

26–30 Geochemistry Division, American Chemical Society 222nd National Meeting. Chicago, Illinois, USA. Details: Peggy A. O'Day, Arizona State University. E-mail: oday@asu.edu. Web page: <http://membership.acs.org/G/GEOC/>.

SEPTEMBER

1–7 Sixth International Eclogite Conference in Japan. Niihama, Ehime Prefecture, Japan. Details: Masaki Enami, Department of Earth and Planetary Sciences, Graduate School of Science, Nagoya University, Nagoy 464-8602, Japan. Tel: +81-52-789-3005. E-mail: iec2001@ganko.eps.nagoya-u.ac.jp. Web page: <http://migmatite.eps.nagoya-u.ac.jp/iec2001/>.

6–8 CL 2001 – Cathodoluminescence in Geosciences: New insights from CL in combination with other techniques. Freiberg, Germany. Details: CL2001 Secretariat, Freiberg University of Mining and Technology, Dept. of Mineralogy, Brennhaus-gasse 14, D-09596 Freiberg, Germany; Tel.: +49-(0) 3731-392628; fax: +49-(0)3731-393129. E-mail: goetze@mineral.tu-freiberg.de; Web page: http://www.mineral.tu-freiberg.de/techmin/cl2001_2z.html.

10–14 64th meeting of the Meteoritical Society. Rome, Vatican City. Details: Guy Consolmagno SJ, Specola Vaticana, V-00120, Vatican City State. E-mail: gjc@specola.va OR Vatican Observatory Research Group, Steward Observatory, University of Arizona, Tucson, Arizona 85721, USA. E-mail: gjc@as.arizona.edu. Web page: <http://www.uark.edu/campus-resources/metsoc/meeting.htm>.

15–20 The Deep Earth: Theory, Experiment and Observation: Mantle Processes. Porto, Portugal. Details: Dr. Josip Hendekovic. Phone: +33 388 76 71 35, fax: +33 388 36 69 87. E-mail: euresco@esf.org. Web page: <http://www.esf.org/euresco/01/lc01125a.htm>

24–28 4th International Archaean Symposium (4IAS). Perth, Western Australia. Details: Dr Susan Ho, Secretary, 4th International Archaean Symposium, PO

Box 80, Bullcreek WA 6149, Australia. E-mail: susanho@geol.uwa.edu.au. Telephone: (61 8) 9332 7350 (international) (08) 9332 7350 (Australia). Fax: (61 8) 9310 6694 (international) (08) 9310 6694 (Australia). Web page: <http://redback.geol.uwa.edu.au/~ias/>.

24–26 MinPet 2001: Centenary Meeting of the Austrian Mineralogical Society. Vienna, Austria. Details: MinPet 2001, Institute of Petrology, University of Vienna. Geozentrum, Althanstrasse 14, A-1090 Wien. E-mail: Mineralogie@univie.ac.at. Web page: <http://www.univie.ac.at/Mineralogie/minpet01.htm>.

NOVEMBER

5–8 Geological Society of America Annual Meeting. Boston, MA USA . Details: GSA Meetings, Box 914, Boulder, CO. 80301-9140. Tel. (303) 447-2020 or 1-800-472-1988; Fax: 303-447-0648. E-mail: meetings@geosociety.org. Web page: <http://www.geosociety.org/meetings/2001/index.htm>.

26–30 Materials Research Society Fall Meeting. Boston, MA. Details: Materials Research Society, 506 Keystone Drive, PA 15086-7573, USA. Telephone: 724-779-3003. Fax: 724-779-8313. E-mail: info@mrs.org. Web page: <http://www.mrs.org/meetings/fall2001/>.

DECEMBER

10–14, 2001 American Geophysical Union Fall Meeting. San Francisco, California. Details: AGU Meetings Department, 2000 Florida Avenue, NW, Washington, DC 20009. Phone: 1-800-966-2481. Fax: +1-202-328-0566. E-mail: meetinginfo@agu.org. Web page: <http://www.agu.org/meetings/fm01top.html>.

2002

JANUARY

3–4 Volcanic and Magmatic Studies Group 2002. University College London. Details: Professor Bill McGuire, Benfield Greig Hazards Research Centre, UCL, Gower St., London UK. E-mail: w.mcguire@ucl.ac.uk. Web page: <http://www.geolsoc.org.uk/template.cfm?name=VMSGagm>

7–9 Timing, Transition, and Tectonics. Derby University, UK

Details: Dr Neil Hudson. E-mail: N.F.C.Hudson@derby.ac.uk. Web page: <http://www.minersoc.org/pages/meetings/meetings.html>

MARCH

4–7 10th Annual Meeting of the German Society for Crystallography (Deutsche Gesellschaft fuer Kristallographie/DGK). Kiel, Germany. Details: Institut für Geowissenschaften der Universität Kiel, Olshausenstr. 40, D-

24098 Kiel. Tel.: 0431 880 2892/2851. Fax.: 0431 880 4457. E-Mail: dgk2002@min.uni-kiel.de. Web page: <http://www.ifg.uni-kiel.de/dgk2002/>

4–8 33rd Lunar and Planetary Science Conference. Houston, TX. Details: Publications and Program Services Department, Lunar and Planetary Institute, 3600 Bay Area Blvd., Houston, TX 77058-1113 phone: 281-486-2188; fax: 281-486-2125 E-mail: perry@lpi.usra.edu. Web page: <http://cass.jsc.nasa.gov/meetings/lpsc2002/>

10–13 AAPG Annual Convention and Exhibition. Houston, Texas. Details: AAPG Convention Department, 1444 S. Boulder Ave., Tulsa, OK 74119 USA. Phone: 800-364-2274 or 918-560-2679. E-mail: convene@aapg.org. Web page: <http://www.aapg.org>.

24–27 EMPG IX: Ninth International Symposium on Experimental Mineralogy, Petrology and Geochemistry. Zurich, Switzerland. Details: EMPG IX Organizing Committee, Institute for Mineralogy and Petrography, ETH Zentrum, Sonneggstrasse 5, CH-8092 ZURICH-SWITZERLAND Phone: +41 1 632 3779 (or 3955); Fax: +41 1 632 1294. E-mail: emp@erdw.ethz.ch. Web page: <http://eurasia.ethz.ch/empg/>

APRIL

1–5 Materials Research Society Spring Meeting. San Francisco, California, USA. Details: Materials Research Society, 506 Keystone Drive, PA 15086-7573, USA. Telephone: 724-779-3003. Fax: 724-779-8313. E-mail: info@mrs.org. Web page: <http://www.mrs.org/meetings/spring2002/>.

MAY

19–24 International Basement Tectonics Association Meeting. Rolla, MO, USA. Details: John P. Hogan, Department of Geology and Geophysics, University of Missouri-Rolla, Rolla, MO 65409-0410. Phone: (573) 364-4618. Fax: (573) 341-6935. E-mail: jhogan@umr.edu

25–30 American Crystallographic Association Annual Meeting. San Antonio, Texas

Web page: <http://www.hwi.buffalo.edu/ACA/ACA-Annual/futuremeetings.html>

May 28–June 1 AGU 2002 Spring Meeting. Washington, DC. Details: AGU Meetings Department, 2000 Florida Avenue, NW, Washington, DC 20009. Phone: 1-800-966-2481. Fax: +1-202-328-0566. E-mail: meetinginfo@agu.org.

JUNE

3–7 Zeolite '02. Thessaloniki, Greece. Details: Dr. Panagiotis Misaelides, Assoc. Professor, Department of Chemistry, Aristotle University, P. O. Box 1547, GR-54006 Thessaloniki, GREECE. Tel.: ++30 31 99 77 89, Fax: ++30 31 99 77 53. E-mail: misailid@chem.auth.gr. Web page: <http://www.chem.auth.gr/activities/zeo2002>

8–13 Annual Meeting of the Clay Minerals Society. Boulder, Colorado, USA. Details Co-Chair: Kathryn L. Nagy, Associate Professor, University of Colorado at Boulder, Department of Geological Sciences, Campus Box 399, Boulder, CO 80309-0399 OR Co-Chair Dennis Eberl, Division of Water Resources, USGS, 3215 Marine Street, Boulder,

CO 80303 OR Co-Chair Alex Blum, Division of Water Resources, USGS, 3215 Marine Street, Boulder, CO 80303. E-mail: nagyk@spot.colorado.edu, or ddeberl@usgs.gov, or aeblum@usgs.gov. Web page: <http://www.colorado.edu/geosci/cms/>

JULY

21–26 The 65th meeting of the Meteoritical Society. Los Angeles, California, USA. Details: Dr. Paul H. Warren, Institute of Geophysics & Planetary Physics, UCLA, Los Angeles, CA, 90095-1567. phone 310-825-3202, fax 310-206-3051. E-mail: pwarren@ucla.edu. Web page: <http://www.uark.edu/campus-resources/metsoc/newmeet.htm>

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://www.kenes.com/iucr/index.html>

18–23 12th V.M. Goldschmidt Conference. Davos, Switzerland. Details: Prof. A. Halliday, Institut fur Min.und Petrographie, ETH-Zentrum, CH-8092, Zurich. E-mail: halliday@erdw.ethz.ch; web page: <http://www.goldschmidt-conference.com/gold2002/>

SEPTEMBER

1–6 Mineralogy for the new Millennium (IMA 2002): 18th general Meeting of the International Mineralogical Association. Edinburgh, Scotland. Details: Mr. K. Murphy, Executive secretary, Mineralogical Society of Great Britain and Ireland, 41 Queen's Gate, London SW7 5HR, United Kingdom. Phone: 44 171 584 7516. E-mail: IMA@minersoc.demon.co.uk. Web page: <http://www.minersoc.org/IMA2002> □

SPECIAL SESSION ON NANOPARTICLES AT FALL AGU

In conjunction with the short course on Nanoparticles in the Environment and Technology there will be a special session at the fall AGU on the same topic. Please submit abstracts to it following the AGU instructions and deadlines.

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Anyone wanting to present a paper should submit a 200 to 300 word abstract to: Dr. Susan C. Eriksson, Virginia Polytech Institute, Dept Geological Sciences, Blacksburg, VA 24061-0420, USA Phone: (540) 231-6029, Fax: (540) 231-3386, E-mail: serikssn@vt.edu

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- 1015 **Oxygen fugacity of martian basalts from electron microprobe oxygen and TEM-EELS analyses of Fe-Ti oxides**
Christopher D.K. Herd, James J. Papike, and Adrian J. Brearley
- 1025 **Metamictization and chemical durability of detrital zircon**
Etienne Balan, Daniel R. Neuville, Patrick Trocellier, Emmanuel Fritsch, Jean-Pierre Muller, and Georges Calas
- 1034 **Zoned quartz phenocrysts from the rhyolitic Bishop Tuff**
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Host: Diane Smith
- October 3 New Mexico State University, Las Cruces, NM (joint with Univ. Texas at El Paso)
Host: Nancy McMillan
- October 4/5 California State University at San Bernardino, CA
Host: Alan Smith
- October 8 Brigham Young University, Provo, UT
Host: Alan Mayo

TOUR 2

- January 28, 2002 University of Clausthal, Clausthal-Zellerfeld, Germany
Host: Bernd Lehmann
- January 30 Tuebingen University, Tuebingen, Germany
Host: Gregor Markl
- Jan. 31/Feb. 1, 2002 University of Graz, Graz, Austria
Host: Kurt Stuewe
- February 4, 2002 Hebrew University, Jerusalem, Israel
Host: Oded Navon

TOUR 3

- February 25, 2002 North Carolina State Univ. Raleigh, NC
Host: Skip Stoddard
- February 27 Elizabeth City State Univ., Elizabeth City, NC
Host: Ravi P. Sinha
- Feb. 28/Mar. 1 College of William and Mary, Williamsburg, Virginia
Host: Brent Owens

CATHERINE McCAMMON

TOUR 1

- October 22, 2001 Western Washington Univ., Bellingham, WA
Host: Juliet Crider
- October 24, 2001 Portland State University, Portland, OR
Host: Michael Cummings
- October 25/26, 2001 Humboldt State Univ., Arcata, CA
Host: Andre Lehre
- November 1, 2001 University of British Columbia, Vancouver, Canada
Host: Maya Kopylova

TOUR 2

- February 25, 2002 Southampton Oceanography Centre, Southampton, UK
Host: Damon Teagle
- February 27, 2002 University of Durham, Durham, UK
Host: Roger Searle
- Feb.28/Mar.1, 2002 Univ. of Edinburgh, Edinburgh, UK
Host: Kathy Whaler
- March 4, 2002 Imperial College, London, UK
Host: Jamie Wilkinson
- March 6, 2002 University of Barcelona, Barcelona, Spain

Host: Angels Canals

TOUR 3

- April 8, 2002 Univ. of Minnesota, Duluth, Minnesota
Host: Christina Gallup
- April 10, 2002 Univ. of Minnesota, Morris, Minnesota
Host: Peter Whelan
- April 11/12, 2002 North Dakota State Univ., Fargo, ND (joint with University of North Dakota, Grand Forks)
Host: Bernhardt Saini-Eidukat
- April 15, 2002 University of Minnesota, Minneapolis
Host: Marc Hirschmann

ROBERT BODNAR

TOUR 1

- October 1, 2001 Columbus State Univ., Columbus, GA
Host: Tom Hanley
- October 3, 2001 University of Tennessee at Martin, Martin, Tennessee
Host: Aley El-Shazly
- October 4/5, 2001 Vanderbilt University, Nashville, TN
Host: John Ayers

TOUR 2

- November 12, 2001 Colby College, Waterville, Maine
Host: Bob Gastaldo
- November 14, 2001 Wilkes University, Wilkes-Barre, PA
Host: Sid Halsor
- Nov.15/16, 2001 Montclair State University, Upper Montclair, NJ
Host: Matt Gorrington
- Date TBA Towson University, Towson, Maryland
Host: David Vanko

TOUR 3

- April 4/5, 2002 University of Naples, Naples, Italy
Host: Benedetto De Vivo
- April 8, 2002 Univ. of Geneva, Geneva, Switzerland
Host: Robert Moritz
- April 10, 2002 Comenius Univ., Bratislava, Slovakia
Host: Monika Huraiova
- April 11/12, 2002 Eotvos University, Budapest, Hungary
Host: Csaba Szabo

IN MEMORIAM

H. P. Rooksby (Life Fellow-1961)
Walter D. Keller (Life Fellow-1928)

Deadline

Material for the November 2001 Lattice is October 22, 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. □

Continued from page 3

cheon will be considerably shorter than in prior years so that the luncheon will not overlap with the beginning of technical sessions that same afternoon. I hope that MSA members attending the GSA meetings in Boston will make every effort to be present at the various important and festive MSA-sponsored activities that Tuesday.

- An MSA-sponsored short course entitled "Nanoparticles in the Environment and Technology", convened by Jillian Banfield and Alex Navrotsky will be held in Davis, California, December 7-9, in conjunction with the meetings of the American Geophysical Union.

- The spring MSA-sponsored meeting will be in conjunction with the American Geophysical Union meetings in Washington, D.C., May 28 to June 1, 2002. At that meeting the second Dana Medal will be awarded to Michael F. Hochella, Jr.

- The MSA website is continuously evolving through the expertise and hard work of Gordon Nord. In the near future, the membership will be able to access electronically, on an experimental basis, all the pages in volume II (Silicates) of the *Handbook of Mineralogy*, co-authored by John W. Anthony, Richard A. Bideaux, Kenneth W. Bladh, and Monte C. Nichols.

This will be my final letter in *The Lattice* before I turn over the reigns to the capable hands of the incoming President, Rod Ewing. It has been a pleasure and an honor to serve the Society for one year as its President. This task has been greatly helped by the hard work of the Secretary, David Jenkins; Treasurer, Jim Blencoe; Vice President, Rod Ewing; and Past President, Bill Carlson. MSA's Councilors Michael Carpenter, Sorena Sorensen, David Bish, Jeff Post, Craig Manning, and Kathy Nagy have given wise council on many issues before the Society, and they have chaired many of the important committees. Peter Heaney has been most helpful to MSA, and me personally, in helping develop an appealing schedule of MSA-sponsored spring meetings over the next four years (as discussed in my letter in the prior edition, May issue, of *The Lattice*). As a group, I wish to express my thanks to all our committee members, special interest groups, and representatives to other organizations, who have worked hard during the year.

We all rely, on a day-to-day basis, on the MSA Business Office which is ably managed by the Executive Director, Alex Speer, and on the Editorial Office, very well supervised by the Managing Editor, Rachel Russell. Our collective thanks go to the two co-editors of *American Mineralogist*, Bob Dymek and Lee Groat (and all of the Associate Editors) and to Paul Ribbe and Jodi Rosso, Series Editors of *Reviews in Mineralogy and Geochemistry* for their consistent, excellent hard work. We are grateful to Andrea Koziol, editor of *The Lattice*, to Nancy McMillan, for her continued work on the K to 12 education outreach programs on the MSA website, and to the editors of *Geological Materials Research* (John Brady, Don Dingwell, Martin Dove, Frank Spear, and Allan Treiman) for their continued efforts to make that electronic journal a strong and viable component of MSA's publications program. And then there

are the very many volunteers who aid the Society in many ways. Among them are those who contribute abstracts to *American Mineralogist* and *Mineralogical Abstracts* (under the guidance of Peter Leavens) on new mineral species. And last but not least there is David von Bargen, a true volunteer, who has answered many mineralogical questions on "Ask a Mineralogist" on MSA's website. Thank you all! □

MSA WORKSHOP AT THE GSA MEETING
Practical application of XRF
techniques to the analysis of
geological materials

Designed for both novice and experienced users of XRF techniques in geology, this workshop will focus on practical approaches to XRF analysis of soils, rocks, waters, petroleum-based products (oils, gasolines, etc.) and other types of materials typically encountered by geoanalysts. The course will emphasize practical exercises in sample preparation, calibration methods, and analysis of several different geological sample types. The one-day workshop will take place on Monday November 5, 2001, at the application facility at Philips Analytical in Natick, MA. There is a limit of 20 participants and there is no fee. Philips Analytical will provide transportation back and forth from the Hynes Convention Center, as well as lunch for all course participants. To enroll, (1) register on the MSA home page: <http://www.minsocam.org> or (2) send your name, address, telephone, fax, and email addresses to the MSA Business Office, 1015 18th St. NW Ste 601, Washington, D.C. 20036-5212, U.S.A. Phone: 202-775-4344. Fax: 202-775-0018. E-mail: business@minsocam.org. For additional information, please contact David Coler (david.coler@philips.com).

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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)

INTERNATIONAL MINERALOGICAL ASSOCIATION 2002

EDINBURGH UK

Sunday September 1st to Friday September 6th

Organized by the University of Edinburgh and the Mineralogical Society of Great Britain and Ireland

The IMA is the only truly international organization promoting mineralogy. It is supported by the national mineralogical societies of the world through small annual contributions. Its main activity is its four-yearly General Meeting, 2002 being the 18th. The Edinburgh meeting will provide eight parallel scientific sessions giving time for an exciting programme in Mineralogy and in all branches of Earth Science in which mineralogy has a strong role. A core programme of nine plenary lectures by outstanding mineralogists, from seven different countries, will be published as a special issue of Mineralogical Magazine, reviewing mineralogy as we enter a new millennium.

There is a varied programme of pre- and post-meeting field excursions, of various lengths, to classic Scottish localities, and a full social programme, including an Icebreaker reception in the Dynamic Earth exhibition, a Scottish Evening, which includes a whisky lecture with tasting and a ceilidh, and a Banquet with piper in the Royal Museum of Scotland. The meeting follows directly after the Edinburgh International Festival. Edinburgh is a magnificent, historic town and an excellent venue for accompanying members or as a base for a Scottish holiday.

MSA, together with other mineralogical societies, is providing generous sponsorship for IMA 2002. The meeting provides a real opportunity to enhance the international vigour of mineralogy. The organizers extend the warmest of welcomes to MSA members – please help us make this meeting truly memorable.

If you have not already requested the Second Circular, which includes full information on scientific sessions, registration and accommodation, please e-mail info@minersoc.org. For information about Edinburgh e-mail ima2002@ed.ac.uk. For general information visit www.minersoc.org/IMA2002

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