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The Lattice

The Newsletter of the Mineralogical Society of America
Subscription and membership information is on page three.

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MSA Awards Luncheon at 2004 GSA Meeting

By Andrea Koziol

The eighty-fifth annual awards luncheon of the Mineralogical Society of America was held on November 9, 2004, during the 2004 Geological Society of America meeting in Denver Colorado. Medalists were Kevin Rosso (MSA Award), Robert F. Martin (Distinguished Public Service Medal) and Francis R. "Joe" Boyd (Roebling Medal).

Michael Carpenter, as master of ceremonies, first recognized the contributions of the MSA Distinguished Lecturers for 2003–2004, Bradley Hacker, Jill Dill Pasteris, and David Vaughan. Bradley Hacker spoke on *Antipodal Fates of Continental Crust: Ultrahigh Pressure and Ultrahigh Temperature Metamorphism* and *Why Subduction Zone Earthquakes? A Deep Relationship with Metamorphism*. Jill Dill Pasteris spoke on *Minerals: They Do a Body Good* and *Broadening Our View of Minerals: Importance of Natural, Biological and Synthetic 'Minerals'*. David Vaughan spoke on *Minerals, Metals, and Molecules: Ore and Environmental Mineralogy in the 21st Century* and *Mineralogy: A Key to Sustaining the Health of Earth and Humanity*.

Michael Carpenter then recognized David Jenkins, outgoing secretary, and James Blencoe, outgoing treasurer of MSA, for their sterling service to the society.

Kevin Rosso received the Mineralogical Society of America Award for outstanding research early in one's research career. He was born in 1968 in Lynwood, California. He attended California State Polytechnic University at Pomona, graduating with a B.S. degree in Geological Science. He then received his M.S. and Ph.D degrees at Virginia Polytechnic Institute and State University, in 1994 and 1998 respectively. His research

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MSA Lecturers: Bradley R. Hacker, Jill Dill Pasteris, and David J Vaughan

This is the Last Lattice!

Elements: An Int'l Magazine of Mineralogy, Geochemistry, and Petrology

At the recent Geological Society of America meeting the inaugural issue of Elements was available for viewing. The magazine is a joint publication of the Mineralogical Society of America, the Mineralogical Society of Great Britain and Ireland, the Mineralogical Association of Canada, the Geochemical Society, and the Clay Minerals Society; in addition, several new international societies will soon be joining the Elements publishing group. **Elements will replace The Lattice as the news vehicle for our society.** Pierrette Tremblay will serve as Managing Editor of the magazine.

For 2005, five 48-page issues scheduled to be published, and for 2006 six issues of 56 pages are planned. Each issue

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Letter from the President

The Last *Lattice*

by Robert Hazen

Twenty years ago the Mineralogical Society of America inaugurated its spiffy new quarterly newsletter, *The Lattice*. Volume 1, number 1 (dated February, 1985) incorporated most of the features that would become familiar to MSA members over the next two decades. Past President Charlie Prewitt appeared in photos with Roebling medallist Paul Barton and MSA Award recipient Bernie Wood. The Society's new President Hans Eugster catalogued recent activities and hinted at concerns regarding the long-term state of the budget. *American Mineralogist* retiring Editor Michael Holdaway outlined plans to publish two special issues, bringing the 1985 total to an unprecedented 150 articles in 1,347 pages. In other news, Alex Navrotsky and Sue Kieffer announced the short course on "Microscopic-to-Macroscopic" (Volume 14 of the *Reviews in Mineralogy* series). Rebecca Lange, now an MSA Councilor, was listed among 33 new student members. And Michael Hochella was reported as one of 18 missing members; fortunately for the Society he has since turned up and is now serving as one of the Editors of our new joint publication *Elements*.

This issue marks the end of the dependable 20-year tenure of *The Lattice*. MSA news will now appear as a regular feature of the stylish new *Elements*, which is jointly produced by the Geochemical Society, the Clay Mineral Society, the Mineralogical Association of Canada, the Mineralogical Society of Great Britain and Ireland, and MSA. This happy transition provides an opportunity to reflect on the gradual changes that have occurred at MSA since the mid-1980s.

What is most immediately obvious from such a comparison is that our magnificent Society is thriving. This year *American Mineralogist* will feature a whopping 275 articles in 1860 pages. The *Reviews in Mineralogy and Geochemistry* series now boasts 56 published volumes, with at least 8 more in the works. Our acclaimed Distinguished Lecture Series has gone international, with stops next year in New Zealand and South Africa, as well as Europe and North America. Our stylish website receives hits at the rate of 8 million per year—more than 22,000 hits per day. We have taken a leadership role in the inexorable transition to electronic scientific publishing with charter membership in the bold new GeoScience World endeavor. In short, thanks to

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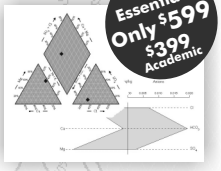

- balance chemical reactions
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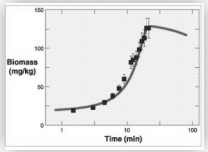

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- model microbial metabolism and growth
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- flash (scaling) diagrams
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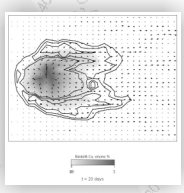

- transport by advection, diffusion and dispersion
- fixed and evolving flow rates and patterns
- saturated and unsaturated flow
- permeability constant or varying
- injection and production wells
- heterogeneous domains, initial conditions
- polythermal flow and reaction
- To be released 2005. For information about obtaining a pre-release distribution, contact Tom Meuzelaar at 303-278-3534 x104 or gwb@rockware.com

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the hard work of our dedicated professional staff and many volunteer members, we enjoy a scientific footprint that would be the pride of organizations many times our size.

But—and there is a serious "but" in this exhilarating story—we are not a wealthy society. Each year we grow a little. Each year we find new ways to reach others and tell the inspiring story of rocks and minerals. As you might expect, these worthy programs cost money, so each year we add expenses. At the most recent Council meeting, for example, we approved the long-overdue hiring of a third Editor for *American Mineralogist*, and we endorsed much-deserved raises for the diligent Washington-based staff. Our annual budget has now passed the $1.2 million mark—a 50% increase since 1985 (adjusted for inflation), but during that same period our membership has dropped from over 2700 members to a stable figure close to 2300 members.

Don't get me wrong; our Society is extraordinarily frugal. We have instituted numerous cost-reducing measures over the years and continue to search for ways to economize. Did you know, for example, that all MSA officers pay their own way to Council meetings, unlike the Councilors of most other scientific societies? Cambridge-based Michael Carpenter, our first President from the other side of the pond, made numerous trips at his own expense to MSA's Washington headquarters to conduct Society business. And all officers pay for their tickets to the MSA luncheon and other functions.

But, despite such parsimonious measures, the bottom line is that our income is not keeping pace with our ambitions. Each year we turn to the vital Roebling Fund to make up the difference between income and expenses. When first established, Colonel Roebling's legacy was more than ten times MSA's total budget. Today, the fund would barely cover a single year of operating costs. When the stock market does well, we hold our own, but a stock market crash or other unanticipated setback could prove devastating to the most cherished programs of MSA.

For this reason I have initiated a major fundraising effort to strengthen the endowment and ensure the financial stability of the Mineralogical Society of America. I have pledged my own resources, and have already received gratifying donations from a number of past presidents, who will help me spearhead this crucial effort.

We are all the beneficiaries of this great organization, which is dollar-for-dollar one of the most effective and influential professional organizations in the world. We owe it to the next generation to keep the Society strong by solidifying its financial base. In the coming weeks, therefore, I ask all of you for your help—both financial and in identifying individuals, corporations, and other organizations that might help us.

What can you do (short of providing a major endowment)? Every member can help. Pay *American Mineralogist* page charges (now only about half of U.S. authors do). Solicit new members. Renew your own membership promptly. Make sure your library continues to subscribe. Buy *Reviews* volumes. Contribute whatever you can, and consider making additional contributions as part of your annual giving.

We are a vibrant and worthy Society. We owe it to ourselves and to future generations to keep it that way.

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 2004: professional members $55; student members $5. American Mineralogist subscription: members add $40 (paper and electronic); $10 electronic. Membership is on a calendar year basis. Individuals who join after January 1, 2004 will be sent all back issues of volume 89 for 2004.

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 2004 volume of *American Mineralogist* for the annual rate of $625 in the US and $650 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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Notes from Washington

by J. Alexander Speer,
MSA Executive Director

• MSA 2005 membership renewals were mailed in early October 2004. If you have not renewed your MSA membership, and have not received a paper notice by the time you read this, please contact the Business Office. You can also renew online. As always, you can save your Society money by renewing early whether you chose to use the electronic or the traditional paper method.

Hardcopy renewals were mailed to all members. This was followed by an electronic notice for online membership renewal. This is a switch from earlier years of sending out an electronic notice for online renewal in the hopes of avoiding a large hard copy mailing. The number of members willing to renew online remains at about one-third, and the processing of online renewals before preparing and sending the hard copy notices made for tight timing if all members are to be given the opportunity to take advantage of the $5 discount on professional membership dues for renewals received before December 31, 2004. The tight timing also contributed to the large number of renewals received in a very short time span at the end of the year that the office had difficulty processing in a timely manner.

Members and Fellows who are in the senior, honorary, and life categories were also sent renewal notices. They need not renew. They were sent notices because this seems the best way to prompt an update of membership information, particularly mailing addresses.

• In this issue of *The Lattice* there is an announcement of the 2006 Grant for Research in Crystallography from the Edward H. Kraus Crystallographic Research Fund and the 2006 MSA Grant for Student Research in Mineralogy and Petrology Research from an endowment created by contributions from the MSA membership. For the 2005 grants there were 54 applicants, up slightly from 50 for 2004. Only three could be funded, though many more were deserving.

• MSA does its membership figures for the current year just before renewal notices for the next year are received. New membership applications received after October 1 are entered as following year memberships. The total membership is up 36 in 2004, though much of this is an increase in student members. Regular membership is flat. The number of new members is just enough to replace those who move into Fellow and Senior categories, or have resigned or died. MSA had more members than last year, and the highest number since 1994. If you know someone who ought to be a member of MSA, invite him or her to join.

66% of MSA members subscribed to the journal in some form in 2004. This is less than last year's 76%. I attribute the decrease to membership renewal formats that made it obvious that MSA members need not subscribe to the journal, increasing numbers of senior members who usually do not subscribe, and the option for members to electronically access the journal through their institutional libraries. The finances of the journal are such that dropping member subscriptions have no impact on its financial support.

History of Membership

Category	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
					Membership					
Members										
regular	1300	1227	1191	1157	1152	1113	1180	1178	1201	1198
life	84	78	72	72	71	72	68	62	60	59
Fellows										
regular	318	356	334	310	328	313	297	280	271	268
life	156	152	148	143	144	142	138	133	125	128
Senior										
member	22	22	25	23	20	22	49	59	63	68
fellow	28	34	45	51	56	57	75	84	99	101
Students	287	252	252	237	220	213	320	351	295	436
Honorary	4	4	3	3	3	3	3	3	3	3
Spouse	5	4	---	---	---	---	---	---	---	---
Compl.								7	7	9
TOTAL	**2204**	**2129**	**2070**	**1996**	**1994**	**1935**	**2137**	**2157**	**2234**	**2270**
					Journal Subscriptions					
Members										
member	1792	1743	1658	1549	1545	1537	1451			
student	287	252	252	237	202	213	213			
paper								1446	1103	1943
electronic								266	323	547
subtotal	**2079**	**1995**	**1910**	**1786**	**1747**	**1750**	**1664**	**1712**	**1426**	**1490**
Institution										
domestic	592	596	600	594	584	601	585	584	559	537
foreign	512	458	425	384	328	304	288	276	269	254
subtotal	**1104**	**1054**	**1025**	**978**	**912**	**905**	**873**	**860**	**828**	**791**

year	%paper	%online	%no journal
1995	94		6
1996	94		6
1997	92		8
1998	89		11
1999	88		12
2000	90		10
2001	78		22
2002	67	12	21
2003	61	15	24
2004	42	24	34

The 791 institutional journal subscriptions for 2004 is a decrease of 37 compared to 2003. Previous year-to-year losses were 13, 32, 7, 64, 47, 29, 50, 32. The projected number of institutional subscriptions used to set the journal rates for 2004 was 825. The finances of the journal are such that dropping institutional subscriptions have a large impact on its financial support. The practical result is that institutional subscription rates must increase even faster than inflation to cover the large fixed costs of the journal.

• There are two Mineralogical Society of America and Geochemical Society short courses in 2005:

Low-Temperature Thermochronometry: Techniques, Interpretations, and Applications organized by Peter W. Reiners and Todd A. Ehlers. The course will be held in the Snowbird Resort, Snowbird, UT October 14-15, 2005, before the Geological Society of America Fall Meeting.

Molecular Geomicrobiology: from Genes to Geochemical Cycles organized by Jillian F. Banfield, Javiera Cervini-Silva, Kenneth H. Nealson. The course will be held before the Fall American Geophysical Union Meeting.

More information about these short courses and registration are elsewhere in this Lattice issue and on the MSA (http://www.minsocam.org) and GS (http://gs.wustl.edu) websites.

• The Spring 2005 Council Meeting and Dana Medal presentation will be at the Goldschmidt Conference May 20-25, 2005 in Moscow, Idaho, USA. More information about the conference is on the MSA website under meetings or and in this Lattice issue.

• There have been no new MSA publications since the last Lattice. There are two new European Mineralogical Union Notes - volume 5, *Ultra-high pressure metamorphism*, edited by Roberto Campignoni, and volume 6, *Spectroscopic methods in mineralogy*, edited by Anton Beran & Eugen Libowitzky. MSA is also distributing the first volume of the Mineralogical Society's Landmark Papers. It is on Volcanic Petrology. MSA has also agreed to distribute this series and we have 40 volumes in stock for sale. MSA agreed to act as a distributor for Almaz Press to distribute the two books, *Kimberlites, Orangeites, Lamproites, Melitites, and Minettes: A Petrographic Atlas* and *Perovskites: Modern & Ancient*. If you are interested in any of these publications, you can order them online or with the order form in this issue.

• MSA booth plans for 2005: Tucson Gem and Mineral Show, Tucson, AZ (February 10-13, 2005), Goldschmidt Conference, Moscow, Idaho, USA (May 20-24, 2005) and GSA Meeting, Salt Lake City, Utah (October 16-19, 2005).

• There has been a change in the American Mineralogist Undergraduate Awards**.** MSA Council agreed that any student receiving an AMU award be given not only a certificate and a choice of MSA publications but also a student membership with electronic access to the *American Mineralogist*. The MSA membership would also entitle the students to receive *Elements*.

Geoscience World (GSW) soon to Launch

By Doug Rumble, MSA Representative to GSW Advisory Council

Below is a report from the meeting of the Geoscience World Advisory Council, which met in Denver on Nov. 11, 2004.

GSW STATUS

*****Scheduled GSW Launch Date: Feb 23, 2005*****

- The Advisory Council met with Don Hemenway, newly appointed GSW Executive Director, (and sole full-time staff member). He has extensive experience in electronic publishing. His office and administrative support are provided by AGI in Alexandria, VA.
- HighWire (see details below) has received from 23 societies and publishers all material constituting GSW's Millenium collection of 30 journals. The material is currently being converted to compatible digital format.
- Marketing: GSW will be using some of the same agents currently used by MSA for *American Mineralogist*.
- IRS has granted tax-exempt, non-profit status to GSW.
- Six new journals are poised to join the 30 current GSW journals in 2005.
- There will be a month's free access to GSW immediately after launching in February, 2005.

HIGHWIRE DEMONSTRATION OF GSW INTERNET ACCESS AND FUNCTIONALITY

- "In 1995, Stanford University founded HighWire Press in order to address the concern that scientific societies and not-for-profit publishers would, individually, lack the resources and expertise to remain competitive in the Internet era. HighWire focuses exclusively on the "online hosting of full-text, peer-reviewed journals and other scholarly content." (quoted from website: http://highwire.Stanford.edu/)
- HighWire will provide hardware and software to GSW, convert our material to compatible format, host and maintain the GSW web site, control IP-number access, and do bookkeeping to establish basis for compensation to MSA. HighWire provides web publishing of *Science* and *PNAS*.
- GSW web site: MSA will have 3 portal pages: (1) an "umbrella" page where society-specific information and links to MSA web site will be posted. (2) a page for *American Mineralogist*, with a color image of the cover; links to search engine, archive, and also links to supplementary

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GSW, continued from page 5

material such as data tables. Specific information about the journal may also be posted. (3) A web page for *Reviews in Mineralogy and Geochemistry* (RIMG) with the same type of information. There will also be a link to the Geochemical Society web site. Small banners for announcements will be included but no flashing or animation. I suggest using the criterion that only material normally included in the journal be posted to the GSW web site and that all other material be accessible from GSW through links to the MSA web site.

• Functionality of GSW: ******This is a most important point****** The functionality provided by GSW and demonstrated for us at the meeting is on par with or far above anything I have seen. GSW is not merely a collection of PDF articles, in fact, far from it. GSW is a research tool that provides full text searching of the entire Millenium collection. As archive material (pre-2000 volumes) is posted, it will be accessible, as well. The link to GeoRef from the GSW search engine is very important because it provides seamless access to citations and abstracts in non-GSW journals. Use of CrossRef technology (see http://www.crossref.org/) provides hyperlinks to full text of referenced articles in all GSW journals. If you have electronic access to non-GSW journals through your home institution, you will have full text access to them, as well. There is also a link to ISI Web of Science enabling a trace of all the publications that have cited a specific article.

• CrossRef is "a collaborative, cross-publisher reference linking service that turns citations into hyperlinks, allowing researchers to navigate online literature at the article level. CrossRef is a wholly independent association of scholarly and professional publishers—large and small, commercial and non-profit, traditional and non-traditional—that cooperate to provide reference links into and out of their electronic content." (quoted from website http://www.crossref.org/)

• Individuals at institutions subscribing to GSW will access it through the IP numbers assigned to their home institution. Each person will be able to create a customized interface to GSW including expedited access to favorite journals, Table of Contents Alerts, and citation alerts, by registering on an individual basis with GSW.

• Note that MSA members with personal electronic subscriptions to Am. Min. with MSA will be able to access the journal both on the MSA website and through the GSW site and be able to use the GSW search engine to retrieve citations but not full text.

• The public will have free access to the GSW search engine and will be able retrieve citations but not full text.

CONTINUING ISSUES

- Launch date of Feb. 23, 2005: A late launch means libraries have already bought subscriptions for 2005. Many libraries may not have reserved funds to subscribe to GSW. This probably means fewer subscriptions in 2005 than predicted in the GSW business plan but more are expected in 2006.
- Given the financial risks and uncertainties we are facing, it is a huge relief to report that AGI has granted GSW a line-of-credit of $250,000 per year for up to $650,000. This will provide the cushion needed in the start-up phase.
- We must decide whether to grant to the public "pay-per-view" access to *American Mineralogist* and RIMG. A librarian member of the GSW Advisory Council gave a spirited defense of this option using a high-school science teacher who wanted access to specific journal articles as an example. HighWire is able to implement "pay-per-view" on a journal-by-journal basis for GSW member societies.
- We must discuss the option of publishing articles electronically before the print edition. I wasn't aware of the nightmarish chaos that can be generated by this option in terms of not only technical matters like pagination but also of order of precedence in new discoveries. There was much inconclusive discussion in the GSW Advisory Council meeting. HighWire is capable of implementing this option but it will require extended thought about the pros and cons and careful planning on the part of MSA to make it a success.
- GSW is requesting member societies to discount heavily their print subscription prices to libraries that subscribe to GSW. MSA has agreed to grant the discounts. Most GSW Advisory Council members were not eager to comply with the request, however, preferring to wait-and-see how well GSW "takes off".
- Open Access: *American Mineralogist* Managing Editor Rachel Russell has provided an illuminating clarification of the various proposals regarding free public access to journal articles reporting research supported by US Government funds. Open access may not have quite the devastating impact on MSA and GSW that it would have on commercial publishers. MSA already provides free public access to archive material 3 years old and older. It should also be borne in mind that GSW is not a collection of PDF files. It is a powerful research tool that facilitates structured information retrieval. A data dump of articles into an electronic warehouse is useless without some means of navigating. There is much uncertainty about the impact of open access. Immediate panic is unwarranted, however.

Report of the MSA Financial Advisory Committee

The Financial Advisory Committee (FAC) consists of James Blencoe, Charles Burnham, Michael Carpenter, James Hays, Michael Holdaway (Chair), Harry McSween, and Gordon Nord. This report provides a brief description of the MSA funds, evaluates asset allocation, provides a brief evaluation of Wachovia as an investment advisor, and discusses the performance of the endowment.

Endowment Funds. This section gives a description of the purpose of the various MSA funds and their restrictions. This information is provided annually to inform MSA members regarding the Society's endowments.

Outreach Fund. Will provide support for the Society's public service activities. Contributions plus an inflation adjustment are permanently restricted. The Fund is totally restricted until the balance reaches $100,000.

Kraus Crystallography Fund. Provides for an annual $5000 research grant in crystallography, and the cost of administering the grant. Contributions plus an inflation adjustment are permanently restricted. Accumulated income is temporarily restricted until 2016.

Mineralogy and Petrology Fund. Provides for two annual research grants in mineralogy and petrology of $5000 each, and the cost of administering the grants. Contributions plus an inflation adjustment are permanently restricted. Accumulated income is temporarily restricted until 2030.

MSA Endowment Fund. This Fund is comprised of contributions and earnings from individuals other than W.A. Roebling. This Fund provides support for the *American Mineralogist* and for the advancement of the mineralogical sciences. The 1/1/96 balance of $119,908 and all future contributions plus an inflation adjustment are permanently restricted. Undesignated gifts to MSA are placed in the permanently restricted portion of the MSA Endowment Fund.

Roebling Fund. This Fund is the unrestricted gift of W. A. Roebling plus its earnings. The Roebling fund provides support for the *American Mineralogist*. It also provides for the *American Mineralogist* Undergraduate Awards, Life Memberships, Roebling Medal Awards, MSA Awards, MSA Public Service Awards, MSA Lecture Series, and MSA Web Site expenses until such time as these can be funded by the Outreach Fund. The Roebling fund invests operating surpluses, and supplies funds to offset annual shortfalls in the General Operating Fund on an as-needed basis.

Asset Allocation. Wachovia sends quarterly performance reviews that provide information regarding asset allocation and performance of the funds. Target asset allocation for the various funds is as follows: INT Taxable Bonds – 30%, High Yield Bonds – 5%, Large Cap Equity Stocks – 25%, Mid Cap Equity Stocks – 17%, Small Cap Equity Stocks – 4%, International Equity Stocks – 10%, Real Estate Investment Trusts – 4%, Other – 5%. The individual MSA funds are holding close to these targets. Wachovia's Investment Strategy for all the Society's funds includes moderate growth, 10-15% risk tolerance and more than 7 years investment horizon.

Performance of Wachovia. The FAC continues to be pleased with the performance of Wachovia. Since inception (12/20/02) a $100 investment would produce about $125 according to a benchmark of 80% stocks, 20% bonds, whereas our funds have produced about $130. Jeff LeClair with Wachovia is available to discuss concerns and provide useful information, including monthly statements on the performance of each fund.

Performance of Funds. Table 1 illustrates the performance of the various MSA funds over the last eight years. The performance of each fund is a combination of (1) dollars added to the fund from contributions, (2) dollars withdrawn from the fund for MSA use, and (3) market changes. Study of the individual fund performances illustrates the relative importance of each of these. The Kraus and Min/Pet Funds come close to reflecting market performance, but the dollars added to these funds are less than those withdrawn. The Outreach Fund reflects only dollars added and market performance. The negative or low changes in the Roebling Fund are partly compensated for by the additions to the Endowment Fund. This is intentional, because contributions added to the Endowment Fund are restricted, whereas those added to the Roebling Fund are not. Therefore all undesignated gifts are added to the Endowment Fund.

TABLE 1. Annual value of funds as of June 30, in thousands of dollars

Year	Outreach	Kraus	Min/Pet	Endwmt.	Roebling	Total
1997	0	126	200	145	1376	1847
1998	11	153	244	163	1492	2063
1999	18	175	278	178	1568	2217
2000	29	160	260	253	1603	2305
2001	32	172	280	230	1488	2201
2002	29	148	240	206	1243	1866
2003	25	150	244	192	1143	1754
2004	37	176	285	245	1217	1960

The Society is in better financial shape than it was on June 30, 2003. Data provided by Executive Director Alex Speer shows that while the total endowment has grown substantially over the years, annual expenditures have grown much more rapidly so that endowment has dropped from ten times annual expenditures in 1927 to two times annual expenditures in 2004. Another way to state this is that we are meeting a much larger proportion of the expense of our activities with dues from members, library subscriptions and fees.

Summary. It is the opinion of the FAC that the Society should carefully manage the growth of the annual budget and work hard to increase annual tax-exempt contributions from members to increase the endowment. These conservative approaches are considered prudent in the present economic climate and for the foreseeable future. The plan to restrict withdrawals from the various funds to allow for growth should be continued, as this process puts pressure on the Society not to spend down the endowment.

Awards, continuted from 1

interests are elucidating relationships between the atomic and electronic structure of mineral surfaces with their reactivity and physical properties. His citationist was Michael Hochella, his Ph.D. advisor.

The Distinguished Public Service Award was presented to Robert F. Martin, editor of the *Canadian Mineralogist* for 26 years. His citationist was John Hughes. Robert Martin was born in 1941 and attended the University of Ottawa, where he received a bachelor's degree. He received a M.Sc. at Penn State with O.F. Tuttle and Mackenzie Keith, then a Ph.D. at Stanford, again with O.F. Tuttle and R. H. Jahns. Robert Martin has done research in many areas, but was recognized this day for his work with the *Canadian Mineralogist*, one of the premier journals in the field. During his acceptance speech, his comment on "high-maintenance authors" brought laughter and knowing looks from many in the room.

Francis R. "Joe" Boyd was awarded (posthumously) the Roebling Medal, the Society's highest honor, in recognition of lifetime scientific achievement. He earned an A.B. at Harvard College in 1949, and an M.S. at Stanford in 1950. He returned to Harvard where he earned an M.S. in 1951 and a Ph.D. in 1958, with George Kennedy. He began his life-long career at the Geophysical Laboratory of the Carnegie Institution in 1953. With Joseph England, he designed and developed a high pressure, high temperature apparatus. The Boyd-England piston cylinder and resulting research has been central to the work of a generation of experimental petrologists. Boyd's initial focus was on high-pressure phase equilibria and provided the basis for continued studies on the composition, structure and history of the lithosphere and upper mantle. Elected to the National Academy of Science in 1974, Boyd also served as President of the Geochemical Society, the Geological Society of Washington and the VGP section of the American Geophysical Union. Joe Boyd's citationist, Stephen Haggerty, emphasized his work on diamonds, xenoliths and the Kaapvaal craton. His citation ended with a standing ovation for Joe's contributions. Margo Kingston, Dr. Boyd's wife, accepted the medal. She recalled that after his retirement in 1996, Joe was still physically active and interested in music and opera until his death earlier this year.

Citationist for MSA Award Recipient: Michael F. Hochella, Jr. MSA Award Recipient: Kevin M. Rosso. MSA President: Michael Carpenter

Michael Carpenter ended the program with special words of thanks to the councilors and J. Alex Speer, executive director of MSA, who manages the day-to-day business of the society.

Finally, Michael Carpenter passed the gavel of the MSA presidency to Bob Hazen, who then closed the 2004 MSA Awards luncheon.

Citationist for Distinguished Public Service Medalist: John M. Hughes. Distinguished Public Service Medalist: Robert F. Martin. MSA President: Michael Carpenter

Citationist for Roebling Medalist: Stephen Haggerty. Roebling Medalist: Marguerite J. Kingston for Francis R. (Joe) Boyd. MSA President: Michael Carpenter

American Mineralogist welcomes new editors

We are starting 2005 off with some personnel changes. Paula C. Piilonen of the Canadian Museum of Nature in Ottawa, Ontario, is now the New Mineral Names editor and Richard M. Thompson of University of Arizona in Tucson is the new Technical Editor, Crystal Structures. We will miss John L. Jambor and Robert T. Downs and thank them for their reliable and excellent work over the years. Dr. Jambor, especially, deserves our honor as he has been working on New Mineral Names for at least twenty years, if not longer!

AM MIN STATS AT A GLANCE (FOR NOV. 29)

No. of Pending Manuscripts 107
No. of New Manuscripts Submitted: 18
No. of Accepted Manuscripts: 33 (queued)
No. of Declined Manuscripts: 6
No. of Withdrawn Manuscripts: 2
No. of revisions pending: 41

Submit papers at http://minsocam.allentrack.net
--Register and log in: Have your paper ready to cut-and-paste title, abstract (for database tracking and letter preparation)
--Have contact info for all authors ready
--Read and follow all Instructions and look for red arrows!

Elements, from page 1

will feature a theme of interest to those in the fields of mineralogy, geochemistry and petrology. The theme of the first issue is "Fluids in planetary systems," and the issue features articles on "Fluid in Planetary Systems," "Ore-forming Fluids," "Volatiles in Magmatic-Volcanic Systems," "Water in the Mantle," "Fluids, Faulting, and Flow," and "Extraterrestrial Water." Subscriptions to Elements are available for US$100 per year to individuals who are not a member of one of the affiliated societies, or it is provided as a benefit to members of the societies listed above.

PAST EDITORS OF THE LATTICE

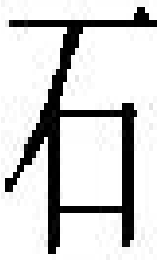
Barbara Minch	1985 to 1887
Susan L. Meyers	1987 to 1990
Marta Flohr	1990 to August 1995
Darrell J. Henry	November 1995 to November 2000
Andrea Koziol	February 2001 to November 2004

26th FM-TGMS-MSA Mineralogical Symposium

Minerals of China

in conjunction with the Tucson Gem and Mineral Show

Saturday February 12, 2005



The twenty-sixth mineralogical symposium held in conjunction with the Tucson Gem and Mineral Show will take place on 12 February 2005. It is sponsored by the Friends of Mineralogy (FM), the Tucson Gem and Mineral Society (TGMS), and the Mineralogical Society of America (MSA). The symposium topic is the same as the show theme: *Minerals of China*. Papers on descriptive mineralogy, paragenesis, classic and new locations, and related subjects about the topic are welcome. An audience of amateur and professional mineralogists and geologists is expected.

Anyone wanting to present a paper should submit a 200- to 300-word abstract to Dr. William B. Simmons, Department of Geology and Geophysics, University of New Orleans, New Orleans, LA 70148; phone 504/280-6791; fax 504/280-7396; e-mail wsimmons@uno.edu. Presentations will be twenty minutes long, followed by a period for questions. Abstracts must be submitted by 21 September 2004.

Secretary's Report at 2004 Business Meeting

The 84th annual business meeting of the Mineralogical Society of America was held on November 9, 2004, at 5:00 PM in the Denver, Colorado, Convention Center. What follows is a brief overview of the main actions taken by council and the executive committee, society election results, and other actions since the last business meeting.

As of Sept. 30, 2003, the total membership of the society stands at 2270, which represents a growth mostly through student subscriptions; regular membership is flat. Please continue inviting your colleagues and especially students to join MSA. The society offers two options for renewing memberships: either by mail (renewal notices were mailed to everyone in October) or through the MSA website. As in the past several years, members will receive a $5 discount on their membership dues if they renew before December 31, 2003.

66% of MSA members subscribed to the journal in some form in 2004, which is less than last year's 76%. This is the result of the format that enables members to renew without subscribing to the journal, which is increasingly chosen by senior members and those choosing electronic format only. This year there were 791 institutional subscriptions, a decrease of 37 from 2003, and part of a continuous decline over the years. Geoscience-World (or GSW), our entry into electronic publishing with 29 other journals, will be offered to libraries in February 2005. Council is actively aware of the dramatic changes from paper to on-line publishing and is working on plans to preserve the Societies publications as well as financial well- being.

New Fellows

The society is pleased to announce the following eleven new Fellows of the Society:

Prof. Isabelle David
Dr. Yoshikuni Hiroi
Dr. Marc M. Hirschmann
Dr. Hans Keppler
Dr. Martin Kunz
Prof. Hans-Jocahim Massone
Dr. David R.M. Pattison
Dr. Stefano Poli
Prof. David Prior
Dr. Thomas G. Sharp
Prof. Akira Tsuchiyama

The society extends its congratulations to these individuals! Let me remind you that the Committee for Fellows always welcomes your nominations of society members for this particular honor.

Medallists/Award winners

It is also a pleasure to announce the following Medallists and Research Grant Recipients:

The Roebling Medallist is **Ho-kwang (Dave) Mao**
Distinguished Public Service Medallist is **Robin P. Brett**
Dana Medal Award recipient is **Rodney C. Ewing**
(for 2006)
MSA Award recipient is **Tiziana Boffa-Ballaran**

2003/2004 Kraus Crystallographic Research Grant recipient is:

Christina L. Lopano for the study "Time-resolved structural analysis of cation exchange and hydrothermal heating reactions in synthetic manganese oxides: birnessite and todorokite," which will be conducted at Pennsylvania State University and Brookhaven National Laboratory.

2003/2004 Mineralogy/Petrology Research Grant recipients are:

Saumyaditya Bose for the proposal "Combining studies in mineral-microbe interaction and nanomineralogy: Measuring and understanding the bio-reduction kinetics of Mn oxyhydroxides driven by Shewanella oneidensis" to be carried out at Virginia Tech.

Elizabeth R. Goeke for the study "Quantitative textural modeling along a strong decompression path: Example from the Adula Nappe, Central Alps," which will be carried out at the University of Iowa.

Congratulations to all of the award and research grant recipients. Council encourages society members to nominate individuals for the various awards; detailed information can be found on the MSA website (www.minsocam.org). Please encourage students to apply for the Kraus Crystallographic and Mineralogy/Petrology research grants, which provide funding of up to $5000 each. As a reminder, MSA offers the American Mineralogist Undergraduate Award to outstanding undergraduates recommended by faculty members. In addition to providing recognition to deserving students with a certificate, AMU awardees receive the choice of MSA publications, and student membership with electronic access to the *American Mineralogist*. The MSA membership also entitles the students to receive *Elements* (the new magazine). Details on nominating undergraduates can be found on the MSA website.

Short Courses

The society remains very active in sponsoring short courses. In 2004, there was, or will be, these courses:

Geochemistry of Non-traditional Stable Isotopes - Stable Isotopes of Intermediate to Heavy Mass Elements, was organized by Clark Johnson, Francis Albarède, and Brian Beard for the joint AGU-CGU meeting in Montreal, Quebec, in May of 2004.

Epidote Group Minerals ,organized by Axel Liebscher and held June 3 and 4, 2004, in Copenhagen, Denmark, prior to the Goldschmidt Conference.

In 2005 there will be:

Molecular Geomicrobiology: from genes to geochemical cycles (Geomicrobiology II) that is being organized by Jill Banfield, Ken Nealson, and Javiera Cervini and is scheduled to be held prior to the Fall AGU meeting.

Low-Temperature Thermochronometry: Techniques, Interpretations, and Applications is being organized by Peter

W. Reiners and Todd A. Ehlers and is scheduled to be held at Snowbird, Utah prior to the GSA meeting.

MSA gratefully acknowledges the financial support that it has received from the Department of Energy for nine short courses that have been, or will be, held in the period from 2001 to 2005. The support for each short course is generally in the range of $10,000–15,000 and is mostly intended to reduce student registration fees.

RiMG Publications:

The following RiMG volumes are either now on sale or planned for publication in 2005:

Volume 55 titled *A New View of the Moon* edited by Brad Joliff and Mark Wieczorek is somewhat delayed, but should be out early in 2005.

Volume 58 titled *Micro- and Meso-porous Mineral Phases* edited by Giovanni Ferrais and Stephano Merlino via the Academia Nazionale dei Lincei is in progress.

Jodi Rosso is settling in well as the new editor of *Reviews in Mineralogy and Geochemistry Series*.

MSA Lecture Program

The Lecture Program continues to be one of the more visible and most successful endeavors of the Mineralogical Society of America. This year MSA's lecturers are:

Rodney Ewing, University of Michigan, who is speaking on: *Impact of nuclear power on the environment and Minerals* and *The safe immobilization and disposal of plutonium.*

John Hanchar, George Washington University, who is speaking on: *Simulating 100 million years of radiation damage in six years: Experiments on plutonium-doped minerals* and *Trace elements and isotopes in accessory minerals as a window into crustal processes*.

Bernard J. Wood, University of Bristol, England, who is speaking on: *The Earth under pressure: Minerals of its deep interior* and *Square pegs in round holes: Why and how trace elements enter minerals*.

MSA sincerely thanks these folks for their time and effort in speaking to colleges and universities around North America, Europe, and, now, New Zealand—the program is now going to be open essentially world-wide, depending upon the efficacy of the tour proposals. MSA particularly thanks Helen Lang for coordinating this program for the past 5 years—three cheers for Helen. Cameron Davidson will pick up the reins from Helen this coming year. We also thank last year's speakers Bradley Hacker, Jill Dill Pasteris, and David Vaughan.

Deaths

I would like to ask the audience to please rise at this time to honor those fellows and members of the society who have passed away this year. Please remain standing and observe a moment of silence after the names have been read.

Roy A. Bailey (Senior Fellow—1954)
Richard A. Bideaux (Life Fellow—1960)
Francis R. (Joe) Boyd (Life Fellow—1955)
Mr. Lawrence L. Brown (Senior Member—1965)
Howard W. Jaffe (Life Fellow—1945)
Karl Jasmund (Fellow—1962)
Dr. A. Bhaskara Rao (Senior Fellow—1957)

Anyone who would care to write a memorial for submission to the *American Mineralogist* please contact the Editors.

Committees

MSA's endeavors depend primarily on the volunteer work of its members serving on many committees. Speaking on behalf of the Committee on Committees, let me extend a special thanks to all who take the time to help MSA by serving on these committees. Without your help, MSA could not undertake its many functions to educate, grant money, recognize deserving individuals with awards, and otherwise continue to serve our profession. Those who would like to volunteer their time and effort to serve on a committee are welcome to contact myself, the Executive Director, J. Alex Speer, or the in-coming chair of the Committee on Committees and vice-President, John Valley.

New Developments

(a) GeoscienceWorld

Joining this non-exclusive publishing agreement with the electronic publishing aggregate called GeoscienceWorld was initiated by Executive Director, J. Alex Speer (now a member of the Board of Directors of GSW), strongly endorsed by former president Doug Rumble (who now serves as the MSA representative on the GSW Advisory Council), and approved by the MSA Council.

(b) Elements

The multi-society magazine *Elements*, designed to replace the society newsletters of MSA, the Mineralogical Association of Canada, the Clay Minerals Society, the Mineralogical Society of Great Britain and the Geochemical Society and present topic-oriented articles in our science is well underway. The board of Editors includes Past-President Rod Ewing, Michael Hochella, and Ian Parsons, the managing editor is Pierrette Tremblay, and the 2005 production of 4 issues is in progress. The society extends a hearty thanks to these organizers for the great effort and, particularly, to Pierrette for her diplomacy and level-headedness in addressing the challenges of this new publishing venture. Other societies are taking interest with the recent addition of the European Union of Geochemists to the participating societies. Members are invited to see examples of the inaugural edition at a table in the exhibition hall.

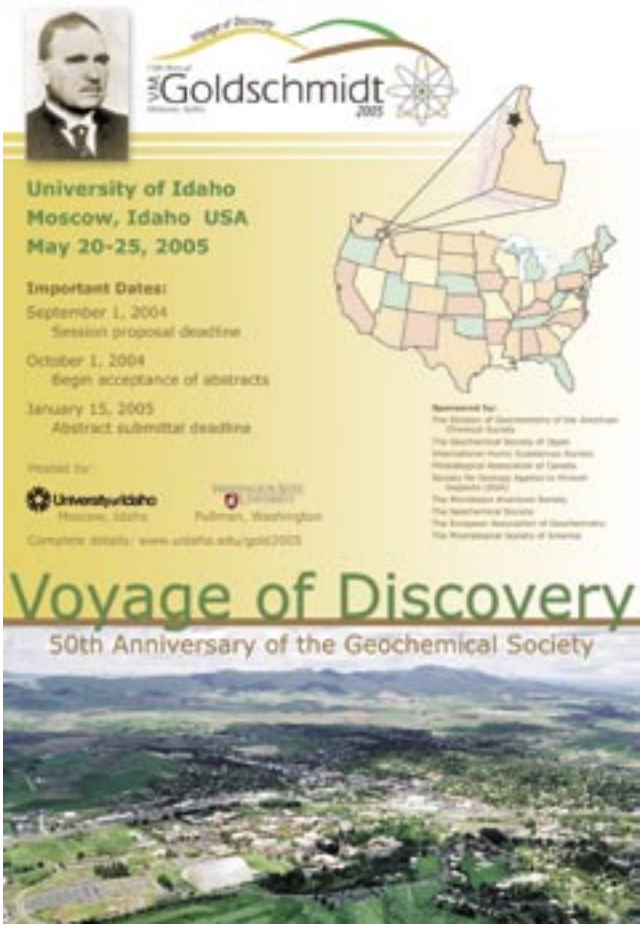
(c) Plans for changing the Awards luncheon and Award ceremonies

With the increasing awards presented by the Society at the awards luncheon, it has become overly long and does not permit any context for the awardees science or other contributions to be presented. Consequently, Council has authorized the exploration of reducing the awards at the luncheon to acknowledgements of the awardees and speeches possibly only by the Roebling Medal citationist and recipient. The

possibilities being considered include: sponsoring a plenary session or special session featuring an initial talk by the Roebling winner, and/or having the MSA Awardee and the Distinguished Public Service Awardee give lectures prior to the Presidential address. Members will be polled about the possibilities once they have been explored and evaluated further. Keep your eyes peeled for an email announcement.

2003 Election Results

It is a pleasure to announce the results of the Summer 2004 elections; The new President of the Society is Robert M. Hazen, our new Vice President is John W. Valley, and George Harlow, yours truly, remains in office as Secretary. John M. Hughes is our new Treasurer, and the new Councilors are Ross John Angel and Robert T Downs. They join the continuing councilors: Barb Dutrow, Rebecca Lange, David London, and Mickey Gunter. We thank the out-going councilors Peter Heaney and Nancy Ross for 3 years of dedicated service to the society. A total of 547 ballots were received by the August 1st deadline, representing 24.1% of the eligible voting membership. You are strongly urged to vote because this is your opportunity to have input into the operations of the society and because each vote makes a real difference in these closely contested elections. Let me extend a special thanks to all of those who ran for office.



50- and 25-Year MSA Members

The following individuals reach 50 or 25 years of continuous membership in the Society during 2005. Their long support of the Society is appreciated and is recognized by this list and by 25- or 50-year pins mailed in early January. If you should be on this list and are not, or have not received your pin, please contact the Business Office.

50-year Members

Dr. Gilles O. Allard
Dr. Barbara J. Anderson
Dr. Ernest G. Ehlers
Dr. Donald D. Hogarth
Dr. Vernon J. Hurst
Mr. Robert Meyrowitz
Dr. Fred Ordway
Dr. Paul H. Reitan
Dr. Adriaan H. Van Der Veen
Dr. William S. Wise

25-year Members

Dr. Alan I. Benimoff
Dr. Steven C. Bergman
Dr. Craig M. Bethke
Dr/Prof Kurt Bucher
Mr. Raymond J. Butler
Dr. Philip A. Candela
Dr. John T. Cheney
Dr. I-Ming Chou
Ms. Patricia A. Colville
Prof. Michael Czank
Dr. Paula M. Davidson
Dr/Prof Charles A. Geiger
Dr. Mark S. Ghiorso
Dr. Ronald J. Goble
Dr. Wendy J. Harrison
Dr/Prof Michiya Inomata
Dr. Katsuyuki Kawamura
Prof. Soo Jin Kim
Dr. Bjorn G. Lagerblad
Dr. Thomas E. Laskowski
Dr. David A. McKeown
Dr. Robert E. Meintzer
Dr. Roger H. Mitchell
Dr. Seiko M. Miyagi
Prof. Toshio Mizuta
Dr. Toshiro Morikiyo
Dr. Peter I. Nabelek
Dr. Hiroshi Nagata
Mr. Anthony J. Nikischer
Dr. Akihiko Nukui
Ms. Thea Welsh Phinney
Dr. Mati Raudsepp
Dr. Toshiro Sakae
Prof. Masaaki Shimizu
Dr. Robert J. Stevenson
Mr. Koichi Takeuchi
Dr. Richard P. Tollo
Dr. Barry A. Wechsler
Dr. Lucian W. Zelazny
Dr. Janet A. Zilczer

IN MEMORIAM

Alan M. Bailey (Member - 1971)
Richard A. Bideaux (Life Fellow - 1960)
Frederick A. Mumpton (Senior Fellow - 1952)

Invitation to Request an MSA Distinguished Lecturer for 2005-2006

Since its inception the Distinguished Lecture Program of the Mineralogical Society of America has proven to be a great success. The varied and interesting lectures presented by MSA Distinguished Lecturers have been appreciated by students and faculty at many colleges and universities in the United States, Canada and Europe. The Council of the Mineralogical Society is again offering the program for the 2005-2006 academic year with the arrangement that the MSA will pay travel expenses of the Lecturers, and the host institutions will be responsible for local expenses, including accommodation and meals. Again this year, the program will include 3 lecturers, one of whom resides in Europe, and MSA encourages European universities to request lecturers. Depending on the response, one or more lecture tours will be arranged in Europe.

Names of the 2005-2006 Distinguished Lecturers and their lecture titles are not yet available, but they will be posted soon on the MSA Web site:

http://www.minsocam.org/MSA/Lecture_Prog.html

If your institution is interested in requesting the visit of a MSA Distinguished Lecturer, check the Web site for lecturers and titles and e-mail your request to the Lecture Program Administrator: *Dr. Cameron Davidson, Carleton College, Department of Geology, 1 N College St, Northfield, MN 55057-0001 USA, e-mail* cdavidso@carleton.edu, *Tel: (507) 646-7144. 4312, Fax: (507) 646-4400.* The Lecture Program is designed to run from September, 2005, through April, 2006. Lecturer requests received by **May 12, 2005,** will be given priority. Late applications will be considered on a space-available basis. In making your request please include (1) airport proximity from, and travel time to, your institution, (2) the name of a contact person at your institution for the months of May and June (when Lecturer schedules will be assembled), (3) contact e-mail addresses and phone numbers, and (4) flexibility on Lecturer preference. (5) Schools outside the U.S. should indicate starting and ending dates of academic terms. Please note that because of travel and schedule constraints it is normally not possible to satisfy requests for tightly constrained dates such as seminar days.

Members Nominate Outstanding Students In Mineralogyfor 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 studen tmembership in MSA with access to the electronic version of *American Mineralogist*, a *Reviews in Mineralogy* or *Monograph* volume chosen by the sponsor, student, or both. Past AMU awardees are listed on the MSA website.

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 and have letters signed. 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. 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 in Mineralogy* or *Monograph***, and the date and brief description of the award ceremony at which the certificate will be presented. The letter must be signed or co-signed by the department chair.

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

Leanne Colborne
The University of Alberta
Sponsored by Dr. Christopher Herd

Scott Cylwik
The University of Arizona
Sponsored by Dr. Mary M. Poulton

Richard LeBreton
Université de Montréal
Sponsored by Dr. Walter E. Trzcienski

Robert Lodge
Acadia University
Sponsored by Dr. Sanadra M. Barr

Luke D. Olsen
The George Washington University
Sponsored by Dr. Richard P. Tollo

Christian Vollmer
Universität zu Köln
Sponsored by Dr. Frank E. Brenker

Mineralogical Society of America Short Course

THERMOCHRONOLOGY

October 14-15, 2005
Snowbird Resort, Snowbird, Utah, 84092, U.S.A.

In the last ten to fifteen years, analytical and modeling advances, combined with rapidly expanding interest in shallow-crustal and earth- and planetary-surface processes, have led to significant advances in the techniques, applications, and interpretations of thermochronometry. Recent thermochronologic studies have provided unprecedented insights into a wide range of geologic problems such as the timing and rates of development of topographic relief, the architecture and dynamics of orogenic wedges, and feedbacks between erosion, uplift, and climate at a variety of scales. New techniques and innovative applications of thermochronometry are also rapidly emerging in a wide variety of sub-disciplines, including precise dating of weathering episodes, shock metamorphism, wildfires, and extended time-temperature histories from single crystals. As the range of geologic problems accessible to thermochronometry has expanded, so has the need for robust theoretical understanding of the crystal-scale kinetics (e.g., diffusion, annealing) that control thermochronometric ages, as well as the crustal- or orogen-scale tectonic and geomorphic processes that influence their spatial-temporal patterns across the landscape.

This shortcourse will assess the current state of the art in thermochronometry, evaluate progress in analytical and interpretation techniques, future potential, example applications, and outstanding issues in the field that have recently emerged or need attention for robust progress. We will focus attention on several areas including: techniques for measuring data, innovations in interpretive techniques on both crystal-scales and regional-scales, and exemplary case studies that integrate multiple low-temperature thermochronometers or other techniques. This course will also serve not only to provide state of the art assesments for practitioners of thermochronometry, but also as an introduction for earth scientists seeking to use thermochronologic constraints in their research. There will be a software demonstration session the evening of the first day, to introduce participants to forward and inverse models for interpretation of thermochronologic data, including diffusion/annealing, and tectonotopographic/thermal phenomena on orogen- and crustal-scales.

We encourage the participation of scientists from a wide cross-section of earth and planetary science. The short course will be followed by Thermochronology Special Sessions at the Geological Society of America Meeting in Salt Lake City. Topics and Speakers for the short course (representing a subset of the Authors/Chapters for the accompanying *Reviews in Mineralogy and Geochemistry* volume) are listed below.

Analytical Approaches

- Noble-gas thermochronology – *Peter Zeitler (Lehigh University)*
- Fission-track dating – *John Garver (Union College)*
- Zircon (U-Th)/He dating – *Peter Reiners (Yale University)*
- $^{4}He/^{3}He$ Thermochronometry – *David Shuster (Caltech)*
- Continuous thermal histories from K-feldspar $^{40}Ar/^{39}Ar$ and monazite U/Pb closure profiles – *Mark Harrison (Australian National University)*

Interpretation of Thermochronologic Data

- Forward and inverse modeling of FT and (U-Th)/He systems - *Rich Ketcham (University of Texas)*
- Crustal thermal processes and thermochronometer interpreation – *Todd Ehlers (University of Michigan)*
- Topography and spectral methods – *Jean Braun (Australian National University)*

Applications

- Convergent tectonic settings – *Mark Brandon (Yale University)*
- Extensional tectonic settings – *Daniel Stockli (University of Kansas)*
- Detrital thermochronometry – *Kip Hodges (MIT)*
- Thermochronometry of sedimentary basins – *Phil Armstrong (Cal. State Fullerton)*

Conveners: *Peter W. Reiners*, Department of Geology & Geophysics, Yale University, and, *Todd A. Ehlers*, Department of Geological Sciences, University of Michigan.

Fees & Registration: All inclusive registration fee covers short course sessions, hotel room for two nights (double occupancy), meals including refreshments at breaks, and *Reviews in Mineralogy and Geochemistry* volume. Professional Registration on or before 15 Aug. 2005: Member $375; Non-member $440; Student Registration: Member $40; Non-member $60. Late Registration after 15 Aug. 2005, add $50. You can register online at the MSA Home Page (http://www.minsocam.org). Forms are are available from the MSA Business Office, 1015 Eighteenth Street NW Suite 601, Washington, DC, 20036-5212, USA. Tel: 202-775-4344, Fax: 202-775-0018, e-mail: business@minsocam.org.

The course is sponsored in part by the U.S. Department of Energy, Yale University, University of Michigan, and Apatite to Zircon, Inc.

Registration Form
Mineralogical Society of America Short Course
THERMOCHRONOLOGY
Snowbird Resort, Snowbird, Utah – October 14-15, 2005

Complete and return this registration form to the MSA Business Office, 1015 Eighteenth St NW Suite 601, Washington, D.C. 20036-5274, USA. Voice: (202) 775-4344. Fax: (202) 775-0018. Please type or print. Use one form per registrant. Registration is limited to 60 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 1, 2005.

Name _____
(first) (middle) (last)
Address _____

_____
(city) (state/Province) (zip/postal code) (country)

Telephone: (Voice)_____ (Fax) _____ E-mail: _____

Registration fee covers Short Course session costs, hotel room for two nights (double occupancy), breakfast and lunch Oct. 14 & 15, group dinner Oct. 14, and the *RiMGs* volume. Short Course will be held at Snowbird Resort, Highway 210, Little Cottonwood Canyon, Snowbird, UT, U.S.A. Voice: (800) 232-9542. There is an informal welcoming reception at 6:00 pm Thursday, Oct. 13, Snowbird Resort. Information on Short Course location, ground transportation, and course updates are on the MSA Home Page (http://www.minsocam.org). Participants are responsible for transportation to and from Snowbird Resort.

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

Professional Registration:	*on or before 8/15/05*	*after 8/15/05*	**Cost**
[ ] Member	$375	$425	$_____
[ ] Non-member	$440*	$490*	$_____
[ ] Speaker	no cost	no cost	$_____
Student Registration:	*on or before 8/15/05*	*after 8/15/05*	
[ ] Member	$40	$90	$_____
[ ] Non-member	$60*	$110*	$_____

* includes MSA membership dues/electronic access to *American Mineralogist* for 2005

Room Assignments (based on double occupancy). Mark [X] if single occupancy preference applies.

Lodging costs for the nights of October 13 and 14 will be covered by registration fees. However, **Participants are responsible for reserving their own room with Snowbird** hotel reservations, phone (800) 232-9542. Mention you are participating in the ***MSA Short course*** at time of reservation. A credit card will be required for room reservation to cover extra costs (e.g. phone bill, extended stay, etc) if applicable. Participants wishing to choose their own roommate must specify so at the time of room reservation or roommates will be assigned by MSA. Please provide the following information for roommate preference:

[ ] Male [ ] Female
[ ] Nonsmoking [ ] Smoking
[ ] Student [ ] Professional
Roommate Name (both parties must state) _____
[ ] I prefer a single occupancy room (add $150.00 up-charge to obtain a single room) $_____

Total Due $_____

Amount Enclosed. Indicate the 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 $_____
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Publications Price List and Order Form

Reviews in Mineralogy and Reviews in Mineralogy and Geochemistry (25% member discount)

___v. 08: Kinetics of Geochemical Processes (1981) **$20**
___v. 9A: Amphiboles: Mineralogy (1981) **$20**
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___v. 10: Characterization of Metamorphism through Mineral Equilibria (1982) **$20**
___v. 11: Carbonates: Mineralogy & Chemistry (1983) **$24**
___v. 12: Fluid Inclusions (1984) **$32**
___v. 13: Micas (1984) **$28**
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___v. 19: Hydrous Phyllosilicates (Exclusive of Micas) (1988) **$28**
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___v. 21: Geochemistry/Mineralogy of REE (1989) **$28**
___v. 22: The Al_2SiO_5 Polymorphs (1990) **$24**
___v. 23: Mineral-Water Interface Geochemistry (1990) **$36**
___v. 24: Modern Methods of Igneous Petrology (1990) **$24**
___v. 25: Oxide Minerals: (1991) **$28**
___v. 26: Contact Metamorphism (1991) **$32**
___v. 27: Minerals and Reactions at the Atomic Scale: TEM (1992) **$28**
___v. 28: Health Effects of Mineral Dusts (1993) **$32**
___v. 29: Silica (1994) **$32**
___v. 30: Volatiles in Magmas (1994) **$32**
___v. 31: Chemical Weathering Silicate Minerals (1995) **$32**
___v. 32: Silicate Melts (1995) **$32**
___v. 33: Boron (2002 reprint) **$36**
___v. 34: Reactive Transport in Porous Media (1996) **$32**
___v. 35: Geomicrobiology (1997) **$32**
___v. 36: Planetary Materials (2002 reprint) **$40**
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___v. 38: U Minerals & Chemistry (1999) **$32**
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___v. 40: Sulfate Minerals (2000) **$32**
___v. 41: High T & P Crystal Chemistry (2001) **$36**
___v. 42: Molecular Modeling (2001) **$32**
___v. 43: Stable Isotopes (2001) **$32**
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___v. 49: Synchrotron (2002) **$36**
___v. 50: Beryllium (2002) **$36**
___v. 51: Plastic Deformation (2002) **$36**
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___v. 54: BioMineralization (2003) **$36**
___v. 55: Non-Traditional Stable Isotopes (2004) **$36**
___v. 56: Epidotes (2004) **$40**

Monographs (25% member discount)

___ Crystallography & Crystal Chemistry, F. D. Bloss **$32**
___v. 1: Metamorphic Phase Equilibria, Spear **$60**
___v. 3: Teaching Mineralogy **$28**
___v. 4: Bowen, D.A. Young **$16**
___v. 5: Optical Crystallography, F. D. Bloss **$32**

Handbook of Mineralogy (25% member discount, except shipping)

___v. I: Elements, Sulfides, Sulfosalts... ..... **$100**+**$11** shipping
___v. II: Silica, Silicates (two books) ..... **$150**+**$20** shipping
___v. III: Halides, Hydroxides, Oxides ..... **$100**+**$11** shipping
___v. IV: Arsenates, Phosphates, Vanadates..... **$108**+**$11** shipping
___v. V: Borates, Carbonates, Sulfates..... **$130**+**$15** shipping
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___v. 1: Modular Aspects of Mineral (1997) **$32**
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___v. 6: Microprobe Techniques (1994) **$83**
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___v. 8: Deformation-Enhanced Fluid Flow (1997) **$122**
___v. 9: Environmental Mineralogy (2000) **$70**
___v. 1: Landmark Papers - Volcanic Petrology (2004) **$48**

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___ Kimberlites, Orangeites, Lamproites, Melilitites, and Minettes: A Petrographic Atlas (1997) **$100**
___ Perovskites; Modern and Ancient (2002) **$70**

Other Publications (no member discount)

___5th International Kimberlite Conference Proceedings (2 v.) **$45**
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___8th International Kimberlite Conf. Extended Abstracts (CD) **$20**
___Centennial History Geological Society of Washington **$10**
___MSA Membership Directory (MSA members only) **$15**

To Order: Indicate quantity, shipping, and cost information. MSA, CMS, and Geochemical Society members may take the 25% member discount where noted. Prepay orders under $300. Send to: Mineralogical Society of America, 1015 18th Street NW Ste 601, Washington, DC 20036-5212 USA. Phone: (202) 775-4344; Fax: (202) 775-0018 E-mail: business@minsocam.org. Publications may not be returned for refund or credit.

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Shipping: Please add the following amounts for postage to book orders for which shipping is not indicated. Shipping is by surface mail that may take up to 4 months to some destinations. Contact the MSA Business Office for shipping rates by air mail, United Parcel Service, Federal Express, or other express service.

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3	$3.75	$16.50	$21.00
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8 or more per book	$1.25	$3.00	$4.00

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C. Total for non-discounted items	
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Total (A-B+C+D)	

Mineralogical Society of America Membership Application

To join the MSA, please send a copy of this application, along with the required payments for dues and subscriptions, to the Mineralogical Society of America, 1015 Eighteenth St NW Ste 601, Washington DC 20036-5212, USA phone: (202) 775-4344; fax: (202) 775-0018; e-mail: business@minsocam.org; website: www.minsocam.org

Membership Category Requested: [ ] Member [ ] Student Member [ ] Life Member

Address Information:

[ ] Dr.
[ ] Prof
[ ] Mr.
[ ] Ms.
[ ] Mrs.
[ ] Other: _____

Name: _____ (First Middle Last)
Address: _____

Phone _____
Fax _____
E-mail _____
Birth date _____

Areas of Interest: (Check as many as apply) [ ] 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), [ ] Descriptive (Topologic) Mineralogy (TP), [ ] Mineral Surfaces (MS), [ ] Biological-Mineral Interactions (BM), [ ] Others (Please indicate) _____

Professional Information:

Highest Degree earned: [ ] Doctorate [ ] Masters [ ] Bachelors [ ] No College Degree
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2005 Fee Schedule

Memberships are entered and renewed on a calendar basis. You will receive all publications for the year you join. Membership applications received after October 1 will be made effective January 1 of the following year unless otherwise requested. Members will receive the newsletter, *The Lattice*, as part of their dues. As an additional benefit, members may elect to receive the *American Mineralogist*, as well as some related publications, at substantially reduced rates. Please indicate all options that apply in the box to the right. Members are entitled to a 25% discount on other MSA publications given on our Publication List.

	Member Dues	US$55.00
	Student Member Dues	5.00
	American Mineralogist (paper & online member price)	40.00
	American Mineralogist (online access member price)	15.00
	International airlift for *American Mineralogist*	45.00
	Life Membership Dues (with *American Mineralogist*)	2375.00
	Mineralogical Abstracts, by the Mineralogical Society of Great Britain & Ireland (electronic access only)	55.00
	Physics and Chemistry of Minerals, published eight times a year by Springer-Verlag	695.00
	Journal of Petrology, published twelve times a year by Oxford University Press	475.00
	Rocks & Minerals published 6 times a year by Heldref Foundation $51.00 ($66.00 for non-US addresses)	
	Mineralogical Record published 6 times a year $47.00 ($51.00 for non-US addresses)	
	TOTAL	

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Welcome New Members

WELCOME!

The following individuals joined MSA June 18, 2004 through November 19, 2004. 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), Descriptive 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 Lattic*e, 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.

Ahmed, Mr. Imad A., Univ of Nottingham, Nottingham Nottinghamshire, UNITED KINGDOM. (Student - 7/14/04). CC,GE,CM,EM,OTHER,ZEOLITE CHEMISTRY

Beavon, Ms. Lauren J., Rochester MI. (Student - 8/25/04). MI,CC,IP,MP,SP,GE,EG,CM,IM,EM,GM,PM,TP,BM,

Biju, Ms. Maya, Satwa Dubai, UNITED ARAB EMIRATES. (Member - 9/17/04). MI,CM,MS,

Boonfueng, Ms. Thipnakarin, Roselle NJ. (Student - 9/17/04). CC,GE,CM,EM,BM,

Cardarelli, Dr. Francois, Boucherville QC, CANADA. (Member - 6/24/04). MI,CC,PP,IP,MP,SP,GE,PE,EG,CM,IM,EM,GM,PM,TC,TP,MS,

Criscuola, Mr. Patrick D., East Norwich NY. (Student - 10/22/04). MI,CC,PP,GE,EG,EM,GM,PM,TP,BM,

Crosby, Ms. Heidi A., Univ of Wisconsin-Madison, Madison WI. (Student - 6/24/04). GE,BM,

Davis, Mr. Richard, Davie FL. (Student - 7/9/04). MI,CC,PP,GE,PE,GM,PM,TP,MS,BM,

Dudley, Mr. Mark A., Warrensburg MO. (Student - 8/19/04). MI,PP,PE,GE,PM,TC,

Frazer, Dr. Bradley H., Stoughton WI. (Member - 11/4/04). MI,GE,BM,

Hallett, Mr. Benjamin W., Moscow ID. (Student - 9/17/04). MP,PE,TC,

Hooper, Mr. Jeremy John, Imerys Minerals Ltd., St Austell Cornwall, UNITED KINGDOM. (Member - 10/28/04). MI,CC,PP,IP,EG,CM,IM,TP,

Jeon, Ms. Haejin, Seoul National University, Seoul, REPUBLIC OF KOREA. (Student - 9/17/04). IP,MP,GE,

Klemd, Prof. Reiner, Universitat Wurzburg, Wurzburg, GERMANY. (Member - 6/24/04). MI,MP,SP,PE,EG,

Lashkova, Mrs. Zornitsa Zaharieva, University of Alberta, Edmonton AB, CANADA. (Student - 10/22/04). MI,CC,IP,EG,TC,

Leven, Mr. Merwin, Mamaroneck NY. (Member - 6/24/04). MI,CC,TP,

Liu, Mr. Xiandong, Nanjing University, Nanjing Jiangsu, PEOPLES REPUBLIC OF CHINA. (Student - 9/15/04). CC,PP,GE,CM,EM,MS,BM,

McConaghy, Ms. Katharine R., Salida CO. (Member - 8/26/04). IP,MP,GE,EG,TC,

Mercier, Dr. Patrick H.J., Nat'l Research Council Canada, Ottawa ON, CANADA. (Member - 9/28/04). CC,CM,EM,MI,PP,OTHER,MICAS,APATITE,MINERAL PHYSICS

Morisset, Ms. Caroline-Emmanuelle, Univ of British Columbia, Vancouver BC, CANADA. (Student - 8/19/04). MI,IP,MP,GE,PE,EG,OTHER,ISOTOPIC GEOCHEMISTRY

Nothdurft, Mr. Luke D., Queensland Univ of Technology, Brisbane QLD, AUSTRALIA. (Student - 7/14/04). GE,PE,TC,OTHER,

Pang, Mr. Kwan-Nang, University of Hong Kong, Hong Kong, HONG KONG. (Student -10/22/04). MI,IP,GE,EG,EM,GM,

Powell, Prof. Annie, Universität Karlsruhe, Karlsruhe, GERMANY. (Member - 7/29/04). MI,CC,PP,SP,GE,PE,CM,TP,BM,

Sarkar, Mr. Arindam, Indiana University, Bloomington IN. (Student - 10/22/04). IP,GE,EG,

Schultz, Ms. Susan E., Queen Creek AZ. (Student - 10/15/04). SP,GE,BM,

Stubbs, Ms. Joanne E., Baltimore MD. (Student - 8/19/04). MI,CC,GE,CM,EM,BM,

Summa, Ms. Michelle C., Alexandria VA. (Student - 7/9/04). MI,CC,IP,MP,GE,EG,EM,

Taylor, Mr. Craig J., Arvada CO. (Student - 9/28/04). PE,

Thompson, Ms. Melanie E., Stanford CA. (Student - 10/22/04). IP,SP,GE,PM,

Tower, Ms. Margaret M., Glenview IL. (Student - 8/19/04). OTHER,WEATHER & OCEAN (HYDROVENTS)

Tsujimori, Dr. Tatsuki, Stanford University, Stanford CA. (Member - 8/19/04). MI,MP,

Van Hinsberg, Mr. Vincent J., University of Bristol, Bristol, UNITED KINGDOM. (Student - 7/14/04). MI,CC,PP,IP,MP,GE,PE,EG,TP,OTHER,MINERAL THERMODYNAMICS

Williams, Dr. Gwyneth, Arizona State University, Tempe AZ. (Member - 7/28/04).,

Wilson, Ms. Crystal G., Knoxville TN. (Student - 8/19/04). MP,GE,PE,EG,GM,TC,

Wolfe, Ms. Amy L., Univ of Pittsburgh, Pittsburgh PA. (Student - 8/19/04). MI,CC,GE,PM,BM,

Zhang, Ms. Xiaolin, Nanjing University, Nanjing Jiangsu, PEOPLES REPUBLIC OF CHINA. (Student - 7/9/04). MI,CC,PP,PE,EG,CM,IM,EM,GM,TC,TP,MS,OTHER,INORGANIC NONMETAL MATERIALS (CERAMIC, POTTERY, PORCELAIN)

Zheng, Dr/Prof Yong-fei, Univ of Science and Technology of China, Hefei Anhui, PEOPLES REPUBLIC OF CHINA. (Member - 10/22/04). MI,IP,MP,SP,GE,PE,EG,

Meetings Calendar 2005

2005

JANUARY

6–7 Environmental Mineralogy, Geochemistry and Mineral Physics Groups: Mineralogical Society Winter Meeting. Bath, UK. Details: E. Valsami-Jones. Email: E.Valsami-Jones@nhm.ac.uk. Web page: http://www.minersoc.org/pages/meetings/Environment.htm

FEBRUARY

7–12 4th ISPET Seminar: Advanced analytical and experimental techniques in petrology. Canberra, Australia. Details: BernardoCesare, E-mail: bernardo.cesare@unipd.it Web site: http://www.dmp.unipd.it/ISPET/

8 Society of Mineral Museum Professionals 2005 Tucson Meeting. Tucson, AZ, USA. Web page: http://www.agiweb.org/smmp/meetings.htm

13–17 The Minerals, Metals & Materials Society Annual Meeting & Exhibition. San Francisco, CA. Details: TMS Meetings Services, 184 Thorn Hill Road, Warrendale, PA 15086. Tel. (724) 776-9000, ext. 243; fax (724) 776-3770. E-mail: mtgserv@tms.org.

February 26–March 2 Sixth Keele Meeting on Aluminium. Aluminium: Lithosphere to Biosphere (and Back). Bucaco, Portugal. Details: Chris Exley, Birchall Centre for Inorganic Chemistry and Materials Science, Lennard-Jones Laboratories, Keele University, Staffordshire ST5 5BG, UK OR Paula Go lves, Department of Biology, University of Aveiro Campus Universitario de Santiago,, 3810-193 Aveiro, Portugal. Email: cha38@keele.ac.uk OR pgoncalves@bio.ua.pt. Web page: http://www.keele.ac.uk/depts/ch/groups/aluminium/meeting2005/meeting2005.htm

February 28–March 2 SME (Society for Mining, Metallurgy, and Exploration) Annual Meeting & Exhibit. Salt Lake City, Utah. Web page: http://www.smenet.org/meetings/AnnualMeeting2005/index.cfm

MARCH

4–6 Peralk2005: Workshop on Peralkaline Rocks: Sources, Economic Potential and Evolution from Alkaline Melts. Tuebingen, Germany. Details: Prof. Dr. Gregor Markl, Institut fuer Geowissenschaften, Universitaet Tuebingen, Wilhelmstr. 56, 72074 Tuebingen, Germany. Email: markl@uni-tuebingen.de. Web Page: http://www.uni-tuebingen.de/uni/emi/ag-markl/pages/peralk2005/index.html

14–18 36th Lunar and Planetary Science Conference. League City, Texas. Details: Mary Cloud. phone: 281-486-2143; fax: 281-486-2125. Email: cloud@lpi.usra.edu. Web page: http://www.lpi.usra.edu/meetings/lpsc2005/.

15–18 (BioMicroWorld-2005) 1st International Conference on Environmental, Industrial and Applied Microbiology. Badajoz, Spain. Details: Fatima Penya / Borja Gonzalez, Formatex Research Center, C / Zurbaran, 1 2º Oficina 1, 06001 Badajoz SPAIN. Phone/Fax: +34 924 258615. E-mail: applmicro@formatex.org.Web site: http://www. formatex.org/biomicroworld2005/

March 28–April 1 Materials Research Society Spring Meeting. San Francisco, CA. Details: Telephone (724) 779-3003; Fax (724) 779-8313; E-Mail: info@mrs.org. Web page: http://www.mrs.org/meetings/future_meetings.html

APRIL

3–7 8th International Conference on the Biogeochemistry of Trace Elements. Adelaide, Australia. Details: 8th ICOBTE Conference Secretariat, ATTN: Sandra Tyrell, CSIRO Land & Water, Private Bag No. 2, Glen Osmond 5064, South Australia. Fax: +61-8-8303-8572. Email: 8thICOBTE@csiro.au. Web site: http://www.clw.csiro.au/conferences/8thicobte/

10–13 107th Annual Meeting & Exposition of The American Ceramic Society. Baltimore, MD. Web page: http://www.ceramics.org/meetings/am2005/default.asp

25–29 European Geosciences Union (EGU), Second General Assembly. Vienna, Austria. Details: EGU Office, Max-Planck-Str. 13, 37191 Katlenburg-Lindau, GERMANY. Telephone: +49-5556-1440; Fax: +49-5556-4709; E-mail: egu@copernicus.org. Web Site: www.copernicus.org/EGU/EGU.html OR http://www.copernicus.org/EGU/ga/egu05/index.htm

MAY

15–18 GAC-MAC: Halifax 2005. Halifax, Nova Scotia, Canada. Details: Rob Raeside. E-mail: rob.raeside@acadiau.ca.

20–25 Goldschmidt 2005. Moscow, Idaho, USA. E-mail: gold2005@uidaho.edu. Web site: http://www.the-conference.com/2005/gold2005/index.php

22–26 9th European Workshop and 3rd Meeting of the International Union of Microbeam Societies (EMAS 2005/IUMAS-3). Florence, Italy. Details: EMAS Secretariat, c/o University of Antwerp (UA), Department of Chemistry, attn. Mr. Luc Van't dack, Universiteitsplein 1, BE-2610 Antwerp-Wilrijk, Belgium. Telephone: +32-3-820.23.43: fax: +32-3-820.23.43. E-mail: Luc.Vantdack@ua.ac.be.Web page: http://www.emas-web.net/Content/EMAS2005.htm.

23–27 2005 AGU Joint Assembly. New Orleans, Louisiana, U.S.A. Details: AGU Meetings Department, 2000 Florida Avenue, NW, Washington, DC 20009 USA. Phone: +1-202-777-7333; Fax: +1-202-328-0566. Email: meetinginfo@agu.org. Web page: http://www.agu.org/meetings/sm05/

23–27 2005 AGU Joint Assembly. New Orleans, Louisiana, U.S.A. Details: AGU Meetings Department, 2000 Florida Avenue, NW, Washington, DC 20009 USA. Phone: +1-202-777-7333; Fax: +1-202-328-0566. E-mail: meetinginfo @agu.org. Web page: http://www.agu.org

May 28–June 2 American Crystallographic Association (ACA) Annual Meeting. Walt Disney World, FL, USA. Details: Ed Collins, Program Chair. Email: edward_collins@med.unc.edu. Web page: http://www.hwi.buffalo.edu/ACA/futuremeetings.html

May 31–June 3 Workshop on Oxygen in Asteroids and Meteorites. Flagstaff, Arizona. Details: Dave Mittlefehldt, NASA Johnson Space Center. Phone: 281-483-5043. E-mail: david.w.mittlefehldt@nasa.gov OR Sue McCown, Lunar and Planetary Institute, Phone: 281-486-2144, Fax: 281-486-2125. E-mail: mccown@lpi.usra.edu. Web page: http://www.lpi.usra.edu/meetings/am2005/

JUNE

11 – 15 42nd Annual Meeting of The Clay Minerals Society. Burlington, Vermont, USA. Details: Peter C. Ryan, Geology Department, Middlebury College, Middlebury, Vermont 05753, USA. Email: pryan@middlebury.edu. Phone: 1-802-443-2557. Web page: http://www.clays.org/home/

HomeAnnualMeeting.html.

19–22 American Association of Petroleum Geologists and Society for Sedimentary Geology Joint Annual Meeting and Exhibition. Calgary, Alberta, Canada. Details: AAPG Conventions Dept., P.O. Box 979, Tulsa, OK 74119, USA. Phone: +1-918 560 2679. Fax: 1-918 560 2684. E-mail: convene@aapg.org Web page: http://www.aapg.org/calgary/globalroundup.cfm

19–28 EMU School: Mineral Behaviour at Extreme Conditions. Heidelberg, Germany. Email: EMU2005@min.uni-heidelburg.de. Web page: http://www.univie.ac.at/Mineralogie/EMU/emusch_7.htm

20–24 International School on Mathematical and Theoretical Crystallography. Nancy, France. E-mail: mathcryst.satellite@lcm3b.uhp-nancy.fr. Web page: http://www.lcm3b.uhp-nancy.fr/mathcryst/nancy2005.htm

21–24 5th International Meeting: Mineralogical Museums. St. Petersburg, Russia. Details: Dr. Galina Anastasenko & Olga Golynskaya, MM220, Dept. of Mineralogy, Faculty of Geology, St.-Petersburg State University, Universitetskaya Emb. 7/9, St.-Petersburg 199034, RUSSIA. Tel: 007 (812) 328-9481 E-mail: mm_220@geology.pu.ru. Web page: http://www.mineral.pu.ru/conf/engl/info_E.html.

July

3 – 9 7th International Eclogite Conference. Seggau, Austria. Details: Alexander Proyer, IEC-7 Organizing Committee, Institute of Earth Sciences,, Department of Mineralogy and Petrology, University of Graz, Universitaetsplatz 2, A-8010 Graz; Austria. Fax: ++43 316 380 9865. Email: iec-7@uni-graz.at. Web site: http://www.uni-graz.at/IEC-7/

6–9 ECROFI XVIII: European Current Research on Fluid Inclusions. Siena, Italy. E-mail: bonelli5@unisi.it or ecrofiXVIII@unisi.it. Website: http://www.unisi.it/eventi/ECROFIXVIII

11–15 Workshop on the Role of Volatiles and Atmospheres on Martian Craters. The Johns Hopkins University, Laurel, Maryland. Details: Nadine Barlow, Northern Arizona University, Phone: 928-523-5452, E-mail: nadine.barlow@nau.edu OR Mary Cloud, Publications and Program Services Department. phone: 281-486-2143; fax: 281-486-2125. Email: cloud@lpi.usra.edu.

July 31 – Aug. 3 IDC-5: 5th International Dyke Conference. Rovaniemi, Finland. Details: Dr. Jouni Vuollo, Geological Survey of Finland, PO Box 77, FIN- 96101 Rovaniemi, Finland. Tel. +358 (0)205 504206; Mobile phone: +358 (0)40733 5870; Fax +358 (0)205 5014. E-mail: jouni.vuollo@gtk.fi Web site: http://idc5.gsf.fi/

August

6–11 23rd European Crystallographic Meeting (ECM23). Leuven, Belgium. Details: Organizing Secretariat, Phone +32 16 40 45 55; Fax +32 16 40 35 51. E-mail: info@momentum-pco.be. Web page: http://www.ecm23.be/

7–11 10th International Platinum Symposium. Oulu, Finland. Details: Dr. Tuomo Alapieti, University of Oulu. Phone +358-8-553 1432; mobile phone +358-40-504 4599; Fax: +358-8-553 1484, Email: tuomo.alapieti@oulu.fi. Web site: http://platinumsymposium.oulu.fi/

8–11 Earth System Processes 2. Calgary, Alberta, Canada. Web page: http://www.geosociety.org/meetings/esp2/

18–21 Society for Geology Applied to Mineral Deposits, 8th Biennial Meeting. Beijing, China. Details: 8th SGA Biennial Meeting, Dr. Jingwen Mao, Secretary, Institute of Mineral Resources, Chinese Academy of Geological Sciences, 26 Baiwanzhuang Road, Beijing 100037, China. Phone: +86 10 68 32 73 33. Fax: +0086 10 68 33 63 58. E-mail: mail@sga2005.com. Web Site: http://www.sga2005.com.

21–27 Claysphere: past, present and future: 13th International Clay Conference. Waseda University, Tokyo, Japan. Details: Prof. T. Sakamoto. Telephone: +81-86-252-8922. Email: icc13@das.ous.ac.jp. Web page: http://wwwsoc.nii.ac.jp/cssj2/13ICC/

23–31 XX Congress of International Union of Crystallography. Florence, Italy. Details: Congress Secretariat, XX Congress and General Assembly of the International Union of Crystallography c/o Dipartimento di Energetica, University of Florence, via S. Marta 3, 50139 Firenze, Italy. Telephone ++39-055-4796209. fax ++39-055-4796342. Email: iucr@iucr2005.it. Web page: http://www.iucr2005.it

23–26 3rd Federation of European Zeolite Associations (FEZA) Conference. Prague, Czech Republic. Email: feza2005@jh-inst.cas.cz. Web page: http://www.jh-inst.cas.cz/~feza2005/

Aug. 29–Sept. 2: STOMP–Structure, Tectonics and Ore Mineralization Processes. James Cook University, Townsville, Australia. E-mail: stomp@jcu.edu.au. Website: www.es.jcu.edu.au/STOMP/

September

11–16 AIG-6: 6th International Symposium on Applied Isotope Geochemistry. Prague, Czech Republic. Email: aig6@natur.cuni.cz. Web site: http://www.aig6.cz

12–16 68th Annual Meteoritical Society Meeting. Gatlinburg, Tennessee, USA. Details: Kimberly Taylor (LPI Meeting Coordinator), Program Services Department, Lunar and Planetary Institute, 3600 Bay Area Boulevard, Houston TX 77058-1113, USA. Phone: (281) 486 2151. Fax: (281) 486 2160. E-mail: metsoc2005@utk.edu OR taylor@lpi.usra.edu. Web page: http://geoweb.gg.utk.edu/2005/metsoc2005.html.

12–16 22nd International Meeting on Organic Geochemistry (22 IMOG). Seville, Spain. Details: Viajes El Corte Ingles, Teniente Borges 5. Seville 41002, Spain. Phone: +34 954506605. Fax: +34 954223512. Email: info@imog05.org. Web: http://www.imog05.org.

19–23 From Tropics to Tundra: 22nd International Symposium of the Association of Exploration Geochemists. Perth, Western Australia. Details: Promaco Conventions Pty Ltd, ABN 68 008 784 585, PO Box 890, Canning Bridge, WESTERN AUSTRALIA 6153. Phone: + 61 8 9332 2900; Fax: + 61 8 9332 2911. Email:maco.com.au. Website: www.promaco.com.au/conference/2005/iges

25–28 MS&T '05 (Materials Science & Technology 2005). Pittsburgh, PA. Contact: TMS Meetings Services; TMS; 184 Thorn Hill Road, Warrendale, PA 15086. Phone: (724) 776-9000, ext. 243. E-mail: mtgserv@tms.org.

October

16–19 GSA Annual Meeting. Salt Lake City, Utah USA. Details: GSA Meetings, Box 9140, Boulder, Colo. 80301-9140. Phone: +1-303-447-2020, ext. 164. Fax: +1-303-447-1133. Email: meetings@geosociety.org. Web page: http://www.geosociety.org/meetings/

24–28 Protostars and Planets V. Waikoloa, Hawaii. Details: Bo Reipurth, Institute for Astronomy, 2680 Woodlawn Drive, Honolulu, HI 96822. E-mail: reipurth@ifa.hawaii.edu. Web page: http://www2.ifa.hawaii.edu/CSPF/ppv/ppv.html

November

6–11 International Gondwana 12 Conference. Mendoza, Argentina. Details: Gondwana 12, Centro de Investigaciones Geológicas, Calle 1 # 644, B1900TAC La Plata, Argentina. Phone/Fax: +54 221 4215677. Email: gondwana@cig.museo.unlp.edu.ar. Web page: http://cig.museo.unlp.edu.ar/gondwana.

6 – 11 Society of Exploration

Geophysicists (SEG) International Exposition & 75th Annual Meeting. Houston, Texas. E-mail: meetings@seg.org. Web: http://meeting.seg.org)

7–11 20th World Mining Congress & Expo 2005. Tehran, Iran. Web site: http://www.20wmce2005.com/index.php?page=home

13–15 Geology Forum 05: Focus on Exploration. Cape Town, South Africa. Details: B. Wills; Minerals Engineering Int.; 18 Dracaena Ave., Falmouth, Cornwall TR11 2EQ, UK. Phone: 44 (0)7768 234 121. E-mail: bwills@min-eng.com. Web site: www.min-eng.com/geologyforum05/index.html.

Nov. 28–Dec. 1 Materials Research Society Fall Meeting. Boston, MA. Details: Telephone (724) 779-3003; Fax (724) 779-8313; E-Mail: info@mrs.org. Web page: http://www.mrs.org/meetings/future_meetings.html#f05.

Nov. 30–Dec. 2 5th Fennoscandian Exploration and Mining Conference. Rovaniemi, Finland. Web site: http://www.lapinliitto.fi/fem2005/

DECEMBER

5–9 American Geophysical Union Fall Meeting. San Francisco, California, USA. Details: E. Terry, AGU Meetings Department, 2000 Florida Avenue, NW, Washington, DC 20009 USA. Phone: +1 202 777 7335. Fax: +1 202 328 0566. E-mail: eterry@agu.org or meetinginfo@.agu.org. Web Site: http://www.agu.org/meetings.

Handbook of Mineralogy

Some of you have already heard the sad news that Richard Bideau passed away a few weeks ago. Richard was a life fellow of MSA and contributed in many ways, including many years as editor of the five volume Handbook of Mineralogy. As recently as last September Richard was working to update volume I that was first published in 1990 (elements, sulfides, sulfosalts). Every mineral description was being changed and some were completely rewritten. Richard completed 611 of the 680 mineral species. He planned to complete the volume this year and then pass the job to a new editor, as yet unnamed, who would continue to keep the reference material up to date and to create an interactive website. Richard gave the copyright for the Handbook to MSA and the society is now considering how to proceed. Anyone interested in the future of this authoritative and useful work is encouraged to contact John Valley, Publications Director and Vice President of MSA (valley@geology.wisc.edu).

Queen's UNIVERSITY

Canada Research Chair Tier 2 Geochemistry

The Department of Geological Sciences and Geological Engineering, Queen's University, one of Canada's oldest and best-known earth-science departments, seeks *exceptional researchers* to apply for a Tier 2 Canada Research Chair in the field of Earth System Science, with a focus on the geochemical processes that take place on or within the Earth. Areas of specific interest are: rock-forming processes in the lithosphere, the origin of mineral deposits, biogeochemistry, sedimentary geochemistry, and the origin/diagenesis of bio-chemical sediments. The successful candidate must be within 10 years of receipt of their Ph.D. and have an outstanding research record *in order to* fulfil the criteria for Tier 2 Canada Research Chairs (see www.chairs.gc.ca/web/program/nominate_e.asp). It is expected that the Chair holder will supervise graduate students at the M.Sc. and Ph.D. levels, contribute *actively* to undergraduate and graduate teaching, undertake vigorous externally funded research, and collaborate with departmental colleagues. The department has faculty with a wide range of expertise and emphasizes the linkage between field and laboratory-based research and teaching. Its labs include state-of-the-art geochemical facilities. For more information about the Department, visit www.geol.queensu.ca.

The University invites applications from all qualified individuals. Queen's is committed to employment equity and diversity in the workplace and welcomes applications from women, visible minorities, aboriginal people, persons with disabilities, and persons of any sexual orientation or gender identity. All qualified candidates are encouraged to apply; however, Canadian citizens and Permanent Residents will be given priority. The academic staff at Queen's University is governed by a collective agreement, the details of which are posted at http://www.queensu.ca/qufa. In accordance with the Queen's guidelines for the assignment of Canada Research Chairs, applications from qualified women are particularly encouraged for this position.

Applicants should send a current curriculum vitae, a statement of research interests and future plans, a statement of teaching experience and interests, and samples of research writing to the following address. Individuals who intend to apply should provide to the undersigned, as soon as possible, the names and addresses of five persons of international standing who have agreed to provide letters of reference. Doctoral and/or post-doctoral supervisor(s) may be included. Review of complete applications will begin on January 24, 2005.

Robert W. Dalrymple, Head,
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Invitation to participate in a workshop on peralkaline rocks: sources, economic potential and evolution from alkaline melts

TÜBINGEN, GERMANY, 4.-6. MARCH 2005

PERALK

WORKSHOP ON PERALKALINE ROCKS

This workshop, to be held during 4.-6. March 2005 at the Institut für Geowissenschaften, Universität Tübingen, Southern Germany, will address the generation and evolution of peralkaline rocks from their source to the last stages of their crystallization (fenitization, hydrothermal processes) with an additional emphasis on their economic potential. Geologists (economic, structural...), petrologists and geochemists are welcome to contribute with general or with case studies, be they based on experiments or field studies. 14 distinguished keynote speakers (see at http://www.uni-tuebingen.de/uni/emi/ag-markl/pages/peralk2005/index.html) will review the state of the art knowledge on all aspects of the topic.

A special issue of Lithos will be published based on the presentations of this workshop.

Please visit our website or contact Gregor Markl at markl@uni-tuebingen.de

Deadline for registration and abstract submission is the 31st of December, 2004.

The Mineralogical Society of America
announces the 2006

Grant for Research in Crystallography

From the Edward H. Kraus Crystallographic Research Fund with contributions from MSA membership and friends
and the 2006

MSA Grant for Student Research in Mineralogy and Petrology

from an endowment created by contributions from the MSA membership

The Grant for Research in Crystallography is a **US$5000** grant. There are no restrictions on how the grant funds may be spent, as long as they are used in support of research. The only restrictions on eligibility for the grant are that the applicant must have reached his or her 25th birthday but not yet have reached his or her 36th birthday on the date the grant is given, and that the person is not a MSA Counselor.

MSA Grants for Student Research in Mineralogy and Petrology comprise two **US$5000** grants. Students, including graduate and undergraduate students, are encouraged to apply. There are no restrictions on how the grant funds may be spent, as long as they are used in support of research.

Selection will be based on the qualifications of the applicant, the quality, innovativeness, and scientific significance of the research, and the likelihood of success of the project. Grants will be made in January 2006. There are no restrictions on how the grant funds may be spent, as long as they are used in support of research. Application instructions and forms for the grants may be obtained from the MSA home page, http://www.minsocam.org or Dr. J. Alex Speer, MSA Business Office, 1015 Eighteenth St NW Ste 601, Washington, DC 20036-5212, USA (ph: 202-775-4344, fax: 202-775-0018, e-mail: j_a_speer@minsocam.org). Completed applications must be received by June 1, 2005.

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