

The Lattice

ULTRAHIGH PRESSURE MINERALOGY MSA SHORT COURSE PRECEDING FALL AGU MEETING

Knowledge of the mineralogy of the deep interiors of the Earth and other planets requires information on a great variety of chemical and physical properties of pertinent materials measured under high P-T conditions. Important chemical properties include multi-component phase equilibrium, crystal structure, liquid-state and amorphous structure, site occupancy, melting, solution, phase separation, major and minor element partitioning, thermochemical parameters, diffusivity, crystal-field energy and reaction kinetics. Important physical properties include P-V-T equations of state, single-crystal and aggregate elasticity, compressional and shear acoustic velocity, molecular and lattice vibrational frequencies, anelasticity, viscosity, length, thermal conductivity, electrical conductivity, dielectric parameters, optical parameters, electronic structure, and magnetism. Chemical and physical transitions include oxidation-reduction, hydration-dehydration, amorphization-crystallization, order-disorder, high-low electronic spin, insulator-metal, and magnetic transitions. Each of these may be profoundly different under high P-T conditions as a result of fundamental alterations of the bonding and interatomic interactions induced by these extreme conditions.

Recent advances in high-pressure experimentation with diamond cells, multi-anvil apparatus, and dynamic compression have greatly extended the attainable P-T range, and properties of materials over the entire range of conditions of the Earth's interior can now be measured. Static high pressures of several hundred gigapascals can now be reached with diamond cells in the laboratory. Physical and chemical properties of materials can be characterized in-situ at high pressures. More significantly, the measurement accuracy has been greatly improved. To cover the vast range of properties of minerals is a large undertaking that requires a community effort. The aim of the short course is both to introduce new scientists (especially students) to this very active and challenging area of modern mineralogy and to provide much needed reviews of the current topics in the field.

The Short Course sessions will be held at the University of California - Davis on December 5 & 6 preceding the American Geophysical Union Meeting. Conveners are Ho-kwang Mao and Russell J. Hemley (*Geophysical Laboratory*). Additional information and registration materials are in this *Lattice* issue.

WHAT'S IN A NAME?

Not much but Fame.

My friend Jim Thompson has eloquently staked out a position on the name of our journal. Perhaps for the first (oh, maybe second) time since we played poker half a century ago, I must differ with him. The name *American Mineralogist* is ancient and honorable and it means just what it says, only much more. It is not the name, or the image, that is the problem today; it is, I feel, our own timidity in believing who we are and what we do.

The *American Journal of Science* is not. It is a geological journal founded by the Yale chemist Silliman, whose fame

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From the President

MSA launches an electronic journal

At our last meeting in Boston on May 30, the MSA Council approved a proposal to initiate a new electronic journal under MSA sponsorship, to be called *Earth Materials Research*. This new venture will put MSA at the forefront of the rapidly-evolving field of electronic publishing, and will provide MSA members and other researchers and educators with a new and exciting way to publicize their work.

The new journal results from the efforts of John Brady and Frank Spear, who submitted a detailed proposal to Council in January of this year. Over the last few months, the proposal—along with accompanying sample “manuscripts” from both John and Frank—received thorough reviews from Council members and the MSA Publications Committee. Concerns expressed along the way centered mainly on three issues: possible competition with *American Mineralogist*, the question of archiving material under circumstances of developing technology, and the financial and administrative responsibilities undertaken by MSA. These concerns were largely allayed during extensive discussion at the Council meeting (with *American Mineralogist* Editor Anne Hofmeister representing the interests of MSA’s traditional print medium), and the proposal eventually passed by unanimous vote.

As a ground-breaking electronic publication medium, *Earth Materials Research (EMR)* will immediately offer several capabilities not available through traditional print media. Among these are unlimited use of color, animation of processes (e.g., crystal growth, molecular dynamics), variable-perspective representation of 3D objects (e.g., crystal struc-

tures), downloadable computer programs, and incorporation of extensive tables directly in the article. Other advantages to authors include short acceptance-to-publication time and instantaneous world-wide distribution—made all the more effective by the fact that *EMR* will be available to readers free of charge. Also, MSA members will be able to sign up to receive *EMR* article titles and abstracts by e-mail on the day they are posted.

Frank Spear (RPI) and John Brady (Smith College) will serve as members of a board of four or five essentially independent editors of *Earth Materials Research*. An effort is currently underway to identify and enlist two or three additional editors whose disciplines complement those of Frank and John, and whose electronic-media skills are up to the task. Within a few months an editorial board should be in place whose collective expertise represents the broad scope of the journal, which is envisioned to include crystallography, mineralogy, petrology, geochemistry, geomicrobiology, and any other subdiscipline of the earth sciences that falls under the MSA umbrella. Despite the presence of the word “research” in the title of the journal, the editors will welcome innovative contributions to earth materials education as well, because of the strong interest of many MSA members in education. Submissions will be fully reviewed, more or less in the traditional manner of print journals but without cumbersome mailings of manuscripts. As with *American Mineralogist* and other leading journals, the principle criterion for acceptance of articles will be scientific quality. However, because of the special nature and capabilities of the electronic format, emphasis will also be placed upon the extent to

which the submission is truly enhanced by the advantages offered. Submissions that can be presented with equal effectiveness in a traditional print journal will be discouraged.

I hope you will join me in thanking Frank and John for their efforts in making *Earth Materials Research* a reality, and wishing them well in an endeavor that could be very significant to the future of MSA publications. General comments concerning *EMR* and questions about submissions are welcome (spearf@rpi.edu, jbrady@science.smith.edu).

E. Bruce Watson



MSA President

Members in the News

Frank Hawthorne (University of Manitoba), MSA Fellow, was presented with the Rh Institute Four Year Honorary Award at the Fall 1997 Convocation of the University of Manitoba. This award recognizes outstanding research accomplishments of a University of Manitoba faculty member, and was awarded for the first time this year.

Frank Spear was given the Norman L. Bowen Award by the Volcanology, Geochemistry and Petrology Section of AGU. The award is given for a single outstanding contribution to volcanology, geochemistry, or petrology made during the preceding 5 years.

Does your library have MSA books?

If you want your library to have available the MSA Monographs by Spear, Bloss, or O’Keeffe and Hyde, the new Teaching Mineralogy volume, Fifth International Kimberlite Conference Proceedings, or the Mineralogical Society Series, give them the MSA Publication Order form that appears in this issue of *The Lattice* and request that they order these books.

Notes from Washington

1998 MSA membership renewals were very late this year. The renewal process started after our return from GSA, but encountered several problems in the selection programs and in the membership database of the new association software. The programs were readily fixed, but corrections to the membership database could not be done globally. There were several different problems, and individual corrections had to be made to each record. Attending Fall AGU added a week's delay. With the time necessary to fold and stuff envelopes, MSA membership renewals were mailed to domestic addresses by bulk mail on 1/7/98 and to foreign addresses by air-printed matter on 1/9/98. Most renewals appeared to have reached members by the end of January. Subsequent line-by-line comparison of each record in the old and new computer systems showed that some members were not selected during the first renewal process. These missed renewals were printed and mailed as they were discovered during March and April. Second Renewal Notice reminders were mailed with the ballots to members from whom we did not receive renewals by 4/24/98.

For those interested in the specifics of the problems we encountered. The older computer system allows for only a limited number of membership, subscriber, or customer files, which can only be examined one at a time. Dates are stored as either 6 or 4 digits. The system uses a variety of criteria in order select files to print mailing labels for journal subscriptions, *Lattices*, renewals, etc. After conversion we discovered that some supposedly unused fields in the older system did contain random entries,

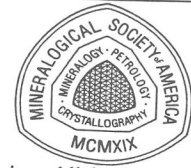
which then moved all subsequent data into incorrect fields during conversion to the new system. The 6-digit date information (YYMMDD) was readily and correctly converted to 8-digits (MMDDYYYY) but 4-digit dates had a variety of inconsistent formats (YYMM, YYYY, MMY, MMDD). The conversion of the 4-digit dates to 8-digits did not go well. Many of you experienced the effect of this in birth dates printed on the Member Update and Census forms. The 4-digit paid-through dates were likewise affected. We also discovered that the new system uses a slightly differing set of criteria of selecting records for mailing labels, and not all of that data was as correct as the data used by the previous system.

- Starting with the February 1998 issue, *The Lattice* is mailed to all members and institutional subscribers of MSA. In the past *The Lattice* was mailed to all members and what could best be described as a semi-random collection of organizations.

- On 2/28/98, new, higher prices were set on most MSA publications. The minimum price on older *Reviews in Mineralogy* volumes is now \$20, up from \$10 in 1995. Typical price for newly published *RiM* volumes is \$32, up from \$28 in 1995.

- Each renewal was accompanied by a Member Update and Census form. Updated information of the returned forms were used to correct member files and will be used to replace the present on-line member directory and to produce a new print directory.

(continued on next page)



The *Lattice* is published quarterly (February, May, August, November) by the Mineralogical Society of America. It is distributed to MSA members as a service. Articles and letters from readers are welcome.

The Mineralogical Society of America is composed of individuals interested in mineralogy, crystallography, and petrology. Founded in 1919, the Society promotes, through education and research, the understanding and application of mineralogy by industry, universities, government and the public.

Membership benefits include: *American Mineralogist*, published bi-monthly; 25% discount on volumes in the *Reviews in Mineralogy* series; *The Lattice*; Membership Directory; special subscription rates for *Mineralogical Abstracts*, *Physics and Chemistry of Minerals*, *Journal of Petrology*, and *Journal of Metamorphic Geology*; reduced registration fees at MSA short courses; member rates for the MSA/Geological Society of America annual meeting and member rates at MSA's spring meeting with the American Geophysical Union; participation in a Society that supports the many facets of mineralogy.

Dues for 1998 are \$70 for professional members who elect to receive *American Mineralogist* and \$40 for those who elect not to receive the journal, but who do receive all other membership benefits; membership is \$30 for students. Membership is on a calendar year basis. Individuals who join after January 1, 1998 will be sent all back issues of the journal for volume 83, 1998.

For additional membership information and an application, and/or to receive a price list of the Society's publications, contact the Business Office.

Institutions may subscribe to the 1998 volume of *American Mineralogist* for the annual rate of \$350 in the US, and \$360 in all other countries. The subscription price includes any new volumes of the *Reviews in Mineralogy* series published during the calendar year of the subscription. Payment must be received in full before a subscription will be started.

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Over 98% of the forms had corrections, most were extensive. It is surprising that MSA ever was able to reach its members. Update of the member database is slower than anticipated because of the many changes and additions. An early version of the MSA member database was supplied to Mark Bloom in November, 1997 as a test of the on-line MSA Member Directory. Unfortunately this early version contained a number of errors (the same

	1995	1996	1997
Members			
regular	1300	1227	1191
life dues	84	78	72
Fellows			
regular	318	356	334
life dues	156	152	148
Senior			
members	22	22	25
fellows	28	34	45
Students	287	252	252
Honorary	4	4	3
Spouse	5	4	---
TOTAL	2204	2129	2070

warded. For MSA overseas members, some foreign post offices appear to have rules similar to the USPS because MSA is beginning to have undeliverable air printed matter returned for the first time.

- MSA had a booth at the Tucson Gem and Mineral Show, Tucson, AZ on February 12-15, 1998. MSA will have had a booth at the Spring AGU Meeting in Boston, May 26-28, 1997. The last meeting of the year at which MSA will have a booth is at the IMA Meeting in Toronto, Ontario August 9-12, 1998. While MSA will have all of its usual social and technical functions at GSA, there will be no booth in the Exhibit Hall. MSA will not have a booth at the Fall AGU.

- MSA membership figures at the end of 1995, 1996, and 1997 is shown in the Table below. The geographic distribution of MSA members as of 12/31/97 is shown in the other Table. The difference in the two totals for 1997 members is the result of using two different computer databases at slightly different times.

J. Alex Speer
j_a_speer@minsocam.org

country	#	%
Argentina	9	0.43
Australia	62	2.99
Austria	12	0.58
Belgium	12	0.58
Brazil	8	0.39
Bulgaria	2	0.10
Canada	129	6.21
Chile	2	0.10
Croatia	1	0.05
Czech Republic	5	0.24
Denmark	13	0.63
Egypt	2	0.10
Finland	3	0.14
France	40	1.93
Germany	142	6.84
Greece	4	0.19
Iceland	1	0.05
Ireland	1	0.05
India	1	0.05
Israel	1	0.05
Italy	36	1.73
Japan	132	6.36
Korea	24	1.16
Mexico	4	0.19
New Zealand	7	0.34
Norway	10	0.48
Pakistan	2	0.10
Portugal	2	0.10
Russia	7	0.34
Romania	2	0.10
Singapore	2	0.10
South Africa	4	0.19
Spain	24	1.16
Sweden	11	0.53
Switzerland	36	1.73
Taiwan, ROC	8	0.39
The Netherlands	20	0.96
United Kingdom	66	3.18
subtotal	847	40.80
USA	1229	59.21

Total	2076	100

From the Coordinator of Internet Resources

There's no long preamble for this issue of the Lattice, let's move on directly to the agenda.

The Browser Blues

A number of users have reported problems on the site that have been traced to the latest crop of browsers (both Navigator and Internet Explorer). These problems are particularly frustrating. As a Mac-only shop, the MSA does not have the resources to test the web site using all browsers on all platforms. If you have experienced difficulties, please do take a few moments to report the problem, giving me enough information to locate the offending page (describe the problem and note the URL, browser type and version, and computer platform).

News and Announcements

A current news and announcements feature has been added to the MSA web site. A digest of news headlines will load on the home page (coming shortly), and you can view the full text of announcements by following the links (here now, accessible via the pull-down menus). Initially all MSA members will be able to post items, subject to a few simple rules of the road. We will moderate submissions only if it becomes necessary due to abuse or an overwhelming number of news items. The Job Board and Events Calendar, also both available for posts by all MSA members, will be on-line soon and are the appropriate venues for employment and event items.

Membership Directory

The MSA Membership Directory (current as of June 11) is on-line. Membership applications and renewals processed after that date will be added or revised periodically. The new directory contains very few home page URLs so, if you'd like a link to your web address from the directory, please use the interactive form on the MSA web site to update your records.

MSA Mailing Lists

The MSA list server that has been maintained by John Brady (thanks John!) has migrated to the business office and been renamed MSA-Talk. John is still the list administrator, but he will welcome the opportunity to pass this along to an eager volunteer. There are also several new mailing lists, including MSA-Announce and a list for each of the Special Interest Groups. MSA-Announce is a broadcast-only list that will disseminate time-sensitive information to members who have provided an e-mail address. About 60% of the membership has done so. Please use the Web form to update your records! You can subscribe to or unsubscribe from MSA-Talk and the other lists directly

from the MSA web site (follow the link in the home page pull-down menu).

Discussion Forums and Ask-A-Mineralogist

We'd like once again to encourage members to use these services, which are finally back on-line after prolonged pest extermination (some bugs self-inflicted and others related to software upgrades). In a moment of weakness (sic) Mickey Gunter has volunteered to spearhead Ask-a-Mineralogist. Please contact him <mgunter@uidaho.edu> if you can help answer questions. Feel free to visit and post questions and answers, but keep in mind Ask-A-Mineralogist is intended more for public and amateur mineralogists. Technical questions should be directed to discussion forums.

Mineralogical and Crystallographic Database

Work on the mineralogical and crystallographic database continues, with recent developments that are sure to make this a popular area of our web site. David Barthelmy (Member '98) has volunteered over 4000 files that contain the physical, chemical, and optical properties of IMA-approved minerals. Dave maintains his own minerals web site that you can visit at <http://web.wt.net/~daba/Mineral/>. His contribution is gratefully acknowledged. In other news, the Los Angeles County Museum and the Smithsonian Institute have graciously given the MSA permission to use digital photographs, and several freelance photographers well-known by mineral collectors are contributing 35 mm slides for conversion to digital images. More about this in the next Lattice (by which time we plan to have a prototype of the database on-line).

Educational Outreach

The MSA, together with the Geochemical Society, is collaborating with the Ridge Inter-Disciplinary Global Experiments (RIDGE) Initiative to co-develop the educational outreach module on marine geoscience (and in particular the mineralogy and geochemistry of submarine hydrothermal vents). In addition to the wealth of scientific data and imagery that RIDGE brings to this effort, their network of researchers and connections with other like-minded organizations will be invaluable in selecting content appropriate for the K-12 community. We again appeal to the MSA membership for volunteers to assist in content development.

Mark Bloom

Coordinator of Internet Resources

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(Name - continued from page 1)

we have boldly and rightly appropriated to mineralogy. Min. Mag. is not a magazine anymore ("All Things Considered" is). Acta Crystallographica is not a record of meetings; Transactions are articles; Tellus is oceanography and then some; Icarus has not yet melted its wings; American Scientist is just that, as is the Scientific American; EPSL is hardly a letters journal, any more than Physical Review Letters is a review (but GRL is a letters journal). Should these venerable journals look for a snazzier image by changing their names? I hope not.

Who cares? By their deeds ye shall know them. A meteorite is not an Earth Material! What might be the perfect name for the premier journal of the MSA in this day of

biomineralogy and mineral physics and high-pressure petrology and interstellar spectroscopy? Who knows? And who could know what the best name could be 20 years hence, equidistant in time from the last poker pot Jim stole from me? We cannot know. Here for once, I rest on my native New Hampshire conservatism and say no change is the best change.

If you build it, they will come. Whatever you call it. And so call it by its ancient and honorable name and have faith in what it is we do, not in how we look.

Tony Morse

University of Massachusetts

Proposal to Form a Task Group to Explore an Independent MSA Meeting

A debate has been going on within the Mineralogical Society of America for several years about the relevancy and future of mineralogy, to the point that many are wondering what mineralogy really means and who is doing it. Commonly such discussions lead to suggestions that mineralogy, and therefore MSA, needs to be redefined to include a broader scope of research and researchers, e.g. by changing the name of our journal, setting up special interest groups, establishing an MSA web site, sponsoring symposia and short courses on nontraditional mineralogy topics. All of these tactics are good ones but fail to address one of the core problems with MSA - lack of its own scientific meeting.

It is curious that the insecurity or malaise associated with mineralogy seems to be largely an American phenomenon, much to the bemusement of our international colleagues. One only needs to attend any of several meetings outside the United States, e.g. EMPG, IMA, to feel a sense of mineralogy in full vigor, and to be astounded at the number and variety of interesting "mineralogy talks." A glance through this summer's IMA program reveals a fascinating diversity of subjects and presenters that hardly are consistent with a "dying" or "irrelevant" research field. The success of IMA and many other mineralogy meetings is that they provide a multi-day forum for presentation and discussion of a wide variety of mineralogical research and the opportunity for interactions among mineralogists with diverse backgrounds. Mineralogy, in all of its manifestations, is a major focus of these meetings, not a subject squeezed in at the margins, as seems to be the case these days at GSA and AGU meetings. Rather than one symposium and five or six sessions, MSA needs a meeting that includes several symposia and three or four days of sessions.

We believe that part of the reason mineralogy seems to be marginalized, at least in this country, is that it has no meeting to call its own. Most of us in MSA are only vaguely aware of the many interesting areas of research conducted by fellow members because we and our presentations are typically scattered among a half dozen meetings or more per year. And at most of those meetings our sessions, and interactions, are diluted by the multitude of other subjects and attendees. Occasionally, many of us finally congregate at IMA or some other international meeting and are amazed at the fascinating variety of mineralogical research we are all doing.

We propose that MSA sponsor an annual (or perhaps initially, a biennial) scientific meeting, inviting all scientists with an interest in minerals or geomorphic materials. Efforts should be made to organize symposia and plenary sessions in a variety of interest areas, e.g. biomineralogy, clay minerals, mineral surfaces, nonambient mineralogy, crystallography, industrial mineralogy, geochemistry, planetary mineralogy, etc. This would also be MSA's principal business meeting and include the awards luncheon and a short course. A more expanded schedule would also permit specialized workshops to be organized, for example on research methods, teaching or computer programs. One benefit of an MSA meeting would be its much smaller size, perhaps a few hundred participants, allowing more effective interactions, and considerably more flexibility in selecting meeting sites, e.g. at one of Colorado's ski resorts in the summer.

(continued next page)

Understandably, many scientists will experience separation anxiety from our traditional GSA and AGU meetings. As it is pleasant to meet old graduate school friends at these large meetings, and occasionally there are sessions of interest in other subject areas, but as these meetings have grown, MSA's influence has diminished. A separate MSA meeting hopefully would attract most researchers whose primary interest is somehow related to minerals. Such a concentration of "mineralogists" would be invigorating to the science and to MSA. It would be an opportunity to shine the spotlight on mineralogy, and show each other and the world what mineralogists do. Perhaps if the MSA meeting were held in early summer (e.g. June), then those who are interested could still attend GSA or AGU later in the year. With the diminished importance of the Spring AGU meeting for mineralogists, early summer seems to be a good time for a meeting. Perhaps a three-year trial period could be used to assess growing, or declining interest in an MSA annual meeting. Another possibility would be for MSA to jointly sponsor a meeting with the Geochemical Society, which meets biennially in the spring in the United States.

Additional benefits from a widely diverse MSA meeting would likely be an infusion of new members from a variety of research disciplines that previously felt out of place in the limited MSA sessions at AGU or GSA meetings, and consequently a broader range of manuscript submissions to the society journal - whatever its name might be.

Obviously, planning an MSA meeting will take time and resources, but mostly it will take resolve on the part of the Council and the membership to break with a comfortable routine and try something new. Clearly the current trends indicate that that routine is not completely successful, and minor tinkering here and there have been only minimally effective. It is time for a major change, a shaking up, if you will! We propose that the MSA council appoint a task group to begin a dialogue with our members and to study the benefits and drawbacks of an MSA meeting.

Jeffrey Post - post.jeffrey@nmnh.si.edu

Peter Heaney - peter@geo.princeton.edu

Charlie Prewitt - prewitt@gl.ciw.edu

In Memoriam

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

Virgil E. Barnes, Life Fellow 1945

Laszlo Dudas, Life Member 1952

Robert R. Ogilby, Member 1967



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Report of the Editors of *American Mineralogist* (Jan. 1, 1997 - Dec. 31, 1997)

1. The Editorial Office finished its first full year at its Washington, DC, location (shared by MSA's Business Office). Managing Editor Rachel Russell continued to streamline operations, resulting in improvements in computer-based editing and submission of disk-based manuscripts to our printer. Combined with hard work by Assistant Editor Everett Johnson and Editorial Assistants Anna Ewald and Kristin Wheeler, we were able to implement an accelerated production schedule, so that, toward the end of 1997, issues were being mailed to members during the first week of the bimonthly issue date (i.e., the beginning of November for the Nov-Dec issue). Toward the end of the year, corresponding reductions were realized in the average period between submission and publication of manuscripts.

2. Incoming Associate Editors include Jill Banfield (Tokyo), Anastasia Chopelas (Mainz), and Glenn Waychunas (Berkeley). We are pleased that Adrian Brearley, Charles Geiger, George Lager, Bob Luth, Ron Peterson,

Nancy Ross, and (of course) Jonathan Stebbins agreed to extend their terms as Associate Editors for an additional year.

3. Volume 82 contains 1287 total pages consisting of 129 regular articles, nine letters, and additional material. The total number of scientific manuscript submissions in calendar year 1997 was 239, of which 25 were Letters. The rejection rate for all manuscripts was approximately 26%. The rejection/withdrawal rate for Letter manuscripts was approximately 50%, with about 15% converted to regular articles.

4. In September, incoming editors Robert Dymek and Anne Hofmeister assumed the editing duties for Volume 83. Bob and Anne took over complete responsibilities as Editors of *American Mineralogist* at the end of 1997. We wish them the same good fortune that benefited us over the past four years.

Theodore C. Labotka
Richard J. Reeder, Editors (Retired)

Reviewers for *American Mineralogist* (1997)

Akaogi, M.	Daniels, E.	Guven, N.	Huang, W.	Palme, H.	Smelik, G.
Altaner, S.	Den Auwer, C.	Halden, N.M.	Liebau, F.	Parise, J.	Smith, D.
Angel, R.	Dixon, J.	Hanchar, J.	Lindsley, D.	Pasero, M.	Smyth, J.
Arrhenius, G.	Donce, A.	Harlow, G.	Livi, K.	Pavese, A.	Snoeyenbos, D.
Bartelmehs, K.	Dove, M.	Hawthorne, F.	Lodders, K.	Peacor, D.	Speer, A.
Bass, J.	Downs, R.	Hazen, R.	London, D.	Perkins, D.	Stanley, C.
Bassett, W.	Duff, M.	Heinz, D.	Longhi, J.	Phillips, B.	Stein, D.
Beckett, J.	Dunn, P.	Hemingway, B.	Luth, R.	Piccolli, P.	Stern, L.
Bekken, B.	Ernst, W.	Henderson, C.	MacInnes, I.	Pluth, J.	Swope, R.
Bente, K.	Evans, B.	Higgins, J.	Martinez, I.	Post, J.	Symmes, G.
Beran, A.	Evans, H.	Hoisch, T.	Mason, R.	Prewitt, C.	Todd, C.
Bernett, D.	Ewing, R.	Hovis, G.	Maurice, P.	Price, D.	Tossell, J.
Bertka, C.	Farver, J.	Hugh-Jones, D.	McEnroe, S.	Raudsepp, M.	Ungaretti, L.
Blencoe, J.	Fei, Y.	Hughes, J.	McGuinn, M.	Refson, K.	Vanko, D.
Bosbach, D.	Fitzpatrick, R.	Ihinger, P.	McMillan, P.	Reichmann, H.	Velbel, M.
Boysen, H.	Fleet, M.	Ildefonse, P.	Mellini, M.	Reid, A.	Wallace, P.
Brodholt, J.	Fowler, T.	Isaak, D.	Merrill, R.	Reynolds, R.	Webb, S.
Bruno, J.	Frost, R.	Jenkins, D.	Miletich, R.	Robert, J.	Weiner, S.
Burns, P.	Fursenko, B.	Kampf, A.	Moore, G.	Robertson, I.	Weisberg, M.
Carlson, W.	Ganguly, J.	Kanzaki, M.	Morrison, J.	Ross, C.	Welch, M.
Carpenter, M.	Gasparik, T.	Karato, S.	Moses, C.	Ross, M.	Wentzcovitch, R.
Casey, W.	George, A.	Karki, B.	Moskowitz, B.	Rustad, J.	Wicks, F.
Catti, M.	Ghiorso, M.	Kawahara, A.	Moynihan, C.	Rutherford, M.	Williams, L.
Chakoumakos, B.	Ghose, S.	Kemner, K.	Mysen, B.	Schaller, T.	Williams, M.
Champness, P.	Giestler, G.	Kohn, M.	Nabelek, P.	Schmid-Beuermann, P.	Winkler, B.
Chirrella, B.	Goldhaber, M.	Koziol, A.	Neuvill, D.	Schwartz, R.	Xiao, Y.
Cho, H.	Gregorkiewitz, M.	Kroll, H.	Newman, S.	Schwertmann, U.	Yangman, R.
Clarke, R.	Grzechnik, A.	Kubicki, J.	Nord, G.	Sen, S.	Zotov, N.
Cohen, R.	Guggenheim, S.	Kunz, M.	O'Day, P.	Seward, T.	
Criddle, A.	Gunter, M.	LaFemina, J.	O'Neill, H.	Shapiro, S.	
Cruciani, G.	Guthrie, G.	Leger, A.	Oberti, R.	Shen, A.	
Dalton, J.	Güttler, B.	Leinenweber, K.	Otten, M.	Skogby, H.	

Call for Nominations for MSA Award

MSA members are urged to submit nominations for the MSA Award. There is no nomination form. A letter of nomination and a curriculum vita for the candidate are all that is needed. Additional letters of support (typically one to three) are welcome. Nominations and supporting materials will be accepted through June 30.

The Mineralogical Society Award is intended to recognize one or more outstanding published contributions to the science of "mineralogy" by a relatively young individual. The work must have been accomplished either [1] before the age of 35 and the candidate must be less than 37 on Jan. 1 of the year the award is given, or [2] within 7 years of the awarding of their degree. Mineralogy is broadly defined and the candidate need not qualify as a mineralogist. Rather, her/his published record should be related to the mineralogical sciences and should make some outstanding contribution to them.

It would be appreciated if the nominator, and all individuals writing letters of support, would send one original and an e-mail version of their correspondence to the Committee Chair. In that way much of the committee work can then be done by e-mail. This makes it easier and less expensive for the committee members, who are increasingly international, to do their work. Otherwise, the original and 5 copies should be sent to the Committee chair.

Nominations should be sent to the Chair of the MSA Award Nomination Committee:

Mark D. Barton
Department of Geosciences
Gould-Simpson Building
University of Arizona, Tucson, AZ 85721
Tel: 520-621-8529; Fax: 520-621-2672
e-mail: barton@geo.Arizona.edu

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

20th FM - TGMS - MSA Mineralogical Symposium

The 20th Mineralogical Symposium sponsored jointly by the Friends of Mineralogy, the Tucson Gem and Mineral Society, and the Mineralogical Society of America will be held in conjunction with the 45th Tucson Gem and Mineral Show, Saturday February 13, 1999. The topic of the symposium will be Minerals of Mexico, the theme of the mineral show. The 1999 symposium is also dedicated to the honor of Dr. Miguel Romero for his outstanding efforts in the advancement of studies and preservation of Mexican Mineral specimens. Papers on descriptive mineralogy, paragenesis, classic and new locations, etc. are invited. An audience of knowledgeable amateurs as well as professional mineralogists and geologists is expected.

If you wish to present a paper, please write or call immediately James A. McGlasson, Symposium Co-chair (The Collector's Stope, 9641 East Hickory Tree Dr, Tucson, Arizona 85749 phone: (520) 760-1501, e-mail: jmcglasson@theriver.com) or Peter K. M. Megaw (President, IMDEX, Inc., P. O. Box 65538, Tucson, Arizona 85728 phone: (520) 529-02231, e-mail: pmegaw@imdex.com) with your topic, a few sentences describing the paper and your address, phone number, and e-mail. Presentations will be 15 or 20 minutes in length followed by a period for questions. Upon acceptance of topics all authors will be required to submit a 200 to 300 word abstract by September 15, 1998 (firm date). Those abstracts will be published in the January-February issue of the Mineralogical Record (subject to approval of the editor), which will be available for sale at the 45th Tucson Gem and Mineral Show.

GEMOLOGICAL EQUIPMENT & TEXTS FOR SALE: A wide ranging set of gemological equipment, gemstone slides, gemological texts, gem and jewelry appraisal texts, and instructional course materials are being offered for sale. Equipment includes a Binocular Gemological Microscope, scales, ultraviolet lamp, gold tester, CZ-diamond tester. Items are being sold in groups rather than individual items. For a detailed list and costs, contact Lynn Metcalf, GG, GIA, (903) 876-5179 or e-mail: lynnm@e-tex.com

THE DEADLINE FOR THE AUGUST ISSUE OF THE LATTICE IS AUGUST 7

Contributions may be sent to Darrell Henry via surface mail at Department of Geology and Geophysics, Louisiana State University, Baton Rouge, LA 70803 or via E-mail at glhenr@unix1.sncc.lsu.edu.

INTERNATIONAL CENTRE FOR DIFFRACTION DATA CRYSTALLOGRAPHY SCHOLARSHIP AWARDS

The science of crystallography has played a key role in the development of X-ray diffraction, electron diffraction and neutron diffraction for the elucidation of the atomic structure of matter. Crystallography is an interdisciplinary branch of science taught in departments of physics, chemistry, geology, molecular biology, metallurgy and material science. To encourage promising graduate students to pursue crystallographically-oriented research, the International Centre for Diffraction Data (ICDD) has established a Crystallography Scholarship Fund. While the Ewald Prize is awarded every three years to an internationally recognized crystallographer, little effort has been made by science departments to cultivate aspiring crystallographers. Convinced of the beneficial, scientific impact of the proposed scholarships for crystallographically-oriented research, the ICDD has solicited funds from private and industrial sectors to support this program. The ICDD has awarded two scholarships in 1992, two in 1993, three in 1994, three in 1995, four in 1996, four in 1997, and five in 1998. Applications for the 1999 awards must be received by ICDD no later than 31 October 1998.

Qualifications for the applicant: The applicant should be a graduate student seeking a degree with major interest in crystallography e.g. crystal structure analysis, crystal morphology, modulated structures, correlation of atomic structure with physical properties, systematic classification of crystal structures, phase identification and materials characterization. There are no restrictions on country, race, age or sex. The term of the scholarship is one year. Application for one renewal may be made by the recipient at the end of the first year. Because a limited number of scholarships are awarded,

renewal applications will be considered on a competitive basis in conjunction with all applications that have been submitted up to the closing date.

Submit: (1) Curriculum Vitae, listing degree(s) held and degree(s) sought. (2) A one-page proposal by the graduate student describing the type of crystallographic research to be partially supported by scholarship. (3) A supportive letter from the sponsoring professor of an accredited university or an institute of technology on institution letterhead.

Restrictions on the scholarship fund: (1) The scholarship stipend of \$2,000 is to be used by the graduate student to help defray tuition and laboratory fees. A portion of the stipend may be applied to registration fees to accredited scientific meetings related to crystallography. (2) No more than one scholarship will be awarded to applicants at any one accredited institution per year. (3) The funds of the scholarship are not to be used for travel.

The awarding of the scholarships is administered by a committee consisting of the ICDD Chairman, the Chairman of the ICDD Technical Committee, the Chairman of the ICDD Education Subcommittee, and one or two individuals without conflict of interest. One or more accredited professors (with no conflicts of interest) may be invited to assist in the selection of successful candidates.

Applications must be received by 31 October 1998.
Please mail to: Secretary, International Centre for Diffraction Data, 12 Campus Boulevard Newtown Square, PA 19073-3273 U.S.A.

Want to make Space?

Do you save most things that come your way? Desperate to consolidate? Wondering where there might be a good home for the things you have collected so carefully? The MSA business office is interested in obtaining reference copies of early MSA publications and other ephemera. Specifically needed items include Special Paper #2 (on amphiboles and pyroxenes), early Reviews in Mineralogy, especially all editions of v. 5, Orthosilicates; and *American Mineralogist*, before 1981. MSA offices have a (tightly) bound set of *American Mineralogist*, but it is clear that we will need an unbound set of originals for scanning into electronic form. We have no originals before 1948 and all 1948-1981 issues were turned over to Kraus Reprint in 1982. Any copies of earlier MSA publications which the MSA offices do not need will either be used to fulfill the needs of some of its remote editors and volunteers, or used to fulfill orders. We receive a number of orders from foreign libraries for out of print issues of *Reviews in Mineralogy*. If we have been given a copy of what they need we sell it for the original sale price, which just about covers shipping costs and the donated book takes on a second useful life. MSA is also interested in acquiring any So-

ciety-related items from before 1970: ballots, directories, *American Mineralogist* Indices, committee reports, etc. Please tell us what you have, we may not even have known it existed! MSA would like to locate its corporate seal (last known impression from it was in 1982); and the archive of material listed in the 1973 Archivist's Report. Any items can be picked up if you are not too far from the DC area.

International Centre for Diffraction Data Announces Officers and Directors for 1998.

Chairman - *Robert L. Snyder*

Vice Chairman - *R. A. Young*

Treasurer - *Julian Messick*

General Manager - *Ron Jenkins*

Chairman, Technical Committee - *Camden R. Hubbard*

Members-at-Large - Board of Directors

James M. Kaduk

Brian H. O'Connor

Jeffrey E. Post

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ULTRAHIGH PRESSURE MINERALOGY

Dates: December 4-6, 1998 (preceding the American Geophysical Union Fall meetings in San Francisco, California)

Location: Short Course sessions are December, 5 & 6 between 8:00 am - 5:00 pm. There is a reception Friday, December 4 from 7:00-9:00 pm. The sessions, reception, and meals will be held at the University of California, Davis Conference Center, 423 First Street, Davis, CA 95616, ph: (530) 757-3259 fax: (530) 757-7943.

Convenors: *Ho-kwang Mao* and *Russell J. Hemley*, Geophysical Laboratory, Carnegie Institution of Washington, 5251 Broad Branch Rd NW, Washington DC 20015-1305, USA e-mail: mao@ctpsun.ciw.edu and hemley@ctpsun.ciw.edu.

Fees:		<i>on or before 10/16/98</i>		<i>after 9/16/98</i>	
		Member	Non-member	Member	Non-member
Professional Registration:	Member	\$170		\$220	
	Non-member	\$250*		\$300*	
Student Registration:	Member	\$85	\$135		
	Non-member	\$115*		\$165*	
Speaker		none		none	

* includes MSA membership dues for 1999.

Registering: Registration forms are available from the MSA Business Office, 1015 Eighteenth Street, N.W., Suite 601, Washington, D.C. 20036-5274, USA. ph: 202-775-4344 fax: 202-775-0018 e-mail: business@minsocam.org; or from the MSA Home Page www.minsocam.org. Registration forms must be returned to the MSA Business Office with payment. Registration is limited to 100 participants. All participants and speakers must register.

Practical: Registration fee includes MSA short course sessions, all meals including refreshments at breaks and the Saturday evening banquet, and the *Reviews in Mineralogy* volume. There is welcoming reception Friday evening, December 4, 1998. Registration fee does not include room, other incidentals, or transportation costs to or from Davis. Both participants and speakers must make and pay for their own lodging arrangements:

<u>Lodging</u>	<u>phone</u>	<u>price range</u>	<u>distance</u>
Aggie Inn	916-756-0352	\$66-95	1 block
EconoLodge	916-756-1040	\$52-63	4 blocks
The Davis Inn	916-756-0910	\$44-66	15 minute walk
Motel 6	916-753-3777	\$30-42	?
Ramada Inn	916-753-8406	\$59-130	5 blocks
University Lodge	916-756-7890	\$60-75	1 block
Best Western (Dixon)	916-678-1400	\$60-85	10 minute drive
Palm Court	916-753-7100	\$95-125	4 blocks
Motel 6 (Woodland)	916-666-6777	\$32-44	10 minute drive
Holiday Inn Express	916-666-3800	\$46-66	10 minute drive
Comfort Inn (Woodland)	916-666-3050	\$45-66	10 minute drive
Davis Bed & Breakfast	916-753-9611	\$50-60	1 block
Univ. Inn Bed & Breakfast	916-756-8648	\$48-65	1 block

Transportation from San Francisco International Airport (SFO) will be provided by University of California at Davis (UCD) Fleet Services. Scheduled departure times 3, 5 and 7 pm December 4, 1998. Pick up will be on the arrival level of each terminal. To ensure transportation, flight number and arrival time must be provided to mcwilding@ucdavis.edu before November 1, 1998. Additional ground transportation can be provided for later flights. Participants who choose to fly to Sacramento Airport (SAC) can contact mcwilding@ucdavis.edu for transport options. Transportation from UC Davis to San Francisco Moscone Center will be provided on the evening of 6th December for the Fall AGU meeting. Cost of transport is \$15 one way (\$30 round trip)

Topics and Speakers/Authors

I. Overview

Overview: Ho-Kwang Mao and Russell J. Hemley, Carnegie Institution of Washington & CHiPR

II. Earth's Deep Interior

Ultrahigh-P Metamorphic Samples and Mantle-Crust Interaction: Juhn (Louie) G. Liou, Stanford University, Douglas Rumble, III, Carnegie Institution of Washington; Ru-Yuan (Ruth), Stanford University

Mantle Transition Zone: Carl B. Agee, Harvard University

Lower Mantle: Craig R. Bina, Northwestern University

Core/Mantle Interactions: Raymond Jeanloz, University of California - Berkeley

Core: Thomas J. Ahrens, California Institute of Technology

Global Models: Guy Masters, University of California at San Diego

III. High-Pressure Mineral Chemistry

Comparative Crystallography: John B. Parise, State University of New York at Stony Brook

Crystal Chemistry: Charles T. Prewitt, Carnegie Institution of Washington & CHiPR

Thermodynamic Properties/Phase Diagrams: Alexandra Navrotsky, University of California - Davis & CHiPR

Element Partitioning: Yingwei Fei, Carnegie Institution of Washington

High-Pressure Melting: Dion L. Heinz and Guoyin Shen, University of Chicago

IV. High-Pressure Mineral Physics

P-V-T Equations of State: Thomas S. Duffy, Princeton University

Elasticity: Robert C. Leibermann, State University of New York at Stony Brook & CHiPR

Anelasticity/Rheology: Donald J. Weidner, State University of New York at Stony Brook & CHiPR

Vibrational and Electronic Properties: Philippe Gillet, ENS Lyon (Geologie) and Russell J. Hemley, Carnegie Institution of Washington & CHiPR

Condensed-Matter Theory: Silicates, Oxides, Metals: Ronald E. Cohen, Carnegie Institution of Washington & CHiPR

For further short course information and registration, contact the MSA Business Office, 1015 Eighteenth Street, N.W., Suite 601, Washington, D.C. 20036-5274, USA. ph: 202-775-4344. fax: 202-775-0018 e-mail: business@minsocam.org or visit the MSA Home Page: www.msa.org

Registration Form

Mineralogical Society of America Short Course
ULTRAHIGH PRESSURE MINERALOGY
Davis, California — December 4-6, 1998

Complete and return this registration form to the MSA Business Office, 1015 Eighteenth Street, N.W., Suite 601, Washington, D.C. 20036-5274, USA. ph: 202-775-4344. fax: 202-775-0018. e-mail: business@minsocam.org Please type or print. Use one form per registrant. Registration is limited to 100 people on a first-come, first-served basis. Payment must accompany this form, which will be fully refunded if cancellation is received in writing prior to October 16, 1998.

Name _____
(first) (middle) (last)

Address _____

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

Telephone: (Voice) _____ (Fax) _____

E-mail: _____

Registration fee includes MSA short course sessions, all meals including refreshments at breaks and the Saturday evening banquet, and the *Reviews in Mineralogy* volume. There is welcoming reception Friday evening, December 4 at the University of California - Davis Conference Center. Registration fee does not include room, other incidentals, or transportation costs to or from Davis. Both participants and speakers must make and pay for their own lodging arrangements. Available lodging and ground transportation are described in the accompanying announcement. Information on the short course, lodging, ground transportation, and further course updates are on the MSA Home Page (www.minsocam.org).

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

	on or before 10/16/98	after 10/16/98	cost
Professional Registration:			
<input type="checkbox"/> Member	\$170	\$220	_____
<input type="checkbox"/> Non-member	\$250*	\$300*	_____
<input type="checkbox"/> Speaker	no cost	no cost	_____
Student Registration:			
<input type="checkbox"/> Member	\$85	\$135	_____
<input type="checkbox"/> Non-member	\$115*	\$165*	_____
Ground Transportation:			
<input type="checkbox"/> from San Francisco International Airport (SFO), 12/4/98		\$15	_____
<input type="checkbox"/> to San Francisco Moscone Center, 12/6/98		\$15	_____
		Total Due	\$ _____

* includes MSA membership dues for 1999.

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

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

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(Your credit card will be charged when the registration form is processed) in the amount of \$ _____

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(name on card -- please print)

(signature)

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Mineralogical Society of America Membership Application

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

Preferred Mailing address: _____

Name: _____ Telephone: _____
First Middle Last
 Dr. _____ Fax: _____
 Prof. _____ First Line of Address
 Mr. _____ E-mail: _____
 Ms. _____ Second Line of Address
 Other: Specify _____ Birth Date: _____
Third Line of Address

Membership Category: Member Life Member Student Member _____

Areas of Interest: (Circle main, check secondary) _____
 Mineralogy (MI), Crystallography/Crystal Chemistry (CC), Material Properties (PP), Igneous Petrology (IP), Metamorphic Petrology (MP), Sedimentary Petrology (SP), Geochemistry (GE), Phase Equilibria (PE), Economic Geology (EG), Clay Mineralogy (CM), Industrial Mineralogy (IM), Environmental Mineralogy (EM), Gems GM, Planetary Materials (PM), Teaching (TC), Topologic Mineralogy (TP), Mineral Surfaces (MS), Biological-Mineral Interactions (BM), Others (Please indicate)

Personal Information: _____

Highest Degree earned: Doctorate Masters Bachelors No College Degree
 Institution at which Highest Degree was earned _____ Year _____
 Employer _____ Job Title _____
 Job Function(s): _____
 What other professional societies do you belong to? _____

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

The applicant is known to me and is a bona fide student at (Name of School): _____
 Address of School (Please Print): _____

Faculty Member (Please print): _____

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

Payment: _____

\$ _____ enclosed (money order, check in US dollars drawn on _____ Card # _____
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 Please charge my: Mastercard Visa Exp. Date: _____
 \$ _____ Diners Club American Express Cardholder: _____

Signature: _____

1998 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	\$40.00
<i>American Mineralogist</i> (price to members)	\$30.00
International surface airlift service for above	\$30.00
Life Membership Dues (with journal)	\$1750
Student Member Dues (includes <i>American Mineralogist</i>)	\$30.00
<i>Mineralogical Abstracts</i> , published quarterly by the Mineralogical Society of Great Britain & Ireland	\$40.00
<i>Physics and Chemistry of Minerals</i> , published eight times a year by Springer-Verlag	\$424
<i>Journal of Petrology</i> , published twelve times a year by Oxford University Press	\$330
TOTAL	

Mineralogical Society of America

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 - ___ Crystal Structures, Volume I, Patterns and Symmetry, by M. O'Keeffe & B.G. Hyde \$36
 - ___ Teaching Mineralogy \$28
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Other Publications (no member discount)

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1-64	Contact Periodicals Service Company, 11 Main St., Germantown, NY 12526 (518)537-4700	
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To Order: Indicate quantity, shipping, and cost information. Only MSA Members may take the 25% discount where noted. Prepay orders under \$300. Publications may not be returned for refund or credit. Send entire form to: Mineralogical Society of America, 1015 18th Street, NW, Suite 601, Washington, DC 20036-5274. Phone: (202) 775-4344; Fax: (202) 775-0018 E-mail: business@minsocam.org

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Meeting Calendar 1998-2000

1998

July

4-11 **Geological Society of America Penrose Conference on "Processes of Crustal Differentiation: Crust-Mantle Interactions"**. Verbania, Italy. Details: T. Rushmer, Dept. of Geology, University of Vermont, Burlington, VT 05405. Tel.: 802-656-8136; Fax: 802-656-0045; E-mail: trushmer@zoo.uvm.edu.

5-10 **18th International Congress on Glass**. San Francisco, California. Details: 18th International Congress on Glass, The American Ceramic Society, 735 Ceramic Place, Westerville, OH 43081. E-mail: icgxviii@acers.org, WWW: <http://www.acers.org>

11-17 **IAVCEI International Volcanological Congress '98**. Rondebosch, South Africa. Details: Secretariat, IAVCEI 1998, Dept. of Geological Sciences, University of Cape Town, Rondebosch, South Africa. Fax: 27-21-650-3783, Email: ivc98@geology.uct.ac.za. WWW: <http://www.uct.ac.za/depts/geolsci/ivc98/>.

12-16 **Microscopy and Microanalysis 98 - Joint meeting of the Microscopy Society of America and the Microbeam Analysis Society**. Atlanta, Georgia. Details: Microscopy & Microanalysis '98, c/o MSA Meeting Managers, 7000 West Southwest Highway, Chicago Ridge, IL 60415, Meeting Manager Email: MSAMeetingManager@MSA.Microscopy.Com, WWW: <http://www.msa.microscopy.com>.

19-24 **American Crystallographic Association: 1998 Meeting**. Washington, D. C. Details: T. A. Vanderah, NIST, Ceramics Division, Building 223, Room A256, Gaithersburg, MD 20899. Fax: 301-990-8729, E-Mail: terrell@credit.nist.gov.

26-29 **ICCG12: Twelfth International Conference on Crystal Growth**. International and Congresses Ltd., P.O. Box 29313, Tel Aviv 61292, Israel. Fax: 972 351 60604.

August

3-7 **7th Annual Denver X-ray Conference**. Denver, Colorado. Details: Manager, Schools and Conferences, International Centre for Diffraction Data. 12

Campus Blvd., Newtown Square, Pennsylvania 19073-3273. Tel.: (610)-325-9814, Fax: (610)-325-9823, E-mail: clinics@icdd.com.

9-14 **17th General Meeting of the International Mineralogical Association**. Toronto, Canada. Details: A. J. Naldrett, Dept. of Geology, University of Toronto, Toronto, Canada M5S 3B1 Tel.: (416) 978-3030; Fax: (416) 978-3938; E-mail: ima98@quartz.geology.utoronto.ca. WWW: <http://www.geology.utoronto.ca/ima98>

COM/IMA/MAC SHORT COURSE, OTTAWA '98

MODERN APPROACHES TO ORE AND ENVIRONMENTAL MINERALOGY

August 4,5,6,7 (4 days), August 8 Guelph (1day)

Immediately preceding the 17th General Meeting of the International Mineralogical Association (IMA) in Toronto, August 9 - 14, 1998.

Sponsored by the Mineralogical Association of Canada, the Commission on Ore Mineralogy (IMA), and Natural Resources Canada, the course will highlight hands-on experience with specialized laboratory equipment in the Booth Street complex (Canada Centre for Mineral & Energy Technology and Geological Survey of Canada); on Aug. 8, a limited number of attendees will visit the Scanning Proton Microprobe at Guelph. The course should be of interest to a wide spectrum of earth scientists who use ore mineralogy in their research or applied work, and will offer students the opportunity to learn about specialized equipment and its applications. **Topics include:** specimen preparation, ore microscopy, textures of ore minerals, crystal chemistry, cathodoluminescence, trace-element microprobe analyses (electron, proton, ion, laser ablation-ICP-mass spectrometry), isotopic analysis using SHRIMP, image analysis, variable-pressure SEM, environmental mineralogy, and mineralogical balances by dissolution methodology. Laboratory sessions will be offered for most topics, including SEM, SIMS, cathodoluminescence, image analysis, SHRIMP, and PIXE. **Principal participants:** Louis Cabri, Iain Campbell, Alan Criddle, Chris Hayward, Simon Jackson, John Jambor, Gilles Laflamme, Pertti Lamberg, Rolando Lastra, Greg McMahon, Bruce Robinson, Chris Stanley, Richard Stern, Richard Taylor, David Vaughan. Registration \$495 CAD (professionals), \$195 students.

For further information:

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Fax: (613) 996-9673
e-mail: lcabri@nrcc.gc.ca

10-16 **International Ophiolite Symposium and Field Excursion: "Generation and Emplacement of Ophiolites through Time"**. Oulo, Finland. *Details:* J. Vuollo, Dept. of Geology, University of Oulu, FIN-90570 Oulu, Finland. Fax: 358-81-5531484; E-mail: vuollo@sveka.oulu.fi or E. Hanski, Geol. Survey of Finland, P.O. Box 77, FIN-96101 Rovaniemi, Finland. Fax: 358-60-3297289; E-mail: eero.hanski@gsf.fi.

16-20 **18th European Crystallographic Meeting (ECM-18)**. Prague, Czech Republic. *Details:* R. Kuzel, ECM-18, Secretariat, Faculty of Mathematics and Physics, Charles University, 121 16 Praha 2, Ke Karlovu 5, Czech Republic. E-Mail: Kuzel@karlov.mff.cuni.cz.

17-19 **9th Regional Congress on Geology, Mineral and Energy Resources of Southeast Asia (GEOSEA '98)**. Kuala Lumpur, Malaysia. *Details:* GEOSEA '98 Secretariat, E-mail: geologi@po.jaring.my.

20-26 **9th International Conference on Geochronology, and Isotope Chemistry (ICOG-9)**. Beijing, China. *Details:* ICOG-9 Secretariat, Chinese Academy of Geological Sciences, Baiwanhuang Road 26, Beijing 100037, P. R. China. Tel.: 86-(10)-6831-1545 and 86-(10)-6832-6456, Fax: 86-(10)-6831-1545, E-mail: liudunyi@public.bta.net.cn. WWW: <http://cags.net.cn>.

21-22 **Can crystal structures be predicted?** Dresden, Germany. *Details:* A. Nelles, Deutsche Akademie der Naturforscher Leopoldina, POB 11 05 43, D-060919 Halle, Germany. Fax: 345 202 1727, E-mail: nelles@leopoldina.uni-halle.de.

23-27 **American Chemical Society National Meeting**, Boston, Massachusetts. *Details:* Sally Pecor, ACS News Service, 1155 16th St., N.W., Washington, DC 20036, (202) 872-4451, fax 202-872-4370, s_pecor@acs.org.

August-September

30-3 **8th Annual V. M. Goldschmidt Conference**. Toulouse, France. *Details:* 8th Annual V. M. Goldschmidt Conference, Laboratoire de Géochimie, 38, rue des 36 Pons, 31400 Toulouse, France. Tel.: 33-561-55-65-18 or 33-561-55-87-85, Fax: 33-561-52-05-44. E-mail: goldconf@lucid.ups-tlse.fr. WWW: <http://www.obs-mip.fr/omp/umr5563/goldconf98.html>. (Abstract deadline: April 3, 1998)

30-4 **Clay Mineralogy and Petrology Conference and Workshop. International Geological Correlation Programme**. Brno, Czech Republic. *Details:* Petr Sulovsky, Dept. of Mineralogy, Petrology, and Geochemistry, Faculty of Science, Masaryk University, Kotlarska 2, CZ 611 37 Brno, Czech Republic. Fax: 420-541211214, E-mail: clays@sci.muni.cz.

September

7-9 **Microscopic Properties and Processes in Minerals - NATO Advanced Study Institute**. Lucca, Italy. *Details:* Prof. Catlow, Royal Institution, Albemarle St., London W1X 4BS England. WWW: <http://www.esc.cam.ac.uk/nato/>

15-18 **Mineral Forming Fluids and Ore Genesis**. Tashkent, Uzbekistan. *Details:* Drs. Svetlana K. Smirnova and Vladimir V. Kozlov, Organizing Secretariat, Institute of Geology and Geophysics, Uzbekistan Academy of Sciences, 49 Khodzhibaev Str., Tashkent, Uzbekistan. Tel.: 7-371-162-65-16; Fax: 7-371-162-63-81, E-mail: symp@rubin.gov.uz.

20-25 **8th International Symposium on Deep Seismic Profiling of the Continents and their Margins**. Barcelona, Spain. *Details:* J. Gallart, 8th Int. Symposium on Deep Seismic Profiling of the Continents and their Margins, Institute of Earth Sciences-CSIC, Lluís Sole Sabaris s/n, Barcelona Spain 08028; Tel.: +34.3.4900552; Fax: +34.3.4110012; E-mail: seismix98@ija.csic.es; WWW: caribe.ija.csic.es/seismix98/fc.html

22-25 **Gold Exploration and Mining in NW Spain** Oviedo, Spain. *Details:* Daniel Arias Prieto, Facultad de Geología, Universidad de Oviedo, c/ Arias de Velasco s/n, 33005 Oviedo, Spain, Fax 34-8-5103087, E-mail: darias@asturias.geol.uniovi.es.

26-27 **Evolution of Structures in Deforming Rocks**. Canmore, Alberta, Canada. *Details:* Shoufa Lin, c/o Geological Survey of Canada, 601 Booth St., Ottawa, Ontario K1A 0E8, Canada, fax 613-995-7997, E-mail: slin@gsc.nrcan.gc.ca WWW: <http://www.nrcan.gc.ca/ess/cgd/ctg98/>

October

4-9 **International Association for Mathematical Geology 4th Annual Meeting**, Island of Ischia, Italy. *Details:* Antonella Buccianti, Dept. of Earth Sci-

ences, Univ. Florence, Via G. La Pira, 4 50121
Florence, Italy, phone 39-55-275-7496, fax 39-55-
284-571, E-mail: buccianti@cesit1.unifi.it, WWW:
<http://www.unina.it/dgv/iamg98.html>.

6-10 GEO-BERLIN '98 - A Joint Meeting of Deutsche Geologische Gesellschaft, Deutsche Mineralogische Gesellschaft and other geoscientific societies. Berlin, Germany. *Details:* Frau Kaiser, Tel.: 49-30-314-21457, Fax: 49-30-314-24087, E-mail: kaiser@wtb.zuv.tu-berlin.de.

21-24 29th Underwater Mining Institute Conference. Toronto, Canada. Topics of interest on minerals and mining. Special sessions on "Marine diamonds" and on "Marine research meets land exploration: the contributions of ocean drilling and other seabed research to land-based mineral exploration" *Details:* K. C. Morgan, UMI Conference Coordinator, 811 Olomehani Street, Honolulu, Hawaii 96813-5513. Tel. (808)-587-5320, Fax: (808)-587-5325, E-mail: mmtcuh@aol.com. WWW: <http://www.geology.utoronto.ca/ODP/UMI>.

26-29 Geological Society of America Annual Meeting. Toronto, Canada. *Details:* Geological Society of America, 3300 Penrose Place, Boulder, CO 80301. Tel.: (303)-447-2020, Fax: (303)-447-1133, WWW: <http://geosociety.org/meetings/index.htm>.

1999

January

7-8 Mineralogy and the Environment. Aberdeen, UK. *Details:* J. Cotter-Howells, Dept. of Plant and Soil Science, University of Aberdeen, Aberdeen AB24 3UU, Tel.44-(0)1224-272702; Fax: 44-(0)1224-272703; E-mail: j.cotter-howells@abdn.ac.uk. WWW: <http://www.minersoc.org>.

May

6-7 GEOVISION 99 (1st Symposium on Imaging in Geology). Liege, Belgium. *Details:* Prof. Eric Pirard, University of Liege, Mica Geomaterials Characterization, Avenues des Tilleuls, 54, 4000 Liege, Belgium. Tel.: 32-4-3669528; Fax: 32-4-3669520; E-mail: eric.pirard@ulg.ac.be; WWW: <http://www.lgih.ulg.ac.be/geovision>.

November

NATIONAL ACADEMY OF SCIENCES COLLOQUIUM ON GEOLOGY, MINERALOGY AND HUMAN WELFARE

November 8-9, 1998

Beckman Center, Irvine, California. Topics to be covered include: mineral particulates and climate, biomineralogy, gas hydrates, zeolites, soil and surface mineralogy, and mining and the environment. Information and Registration: Edward Patte, National Academy of Sciences, NAS-146, 2101 Constitution Avenue, NW, Washington DC 20418. Tel: (202) 334-2445; Fax: (202) 334-2153; E-mail: epatte@nas.edu; Web site: <http://www2.nas.edu/abstract/20fa.html>.

December

1-3 The Origin of the Earth and Moon - Geochemical Society Topical Conference. Monterey, California. *Details:* LPI, 3600 Bay Area Blvd., Houston, TX 77058-1113. Tel.: (281)-486-2158; Fax: (281)-486-2160, E-mail: simmons@lpi.jsc.nasa.gov.

6-10 Fall American Geophysical Union Meeting. San Francisco, California. *Details:* AGU Meetings Dept., 2000 Florida Ave., N. W., Washington D. C. 20009. Tel.: 1-800-966-2431 or (202)-462-6910, ext. 215; Fax: (202)-328-0566; E-mail: meetinginfo@kosmos.agu.org.

26-28 Geological Association of Canada - Mineralogical Association of Canada Joint Annual Meeting. Sudbury, Ontario. *Details:* GAC-MAC Sudbury 1999, Dept. of Earth Sciences, Laurentian University, Sudbury, Ontario, Canada P3E 2C6, Tel.: 705-673-6572; Fax: 705-673-6508; E-mail: gacmac99@nickel.laurentian.ca; WWW: <http://www.laurentian.ca/www/geology/gacmac99.htm>.

June

21-24 XV ECROFI (European current research on fluid inclusions). Potsdam, Germany. *Details:* Mrs., Claudia Rohl, GeoForschungsZentrum Potsdam, Telegrafenberg, D--14473 Potsdam, Germany. Tel: 49(0) 331 288 1436; E-mail: ecrofi@gfz-potsdam.de.

July

19-30 22nd General Assembly of the International Union of Geodesy and Geophysics. Birmingham, UK. *Details:* IUGG99, School of Earth Sciences, The University of Birmingham, Edgbaston, Birmingham BIS 2TT, UK. Fax: 44121414 4942, E-mail: IUGG99@bham.ac.uk . WWW: <http://www.bham.ac.uk/IUGG99/>. (Abstract deadline January 15, 1999.)

August-September

31-2 Exhumation of Metamorphic Terranes (Metamorphic Studies Group). Rennes, France. *Details:* Michel Balleve (michel.balleve@univ-rennes1.fr), Simon Cuthbert (cuth-ce0@wpmail.paisley.ac.uk), Giles Droop (Giles.droop@man.ac.uk)

July

16-22 6th International Council for Applied Mineralogy (ICAM 2000) . Gottingen and Hannover, Germany.

September

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

12-15 Third International Workshop on Orogenic Lherzolites and Mantle Processes. Pavia, Italy. WWW: <http://www.crystal.unipv.it>.

October

25-28 Geological Society of America. Denver, Colorado. *Details:* Becky Martin, GSA Meetings Dept. Boulder, CO 80301-9140. Tel.: (303)-447-2020, Fax: (303)-447-1133.

2000

Details: ICAM 2000 Office, P. O. Box 510153, D-30631 Hannover, Germany. WWW: <http://www.bgr.de/ICAM2000>.

Welcome New Members!

The following new members and students have joined MSA. We welcome them to the Society. The areas of interest on the application form have been increased in an attempt to cover the increasingly broader interests of our membership. They are: Mineralogy (MI), Crystallography/Crystal Chemistry (CC), Material Properties (PP), Igneous Petrology (IP), Metamorphic Petrology (MP), Sedimentary Petrology (SP), Geochemistry (GE), Phase Equilibria (PE), Economic Geology (EG), Clay Mineralogy (CM), Industrial Mineralogy (IM), Environmental Mineralogy (EM), Gems (GM),

Planetary Materials (PM), Teaching (TC), Topologic Mineralogy (TP), Biological-Mineral Interactions (BM), and Others as indicated.

If you know of someone who would like or should join MSA, give them the membership application that appears in this issue of *The Lattice*, or is available from either MSA's web site (<http://www.minsocam.org/MSAmember/MBRfrm96.html>) and the MSA Business Office, 1015 18th St NW Ste 601, Washington DC 20036-5274, USA.

Bernhardt, Ralf, Am Forlenwald 19, 69151 Neckargemund, GERMANY. Email: rbernar@classic.min.uni-heidelberg.de. (S-98). CC IP MP GE PE EM

Coombs, Michelle L., Dept. of Geology & Geophysics, University of Alaska, Fairbanks, AK 99775, USA. Ph: (907) 474-7375. Email: ftmic@aurora.alaska.edu. (S-98). IP GE

Eberl, Dennis D., U.S. Geological Survey, 3215 Marine Street, Boulder, CO 80303-1066, USA. Ph: (303) 541-3028. Fax: (303) 447-2505. Email: ddeberl@usgs.gov. (M-98). CM

Hanson, Benjamin Z., SP-FR-18, Corning, Inc., Corning, NY 14831, USA. Ph: (607) 974-1054. Email: hansonbz@corning.com. (M-98). GE MI IP MP SP PE CM PM

Ingrin, Jannick, Laboratoire de Mineralogie, UMR5563, 39 Allee Jules Guesde, 31000 Toulouse, FRANCE. Ph: +33 5 6155 8015. Fax: +33 5 6155 8023. Email: fmartin@cict.fr. (M-98). MI PP CC IP PE IM PM

Joon, Rhee Syng, Dept. of Earth & Environmental Sciences, Chungbuk National University, Cheonju 361-763, KOREA. Ph: +431 61 3136. Fax: +431 276 9645. Email: syngjoon@trut.chungbuk.ac.kr. (S-98). MI CC

Joyce, David B., 30 Devon Street, Taunton, MA 02780, USA. Ph: (508) 822-8374. Email: dbjoyce1@aol.com. (M-98). IP PP MP GE PE IM PM

Lengauer, Christian Leopold, Universitat Wien-Geozentrum, Institut fur Mineralogie und Kristal-

lographie, Althanstrasse 14, A-1090 Vienna, AUSTRIA. Ph: +431 31336 1825. Fax: +431 31336 783. Email: christian.leupauer@uuive.ac.al. (M-98). MI CC powder diffraction IM TC

Martinez-Alonso, Sara-Eva, University of Colorado, Boulder, CSES/CIRES, Campus Box 216, Boulder, CO 80309-0216, USA. Ph: (303) 492-5051. Fax: (303) 492-5070. Email: martinasc@cses.colorado.edu. (S-98). CM CC EG

McCracken, Christine M.C., Dept. of Geological Sciences, Univ. of Manitoba, Winnipeg, MB R3T 2N2, CANADA. Ph: (204) 474-8395. Fax: (204) 474-7623. Email: UMMCRCAC@CC.UMANITOBA.CA. (S-98). MI CC TC

Russ, Rita Blake, 230 Bermuda Drive, Wilmington, NC 28401, USA. Ph: (910) 251-1444. Fax: (910) 343-9544. (S-98). MI TC

Stout, William Arnold, 2140 Howard Ave. #4, San Diego, CA 92104, USA. Ph: (619) 455-3277. (M-98). MI PM

Tarkyth, Dene J., 628 Victoria Street, Kingston, ON K7K 4S4, CANADA. Email: 7djt@qlink.queensu.ca. (S-98). MI IP EG CM

Troitzch, Ulrike, Australian National University, Geology Department, Canberra ACT 0200, AUSTRALIA. Ph: +2 6249 4303. Fax: +2 6249 5544. Email: ulrike@geology.anu.edu.au. (S-98). MP MI CC IP GE PE

Wolthers, Mariette, Fac. of Earth Sciences, P.O. Box 80021, NL-3508 TA Utrecht, THE NETHERLANDS. Ph: +31 (0)30 2535037. Fax: +31 (0)30 2535030. Email: wolthers@earth.ruu.nl. (S-98). GE CC PE

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