

# The Lattice

## MEMBERS NOMINATE OUTSTANDING STUDENTS IN MINERALOGY FOR SOCIETY'S UNDERGRADUATE AWARD

MSA members have again taken advantage of the Society's American Mineralogist Undergraduate (AMU) Award program to recognize six 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 individual professors 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 complimentary student membership, including the journal, for 1992.

MSA members, who are on the permanent (or tenure-track) faculty and whose department offers one or more courses in crystallography, mineralogy, or petrology, may nominate a student. One student may be nominated per department per year. The department must also be able to present the certificate during a departmental or university award program. MSA encourages but does not require, departments to nominate juniors

who will be seniors during the year that they receive the award.

The 1990 Council voted to allow nominations for AMU Awards to be made either by January 1 or July 1 so that students enrolled in Spring as well as Fall mineralogy courses will have a chance for the award. The second deadline for nominating students for 1992 is July 1, 1992. Please mark your calendars now so you can be watching for that exceptional student. To nominate a student, send a letter on departmental letterhead giving the student's full name (for the certificate), departmental address, year in school, interest area, MSA sponsor name, and the date and brief description of the award ceremony at which the certificate will be presented. The letter must be signed by the department chair. Send the letter to the MSA Business Office, 1130 Seventeenth Street, NW, Suite 330, Washington DC 20036. In its eighth year, the AMU Awards have recognized 133 exceptional students in mineralogy programs throughout the U.S. and Canada. Many of these students have maintained a relationship with MSA as current members or participants in its educational

short courses.

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

### Philip Neuhoff

The University of Iowa

*Sponsored by Barb Dutrow*

### Allan Carswell

The University of Calgary

*Sponsored by Peter Bayliss*

### Timothy J. Keller

University of Missouri-Rolla

*Sponsored by Richard D. Hagni*

### Gregory Alexander Balco

Williams College

*Sponsored by R.A. Wobus*

### Carrie E. Gilliam

Mount Holyoke College

*Sponsored by Steven R. Dunn*

### Michelle Lee Wood

Louisiana State University

*Sponsored by Darrell J. Henry*

## AGI Geoscience Advocacy Program

The American Geological Institute Geoscience Advocacy Program (GAP), with the support of the AGI Member Societies, has begun a program of activities designed to improve the exchange of geoscience information between legislators and the geoscience community. MSA member *Craig M. Schiffries* has been appointed Coordinator

of GAP. The purposes of GAP are to: identify and track federal legislation, policies, programs, and budget issues affecting the geosciences and which are affected by geoscience information; establish contacts with Congressional staffs of committees that handle geoscience issues and budgets; provide information on relevant issues to AGI

member societies; and, under the guidance of the AGI Member Society Council, AGI Executive Committee, and AGI GAP Advisory Committee, coordinate the preparation of position papers on geoscience issues.

The liaison for MSA is *Malcolm Ross*, USGS, 959 National Center, Reston, VA 22092. Tel: (703) 648-6760.

MSA is sponsoring two special sessions at the spring AGU meeting, May 12-15, 1992, in Montreal, Canada. See the January 14, 1992 issue of *EOS* for meeting details.

**Session M01 High-Grade Metamorphism in the Grenville Province.** The Grenville Province of the North American Craton, which covers much of eastern Canada and includes an outlier in the Adirondacks of New York, is composed largely of high-grade metamorphic rocks of the late Proterozoic age. Recent developments in refining pressure-temperature-time paths have provided new insights on the tectonic evolution of the province. Geochronologic studies in particular have been helpful in elucidating the number of metamorphic events (i.e., thermal pulses), their ages, relationships to structural events, and the formation of subprovinces. Other studies have focused on the postmetamorphic cooling histories of the various terranes. Recent data strongly suggest that although they are related by their proximity, different portions of the Grenville experienced dissimilar tectonic-thermal histories.

The session will consist of invited and contributed papers focusing on the geology, petrology, and geochronology of high-grade metamorphic terranes within the Grenville province. Particularly solicited are papers on studies of pressure-temperature-time paths and tectonic evolution of the province. Conveners: Steven Bohlen, USGS, 345 Middlefield Road, Menlo Park, CA 94025, tel: (415) 329-5241; John W. Valley, Dept. of Geology and Geophysics, University of Wisconsin, Madison, WI 53706, tel.: (608) 262-8960; James McLelland, Dept. of Geology, Colgate University, Hamilton, NY 13346, tel.: (315) 824-7202.

**Session M02 Hydrous Phases in the Earth's Mantle.** Much recent research interest has focused on the stability, crystal chemistry, and physical and chemical properties of hydrogen-bearing phases in the Earth's mantle. Hydrogen may enter nominally anhydrous phases such as olivine, orthopyroxene, and garnet in minor amounts and have a significant effect on mechanical and electrical properties. Hydrogen may enter other nominally anhydrous phases such as clinopyroxene, wadsleyite ( $\beta\text{-Mg}_2\text{SiO}_4$ ), and rutile in amounts of 0.5 wt. % or more and have a significant effect on phase relations as well as physical and chemical properties. Further, experimentally produced hydrous magnesium silicates are showing an unexpectedly complex crystal chemistry. The stability of any of these hydrous phases may control melt generation and physical, mechanical, and electrical properties of the mantle and thus is central to our understanding of dynamic processes in the mantle.

Invited papers in this special session will review stability and crystal chemistry of hydrogen-bearing phases in the mantle. Contributed papers are solicited on any aspect of stability and physical and chemical properties of hydrous silicate or oxide phases under mantle conditions. Conveners: Stephen Mackwell, Dept. of Geosciences, Pennsylvania State University, University Park, PA 16802, tel.: (814) 865-2310; Joseph B. Smyth, Dept. of Geological Sciences, University of Colorado, Boulder, CO 80309-0250, tel.: (303) 492-5521.

A symposium on "Environmental Geochemistry of Sulfide Oxidation" is being organized for the August 23-28, 1992, meeting of the American Chemical Society, to be held in Washington, D.C. Themes for individual sessions include: laboratory studies of sulfide oxidation kinetics; microbiological processes affecting sulfide oxidation; numerical modelling of sulfide oxidation in tailings and waste rock; solubility and sorption control in formation of sulfide oxidation products; transport of sulfide oxidation products in surface waters; transport and storage of sulfides and oxidation products in sediments; effects of sulfide oxidation processes on groundwater geochemistry; sulfide oxidation processes in lacustrine, diagenetic and hydrothermal environments; stable isotope fractionation and equilibrium in oxidizing sulfide systems; weathering and enrichment of sulfide ore deposits; effects of sulfide and sulfide oxidation on biological systems; and remediation and prevention of the environmental effects of sulfide oxidation.

Abstracts (200 words or less, on ACS forms) are due by **March 1, 1992**. A symposium proceedings book is planned. Additional information and abstract forms: Charles N. Alpers, U.S. Geological Survey, Room W-2235 Federal Building, 2800 Cottage Way, Sacramento, CA 95825 [telephone: (916) 978-4648] or David Blowes, Waterloo Centre for Groundwater Research, Univ. of Waterloo, Waterloo, Ontario, N2L 3G1, Canada [telephone: (519) 885-1211 ext. 6997].

### Exhibit Researcher

The National Museum of Natural History, Smithsonian Institution, seeks applicants with strong backgrounds in petrology and mineralogy to fill two positions in museum exhibit research. Positions are full-time term appointments, not to exceed four years, working toward developing a new hall of geology. Duties of the position include literature research, report writing, collection surveying, and specimen handling. A Masters degree in geology specializing in petrology or mineralogy is desirable.

Applicants should request Announcement 92-1001U, Application for Federal Employment form SF-171, and form SI-662 from Smithsonian Institution Employment Office, 955 L'Enfant Plaza, S.W., Suite 2100, Washington, D.C., 20560. Closing date is **February 28, 1992**. For more information, contact Linda Deck at (201) 357-2606. The Smithsonian Institution is an equal-opportunity employer.

**THE DEADLINE FOR THE  
MAY ISSUE OF *THE LATTICE*  
IS APRIL 24TH**





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: the American Mineralogist, published bi-monthly; 30% 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 1992 are \$50 for professional members; \$30 for students. Membership is on a calendar year basis. Individuals who join after January 1, 1992 will be sent all back issues of the journal for volume 77, 1992.

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 1992 volume of the American Mineralogist for the annual rate of \$200 in the US, \$205 in Canada and Mexico and \$210 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.

**1992 President:** Michael J. Holdaway

Southern Methodist University

**Past-President:** Malcolm Ross

U.S. Geological Survey

**Vice President:** Alexandra Navrotsky

Princeton University

**Secretary:** Stephen J. Guggenheim

University of Illinois

**Treasurer:** James A. Whitney

University of Georgia

**Editor of The Lattice:** Marta Flohr

USGS, 959 National Center

Reston, VA 22092

**Office Manager/Accountant:** Susan L. Myers

**Mineralogical Society of America**

1130 Seventeenth Street N.W., Suite 330

Washington, D.C. 20036

Telephone: (202) 775-4344

FAX: (202) 775-0018

## MEETING CALENDAR 1992-1993

1992

### April-May

27-1 Annual Spring Meeting of the Materials Research Society, San Francisco, CA. Details: Materials Research Society, 9800 McKnight Road, Pittsburgh, PA 15237. Telephone: (412) 367-3003; FAX: (412) 367-4373.

### May

8-10 The V.M. Goldschmidt Conference, to be held in Reston, VA. Details: Donna Ricketts, The Pennsylvania State University, 409 Keller Conference Center, University Park, PA 16802-1304. Fax: (814) 865-3749.

11-15 Joint AGU/CGU/MSA Spring Meeting, Toronto, Canada. Abstract deadline: February 20, 1992. Details: AGU, 2000 Florida Ave., N.W., Washington, D.C. 20009. Telephone: (202) 462-6900.

22-24 Pan-American Current Research on Fluid Inclusions (PACROFI IV), Lake Arrowhead, CA. Details: Michael A. McKibben, Dept. of Earth Sciences, University of California, Riverside, CA 92521-0423. Telephone: (714) 787-3444; FAX: (714) 787-4324.

25-27 Joint Annual Meeting of the Geological Association of Canada and the Mineralogical Association of Canada, Wolfville, Nova Scotia. Details: Aubrey Fricker, Atlantic Geoscience Centre, Bedford Institute of Oceanography, Box 1006, Dartmouth, Nova Scotia, B2Y 4A2, Canada. Telephone: (902) 426-6759.

### August-September

29-3 Symposium "Lepidolite 200" on all aspects of granitic pegmatites, Nové Město na Moravě, Czechoslovakia. Details: Dr. M. Novák, Dept. of Geological Sciences, University of Manitoba, Winnipeg, Manitoba, R3T 2N2, Canada.

### September

9-15 "The Transition from Basalt to Metabasalt: Environments, Processes, and Petrogenesis," a symposium to be held at Davis, California. Details: Peter Schiffman, Dept. of Geology, University of California, Davis, CA 95616. Telephone: (916) 752-3669; PSchiffman@UCDavis.edu.

### October

26-29 GSA/MSA Annual Meeting in Cincinnati, OH. Details: GSA, Meetings Dept., P.O. Box 9140, 3300 Penrose Place, Boulder, CO 80301. Telephone: (303) 447-2020. (Abstract deadline: July 8, 1992)

### November

1-6 29th Annual Meeting of the Clay Minerals Society (joint meeting with the Soil Science Society of America) in Minneapolis, MN. Details: General Co-chairmen: Jerry Bigham (614) 292-2001 and Wayne Hudnall (504) 388-1344; Program Chairman: Darrell Schulze (317) 494-8062.

1993

### April

1-2 "Rare Earth Minerals: Chemistry, Origin, and Ore Deposits" in London, UK. Details: Ms. Frances Wall, Dept. of Mineralogy, The Natural History Museum, Cromwell Road, London SW7 5BD, UK. FAX: 4471 938 9268.

### May-June

31-4 ICAM'93 - "Mineralogy in the Service of Man." Applied Mineralogy Conference in Perth, Western Australia (dates include workshops). Details: Jim Graham, Division of Mineral Products, CSIRO, Private Bag, P.O. Wembley, 6014, Western Australia. Telephone: (61)(9) 387 0371.

---

# Registration Form

## MSA Short Course

### Minerals and Reactions at the Atomic Scale: High Resolution TEM October 23-25, 1992

Return this registration form, completed, to the MSA Business Office, 1130 17th Street, N.W., Suite 330, Washington, D.C. 20036. FAX: (202)775-0018. Payment must accompany this form. Registration is limited to 100 individuals on a first-come, first-served basis. Please type or print.

Name \_\_\_\_\_  
(first) (middle initial) (last)

Address \_\_\_\_\_  
\_\_\_\_\_

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

Telephone numbers \_\_\_\_\_ (office) \_\_\_\_\_ (fax)

Please circle the appropriate registration category.

#### PRICES INCLUDE ALL LODGING AND MEALS

	Member	Non-Member
Professional: in double room	\$475	\$525*
Student: in double room	\$225	\$255*

\*includes MSA dues for 1992.

Please check method of payment:

\_\_\_ Enclosed is a check or money order in the amount of \$ \_\_\_\_\_.  
\_\_\_ Please charge my \_\_\_ Visa \_\_\_ Mastercard  
\_\_\_ Diner's Club \_\_\_ American Express card in the amount of \$ \_\_\_\_\_.

(Your credit card will be charged when the registration form is received.)

\_\_\_\_\_  
(card number) (name on card--please print)

\_\_\_\_\_  
(signature) (exp. date)

Please list any special requirements regarding meals.

## AMERICAN MINERALOGIST SALE

The Business Office has gathered a collection of past issues and volumes of American Mineralogist from Volume 58-1973 thru Volume 71-1986 for sale to members, nonmembers, and institutions. This is the perfect time to complete or fill in missing issues from your collection. The following is a listing of available issues and volumes, but quantities are limited so order early.

Place your order by circling the issues you wish to purchase, if you want the complete volume for any year, circle the volume number. Prepayment is required on all orders, and there is no additional shipping or handling charge.

							# SINGLE ISSUES	COMPLETE VOLUMES
Volume 58 1973	J/F	M/A	M/J	J/A	S/O	N/D	_____	_____
Volume 59 1974	J/F	M/A	M/J	J/A	S/O	N/D	_____	_____
Volume 60 1975	J/F	M/A	M/J	J/A	S/O	N/D	_____	_____
Volume 61 1976	J/F	M/A	M/J	J/A	S/O	N/D	_____	_____
Volume 62 1977	J/F						_____	N/A
Volume 63 1978	J/F	M/A	M/J			N/D	_____	N/A
Volume 64 1979		M/A	M/J	J/A	S/O	N/D	_____	N/A
Volume 65 1980		M/A			S/O		_____	N/A
Volume 66 1981	J/F	M/A	M/J	J/A	S/O	N/D	_____	_____
Volume 67 1982	J/F	M/A	M/J	J/A	S/O		_____	N/A
Volume 68 1983	J/F	M/A	M/J	J/A	S/O	N/D	_____	_____
Volume 69 1984	J/F	M/A	M/J	J/A	S/O	N/D	_____	_____
Volume 70 1985	J/F	M/A	M/J	J/A	S/O	N/D	_____	_____
Volume 71 1986	J/F	M/A	M/J	J/A	S/O	N/D	_____	_____

TOTAL # OF ISSUES & VOLUMES	_____	_____
	x \$3.00	x \$15.00
TOTAL \$ OF ISSUES & VOLUMES	\$ _____	\$ _____
TOTAL AMOUNT ENCLOSED	\$ _____	

Please check method of payment:

Enclosed is a check or money order  
 Please charge my  Visa  Mastercard  Diners Club  American Express

(card number)	(name on card -- please print)
(signature)	(expiration date)

SHIP TO: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## MSA Needs Nominations And Committee Volunteers

As MSA continues to grow, member participation becomes more essential to the continuation and formation of programs that meet member needs. The best way to participate in Society activities is through committees. Please take a minute to read the brief committee descriptions below and consider getting involved.

Involvement can take several forms: nominate a candidate for office or an award, volunteer to serve on a committee next year, or offer your name or that of a colleague as a possible candidate for office. It is through the involvement of individual members that the Society's programs develop to meet the needs of its members.

Nomination forms and additional information on all Society Committees are available from the MSA Business Office. Or, you may communicate with the appropriate committee chair.

Award/Office	Deadline	Committee Chair
<b>Roebing Medal</b> - The highest award given for eminence as represented by outstanding original research in mineralogy. [No form; contact committee chair with name(s).]	<b>June 1</b>	Joseph R. Smyth University of Colorado Dept. of Geological Sciences Campus Box 250 Boulder, CO 80309 (303) 492-5521
<b>Mineralogical Society of America (MSA) Award</b> - Outstanding contribution prior to 35th birthday with 1992 awardee younger than 37 on January 1, 1991. [No form; contact committee chair with name(s).]	<b>June 1</b>	Michael F. Hochella, Jr. Stanford University Dept. of Geology Stanford, CA 94305 (415) 723-1070
<b>Distinguished Public Service Medal</b> - Awarded for distinguished contributions to public policy and awareness about mineralogical topics.	<b>June 1</b>	Alan M. Gaines National Science Foundation Div. of Earth Sciences Washington, D.C. 20550 (202) 357-9591
<b>Mineralogy/Petrology Research Grant</b> - \$3500 for a research proposal in mineralogy or petrology from a scientist between 20 and 30 years of age. [Form required.]	<b>July 1</b>	Jo Laird University of New Hampshire Dept. of Earth Sciences Durham, NH 03824 (603) 862-3140
<b>Fellowship</b> - Society recognition of a member's significant scientific contributions. Nomination undertaken by one member with two members acting as co-sponsors. [Forms required.]	<b>June 1</b>	Robert A. Wiebe Franklin and Marshall College Dept. of Geology P.O. Box 3003 Lancaster, PA 17604 (717) 291-3820
<b>Officers</b> - Any member or fellow of the Society. One-year terms for president and vice-president; two-year terms for treasurer and secretary; three-year term for councillors. [No form; contact committee chair with name(s).]	<b>June 1</b>	Maria Luisa Crawford Bryn Mawr College Dept. of Geology Bryn Mawr, PA 19010 (215) 526-5111
<b>Committees</b> - Any member or fellow of the Society. Terms usually from one to three years. In addition to above committees, Society has Management, Financial Advisory, Publications, Short Course, Tellers, and Committee on Committees. [No forms; contact committee chair with name(s).]	<b>May 1</b>	Alexandra Navrotsky Princeton University Dept. of Geol. and Geophys. Sci. Princeton, NJ 08544 (609) 258-4674

---

## MSA Short Courses

### *Minerals and Reactions at the Atomic Scale - High Resolution Transmission Electron Microscopy*

*Date:* October 23-25, 1992.

*Location:* Hueston Woods State Park Lodge, College Corner, Ohio.

*Convener:* Peter R. Buseck, Department of Geology and Chemistry, Arizona State University.

The goals of the course are to (a) provide a background into the TEM as a mineralogical tool, (b) give an introduction to the principles underlying its operation, and (c) explore mineralogical applications and ways in which electron microscopy can augment our knowledge of mineral structures, chemistry, and origin. Special attention will be devoted to mineralogical applications. The course will provide sufficient information to allow a mineralogist and petrologist to have an informed understanding of the data produced by transmission electron microscopy and to have enough knowledge and experience to undertake initial studies on his/her own.

We expect to have a modern TEM for hands-on demonstrations and exercises. An attempt will be made to examine prepared specimens brought to the short course by participants. We also hope to have PCs available to demonstrate computer simulations of diffraction patterns and images.

#### *Speakers:*

- Peter Buseck: General principles of transmission electron microscopy  
John Steeds: Principles I: Electron diffraction - SAED & CBED  
Peter Self: Principles II: High-resolution image formation, simulation, and analysis  
Donald Peacor: Inelastic interactions - EDS chemical analysis  
Peter Buseck: EELS & electron channeling (ALCHEMI)  
David Veblen: Non-stoichiometry, polysomatism, and reactions in minerals  
Alain Baronnet: Poytypism & stacking disorder  
Fred Allen: Phase definition by HRTEM  
Donald Peacor: Diagenetic reactions & processes: Clays & shales  
Richard Reeder: Carbonates  
Johan deVilliers: Ore minerals  
Donald Green: Analysis of deformation in geological materials  
Gordon Nord: Imaging transformation-induced microstructures

This two and one-half day course will be held just prior to the 1991 Annual GSA and MSA meeting. The course will be held at the Hueston Woods State Park Lodge, located approximately 60 miles from the Cincinnati airport. Bus transportation will be arranged for participants. The course will begin on Friday morning, October 23 and continue until

noon on Sunday. The registration fee includes the short course program and accompanying volume of the *Reviews in Mineralogy* series, three meals on Friday and Saturday, and lunch on Sunday, as well as daily coffee breaks. Accommodation at Hueston Woods is included in the registration fee.

Enrollment is limited to 100 on a first-come, first-served basis, so register early. See registration form elsewhere in this newsletter.

### *Physical Properties of Minerals*

*Date:* December 4-6, 1992 (before Fall AGU).

*Organizer:* Subrata Ghose, University of Washington.

*Day 1:* microscopic theory that serves as a basis for understanding macroscopic physical properties of minerals and materials. *Days 2 and 3:* theory, experimental techniques of measurement, and results.

*Topics and speakers:* band theory and electronic structure (R.E. Cohen); lattice and molecular dynamics; theory and experiment (S.L. Chaplot, R.J. Hemley); thermal expansion, compressibility, and equations of state (H.K. Mao, Y.W. Fei); symmetry and physical properties (S. Ghose); elasticity (D.J. Weidner); piezoelectricity and ferroelectricity (R.E. Newnham); magnetic properties (J.M.D. Coey); electrical conductivity (A.G. Duba); diffusion (J. Ganguly); deformation and creep (J.P. Poirier); and ceramic applications of silicates (G. Beall).

*Location:* Marconi Conference Center in a state historic park overlooking scenic Tomales Bay, an easy drive from the San Francisco Bay area.

See registration form elsewhere in this newsletter.

---

## Members in the News

*Louis J. Cabri* (MSA Fellow '63) delivered the prestigious Hallimond Lecture to open the Winter Meeting of the Mineralogical Society of Great Britain and Ireland, held in Cardiff, Wales on December 16, 1991. The one and a half hour lecture was titled "The distribution of trace precious metals in minerals and mineral products." The lecture was well-received and set the scene for a two-day special session on "Industrial and Environmental Mineralogy." This was the 23rd Hallimond Lecture, but it was the first presented by a Canadian. Previous winners were from U.K. (13), U.S.A. (6), France (1), Germany (1), and Australia (1).

*Zdenek Johan* and *Petr Cerny* were awarded the Boricky Medal by the Charles University in Prague. This medal recognizes outstanding achievement in mineralogy/geochemistry/petrology. Johan received it for his research on minerals related to mineral deposits and Cerny for his research on pegmatites.



## Fulbright Scholar Awards

The Fulbright Scholar Program for 1993-94 includes about 1000 grants for research, combined research and lecturing, or university lecturing in over 120 countries.

Opportunities range from two months to a full academic year. Virtually all disciplines and subfields participate. Many offerings throughout the program allow scholars to propose their own lecturing or research projects.

The basic eligibility requirements for a Fulbright award are U.S. citizenship and Ph.D. or comparable professional qualifications. For lecturing awards, university or college teaching experience is expected.

Deadline: **June 15, 1992** for Australasia and South Asia; **August 1** for Africa, Asia, Europe, Latin America, the Middle East, and Canada. Application materials are available beginning March 1, 1992. Details: Council for International Exchange of Scholars, 3007 Tilden Street, N.W., Suite 5M, Box NEWS, Washington, DC 20008-3009. Telephone: (202) 686-7877.

## ICDD Crystallography Scholarship Awards

The International Centre for Diffraction Data is pleased to announce the awarding of two Crystallography Scholarships for 1992. Janet M.S. Skakle, University of Aberdeen, Scotland and Timothy P. Hackwell, University College London, England have been selected as the recipients by the ICDD Scholarship Award Selection Committee. Janet Skakle is pursuing a Ph.D. degree studying structures of a variety of barium rare-earth titanites using neutron and x-ray diffraction. Timothy Hackwell is conducting graduate research in high-pressure, temperature phase transitions on feldspars.

## Research Fellowships in India

The Indo-U.S. Subcommittee on Education and Culture is offering nine long-term (6-10 months) and nine short-term (2-3 months) awards for 1993-94 research in India. The grants will be available in all academic disciplines (except clinical medicine). Applicants must be U.S. citizens and hold the Ph.D. or comparable qualifications. The program is sponsored by the Indo-U.S. Subcommittee on Education and Culture and is funded by the United States Information Agency, the National Science Foundation, the Smithsonian Institution, and the Government of India.

Deadline: **June 15, 1992**. Details: Council for International Exchange of Scholars, 3007 Tilden Street, N.W., Suite 5M, Box INDO, Washington, DC 20008-3009. Telephone: (202) 686-7877.

### 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.

**Cohen, Alvin J.**  
Life Fellow, 1954

**Krajicek, Egon**  
Member, 1973



1130 Seventeenth Street, N.W.  
Suite 330  
Washington, D.C. 20036

NON-PROFIT ORG.  
U.S. POSTAGE  
PAID  
PERMIT NO. 4450  
DAMASCUS, MD