

# The Lattice

Vol. 6, No. 4, November 1990

## 1990 Annual Award Luncheon

Recipients of this year's Roebling Medal, the Mineralogical Society of America Award, and the first Distinguished Public Service Medal were honored at the Society's Annual Awards Luncheon in Dallas. Sturges W. Bailey, recipient of the Roebling Medal, was introduced by Eugene N. Cameron (both at the University of Wisconsin, Madison, WI) and cited for his extensive research on the crystal structure and crystal chemistry of phyllosilicate minerals. Bailey's work, particularly on chlorite, kaolin minerals, and micas has been a major contribution to the understanding of polymorphism and polytypism in layer silicates. Russell J. Hemley, recipient of the MSA Award, was cited by Charles Prewitt (both at the Geophysical Laboratory, Washington, D.C.) for his studies of the high-pressure properties of a variety of earth and planetary materials. His work with Ho-kwang Mao has helped advance high-pressure spectroscopic techniques using the diamond-anvil cell. Recent studies have been of the insulator-metal transition in hydrogen. Malcolm Ross (U.S. Geological Survey, Reston, VA), introduced by Donald H. Lindsley (State University of New York at Stony Brook), received the Public Service Medal for his contributions to the understanding of the health affects of mineral dust, particularly the asbestos minerals. Ross has focussed on publicizing how misinterpretation of health data on mineral dusts is preventing the formation of a rational public policy that can support a viable mining and construction industry in the United States.

## AGI Minority Scholarships

The American Geological Institute has had an increase in funds available for minority geoscience scholarships to be awarded for the 1990–1991 academic year. The value of awards, to be given to Black, Hispanic, and Native American undergraduate and graduate geoscience students, will total \$221,000. The increase is due largely to a grant from the National Science Foundation. The scholarships, sponsored by the AGI Minority Participation Program, are intended to encourage underrepresented minorities to pursue careers in the geosciences. The NSF grant will be renewed each year for three years. Renewal will be based on merit and the availability of funds.

Scholarship recipients are judged on academic achievement, financial need, and their potential for future success in the geoscience profession. The deadline for all application materials is February 1, 1991. For more information on the AGI-MPP Scholarships and related programs, contact Marilyn Suiter, Director, AGI Minority Participation Program, American Geological Institute, 4220 King Street, Alexandria, VA 22302. Telephone: (703)379-2480.

## Symposium on "The Structural Chemistry of Silicates"

The principal symposium for the next annual meeting of the American Crystallographic Association is "The Structural Chemistry of Silicates." The meeting will be held July 21–26, 1991 in Toledo, Ohio. Contributed papers for the symposium are invited on all aspects of silicate structural science, both vitreous and crystalline, involving not only diffraction and modelling techniques but the full range of structural probes. The symposium is being organized by the Amorphous Materials Special Interest Group and the papers will be published as volume 27 of the Transactions of the ACA. The abstract deadline is March 29, 1991. Information: Adrian C Wright, J.J. Thomson Physical Laboratory, University of Reading, Whiteknights, P.O. Box 220, Reading RG6 2AF, U.K. (Tel.: +44-734-318555; FAX: +44-734-750203). The program chairwoman for the full A.C.A. Annual Meeting is Professor Margaret C. Etter, Department of Chemistry, The University of Minnesota, 78 Kolthoff Hall, Minneapolis, MN 55455.

## GSA Congressional Science Fellowships

Applications for the 1991–1992 Congressional Science Fellowship are now being accepted by the Geological Society of America. The fellow will spend a year (September 1991–August 1992) in the office of an individual member of Congress or a congressional committee advising on a wide range of scientific issues as they relate to public questions. Guided by the American Association for the Advancement of Science, the fellow chooses a congressional staff position in which he or she can work on major legislative issues.

The fellowship carries with it a \$35,000 stipend and limited health insurance, relocation and travel allowances. The fellowship is funded by GSA and the U.S. Geological Survey, which supports 47% of the program with a \$21,000 grant. Employees of the USGS are ineligible to apply.

Deadline for receipt of application materials is February 15, 1991. Procedures for application and detailed requirements are available in the geology departments of most colleges and universities in the United States or upon request from Executive Director, Geological Society of America, P.O. Box 9140, Boulder, CO 80301.

## FROM THE PRESIDENT

It was with some trepidation that I accepted the gavel as the new President from retiring President Peter Robinson, for during my year as Vice-President I became aware of the great amount of time and thought given by so many of our members to make our Society successful in so many different ways. On behalf of the members of the Mineralogical Society of America, I wish to thank Pete Robinson for guiding us through another fine year of accomplishments, Maryellen Cameron and Jim Whitney for their many and time-consuming contributions to Society administration as Secretary and Treasurer, respectively, Bob Hazen and Charlie Gilbert, our retiring Councillors, for their wise counsel over the last three years, Don Peacor, Steve Bohlen, Vicki Lawrence, Paul Ribbe, and Marta Flohr, our Editors, for producing our fine Journal, Books, and Newsletter; and last but not least Susan Myers, our Accountant/Office Manager, for pulling all the bits and pieces of our complex organization together to form a unified Society.

In reviewing some of this year's accomplishments, I particularly note the successful completion of the first MSA Lecture Program by Maryellen Cameron and Ed Roedder and the initiation of the 1991 lecture series by Harry McSween and Darby Dyar, completion of the first year of publication of the American Mineralogist under new editorship, and publication of two new Reviews in Mineralogy—The  $Al_2SiO_5$  Polymorphs (Vol. 22), written by Derrick Kerrick, and Mineral-Water Interface Geochemistry (Vol. 23), edited by Michael Hochella and A.F. White. The latter volume was prepared for the MSA Short Course given to 162 scientists at the October 1990 GSA Meeting. This is an exciting time for the study of mineral surfaces with the new instruments developed as recently as 1986—and our mineralogists are already using these instruments to solve a wide variety of mineralogic and petrologic problems. An upcoming Short Course, titled Fe-Ti Oxides: Their Petrologic and Geologic Significance, organized by Don Lindsley and Ron Frost, will be given at the Spring 1991 AGU Meeting.

The 3rd 1990 Council Meeting of the MSA was held on October 28, 1990 with President Robinson presiding. At this time the Council voted to allow nominations for the American Mineralogist Undergraduate Student Award 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 Council nominated E-an Zen to receive the 1991 Roebing Medal, Catherine Skinner to receive the Public Service Award, and Mark Barton to receive the MSA Award—congratulations to E-an, Cathy, and Mark.

At the October 28 Council meeting there was also a review of the reports of the 1990

MSA committees. These included: the report of the 1990 Tellers Committee indicating the election of Michael Holdaway as Vice-President and Jim Kirkpatrick and Jo Laird as the incoming Councillors; the report from Susan Myers on the activities of the Business Office indicating that everything is operating smoothly after the efficient relocation of the Office on July 15 of this year; and the report on the status of Reviews in Mineralogy by Editor Paul Ribbe announcing the publication of three new book titles for 1990. These are volumes 22 and 23 mentioned previously, plus volume 24, entitled Modern Methods In Igneous Petrology and edited by Jim Nicholls and Kelly Russell. Volume 24 will be available for the MSA Short Course given at the December 1990 AGU Meeting. In addition, the Council received the report of the Short Course Committee, and approved a new course titled Health Effects Of Mineral Dusts. The conveners of this Short Course are George Guthrie and Brooke Mossman and is to be given at the 1993 GSA Meeting in Boston, Massachusetts. The Council approved the recommendation of the MIN/PET Research Award Committee that John Ayers receive the 1991 award in petrology. Ten new Fellows were elected; these are Jan Bernard, David Bish, Robert Bodnar, Ernst Burke, Harry Green, Michael Hochella, Qasim Jan, Jeffrey Post, Jonathan Stebbins, and Glen Waychunas.

Pete Robinson gave a very interesting and well-attended Presidential Address, titled "The Eye of the Petrographer, the Mind of the Petrologist." The annual MSA Luncheon followed this address where the various MSA awards were presented and are mentioned in another part of this newsletter. The MSA/Geochemical Society Reception, held in the evening following the luncheon, was very well attended by members of both Societies.

The 1st 1991 Council meeting was held in the evening of October 30. The new Vice-President, Michael Holdaway, and the two incoming Councillors, Jim Kirkpatrick and Jo Laird, were introduced to the rest of the Council. Charlie Gilbert, who replaced Dave Stewart as our representative to the AGI, gave a report on the deliberations of the AGI Council the previous Monday. Charlie reported that the AGI was having some financial problems, hopefully they will be soon resolved. Two other topics reported on relate particularly to the MSA. One is a plea for increased communication between the AGI and the MSA; the other, a suggestion that affiliated Societies become active in some aspect of minority education in the geosciences. The Council will further consider these topics at its next meeting which will be held in May during the Spring AGU Meeting. In order to gain new members and to further publicize our Society, the Council voted to have a display

table at the 1991 Tucson Gem and Mineral Show where membership applications and copies of our publications would be available for inspection. We are now looking for MSA members and perhaps local students who might attend the Show to help man the table part-time. It is crucial that our Society reverse the recent membership decline; we must look for new ways to attract new members. It is hoped that some of the many thousands who attend the Tucson show might wish to join our Society.

Discussion of the report of the Editors of the American Mineralogist and the Treasurer's report given at the October 28 Council meeting was continued at the October 30 Council meeting. The Editors reported some very significant changes in the operations of our journal. The number of manuscripts submitted has increased greatly over the last year - from about 210 in 1989 to about 270 in 1990. The number of pages printed in 1990 will be about 1462; the estimated number of pages for 1991 is 2125. This much increased work load, partly due to the very thick J.B. Thompson issue and to the move of the Editorial Office, will cause the next few issues of the American Mineralogist to appear about 7 weeks late. The good news is that we are getting many high quality papers; the bad news is that we have to pay for these additional pages. The Council spent much time reviewing the need to increase the journal size (which will also require additional editorial assistance) and the need to keep our Society financially viable. At the next Council meeting in May we will consider this problem further when we will have more information about costs and ultimate size of the journal. It is clear, however, that in 1992 we will have to make moderate increases in member dues and subscription prices. In 1991 we will, as we did in 1990, have to use some or all of the interest from our endowment fund to pay for MSA operations.

Some final comments. Even though MSA activities took up some time, I did get to a lot of talks and poster displays and was very impressed with the quality of the MSA sponsored sessions. Our sincere thanks to the Joint Technical Program Committee, Bob Tracy, Mark Ghiorso, and Dave Bish, for a job well done. At the next Council meeting I would like to bring up the problem of funding for the individual investigator. Perhaps there is more that MSA can do in this regard. Lastly, I would like to help promote more collaboration with the Geochemical Society, both with regard to receptions and to symposia. I talked with Jim Papike, President of the Geochemical Society, about this and he also feels the same way. To bolster the Spring AGU Meeting, it would be very useful to have joint MSA-GS-AGU sessions and receptions.

Malcolm Ross

# MINERALOGICAL SOCIETY OF AMERICA

## MSA SHORT COURSE ON FE-TI OXIDES: THEIR PETROLOGIC AND GEOLOGIC SIGNIFICANCE

May 24–27, 1991  
BWI Marriot  
Baltimore, MD

Co-conveners: B. Ronald Frost, Donald H. Lindsley, and Subir Banerjee

A short course to explore the crystal chemistry, magnetic properties, and phase relations of oxide minerals and their influence on petrology and the magnetic properties of rocks. This short course is designed to address the following:

- The mineralogical controls of rock magnetism.
- The role of oxides as petrologic indicators.
- The interrelation between the thermodynamic and magnetic properties of oxide minerals.
- The range of oxygen fugacities at which common crustal and mantle rocks crystallize.

### Speakers:

- Glenn Waychunas: Crystal chemistry of oxides  
Donald Lindsley: Phase equilibria of oxides  
Subir Banerjee: Magnetic properties of Fe-Ti oxides  
Mark Ghiorso: Thermodynamic solution models for oxide minerals  
Bernard Wood: Interrelation between macroscopic and microscopic measurement of thermodynamic properties
- Steve Haggerty: Oxide textures in all their noble glory  
Ben Burton: Interplay between chemical and magnetic ordering  
Richard Sack: Chromite as a petrogenetic indicator  
Steve Haggerty, Bernard Wood: Oxides and oxygen fugacity in the mantle
- Don Lindsley, Ron Frost: Fe-Ti oxides in magmatic systems  
Peter Wasilewski: Magnetic properties of common rock types  
Ron Frost: Magnetic petrology: The stability of Fe-Ti oxides in crustal rocks  
Robert Karlin: The magnetic properties of sedimentary rocks

This two and one half day course will be held just prior to the 1991 Spring AGU Meeting. The course will be held at the BWI Marriott, conveniently located just minutes from the Baltimore-Washington International Airport. The course will begin with a welcoming reception on Friday evening, May 24th. Sessions begin Saturday morning and continue until 1:30 on Monday. The registration fee includes the short course program and accompanying volume of the *Reviews in Mineralogy* series, lunch on Saturday, Sunday and Monday, daily coffee breaks, and the welcoming reception on Friday. Individual participants are responsible for making their own sleeping room arrangements. The BWI Marriott is offering special rates to participants of the short course—\$75/night for single and \$80/night for double. Be sure to identify yourself as a short course participant when making your reservation. Enrollment is limited to 125 on a first come, first served basis, so register early! See registration form in this newsletter.

## IN MEMORIAM

We are saddened to report the deaths of the following members. Our condolences are extended to the families and friends of these scientists.

Charles Milton, Life Fellow,  
1950

Alfred O. Woodford, Life Fellow,  
1922

## MRS Spring Meeting Call for Papers

The 1991 Spring Meeting of the Materials Research Society will be held April 29 through May 4 in Anaheim, California. Twenty-four symposia are scheduled, including: Amorphous Silicon Technology—1991; Magnetic Materials: Microstructure and Properties; Heteroepitaxy of Dissimilar Materials; and Modern Perspectives on Thermoelectrics and Related Materials. The abstract deadline is December 1, 1990. Information: Materials Research Society, 9800 McKnight Road, Pittsburgh, PA 15237. Telephone: (412) 367-3003. FAX: (412) 367-4373.

*The Lattice* is published quarterly (February, May, August, November) by the Mineralogical Society of America. This newsletter 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 1991 are \$40 for professional members; \$20 for students. Membership is on a calendar year basis. Individuals who join after January 1, 1991 will be sent all back issues of the journal for volume 76, 1991.

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 1991 volume of the *American Mineralogist* for the annual rate of \$175. 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.

**1991 President:** Malcolm Ross,  
U.S. Geological Survey

**Past-President:** Peter Robinson,  
University of Massachusetts

**Vice-President:** Michael Holdaway,  
Southern Methodist University

**Secretary:** Maryellen Cameron,  
Miami University of Ohio

**Treasurer:** James A. Whitney,  
University of Georgia

**Editor of *The Lattice*:** Marta Flohr  
U.S. Geological Survey

MS959, National Center  
Reston, VA 22092

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Susan L. Myers

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1130 Seventeenth Street, N.W.,  
Suite 330

Washington, D.C. 20036  
Telephone: (202)775-4344  
FAX: (202)775-0018

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## WELCOME!

The following new members and students have joined MSA effective January 1, 1990. Welcome! Applications for membership may be obtained from the Business Office, 1130 Seventeenth Street, N.W., Suite 330, Washington, D.C. 20036; (202)775-4344.

**Anderson, Donald L.**, Department of Geology, Arizona State University, Tempe, AZ 85287-1404. O:(602)965-1789. (M-90)MI. Sponsor: MSA.

**Basta, Fawzy Fahim**, Department of Geology, Cairo University Faculty of Science, Giza, Egypt. O:(011-202) 727213.(M-90). Sponsors: Dean C. Presnall and Robert Gribble.

**Bauditz, Chr. W.**, Hyldeager 7, 3210 Vejby, Denmark. H:42306400. (M-90)MI. Sponsors: Monte C. Nichols and E. H. Nickel.

**Belliveau, Leonard P.**, P.O. Box 995, Naples, ME 04055. O:(207)693-6077. H:(207)693-6077. (M-90)IP. Sponsor: MSA.

**Brown, Cathleen**, Department of Geology, University of Maryland, Building 237, College Park, MD 20742-4211. O:(301)454-6314. H:(301)794-8963.(ST-90)MI. Sponsors: Philip A. Candela and Thomas J. Williams.

**Buatier, Martine D.**, 1006 C.C. Little Building, Ann Arbor, MI 48109. H:(313)761-8583.(M-90)MI. Sponsors: Donald R. Peacor and Gejing Li.

**Elvevold, Synnove**, IBG, University of Tromso, Tromso, Norway N-9000. O:(083)44456. H:(083)84218.(ST-90)MI. Sponsors: Peter Robinson and Suzanne A. McEnroe.

**Krogh, Erling J.**, IBG, University of Tromso, Tromso, Norway N-9000. O:(083)44413. H:(083)56141. (M-90)MP. Sponsors: Peter Robinson and Suzanne A. McEnroe.

**Mauk, Jeff**, Department of Geological Sciences, University of Michigan, Ann Arbor, MI 48109. (M-90). Sponsor: MSA.

**Moore, Gordon**, Department of Geology and Geophysics, University of California, Berkeley, CA. 94720. (ST-90)IP. Sponsor: Ian S.E. Carmichael.

**Paul, Tracy**, Department of Geology, Arizona State University, Tempe, AZ 85287-1404. O:(602)965-5081. H:(602)838-2844. (ST-90)MI. Sponsor: MSA.

**Prestvik, Tore**, Hoeggvegen 30, Trondheim, Norway N-7036. O:(477)594806. H:(47-7)966651.(M-90)IP. Sponsors: Peter Robinson and Suzanne A. McEnroe.

**Simmons, Lynn**, Department of Earth and Planetary Sciences, Olin Hall, The Johns Hopkins University, Baltimore, MD 21218. O:(301)338-7133.(ST-90)IP. Sponsors: Bruce D. Marsh and Roger D. Congdon.

**Strobel, Joachim**, Tu Berlin-Bh1, Ernst-Reuter-Platz 1, Berlin 12, West-Germany. O:(030)314-23225. H:(030)4118089. (ST-90)CC. Sponsor: MSA.

**Tilley, Barb**, Sherritt Gordon Limited, Mail Station #39, Ft. Saskatchewan, Alb T8L 2P2, Canada. (M-90). Sponsor: MSA.

**Weiss, Robert M.**, 1810 Hardison Place #3, Pasadena, CA 91030. H:(818)441-0657. (M-90)MI. Sponsor: MSA.

**West, Andrew**, Beloit College, Box 1536, 700 College Street, Beloit, WI 53511. H:(608)363-4743.(ST-90)IP. Sponsor: MSA.

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## GeoRef Database To Be Available on CD-ROM

The American Geological Institute (AGI) and SilverPlatter Information Inc. have signed an agreement to publish the GeoRef (Geological References) database on CD-ROM. SilverPlatter plans to issue the 1.5-million citation database in August 1990. Subscribers will receive quarterly updates to the database. An annual CD subscription will be \$2,600. For current subscribers to the Bibliography and Index of Geology, an annual CD subscription costs \$1,950. Prices are effective in the United States and Canada. Subscribers outside the United States and Canada should add 10 percent.

The GeoRef database and the Bibliography and Index of Geology, its printed counterpart, are comprehensive reference tools. They cover the geology of North America from 1785 and the geology of the rest of the world from 1933. To produce them, geoscience indexers scan more than 3,000 journals in 40 languages as well as books, maps, and reports. U.S. Geological

Survey publications and U.S. and Canadian master's theses and doctoral dissertations are also covered. Many citations include abstracts. This year AGI will add 80,000 citations to GeoRef. For more information on the GeoRef CD and a lease/license agreement, contact SilverPlatter:

SilverPlatter Information Inc.  
One Newton Executive Park  
Newton Lower Falls, MA 02162-1449  
USA  
Phone: (800)343-0064  
(617)969-2332  
FAX: (617)969-5554

SilverPlatter Information Ltd.  
10 Barley Mow Passage  
Chiswick, London W4 4PH  
ENGLAND  
Phone: 0 800 282 133  
44 1 995 82 42  
FAX:44 1 995 5159

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## MEMBERS IN THE NEWS...

**Frank C. Hawthorne**, Professor of Crystallography and Mineralogy at the University of Manitoba, has been elected Fellow of the Royal Society of Canada.

**Gordon L. Nord Jr.**, U.S. Geological Survey, Reston, has been awarded a one-year Guest Research Fellowship from the Royal Society of Great Britain to participate in cooperative studies in the Earth Sciences Department at the University of Cambridge. He will be working with Drs. Michael Carpenter and Eckard Salje on the physics of phase transitions in Fe-Ti oxides and the development of microstructure, particularly with reference to magnetic properties.

**Craig M. Schiffries** has been selected as the fifth Geological Society of America Congressional Fellow. He will work as a special legislative assistant on the staff of a committee or member of the U.S. Congress. He will advise members of Congress on the implications of geology and other science-related legislative matters.

## MEETING CALENDAR 1991

### January

- 4 Mineralogical Society of Great Britain's Winter Conference on The Movement of Small Melt Fractions in the Mantle. Details: Dr. R. Hunter, Department of Earth Sciences, University of Liverpool, Brownlow Street, Liverpool L69 3BX, UK.

### February

- 16 12th Mineralogical Symposium in Tucson, Arizona. The topic of the symposium will be "Azurite and Other Copper Carbonates." Details: Dr. Karen Wenrich, U.S. Geological Survey, MS 905, Federal Center, Denver, CO 80225 Telephone: (303)236-1563.

### April/May

- 29-4 1991 Spring Meeting of the Materials Research Society in Anaheim, CA. Details: Materials Research Society, 9800 McKnight Road, Pittsburgh, PA 15237. Telephone: (412)367-3003. FAX: (412)367-4373.
- 6-11 6th Annual Meeting of the Society for the Preservation of Natural History Collections in Ottawa, Ontario. Details: G.R. Fitzgerald, Canadian Museum of Nature, Earth Sciences (Paleobiology), P.O. Box 3443, Station D, Ottawa, Ontario, Canada K1P 6P4.
- 27-29 Geological Association of Canada-Mineralogical Association of Canada Annual Meeting held jointly with the Society of Economic Geologists in Toronto, Canada. Details: J.J. Fawcett, Department of Geology, Earth Sciences Center, University of Toronto, 22 Russell Street, Toronto, Ontario M5S 3B1, Canada. Telephone: (416)978-3027.

### May/June

- 28-1 AGU/MSA Spring Meeting in Baltimore, MD. Details: MSA Business Office.

### September

- 2-4 International Conference on Applied Mineralogy in Johannesburg, South Africa. Details: The Conference Coordinators, C.133, P.O. Box 395, 0001 Pretoria, South Africa. Telephone: +27 12 841-3188/4513.
- 16-21 15th International Meeting on Organic Geochemistry in Manchester, United Kingdom. Details: Dr. D.A.C. Manning, Department of Geology, The University, Manchester, M13 9PL. Fax: (44) 61 275 3947.

### October

- 6-18 Preventative Conservation for Geological Collections in Kingston, Ontario. The course is designed for those who have the responsibility for the maintenance of mineralogical, paleontological or petrological collections. Details: Director, Art Conservation Department, Queen's University, Kingston, Ontario K7L 3N5 Canada.

## NRC TO AWARD FORD FOUNDATION POSTDOCTORAL FELLOWSHIPS FOR MINORITIES

The National Research Council plans to award approximately 25 Ford Foundation Postdoctoral Fellowships for Minorities in a program designed to provide opportunities for continued education and experience in research for Native American Indians, Alaskan Natives (Eskimo or Aleut), Black/African Americans, Mexican Americans/Chicanos, Native Pacific Islanders (Micronesians or Polynesians), and Puerto Ricans. Fellows will be selected from among scientists, engineers, and scholars in the humanities who show greatest promise of future achievement in academic research and scholarship in higher education.

In this national competition sponsored by the Ford Foundation, citizens of the United States who are members of one of the designated minority groups, who are preparing for or already engaged in college or university teaching, and who hold the PhD or ScD degree may apply for a fellowship award of one year's duration.

Awards in the Ford Foundation Postdoctoral Fellowships for Minorities Program will be made in the behavioral and social sciences, humanities, engineering, mathematics, physical sciences, and biological sciences, or for interdisciplinary programs composed of two or more eligible disciplines. Tenure of a fellowship provides postdoctoral research experience at an appropriate not-for-profit institution of higher education or research of the Fellow's choice. The usual tenure is either 9 to 12 months. Tenures may not exceed 12 months. Fellows are expected to begin tenure on September 1, 1991. The stipend for Fellows is \$25,000. In addition to the stipend, the Fellow will receive a travel and relocation allowance of \$3,000.

The deadline for submission of applications will be January 11, 1991. Awards will be announced by March 30, 1991. All inquiries concerning application materials and program administration should be addressed to the Fellowship Office, GR420A, National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418.

Registration Form

FE-TI OXIDES: THEIR PETROLOGIC AND GEOLOGIC SIGNIFICANCE

May 24-27, 1991 Baltimore, Maryland

Return this registration form, completed, to the MSA Business Office, 1130 Seventeenth Street, N.W., Suite 330, Washington, D.C. 20036. FAX: (202)775-0018. Payment must accompany this form. Registration is limited to 125 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) (home)

Please check appropriate registration category.

Professional: Member \$245 Non-Member \$265\* Student: \$100 \$120\*

\*includes MSA dues for 1991.

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. Should a refund be required, a credit will be applied to your charge card.)

(card number) (name on card—please print) (exp. date) (signature)

Please list any special meal requirements.

Special meal requirements section with horizontal lines.

# Abstractors for Mineralogical Abstracts

The MSA council would like to recognize the following members for services they perform as abstractors for Mineralogical Abstracts.

| Abstractor  | Assignment  | Abstractor   | Assignment   |
|---|---|--|--|
| Dr. Konrad J. Banaszak<br>Dr. John H. Barnes<br>Dr. Bruce Bathurst  | Indiana<br>Ohio<br>Norelco Publications,<br>New Jersey, & Doklady<br>Earth Sciences   | Dr. James E. Shigley<br>Lady Marie Siegrist<br>Dr. Diana N. Solie<br>Dr. David L. Southwick<br>Dr. Ian M. Steele<br>Dr. Daniel Sundeen<br>Dr. Jeffrey L. Warner<br>Dr. John P. Wehrenberg<br>Dr. Peter M. Whelan | California, & Oregon<br>American Journal of Science<br>Alaska<br>Minnesota<br>Journal of Geology<br>Southeastern Geology<br>Bulletin AAPG<br>Montana<br>G.S.A. Memoirs and Special<br>Papers<br>American Mineralogist<br>Organizer for America                                     |
| Dr. Earl Bennett<br>Dr. Wallace A. Bothner  | Idaho<br>Northeastern Geology, &<br>New Hampshire<br>Analytical Chemistry<br>Economic Geology   | Dr. Janet A. Zilczer<br>Dr. Karl A. Riggs  | Dr. Riggs abstracts for Mississippi, Louisiana, Alabama, Florida,<br>University of Wyoming—Contributions to Geology, American<br>Philosophical Society Proceedings, Transactions of the Gulf Coast<br>Association of Geological Societies, and other assignments that<br>are open. |
| Dr. Adrian Brearley<br>Dr. Philip Brown<br>Dr. David P. Bucke<br>Dr. Don Burt<br>Dr. Edward R. Burt<br>Dr. Bryan Chakoumakos<br>Dr. Steven Chamberlain<br>Dr. Hughbert Collier<br>Dr. Maria Louisa Crawford<br>Dr. Wilbert Danner | Vermont<br>Arizona<br>North Carolina<br>Maine & New Mexico<br>Rocks & Minerals<br>Texas<br>Pennsylvania<br>Journal of Sedimentary<br>Petrology<br>(1988 to date)  |  | The following assignments need an abstractor:  |
| Dr. Richard V. Dietrich   | American Scientist, Michigan,<br>plus Gems & Gemology<br>Science & Virginia   |  | Compass<br>New York State Museum Publications<br>JGR (Journal of Geophysical Research)<br>Tulsa Geological Society Digest<br>Illinois<br>Kentucky<br>Tennessee<br>Washington   |
| Dr. Keith Frye<br>Dr. Gary Glass<br>Dr. Norman Gray<br>Dr. Jeffrey K. Greenburg<br>Dr. Wallace Gwynn<br>Dr. George E. Harlow  | Wyoming<br>Connecticut<br>Wisconsin<br>Utah<br>Massachusetts, New York<br>Staten Island Institute of Arts<br>and Sciences<br>Proceedings, & Bulletin of<br>the New Jersey Academy of<br>Sciences                |  | Volunteers for abstracting should contact: Dr. Karl A. Riggs, Jr.<br>P.O. Box KR, Mississippi State, MS 39762-5857.  |
| Dr. O. Don Hermes<br>Dr. Norman Herz<br>Dr. L.C. Hsu  | Rhode Island<br>Georgia<br>Nevada, Geology & Bulletin<br>of the Geological Society of<br>America  |  | Direct Line: 601-325-2910<br>Department Office: 601-325-3915<br>Home: 601-323-8889   |
| Dr. Rhian H. Jones<br>Dr. Ronald Konig<br>Dr. Peter B. Leavens<br>Dr. Robert G. Luedke  | Meteoritics<br>Arkansas, & Oklahoma<br>Delaware, & New Jersey<br>Isochron West, Mountain<br>Geology, Colorado, & New<br>Mexico  |  |  |
| Dr. George McCormick  | Iowa, Kansas, Missouri,<br>Nebraska, & Antarctic<br>Journal<br>Soviet Physics Doklady<br>J.G.R. (meteorites)<br>U.S. Geological Survey<br>Professional Papers, Bulletins<br>& Circulars<br>U.S. Bureau of Mines |  |  |
| Dr. Steven A. Markgraf<br>Dr. Brian Mason<br>Dr. Ellen P. Metzger   | Maine<br>Der Aufschluss<br>Hawaii<br>Colorado<br>Lunar & Planetary Science<br>Proceedings Soviet Physics<br>Crystallography<br>North Dakota, & South<br>Dakota<br>Mineralogical Record<br>South Carolina        |  |  |
| Dr. Ralph Nafziger<br>Dr. Philip Osberg<br>Dr. Adolf Pabst (Deceased)<br>Dr. Kost A. Pankiwskyj<br>Dr. Ted Paster<br>Dr. Donald F. Phillips   |   |  |  |
| Dr. Jack A. Redden  |   |  |  |
| Dr. George Robinson<br>Dr. W. Edwin Sharp   |   |  |  |

## MINERALOGIST NEEDED

The Department of Geological Sciences of Virginia Polytechnic Institute and State University seeks applications for an expected tenure-track, AY faculty position in the area of mineralogy. Preference will be given to applicants at the assistant professor level with a strong background in chemistry and physics. The faculty member will be expected to develop a strong research program in modern mineralogy, to advise students, and teach at the graduate and undergraduate level. The successful applicant must have a Ph.D., as well as a demonstrated ability to teach, and to conduct high-quality scientific research. Send curriculum vitae, a one page summary of planned research directions, and the names and addresses of three persons willing to write letters of evaluation to: J. Donald Rimstidt, Chairman of Mineralogy Search Committee, Department of Geological Sciences, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061. Closing date for applications is January 31, 1991. Virginia Polytechnic Institute and State University is an equal opportunity affirmative action employer.

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## Fellowship Nominations Needed

The MSA Fellows Nominating Committee depends primarily on nominations from the MSA membership and encourages all members to provide nominations. (You do not have to be a Fellow to make a nomination).

The criteria for fellowship are the following:

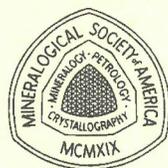
1. Significant scientific contributions to any of these fields—crystallography, mineralogy, or petrology. These contributions will usually be documented by publications in reputable journals.
2. A minimum of a bachelor's degree in geology or a related field.
3. At least five years of professional experience beyond the last academic degree.
4. Roebling Medalists and MSA award winners automatically become Fellows if they are not already.
5. Additional attributes to be considered are:
  1. Excellence in earth science education.
  2. Outstanding service to the profession.

Nomination packages include a curriculum vitae and three letters of sponsorship from present members or Fellows. Forms can be obtained from and returned to the MSA business office.

The Nominating Committee strongly encourages your participation in recognizing the achievements of our members.

## Changes in NSF Proposal Format

The National Science Foundation has announced two revisions in proposal format to underscore (1) the importance of education and human resources within research supported by NSF and (2) the importance of the quality of publications in the merit review process. With respect to the first revision, each proposal for renewed support of a research project must include, as part of the required summary of results of the completed work, information describing its contribution to the development of human resources in science and engineering at the postdoctoral, graduate, and undergraduate levels. With respect to the second revision, the number of publications considered in merit review will be limited to ten. These ten publications are to include up to five publications most relevant to the research proposal and up to five other significant research publications.



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