

### **Mineralogical Society of America**



#### www.minsocam.org

#### PRESIDENT'S LETTER



Steven B. Shirey

# Speak Up for Basic Research in Mineralogy and at NSF

Mineralogy, petrology, crystallography, and geochemistry make up an integral part of the Directorate for Geosciences basic research programs, which are run by the National Science Foundation (NSF). Science proposals arising from our community—from individual investigators, voluntary collaborations of investigators, or community-driven initiatives—make up the heart of the

Directorate for Geosciences core programs, i.e. programs that focus on fundamental, academic, curiosity driven research. For the health of our science, we need to support and publicize the research accomplishments of the core programs and mineralogy's role in them. Please become a more active advocate for our science, especially with the public and (if in the USA) your congressional representatives.

The aim of the NSF core programs is to support research on key scientific questions. This focus makes the core programs instrumental in preparing for the future. Through basic research, for example, the core programs reveal in much better detail the role of plate tectonics in creating natural hazards, such as earthquakes, explosive volcanism, and tsunamis, or by revealing the processes that form beneficial mineral and hydrocarbon deposits. Geoscience research funded by NSF programs also reveals the role of deep and surficial crustal processes in creating landforms, habitats, and, the conditions for life itself. This type of research and training is not provided by industry, whose chief interest usually lies in applied geoscience, as opposed to basic research, and whose results are rarely shared outside of the company itself. The concern here is for the future of basic, intellectually accessible, geoscience research, which NSF's programs fund more substantially and more fairly than anyone else.

Funding levels for core program research at NSF have been either stagnant or eroding for more than 20 years and sometimes even cut in favor of big programs of the moment. This situation has led to such severe competition for research dollars that the health of our science is threatened by a seemingly unending and unproductive proposal–submittal churn, which is made worse by high rates of proposal rejection. This situation inevitably results in the failure to fund some excellent research, especially that of our brightest young academic researchers. Some young academic researchers, even at endowed institutions with "hard-money" support, now spend more time writing proposals than doing research! Our current science is at risk and so is our future science.

Core geoscience programs are further suffering because some politicians think that geoscience is not "hard" science and that it has taken away resources from sciences like biology and mathematics. The recent America COMPETES Act (HR 1806) was intended to strengthen US science research. For the geosciences, however, the bill became a way for the US Congress to direct money away from the geosciences and to inject itself into NSF decision-making in order to politicize and cherrypick which science should and should not be supported. Efforts like this, if successful in the future, will lead to dangerous, politically driven micromanagement of science for political or philosophical reasons. The battle over the America COMPETES Act may be over, but we can expect more, similarly motivated efforts. Thus, given US leadership in a wide range of geosciences, given the increasing need to understand the natural hazards and bounty of our planet, and given the need for strong academic geoscience departments to prepare future geoscientists, it is dangerously short-sighted to politicize geosciences. As a community, we should come together to oppose such attacks.

The frontiers in geoscience are defined by the research projects of the individual investigators in the core programs. Furthermore, US leadership in industrial geosciences relies on talented students who are attracted to and trained by strong geoscience departments. Geoscientific frontiers for both academia and industry will be defined by the geosciences graduate students trained by the professors supported by NSF core-funded research projects. Ideas generated by core funding are essential for specialized initiatives that cannot be developed without core program research. NSF core-funded science is the incubator for academic and industrial US leadership in the geosciences. And as such, NSF core-funded science deserves to be treated as a national treasure to be given more funding, not less.

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#### **NOTES FROM CHANTILLY**

- At its meeting in May, the Mineralogical Society of America (MSA) Council voted for no increase in membership dues for 2016 for regular and student members (i.e. remaining at \$80 and \$20, respectively) and that all members will have electronic access to the *American Mineralogist* and receive print+electronic versions of *Elements*. Sustaining memberships will remain at \$150 + regular dues.
- Member subscription rates to the print version of the 2016 American Mineralogist will increase. US member print subscription price will be \$115 (currently \$110), and foreign member print subscription price be set at \$125 (currently \$120). US institutional subscription price (paper and electronic) will increase to \$1050 (from \$1025), and foreign institutional subscription will be raised to \$1075 (from \$1050). Institutional electronic-only subscription will increase to \$975 (from \$950). These prices represent increases of 3–5%. Included in the institutional subscription are all the current-year print issues of American Mineralogist, Reviews in Mineralogy and Geochemistry (RiMG), Elements, as well as access to the electronic versions of these publications on the MSA website starting with volume 1, number 1. GeoScienceWorld institutional subscriber prices for archival print copies of American Mineralogist and RiMG are \$180 and \$135 respectively.
- MSA 2016 membership renewals will start by October with membership renewal notices sent electronically, followed by several electronic reminders before a paper copy is sent to those who do not renew online by the end of October.
- Members and Fellows who are in the senior, honorary, and life categories are sent renewal notices. They need not pay dues, but are sent notices as the best way to prompt an update of membership information, particularly postal mail and e-mail addresses.
- If you subscribe to other journals through MSA—Gems & Gemology, Journal of Petrology, Mineral News, Physics and Chemistry of Minerals, Mineralogy and Petrology, or Rocks & Minerals—please renew early.
  MSA needs to forward your renewal to those publishers before your subscription runs out.

**J. Alex Speer** jaspeer@minsocam.org

#### **IN MEMORIAM**

RICHARD W. BERRY – Senior Member, 1958 ARTHUR A. SOCOLOW – Senior Fellow, 1949 MASARU YAMAGUCHI – Senior Member, 1952

#### **CONTRIBUTORS AND BENEFACTORS**

Many members contribute to MSA by including a contribution with their annual dues and/or by responding to special appeals. Depending on the wishes of the member, the money is deposited with the principal of the MSA Endowment, MSA Outreach, MSA Mineralogy/Petrology, J.B. Thompson, Edward H. Kraus Crystallographic Research, Bloss, or General Operating funds. The income of these funds is used to support MSA's research grants in crystallography, mineralogy, and petrology; to publish the American Mineralogist; to pay for the MSA Undergraduate Prizes, the Mineralogical Society of America Award, the Distinguished Public Service Award, the Dana Medal, and the Roebling Medal; to maintain the website; and to deliver the lectureship program. If you have not done so previously, you may wish to consider contributing at the next opportunity. Here, we want to extend our gratitude to the individuals and organizations that have made contributions to MSA between 1 July 2014 and 30 June 2015. These contributors are listed on the MSA website and can be found by selecting "Contributions to MSA" on the MSA home page (www.minsocam. org), under "About MSA".

## 2015 MSA AWARDS AT THE ANNUAL MEETING, BALTIMORE



At this year's MSA annual meeting in Baltimore, Maryland (USA), **Dr. Rodney C. Ewing** will receive the 2015 Roebling Medal, given for a lifetime of outstanding original research in mineralogy. Dr. Ewing is the Frank Stanton Professor in Nuclear Security in the Center for International Security and Cooperation in the Freeman Spogli Institute for International Studies and a professor at the Department of Geological and Environmental

Sciences in the School of Earth Sciences, both within Stanford University (USA). He is a significant advocate for integrating mineralogy and materials science, and is the most influential force behind the use and application of natural mineral analogues, mineralogical science, and mineralogical methods to developing new nuclear waste containment forms and advancing the understanding of the behavior of nuclear waste forms in geologic repositories over geologic time. As a result, he plays a very prominent and active national role in the direction of science and technology on the challenging issues associated with the disposal of nuclear waste.



The Mineralogical Society of America Award is given for outstanding contributions by a scientist beginning his or her career. **Dr. Nicholas J. Tosca**, Associate Professor of Sedimentary Geology in the Department of Earth Sciences at the University of Oxford (UK), is the 2015 MSA awardee. Dr. Tosca is cited for his contributions to low-temperature mineralogy for which he has used both experimental and theoretical modeling approaches to

understand terrestrial and Martian clays and to investigate other sedimentary rocks, with implications on understanding the surface of Mars, petroleum reservoir porosity, and changes in the composition of clay mineral assemblages going back to the Proterozoic.



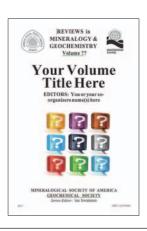
The Mineralogical Society of America's Distinguished Public Service Medal is awarded to an individual for distinguished contributions to public policy, to furthering the vitality of the geological sciences—especially the fields of mineralogy, petrology and crystallography—or for service to, or on behalf of, the mineralogical community. **Dr. J. Alex Speer**, who is the Executive Director of the Mineralogical Society of America (based at Chantilly, Virginia,

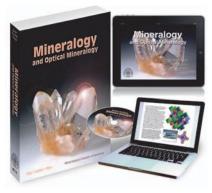
USA), is the 2015 medalist. Dr. Speer is cited for his excellence beyond expectation as MSA Executive Director and for skillfully shepherding the society and its programs through the rapidly changing environment that associations and societies must adapt to today.

#### Call for MSA/GS Short Course and RiMG proposals

Have you ever benefitted from an MSA/ GS short course, where diverse researchers and students broaden their skills and knowledge in a key area of interest? Have you ever read or used an article from a RiMG volume? Would you like to see more? If so, consider developing a proposal for a MSA/GS short course and/or a RiMG volume in 2016 and submit it to the Chair of the MSA/GS Short Course Committee soon! For courses/volumes in spring 2017, submit proposals by September 1. 2015; for fall 2017, submit proposals by December 1, 2015. To learn more about MSA/GS Short Courses and RIMG volumes, visit our web sites:

www.minsocam.org/msa/SC/ and www.minsocam.org/msa/RIM/About\_RIMG.html





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*Mineralogy and Optical Mineralogy* by Melinda Darby Dyar and Mickey E. Gunter is specifically designed to take full advantage of digital media technology. Each chapter in the digital series is available separately on iBooks for the iPad and Mac, allowing instructors to pick and choose only those chapters needed for their specific course.

See www.minsocam.org for more information about the textbook, and how to purchase individual chapters in the digital series, or the print version. The "Mineral Database" app is also available.

ELEMENTS AUGUST 2015