



Mineralogical Society of America



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PRESIDENT'S LETTER

Minerals Matter—Ways You Can Help MSA to Promote Mineral Awareness



Steven B. Shirey

You're probably reading this because you are an MSA member. And if you are an MSA member, it is because you love minerals for their beauty, you love what minerals tell us about the Earth, or you make your living teaching about or selling minerals. In an era of flashy science and short attention spans, most of us would agree that mineralogy could benefit from an increase in visibility in the physical sciences and more specifically in the geosciences. In this newsletter, I would like to suggest ways you can take a leadership role in promoting mineral science through MSA, ways that are fun and important especially if you are in early- or mid-career.

MSA is typical of most scientific societies in that it is run by individuals well along in their careers. Early- and mid-career scientists usually play a lesser role at the top for a number of reasons. They may be starting families, obtaining tenure, developing courses, advising grad students, honing their research focus, or not be as well known. If they are involved, they are perhaps on an MSA committee—an opportunity available only by invitation and perhaps not the first thing that would go on a to-do list.

There are three simple ways in which any motivated MSA member, especially members in early- or mid-career, can get directly involved: (1) by developing an MSA session at a national meeting, (2) by organizing an MSA topical workshop, and (3) by writing a Minerals Matter Geoscience Sheet.

1. MSA Sessions If you have been to a national or international meeting and lamented the lack of talks in an area of mineralogy that is of deep interest to you, now is the time to take charge. MSA has technical session sponsorship arrangements with GSA, AGU, and the Goldschmidt conferences. You can respond to calls for sessions from these societies or contact the scientific program committee for the meeting directly. Propose a session with several colleagues. Contact the scientists you want to see in your session to remind them to submit an abstract. Structure the order of talks in the session for maximum impact. *There are few things more enjoyable than attending a meeting where you have been the key organizer of a packed, exciting session.* Besides, it is great for your professional visibility. Deadlines for proposing sessions: 1 February 2015 for the GSA 2015 Annual Meeting, Baltimore, USA; April 2015 for the Fall AGU 2015, San Francisco, USA; and November 2015 for Goldschmidt 2016, Yokohama, Japan.

2. MSA Topical Workshops MSA has instituted topical workshops that are held at the GSA annual meetings and Goldschmidt conferences. These workshops are the brainchild of MSA Past President David Vaughan. They are a one-day-only series of lectures given by experts to small groups of students, teachers, and professionals that highlight the state of the art in a research area. They are given either the day before or the day after a national/international meeting, and there can be more than one at a meeting. They are exciting because they can be organized with less lead time than a short course and tailored to a hot, current, or important topic. In scope they are the meeting equivalent of an issue of *Elements* except that there is no publication associated with them. The first of these, entitled Deep Data through Deep Time, was held at the 2014 GSA meeting in Vancouver and organized by Bob Hazen. New topical workshops are being planned, such as Diffusion and Mars Mineralogy. Please think about organizing one of these

workshops and contact David Vaughan, University of Manchester (david.vaughan@manchester.ac.uk), MSA Workshop Coordinator, if you are interested.

3. Minerals Matter Geoscience Sheets This is a new idea introduced in 2014. We are starting a series of informational publications entitled Minerals Matter Geoscience Sheets (MMGS). These little papers are one page in length with no more than two figures and five references and are devoted to one mineral per Sheet. Authorship will be limited to MSA members. They will describe a microscale property of a mineral or rock and relate it to some large-scale geologic process or finding. The purpose is to link the scale on which we actually study minerals to the scale we study planetary geologic processes in a short document that captures the scale idea in a straightforward way. MMGSs should be designed to be scientifically accurate but not complicated for the reader. Geologic processes operate on the scale of minerals and are controlled by mineral properties, but outside our scientific community this fact is poorly understood and underappreciated.

For example, MMGSs could be written that describe the relationship between dislocation in olivine and mantle convection, inclusions in diamond and recycling, microcracks in shale and natural gas extraction, OH storage in minerals and the existence of an ocean, shock lamellae in quartz and meteorite impact, SiC grains and stellar nuclear processes, and zircon and continental growth.

MMGSs will be written for the high school level in a "News and Views" style so that they can be used by students in beginners' classes, be understandable to nonscientists and policy makers, and, with their five references, act as a springboard for further enquiry. They will be published in *American Mineralogist* and so will be citable, and they will be archived on the MSA website and be available for on-demand printing for classroom use.

We are working on the first two MMGSs and seek ideas for others. Please contact me with your thoughts, suggestions, and ideas.

Steven B. Shirey (sshirey@carnegiescience.edu)
2015 MSA President

NOTES FROM CHANTILLY

- MSA will have electronic balloting for its 2015 election of MSA officers and councilors. The slate of candidates is as follows. *President:* Rebecca A. Lange, University of Michigan. *Vice president* (one to be selected): Mickey E. Gunter, University of Idaho, and George E. Harlow, American Museum of Natural History. *Secretary:* Brian Chakoumakos and Jacob Lowenstern. *Councilors* (two to be selected): Aaron Celestian, Rasdeep Dasgupta, Francis McCubbin, and Peter Nabelek. Howard Day continues in office as treasurer. Continuing councilors will be Edward S. Grew, Wendy Panero, Abby Kavner, and Matthew J. Kohn.
- All 2013 and 2014 MSA members have been contacted by mail, electronically, or both about renewing their membership for 2015. If you have not renewed your MSA membership, please do so. If you have not received a notice by the time you read this, please contact the MSA business office. You can also renew online at any time.

J. Alex Speer (jaspeer@minsocam.org)
MSA Executive Director

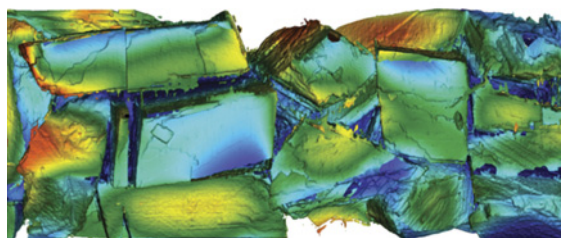
IN MEMORIAM

STEFAN S. HAFNER – Senior Fellow
HANS WONDRAATSCHEK – Senior Fellow

MSA & GS SHORT COURSE ANNOUNCEMENTS

Pore-Scale Geochemical Processes

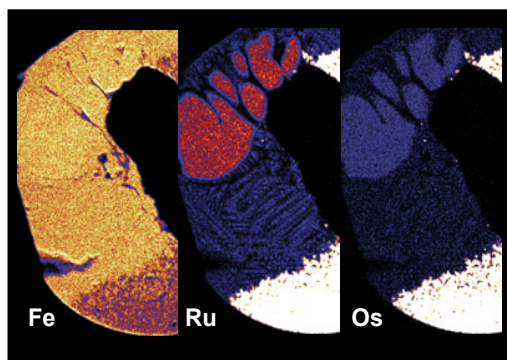
ORGANIZERS: Carl Steefel, Simon Emmanuel, and Larry Anovitz
14–15 August 2015, Design Elephant Hotel, Prague, Czech Republic



This short course will review recent research on the pore-size dependence of reaction rates; thermodynamic and kinetic factors that influence geochemistry in nano-confined pores; and the experimental, characterization, and modeling advances in our understanding of pore-scale geochemical processes. Characterization approaches include X-ray synchrotron techniques, small-angle neutron scattering (SANS), backscattered electron (BSE) mapping, and FIB-SEM mapping of pore structure. Experimental studies include those making use of micromodel and/or microfluidic approaches that quantify geochemical or coupled geochemical transport processes. Several of the most important pore-scale modeling approaches, including direct numerical simulation and lattice Boltzmann methods, as well as the coarser-grained approaches based on pore network methods and microcontinuum models, will be reviewed.

Siderophile and Chalcophile Elements

ORGANIZERS: Jason Harvey and James Day
14–18 December 2015, Scripps Institution of Oceanography,
San Diego, USA



The strongly chalcophile (sulfur-loving) elements include Se and Te, while the highly siderophile (iron-loving) elements are the platinum-group elements (PGEs: Ir, Os, Pt, Pd, Rh, Ru), Re, and Au, and include the long-lived isotope systems based on the decay of Re and Pt to isotopes of Os (^{187}Re – ^{187}Os and ^{190}Pt – ^{186}Os , respectively). These elements and their isotopes have received less attention than the more familiar lithophile elements and their associated isotope systems. As a result of the strong partitioning of siderophile and chalcophile elements into metals, alloys, and sulfides, study of the distribution and behavior of the siderophile and chalcophile elements and the phases that host them has the opportunity to provide unique perspectives on how the major geochemical reservoirs of the Earth and other rocky planets formed and have developed over time; these subjects include tracing core–mantle interaction, determining the history of melt depletion within the mantle of the rocky planets, the mobilization and concentration of precious metals with siderophile/chalcophile behavior during the formation of ore deposits, and the geochronology of diamonds and their role in tracing the formation of Earth's ancient lithosphere.

For further description and online registration, go to www.minsocam.org or contact the Mineralogical Society of America, 3635 Concorde Pkwy Ste 500, Chantilly, VA 20151-1110, USA; phone: +1 (703) 652-9950; fax: +1 (703) 652-9951.

DMG & MSA SHORT COURSE / WORKSHOP ANNOUNCEMENT

Application of Diffusion Studies to the Determination of Timescales in Geochemistry and Petrology

ORGANIZERS: Sumit Chakraborty and Ralf Dohmen
24–28 August 2015, Ruhr Universität Bochum, Germany

This workshop is aimed at petrologists, geochemists, and planetary scientists interested in retrieving information on the timescales of high-temperature processes from their rocks. Such information might include the residence times of magmas in their reservoirs, the cooling or exhumation rates of rocks, the duration of terrestrial and extraterrestrial (e.g. parent bodies of meteorites) metamorphism, the duration of fluid flow (e.g. metasomatism by fluids/melts in the crust or mantle), and the evaluation and application of closure temperatures.

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APPLY FOR STUDENT RESEARCH GRANTS



The Mineralogical Society of America
2016 Grants for

Research in Crystallography

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

Student Research in Mineralogy and Petrology

from an endowment created by MSA members

Selection is based on the qualifications of the applicant and the quality, innovativeness, and scientific significance of the research as judged from a written proposal and the likelihood of success of the project. There will be up to three US\$5000 grants with the restriction that the money be used in support of research. Application instructions and online submission are available on the MSA website, <http://www.minsocam.org>. Completed applications must be submitted by June 1, 2015.

NOMINATIONS SOUGHT FOR 2016/2017 AWARDS

NOMINATIONS MUST BE RECEIVED BY JUNE 1, 2015

The **Roebbling Medal** (2016) is MSA's highest award and is given for eminence as represented by outstanding published original research in mineralogy.

The **Dana Medal** (2017) recognizes continued outstanding scientific contributions through original research in the mineralogical sciences by an individual in the midst of their career.

The **Mineralogical Society of America Award** (2016) is given for outstanding published contribution(s) prior to the 35th birthday or within 7 years of the PhD.

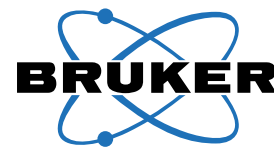
The **Distinguished Public Service Medal** (2017) is presented to an individual who has provided outstanding contributions to public policy and the awareness of mineralogical topics through science.

Society **Fellowship** is the recognition of a member's significant scientific contributions. Nomination is undertaken by one member, with two members acting as cosponsors. A form is required; contact the committee chair or visit the MSA home page.

MINERALOGICAL SOCIETY OF AMERICA

Submission requirements and procedures are on MSA's home page:
<http://www.minsocam.org>

Elucidating Questions of Geochemistry



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