

Mineralogical Society of America



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PRESIDENTS' LETTER



MSA's Value to its Members: Where are we now, and where can we grow?

MSA is extremely fortunate in having a membership of very active and committed people at all stages of their careers. Members tend to join early as students or Early Career members and stay with the organization for many years. They volunteer their time and talent as officers and Councilors, committee members and chairs,

authors of *Reviews in Mineralogy & Geochemistry* volumes, leaders of Short Courses, as well as Associate Editors and reviewers for *American Mineralogist*. Members are from many countries, and represent the academic community; as well as mineral enthusiasts, collectors and dealers; and those engaged in government, industry, nonprofits, and consulting.

Primarily, though, the membership is from the academic community, who, according to the last member survey, value the organization's publications, grants, awards, short courses, and online educational resources. These members also feel a strong sense of belonging to a community that is engaged in the mineral sciences.

MSA would like to do more, however, to serve the needs of its valued members representing other constituencies. MSA always has a booth at the Tucson Gem & Mineral Show to help connect with mineral enthusiasts. There are many visitors to the MSA booth every year, so, at last year's Tucson Show, these visitors were asked to complete a very short survey about what services/programs they would like to see coming from MSA. At the top of the list was a webinar series on basic mineralogy. It was obvious that those who love minerals are eager to know more about them. Plans for such a series are in the early development stage. At that same meeting, MSA hosted a "walk-by workshop" on the Convention Center main floor. The workshop was designed to provide short bites of knowledge about specific minerals, as well as more general mineral science. A number of people stopped by—particularly families.

In another effort to provide services to mineral enthusiasts, MSA set up a partnership with author/illustrator Darryl Powell on three of his publications: *Dictionary of Mineralogy; Crystals and Crystal Forms;* and *The World of Minerals and Crystals.* MSA will be offering these books shortly via its online bookstore. MSA staff did some market testing at their booth at the recent Geological Society of America Annual Meeting in Anaheim, CA. Response to the new publications was extremely enthusiastic.

If you have ideas about attracting more mineral enthusiasts to the organization, please send an email to Ann Benbow, MSA Executive Director, at abenbow@minsocam.org. Thank you for your input!

Sarah Penniston-Dorland 2025 MSA President

NOTES FROM CHANTILLY

- Renewal Season! It is time to renew your memberships for 2025, as well as subscriptions to MSA's publications. Member dues are: Regular Members and Fellows (\$90); Early Career Members (\$50); Student Members (\$20); Senior Members (\$0); Sustaining Members (\$240 membership plus a \$150 contribution to support MSA's many activities). You can renew via the home page of MSA's website: www.msaweb.org. At that time, we hope that you will also make a contribution to one or more of MSA's funds. These funds support our student research grants, lecture series, websites, education and outreach activities, awards, and much more.
- MSA Office Move MSA has relocated its Business Office to a new space in Chantilly, VA. The new address for U. S. mail is:

Mineralogical Society of America P.O. Box 220037 Chantilly, VA 20153

If you would like to visit the new space, the physical address is

14200 Park Meadow Drive Suite 310-S Chantilly, VA 20151

MSA EVENTS AT THE GEOLOGICAL SOCIETY OF AMERICA (GSA) CONFERENCE

At the recent GSA Conference in Anaheim, CA, USA (September 22–25, 2024), MSA held its Awards Luncheon to honor its 2024 awardees, Awards Lectures and Presidential Address by 2024 President Donna Whitney, and Joint Reception with the Gemological Institute of America (all on Tuesday, September 24). MSA also had a booth in the Exhibit Hall, and a number of sponsored sessions.





Roebling Medalist Nancy Ross and Citationist Alex Navrotsky

Dana Medalist Fabrizio Nestola and Citationist Graham Pearson

MSA Awardee Denis Fougerouse and Citationist John Valley



DECEMBER 2024



Japan Association of Mineralogical Sciences

http://jams.la.coocan.jp/e_index.html

AWARDS

The Japan Association of Mineralogical Sciences (JAMS) is proud to announce the recipients of its 2023 society awards. The JAMS Award for Young Scientists is awarded to two scientists who are under 37 years of age and have made exceptional contributions to mineralogical and related sciences. The JAMS Award for Applied Mineralogy is awarded to one scientist who has made a remarkable contribution to the field of applied mineralogy. The JAMS Research Paper Award is awarded to the authors of one or more excellent papers that were published in the *Journal of Mineralogical and Petrological Sciences (JMPS)* and/or *Ganseki-Kobutsu-Kagaku (GKK)* in the past three years.

JAMS Award for Young Scientists to Megumi Matsumoto

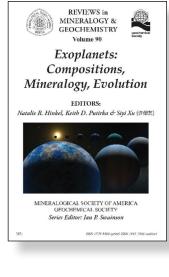


Megumi Matsumoto is an assistant professor in the Earth Science department at Tohoku University. She started microscopic studies on carbonaceous chondrites under the supervision of Professor Kazushige Tomeoka at Kobe University. After her PhD, she moved to Kyoto University and started synchrotron X-ray CT studies of carbonaceous chondrites in collaboration with Professor Akira Tsuchiyama. She applied combined analyses using electron

microscopy and synchrotron X-ray CT to primitive carbonaceous chondrites and made important findings. One of the notable achievements is a discovery of "ultra-porous lithology (UPL)," namely, fossil asteroidal ice, in Acfer 094 carbonaceous chondrite. UPL is a remnant of solid ice-silicate dust aggregate originally formed in the

EXOPLANETS

MSA is pleased to offer Reviews in Mineralogy & Geochemistry Volume 90: Exoplanets: Compositions, Mineralogy, Evolution. Volume editors are Natalie R. Hinkel, Keith D. Putrika, and Siyi Xu. The series editor is Ian P. Swainson, and American Mineralogist Managing Editor Rachel Russell is responsible for production. The volume is available in both hard copy and online via a subscription to the Reviews series. For more information, visit the Publications section of the MSA website: www.msaweb. org. While there, you can also view the list of MSA's other publications. This volume was accompanied by a short course at the Goldschmidt Conference in Chicago, IL, USA in August.



UPCOMING MEETING

2025 Tucson Mineral Symposium Call for Papers: The call for papers is now open for the 2025 joint Friends of Mineralogy/Tucson Gem and Mineral Society/MSA Symposium. The symposium will be held on Saturday, February 15, 2025. For more information, visit https://www.friendsofmineralogy.org/call-for-papers/.

early solar nebula by sintering of fluffy ice–silicate dust via sublimation and recondensation of H_2O ice at the H_2O snow line. Her study on UPL revealed how the asteroidal ice was distributed in the Acfer 094 parent body and provided important insights on the formation of icy small bodies in the early Solar System. After relocating to Tohoku University, she applied combined analysis to asteroid Ryugu samples collected by the *Hayabusa 2* sample return mission and discovered fluid inclusions of carbonated water and evidence of impacts of cometary dust on the asteroid Ryugu surface from the samples. These findings contributed to interpretation of formation and evolution of asteroid Ryugu in the Solar System based on material evidence. She is extending her study to recent and upcoming returned extraterrestrial samples, aiming to better understanding of origin of our Solar System.

JAMS Award for Young Scientists to Takayuki Ishii



Takayuki Ishii is an associate professor at the Institute for Planetary Materials, Okayama University, Japan. He received his PhD degree from Gakushuin University under the supervision of Professor Masaki Akaogi. He is interested in understanding the structure and dynamics of the Earth's interior by means of high-pressure experiments using a Kawai-type multi-anvil press. One of his achievements is the development of multi-anvil technology and its applications to

deep-Earth science. He achieved pressure generation to 65 GPa (\cong 1500 km depth), which is ~2.5 times higher than obtained using conventional technology. He investigated the chemistry of bridgmanite under lower mantle conditions with this technique. He found that oxygen vacancies in bridgmanite decrease with depth and disappear around ~1000 km depth, possibly explaining the viscosity jump observed at that depth. He also developed in-situ X-ray diffraction techniques in a multi-anvil press to precisely and accurately determine phase boundaries of bridgmanite-forming reactions, explaining 660-km discontinuity structures, slab stagnation, and plume invisibility around 1000 km depth. Another achievement includes phase relations of minerals and element partitioning between minerals under hydrous conditions. He found strong water partitioning to hydrous minerals compared with coexisting nominally anhydrous minerals. The results suggest a metastable olivine wedge, even in a wet subducting slab, and explain deep-focus earthquakes and slab stagnation caused by the dry transformations of olivine. He also revealed weight percent levels of water in CaCl₂-type aluminous silica even at hot-plume temperatures, suggesting a new model for the deep water cycle by this phase.

JAMS Award for Applied Mineralogy to Kentaro Uesugi



Dr. Kentaro Uesugi is a chief scientist at the Japan Synchrotron Radiation Research Institute (JASRI), where he has made significant contributions to the field of mineral science through his work at synchrotron radiation facility, SPring-8. Over the years, he has been instrumental in developing X-ray imaging techniques, particularly X-ray computed tomography (CT), and has participated in numerous collaborative studies in Earth and planetary materials research. His expertise has

extended beyond mineral science, finding applications in materials science, medical and biological sciences, paleontology, and archaeology. As a result, he has become a key figure in promoting interdisciplinary and international research, with over 600 co-authored papers to his name. Since joining JASRI in 2000, Dr. Uesugi has been involved in the development of various X-ray imaging techniques at multiple beamlines,