



Japan Association of Mineralogical Sciences

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AWARDS

The Japan Association of Mineralogical Sciences (JAMS) is proud to announce the recipients of its 2025 society awards. The Japan Association of Mineralogical Sciences Award is presented annually to up to two scientists in recognition of their outstanding contributions to mineralogical and related sciences. The Manjiro Watanabe Award—named in honor of Professor Manjiro Watanabe, a renowned Japanese mineralogist, and established at his bequest—is presented annually to one scientist in recognition of significant, career-long contributions to mineralogical and related sciences.

Japan Association of Mineralogical Sciences Award to Madhusoodhan Satish Kumar



Madhusoodhan Satish Kumar, the recipient of this award, is a professor of geology at Niigata University, Japan, and serves as Vice President for International Research Partnerships. He earned his PhD from Osaka City University in 1998 for his research on metacarbonate rocks from East Gondwana. His research focuses on carbon within the Earth, particularly its mobility and storage in the continental crust. He began his career as a

metamorphic petrologist and has since become a leading expert in applying carbon isotopes alongside other geochemical tracers to understand the movement of carbon in the Earth through the study of carbon-bearing minerals and fluids. A central focus of his research is carbon isotope fractionation among carbonate, graphite, and CO₂-bearing fluids. He investigates these processes through both studies of natural rocks and laboratory experiments. His notable contributions include the application of calcite-graphite thermometry under high to ultra-high temperature conditions, the study of CO₂-graphite equilibrium in natural systems, carbon isotope heterogeneity in single graphite crystals, and the experimental determination of carbon isotope fractionation in the Fe-C system. Despite his extensive laboratory research, he remains passionate about field geology and has had the privilege of participating twice in the Japanese Antarctic Research Expeditions. Prof. Satish-Kumar has published more than 150 research articles and has edited two books and four special issues for leading scientific journals. He also serves in editorial roles for several major journals in petrology and is currently the Editor-in-Chief of the *Journal of Mineralogical and Petrological Sciences*.

Japan Association of Mineralogical Sciences Award to Kenji Ohta



Kenji Ohta is a professor in the Department of Earth and Planetary Sciences at the Institute of Science Tokyo. His research centers on high-pressure mineral physics, using laser-heated diamond-anvil cell techniques combined with synchrotron-based in situ X-ray diffraction at SPring-8 to determine the phase relations, electrical conductivity, and thermal conductivity of deep Earth and planetary materials at megabar pressures and thousands of kelvin.

He pioneered high-pressure electrical conductivity measurements, showing that post-perovskite explains anomalously conductive regions of the lowermost mantle and directly measuring the conductivity of solid and liquid iron at core conditions, providing key constraints on the core's thermal history. In addition, using pulsed-laser thermoreflectance, he developed methods to measure thermal conductivity of bridgmanite, post-perovskite, ferropericlase, and iron at core-mantle

boundary conditions, advancing understanding of heat flow, geodynamic longevity, and mantle convection. His group has also turned to one of the field's most actively debated questions—whether Earth's solid layers exist in the superionic state—reporting, with his students, the first experimental evidence consistent with superionic behavior in iron hydride under core-relevant conditions.

He actively supervises postdoctoral researchers and students, manages his laboratory, and has conducted extensive experimental campaigns at SPring-8. His work continues to shape our understanding of the thermal and compositional evolution of planetary interiors through experimental geophysics.

Manjiro Watanabe Award to Kiyoshi Fujino



Kiyoshi Fujino received his PhD degree from the University of Tokyo in 1974. He joined the Department of Earth Sciences at Ehime University in 1978, and became a professor of mineralogy in 1992. Then he moved to the Department of Geology and Mineralogy at Hokkaido University in 1993 as a professor of mineralogy. After becoming a professor emeritus at Hokkaido University in 2009, he returned to Ehime

University as professor special duty for research at the Geodynamics Research Center and worked there until 2012. Early in his studies, he carried out the precise crystal structure analyses of major silicate minerals by X-ray diffraction. His group then started to carry out high-pressure and high-temperature syntheses of important minerals and analyze those synthetic samples, as well as natural samples, by analytical TEM and synchrotron X-ray diffraction. Notably in those studies, his group discovered natural occurrences of (Mg,Fe)SiO₃ perovskite, the dominant mineral of the Earth's low mantle, and (Mg,Fe)SiO₃ ilmenite, another geologically significant high-pressure polymorph, in a shocked meteorite by analytical TEM observations. They also found that CaSiO₃ and MnSiO₃ also have perovskite structures by high-pressure and high-temperature experiments. Further, his group found that Fe³⁺ at the M2 site in Al-bearing Mg-perovskite becomes low spin in the experiments up to 200 GPa by X-ray emission spectroscopy and X-ray diffraction. For some of these studies, he received the Mineralogical Society of Japan Award in 2000. He served as President of the Mineralogical Society of Japan (2004–2006) and made significant contributions to the merger of the two societies, Mineralogical Society of Japan and Japanese Association of Mineralogists, Petrologists and Economic Geologists to Japan Association of Mineralogical Sciences in 2007, to further develop the mineralogical sciences. In 2008, he was elected as Fellow of the Mineralogical Society of America.

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Growth processes of quartz crystals in granitic plutons, implying magma chamber processes: Case study of Kuki granite and Kurobegawa granite, Japan Arc. Takashi YUGUCHI, Yasuhiro OGITA, Hayato YAMAZAKI, Asuka KATO, Eiji SASAO, Takenori KATO.

New epidote-supergroup minerals from the Mogurazawa mine, Gunma, Japan: akasakaite-(Ce), akasakaite-(La), vanadoakasakaite-(Ce), and vanadoakasakaite-(La). Mariko NAGASHIMA, Daisuke NISHIO-HAMANE, Masayuki OHNISHI, Hiroshi MIYAJIMA, Akira HARADA.

Formation conditions of metastable α -cristobalite from amorphous silica with and without V₂O₅ flux. Takehiro SHIMA, Kazuki KOMATSU, Hiroyuki KAGI.

Fluid behavior in rocks during grain growth: insights from analogue experiments using camphor-ethanol mixtures. Junichi FUKUDA.

Complex thermal histories in the Banggai-Sula Microcontinent, Indonesia: Evidence from monazite U-Th-Pb geochronology. Fransiska Ayuni Catur WAHYUANDARI, Nobuhiko NAKANO, Tatsuro ADACHI, Nugroho Imam SETIAWAN.