Japan Association of Mineralogical Sciences

http://jams.la.coocan.jp

JAPAN ASSOCIATION OF MINERALOGICAL SCIENCES AWARDEES

The Japan Association of Mineralogical Sciences (JAMS) is proud to announce the recipients of its 2015 society awards. The **Japan Association of Mineralogical Sciences Award** is presented to a maximum of two scientists in any one year for exceptional contributions to mineralogical and related sciences. The **Manjiro Watanabe Award**—named in honor of Professor Manjiro Watanabe, a well-known Japanese mineralogist, and founded at his bequest—is awarded every year to a scientist who has contributed significantly to mineralogy, or a related science, over his or her entire career. The **Sakurai Medal**—named in honor of Dr. Kin-ichi Sakurai, who discovered many new minerals—is awarded to a scientist who has made a lasting contribution to the study of new minerals.

Japan Association of Mineralogical Sciences Award to Masaaki Obata

Masaaki Obata is a Professor Emeritus at Kyoto University. He graduated from Kyoto University, obtained his Master of Science degree from Kanazawa University under the supervision of the late Prof. S. Banno, and obtained his PhD in 1977 in geochemistry from the Massachusetts Institute of Technology (MIT; USA) under the supervision of Prof. John Dickey. Following postdoctoral tenures at MIT and ETH Zurich (Switzerland), Prof. Obata has been a professor (associate and/or full) at Toyama University, Kumamoto University, and Kyoto University. Following petrological work on the Ronda peridotite (Spain), which was the subject of his thesis work at MIT, he collaborated with others to investigate the Ultental garnet peridotite (Italy) and the Horoman peridotite in Hokkaido (Japan), all within the context of magma genesis and metamorphic reactions in the upper mantle. Prof. Obata extended his investigations into magma genesis by analyzing the problem of how magma forms in the lower crust, which he did through the study of migmatites and high-grade metamorphic rocks. He also developed an interest in magmatic fractionation processes that produce layered igneous rocks. Prof. Obata and his co-workers continue to research kelyphite and symplectite formation and how ultramafic pseudotachylytes form, for which he employs high-pressure shock-compression melting experiments using olivine modeled on seismogenic processes in the upper mantle.

Manjiro Watanabe Award to Kosuke Onuma

Kosuke Onuma received his doctor of science degree in 1964 from Hokkaido University: his thesis was "The systems $NaAlSiO_4$–$Ca_2MgSi_2O_7$ and $CaMgSi_2O_6$–$Ca_2MgSi_2O_7$–$NaAlSiO_4$, and their petrologic application", which was supervised by Prof. Kenzo Yagi. While at the University of Pittsburgh (January 1965 to May 1968), Hokkaido University (May 1968 to September 1983), and at Tohoku University, (October 1983 to February 1997), Dr. Onuma advanced his research on phase equilibrium in multi component silicate systems at atmospheric and high pressures; the stability fields and crystal chemistry of rock-forming minerals; and the evolution of alkaline magma. Dr. Onuma devoted his effort to the experimental studies of clinopyroxene–melilite–nepheline-bearing systems in order to clarify the general crystallization behavior of alkaline rocks and to establish a differentiation scheme for nephelinitic rocks. His experimental studies have helped to define the impacts of oxygen fugacity on differentiation trends in alkaline magmas and also elucidate the role of minor transition elements in the stability of rock-forming minerals. In addition to these investigations, Dr. Onuma has also engaged in research on ionic substitutions in Fe–Ti–Al-rich silicates and the effects such substitutions have on these silicates' stability and crystal chemistry. Examples of this research include the phase relations and crystal chemistry of clinopyroxene in the join $CaMgSi_2O_6$–$CaFeAlSiO_6$–$CaAl_2SiO_6$–$CaTiAl_2O_6$ at atmospheric pressure and at high pressure; the substitution of Fe^{3+} for Al in nepheline and its effect on crystal structure; and nonstoichiometric solid solution in the nepheline–aegirine system. Dr Onuma's influential studies offer valuable insights into the crystallization behavior of alkaline rocks, the crystal chemistry of rock-forming minerals, and the crystallization processes of high-temperature products in meteorites. His studies have significantly advanced the field of mineralogy and petrology.

Sakurai Medal to Mariko Nagashima

The Sakurai Medal has been awarded to associate professor Mariko Nagashima, of the Department of Earth Science at Yamaguchi University, for her discovery of ferriakasakaite-(La) (IMA CNMNC #2013-126). Prof. Nagashima's overarching interest is to systematically and completely understand the relationship between a transition-metal elements' oxidation state and the associated hydrogen-bonding system. Her investigations aim to establish a general rule for the relationship between cation substitution and structural variation and to determine the influence that formation conditions (e.g. *P*, *T*, and fO_2) have on cation distribution and associated structural variation. To approach these goals, she studies both natural and synthetic minerals using single-crystal and powder diffraction methods, plus spectroscopic techniques.

Prof. Nagashima has, to date, undertaken systematic studies on epidotes and pumpellyites, and related minerals such as sursassite, and worked on the hydropyroxenoids babingtonite and nambulite. Her expertise and knowledge of the epidote supergroup enabled her to contribute to the discovery of ferriakasakaite-(La), which has the crystallochemical formula of $^{A1}Ca^{A2}La^{M1}Fe^{3+M2}Al^{M3}Mn^{2+}(SiO_4)(Si_2O_7)O(OH)$. This new mineral was discovered in tephroite ± calcite veinlets (< 2 mm in width) that cut the stratiform ferromanganese deposit at Shobu, Ise (Japan). Euhedral to subhedral prismatic crystals (up to 150 µm long) represent the most common appearance of the mineral. Ferriakasakaite-(La) is named in honor of Masahide Akasaka (b. 1950) for his outstanding contributions to mineralogy, especially to the study of rock-forming minerals occurring in Mn–Fe ore deposits and the natural and synthetic epidote-supergroup minerals.

JOURNAL OF MINERALOGICAL AND PETROLOGICAL SCIENCES

Vol. 110, No. 4, August 2015

Original articles