



International Mineralogical Association

www.ima-mineralogy.org

MESSAGE FROM THE IMA PRESIDENT

I would like to express our sincere greetings from the International Mineralogical Association (IMA) and introduce our new leadership with Eiji Ohtani (Tohoku University, Japan) as President (FIG. 1), Nancy Ross (Virginia Tech, USA) who was elected at the EMC 2024 in Dublin as 1st Vice President, Xiancai Lu (Nanjing University, China) as 2nd Vice President, and Hans-Peter Schertl (Ruhr-University, Bochum,

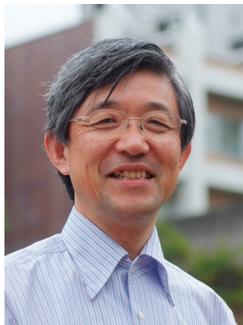


FIGURE 1 Eiji Ohtani (President of IMA)

Germany) as Past President. We would like to continue our work with you and colleagues from your societies to promote the mineralogical sciences worldwide. Since face-to-face meetings have been resumed after COVID-19, we look forward to renewing our cooperation and communication with you.

The members of the new IMA council are listed in TABLE 1. In addition to Nancy Ross, several new Council members were elected by voting at the IMA business meeting held during EMC 2024. Encarnación Ruiz Agudo (Spain) and Vincent van Hinsberg (Canada) were elected to a 4-year term as Councilors. Hiroaki Ohfuji (Japan), who was a previous Councilor, was elected as the new Secretary.

Travis Olds (USA) and Ross Angel (Italy) were approved for another 4 years as Treasurer and Councilor, respectively. The new Council board shows regional and gender diversity, which is essential to promote the current and future mineralogical sciences. I also appreciate Catherine McCammon, Anfuai Lu, and Sylvie Demouchy who completed their IMA service.

IMA was very active at EMC Dublin, as session conveners, participants, and as organizer of various Council and Business meetings. I deeply appreciate the work of the host organizer of the meeting, the Mineralogical Society of the UK and Ireland, and especially, Prof. Kevin Murphy and the members of the local organizing committee, and Prof. David Chew and Dr. Emma Tomlinson at Trinity College, Dublin.



FIGURE 2 The IMA medal was presented to Patricia Dove from Hans-Peter Schertl.

Highlights of the meeting for IMA were the plenary lecture by Professor Patricia Dove, the IMA medal winner in 2023, and the award ceremony of the IMA medal (FIG. 2). Patricia presented a very insightful and stimulating review of her life work on bio-mineralization. At the closing

ceremony of the EMC 2024 meeting, the “Steering Wheel of Presidency” of the IMA leadership was passed from Hans-Peter Schertl to Eiji Ohtani (FIGS. 3 and 4).

The year 2026 will be very important for us because the 24th IMA General Meeting will be held in Nanjing, China. We would be very happy if you and your society members could participate in this important meeting for our community, and refresh our cooperation. Please consider submitting session proposals to make the IMA 2026 General

TABLE 1 LIST OF MEMBERS OF THE NEW IMA COUNCIL

Position	Name (Country), End of Term
PRESIDENT	Eiji Ohtani (Japan), 2026
PAST PRESIDENT	Hans-Peter Schertl (Germany), 2026
1 ST VICE PRESIDENT	Nancy Ross (USA), 2026
2 ND VICE PRESIDENT	Xiancai Lu (China), 2026
SECRETARY	Hiroaki Ohfuji (Japan), 2028
TREASURER	Travis Olds (USA), 2028
COMMUNICATION OFFICER	Michele Zema (Italy), 2026
COUNCILORS	<ul style="list-style-type: none"> ▪ Ross Angel (Italy), 2028 ▪ Vincent van Hinsberg (Canada), 2028 ▪ Encarnación Ruiz Agudo (Spain), 2028 ▪ Dshentree Chetty (South Africa), 2026 ▪ Shaunna Morrison (USA), 2026



FIGURE 3 Handover of the Steering Wheel of IMA Presidency from Hans-Peter Schertl (Past President) to Eiji Ohtani (President).



FIGURE 4 Closing ceremony of the EMC 2024 meeting.

Assembly in Nanjing exciting and rewarding for all who attend. The 2nd Vice President Xiancai Lu recently introduced important deadlines for the session proposals and abstract submission:

- Session proposal deadline: August 31, 2025 (open from April 1 to August 31, 2025);
- Abstract submission deadline: March 1, 2026 (the submission window should open on October 15, 2025)

Opening of the IMA General Assembly will be August 20, 2026. Further details are given on the website of IMA 2026 General Assembly in Nanjing (<http://ima2026.nju.edu.cn>). The IMA initiated a PhD Student Award program a few years ago for supporting 3–5 students to attend this meeting. Please share this opportunity within your local community. We are looking forward to meeting you in Nanjing in August 2026.

Eiji Ohtani, President of IMA



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2024 MEDAL OF EXCELLENCE IN MINERALOGICAL SCIENCES TO PROFESSOR HAILIANG DONG

The IMA is honored to present its 2024 Medal of Excellence in Mineralogical Sciences to Prof. Hailiang Dong of China University of Geosciences, Beijing, China. Professor Dong has made groundbreaking and transformative contributions at the intersection of mineralogy and microbiology, particularly in the study of microbe–mineral interactions. His pioneering research has revolutionized the field of geomicrobiology through the use of rigorous experimental and analytical methods. His original discoveries include the role of microbial iron redox reactions in the formation of biogenic minerals, as well as the measurement of the deepest known microbial communities on Earth through a dedicated deep drilling program. Prof. Dong has an exemplary and sustained record of contributions to academic societies, funding agencies, and research networks, including mentoring many cohorts of young scientists.



Prof. Dong completed his BSc and MSc studies at China University of Geosciences, Wuhan (1988) and China University of Geosciences, Beijing, China (1991), respectively, and earned his PhD from the University of Michigan, USA (1997). After a postdoctoral research fellowship at Princeton University, USA (1997–2000), he joined the Department of Geology of Miami University, USA, where he started his professional career as an assistant professor, and then as associate professor and professor. He was subsequently appointed as a professor of China University of Geoscience, Beijing to establish a new laboratory to further develop his research.

In his early career, Prof. Dong studied ^{40}Ar – ^{39}Ar dating techniques for clay minerals, which elucidated the mechanism of argon retention in clay minerals, demonstrating the dating technique in determining the diagenetic age of sedimentary rocks. In the 2000s, he shifted his focus to the interaction between microbes and minerals, discovering the important role of microbes in the transformation of smectite to illite—previously thought to have occurred entirely through abiotic processes. His study demonstrated that, by reducing structural Fe(III) in smectite, Fe(III)-reducing microbes catalyzed the transformation of smectite to illite within 2 weeks at room temperature and pressure. Without bacteria, this reaction typically requires much higher temperature and pressure, making it a classic example of a microbially catalyzed mineral reaction. This groundbreaking finding also opened new avenues for studying the roles of microbes in the precipitation and transformation of various minerals, including dolomite, Fe-oxides, and clay minerals. Between the 2000s and 2010s, Prof. Dong played a key role in the Chinese Continental Scientific Deep Drilling Project, applying his geomicrobiological expertise to the study of the deep biosphere. More recently, he has focused on the physics and chemistry of microbe–mineral interactions, particularly extracellular electron transfer between microbes and minerals.

Prof. Dong has published 355 peer-reviewed research papers in prestigious international journals, including *Science*, *Nature Communications*, *Nature Reviews Microbiology*, *Nature Reviews Earth and Environment*, and *Nature Geoscience*. Notably, his publications are cited more than 2,000 times each year, with a total citation count exceeding 22,600 and an outstanding H-index of 80, reflecting the tremendous influence of his work in the mineralogical community.

Prof. Dong is currently the President of the Geomicrobiology Society of China. In 2014–2016, he held important positions in the United States National Science Foundation (NSF), including Program Director and Acting Section Head of Division of Earth Science. He has also been actively involved in editing many international journals, serving as co-editor-in-chief of *Chemical Geology* and *Geo-Bio Interfaces*, and as an Associate Editor for many journals including *Geochimica et Cosmochimica Acta (GCA)*, *mLife*, *Geomicrobiology Journal*, and *Clays & Clay Minerals*. Starting this year, he is serving as Executive Editor of *GCA*, a major post with strong responsibility and time dedication.

Prof. Dong's high international reputation has been recognized through many prestigious honors and awards, including the Marion L. and Chrystie M. Jackson Mid-Career Clay Scientist Award of the Clay Minerals Society (CMS) (2008); the Marilyn and Sturges W. Bailey Award, the highest honor given by the CMS (2025); SERDP Project of the Year Award (2013); Fellow of Geological Society of America (2018); Follows of Durham University - Institute of Advanced Study (2019); and Geochemistry Fellow of the Geochemical Society (GS) and the European Association of Geochemistry (EAG) (2023).

We extend our heartfelt congratulations to Prof. Dong on this prestigious award, which is a testament to exceptional representation of contemporary international mineralogy, both as an outstanding scientist and as a dedicated member of the community. He remains an active and innovative scientist, and we eagerly anticipate his future discoveries and achievements.

Please note that Prof. Dong will deliver his medalist talk at the 24th General Meeting of the IMA in Nanjing, 2026, where Prof. Irifune (Japan), the 2023 awardee will also present his medalist talk.

24th GENERAL MEETING OF THE INTERNATIONAL MINERALOGICAL ASSOCIATION

August 20–24, 2026, Nanjing, China

IMPORTANT DATES:

- Session proposal deadline:
August 31, 2025 (open from April 1 to August 31, 2025)
- Abstract submission deadline:
March 1, 2026 (the submission window should open on October 15, 2025)
- Opening of the IMA General Assembly:
August 20, 2026

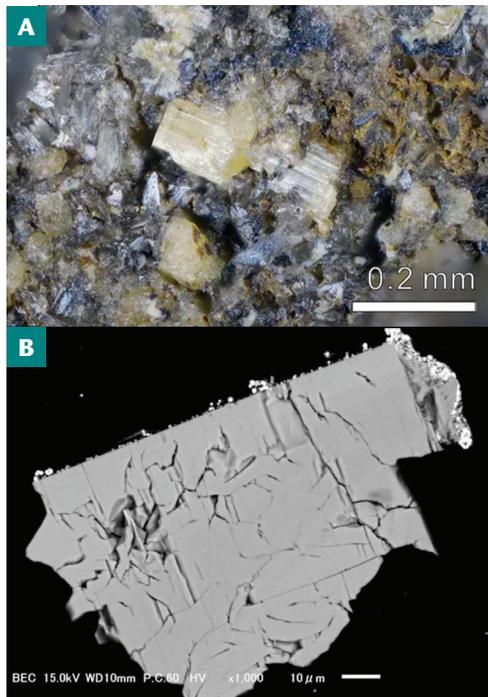
Further details can be found at <http://ima2026.nju.edu.cn>.



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MIYAWAKIITE-(Y): MINERAL OF THE YEAR 2024

The 2024 “Mineral of the Year” award has been assigned to miyawakiite-(Y). The mineral was discovered in an abandoned pegmatite mine located at Suishoyama, Iizaka village, Kawamata, Date District, Fukushima Prefecture, Japan, and was fully characterized by a Japanese research team led by Daisuke Nishio-Hamane (Institute for Solid State Physics, University of Tokyo, Japan).



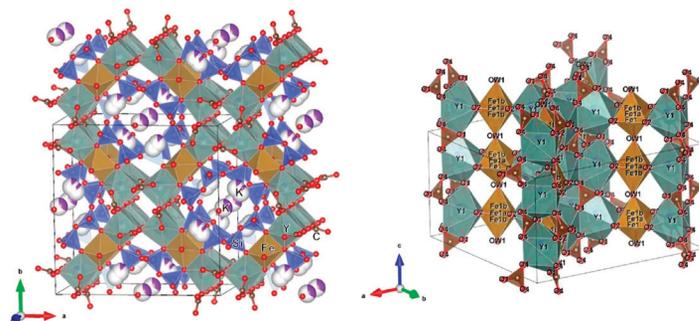
Microscopic photo (A) and back-scattered electron image (B) of miyawakiite-(Y). REPRINTED FROM A PUBLICATION OF THE JAPANESE ASSOCIATION OF MINERALOGICAL SCIENCES.

The pegmatite of the Suishoyama mine is rich in REE-bearing minerals, such as allanite-(Y) and britholite-(Y), plus carbonates such as caysichite-(Y) and tenerite-(Y). Miyawakiite-(Y) and the other carbonates occur as secondary minerals formed by supergene alteration of allanite-(Y) and britholite-(Y). Miyawakiite-(Y) is the third mineral having the Suishoyama pegmatite as the type locality, besides britholite-(Y) (1938) and iwashiroite-(Y) (2003). The approximate GPS coordinates are 37°40' N, 140°37' E.

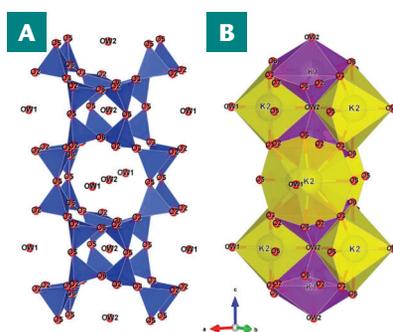
At the type locality, miyawakiite-(Y) occurs as thin plates or columnar crystals with a pale-yellow colour, transparent with a vitreous lustre, and dimensions typically ranging from 0.2 to 0.5 mm.

The ideal chemical formula of miyawakiite-(Y) is $\square Y_4Fe_2(Si_8O_{20})(CO_3)_4(H_2O)_3$. In the empirical formula, K partially substitutes for vacancy, other REEs and Ca partially substitute for Y, and Mg and Mn^{2+} partially substitute for Fe^{2+} . Miyawakiite-(Y) is chemically related to caysichite-(Y), both being silicate minerals including REEs and carbonate groups. However, the two minerals have different crystal structures.

The unprecedented crystal structure of miyawakiite-(Y) has been solved and refined up to $R = 3.86\%$ in the tetragonal space group $I4/mcm$. Its unit cell parameters are $a = 17.53637(9)$ Å, $c = 9.55702(8)$ Å, $V = 2939.02(4)$ Å³, $Z = 4$. The structure is quite unique: a Y- and Fe-centred polyhedral arrangement with CO_3 triangles forms a prismatic framework, with channels developing along the c axis. A SiO_4 tetrahedral network occurs in this channel, forming a zeolite-like framework with larger sites inside, mostly vacant and only partially occupied by K.



Crystal structure of miyawakiite-(Y). REPRINTED FROM A PUBLICATION OF THE JAPANESE ASSOCIATION OF MINERALOGICAL SCIENCES.



Zeolite-like channels of tetrahedra (A) and guest sites (B) in miyawakiite-(Y). REPRINTED FROM A PUBLICATION OF THE JAPANESE ASSOCIATION OF MINERALOGICAL SCIENCES.

New Minerals, Nomenclature and Classification, and in 2018–2022 as chair of the CNMNC. During his four-year term, he evaluated more than 500 proposals for new minerals.

The full description of the new mineral has been published in the *Journal of Mineralogical and Petrological Sciences* [Nishio-Hamane, D., Momma, K., Shimobayashi, N., Ohnishi, M., Kobayashi, T. (2024): Miyawakiite-(Y), $\square Y_4Fe_2(Si_8O_{20})(CO_3)_4(H_2O)_3$, a new mineral from Suishoyama, Kawamata Town, Fukushima Prefecture, Japan].

Link to the original article: https://www.jstage.jst.go.jp/article/jmps/119/1/119_240722/_pdf/-char/en.

ABOUT THE IMA MINERAL OF THE YEAR INITIATIVE

The *IMA Mineral of the Year* initiative was launched in 2014 and is coordinated by the Commission on New Minerals, Nomenclature and Classification (CNMNC) of the International Mineralogical Association. Each year, the title is awarded to one newly described mineral published within that year.

Selection is based on several key criteria, including:

- **Aesthetic appeal** – well-formed crystals and striking morphology
- **Unprecedented crystal structure** – novel arrangements not seen before
- **Unusual chemistry** – rare or unexpected combinations of chemical elements
- **Scientific relevance** – significance for mineral classification and Earth sciences more broadly

The initiative highlights outstanding new mineral discoveries. On average, more than 100 new mineral descriptions are published each year—105 in 2024 alone—making the selection of the Mineral of the Year especially competitive.