Masao Horiba Awards
堀場雅夫賞

Technical Field Selected for 2026 Masao Horiba Awards:
Analysis and Measurement Technologies for Advanced Materials Contributing to a High-Efficiency Energy Society

The Masao Horiba Awards was established in 2003, to highlight innovative work in analytical measurement technologies. This information is critical to understanding many phenomena and, thus, forms the basis of new scientific research. These properties also form the foundation for the transition of materials to industrial production. For the product and process optimization, these analytical and measurement technologies are indispensable. I hope that the Masao Horiba Awards, named after the founder of HORIBA, Ltd., will contribute to illuminating the achievement of researchers who are working hard in the field of analytical and measurement technology. We look forward to receiving many applications for this year's awards.

Atsushi Horiba Chairman & Group CEO
HORIBA, Ltd.

● Target Technical Fields for 2026 Masao Horiba Awards:

The award focuses on the following analytical and measurement technologies used in the R&D and manufacturing processes for power semiconductors and battery materials.

1. Power semiconductors that enable highly efficient power control and power conversion, even under operating conditions of high current and high voltage.
2. Rechargeable (secondary) batteries widely utilized as foundational technologies in diverse social and living environments, and all-solid-state batteries with enhanced safety and reliability.
3. Fuel cells, water electrolyzers, and solar cells that enable diversification of energy sources.

● Eligible Applicants

Early-career researchers affiliated with universities or public research institutions in Japan or abroad whose achievements have not yet received broad recognition in the field.

Applicants must not be employed by, or affiliated with, a private company at the time of application or at the time of receiving the award.

● Award

Winners will be awarded a certificate and a prize. Each winner receives 2 million yen (1 million yen/year for two years). Conditions of eligibility must be met continuously for two years.

● Award Ceremony and Commemorative Seminar

To be held on Thursday, October 15, 2026 at Kyoto University.

(Winners will conduct discussions and visual presentations that appeal to the general public.)

● Submission Deadline

Application deadline : May 12, 2026

Please visit our website to check the details of the application guidelines: https://www.mh-award.org/en/apply/

● Screening Committee for the 2026 Masao Horiba Awards

Chairperson:	Masahiro Tatsumisago	Executive Advisor, Professor Emeritus, Osaka Metropolitan University
Judges:	Akio Wakejima	Professor, Research and Education Institute for Semiconductors and Informatics, Kumamoto University
	Atsushi Wakamiya	Professor, Institute for Chemical Research, Kyoto University; Assistant to the Executive Vice-President / Deputy Provost, Kyoto University
	Eric A. Stach	Professor, School of Engineering and Applied Science, University of Pennsylvania
	Hiroshige Matsumoto	Professor, International Institute for Carbon-Neutral Energy Research (I²CNER), Kyushu University
	Jon-In Shim	Professor Emeritus, Hanyang University
	Masaki Inoue	Assistant General Manager, Research & Development Division, HORIBA STEC, Co., Ltd.
	Seiji Higuchi	Department Manager, Materials Solution Dept., Materials & Semiconductor Technology Division, HORIBA, Ltd.

● Organizers of 2026 Masao Horiba Award

Award Director: Atsushi Horiba　Chairman & Group CEO, HORIBA, Ltd.

Chief of the Organizing Committee: Masayuki Adachi　President, HORIBA, Ltd.

Vice Chief of the Organizing Committee: Hiroshi Nakamura　Senior Corporate Officer, Chief Technology Officer, HORIBA, Ltd.

2026 Masao Horiba Awards

Masao Horiba Awards

As the world moves toward the major societal goal of carbon neutrality, the importance of the technological foundations that support the power system as a whole is increasing, driven by the expanded deployment of renewable energy and the advancement of electrification. In recent years, it has also been pointed out that electricity demand may rise rapidly, against the backdrop of accelerated social implementation of AI, the construction of additional data centers, and the upgrading of communications infrastructures. Accordingly, technological innovation that can achieve both a stable energy supply and a reduced environmental burden is urgently needed. In particular, improving the efficiency and reliability of energy conversion and storage devices is key to achieving both energy savings and CO_2 emissions reductions, and there is a strong demand for advances in materials development and manufacturing processes. Energy devices such as power semiconductors, rechargeable batteries, fuel cells, water electrolyzers, and solar cells are attracting even greater expectations as next-generation foundational technologies for society.

There is a need for materials and semiconductor process technologies that enable highly efficient power control and conversion under high-voltage and high-frequency operations in the field of power semiconductors, where applications are anticipated across a wide range of areas, including power infrastructure, industrial equipment, and electric vehicles. Accordingly, in addition to wide-bandgap semiconductor materials such as SiC (silicon carbide), GaN (gallium nitride), Ga_2O_3 (gallium oxide), and diamond, the development of analytical and measurement technologies that support their crystal growth and device processing is becoming increasingly important.

In the field of energy storage, secondary batteries—centered on lithium-ion batteries—have become widely prevalent in virtually all devices around us. In recent years, to improve energy density, safety, and durability, research and development on solid electrolytes and cathode/anode materials has intensified toward the practical implementation of all-solid-state batteries. Materials research is progressing in the field of power generation as well, to improve performance and durability, including catalysts and electrolyte membranes used in fuel cells and water electrolyzers, and film materials for perovskite solar cells, in pursuit of diversified energy sources. The advancement of analytical and measurement technologies is also indispensable for the development of these materials, including electrodes and membrane materials.

In light of the above, this award focuses on research into analytical and measurement technologies that support the realization and advancement of materials development and manufacturing processes contributing to higher performance and improved reliability of energy-related devices. We have therefore set the theme of the 2026 Masao Horiba Award as “Analytical and Measurement Technologies for Advanced Materials Contributing to a High-Efficiency Energy Society.” We sincerely look forward to applications from early-career researchers and engineers who share this vision.

Masayuki Adachi, Dr. Eng.
President
HORIBA, Ltd.

2025 Award ceremony

For detailed information, please visit our website.

Masao Horiba Awards website: https://www.mh-award.org/en/