

# Masao Horiba Awards 掘場雅夫賞

# Call for Applications 2015

# Message from Dr. Masao Horiba

It is extremely important for scientists and technical experts to understand and clarify substances for which the content, properties and behavior are as yet unknown. Solutions to these challenging problems require analytical instruments which use high-level science and technology. Although research on analytical technologies is extremely important, the necessity for such high-level technologies has not been well recognized among the general public or academic circles. This award has been established in the hope that it will provide a level of encouragement and motivation to academic persons who are working to establish new analytical fundamentals, an area that may be unspectacular but is key to all scientific fields. HORIBA looks forward to receiving many applications for this year's award.

> April, 2015 Dr. Masao Horiba







# 2015 Masao Horiba Awards

To mark the 50th anniversary of HORIBA, Ltd. in 2003, the HORIBA Group established an award to recognize young scientists' contributions to analytical science. This award is intended to support scientists, outside the HORIBA Group companies, who are devoting themselves to research and development of innovative technology in analysis and measurement. In addition, it aims to strengthen the position of analytical and measurement technology within the scientific and industrial world. Each year a technical field is targeted from the principles and fundamental technologies related to HORIBA's R&D activities. The award values unique research and development with the findings and potential that deserve global recognition.

For the 2015 Masao Horiba Awards which marks the 12th time, we are calling for entries on "Nanoparticle measurement." Nanotechnologies utilized nanoparticles are important technology to resolve some issues or to advance in science and technology in the IT, communication, life-science, environment, and energy field. For examples, a biosensor that nanoparticle is used for the molecular recognition of biological reaction, drug delivery system that particular medicine which is made from nanoparticle transfer to affected areas, white pigment that nanoparticle of Titanium oxide which have brilliant white color and strongly absorb UV is used. It's the necessity to grasp the reality of the nanoparticle such as its size, shape and physical properties and control to make the peculiar function. Even if I say that nanoparticle measurement influences development of nanotechnology, it isn't exaggerated.

The 2015 Masao Horiba Awards calls for applications on innovative measurement technologies or research connected to measurement technologies which are targeted for the measurement of the state or properties of nanoparticles to create industrially and to utilize these material's unique features or properties. We welcome and encourage applicants who are engaged in the study of basic technologies for nanoparticle measurement and have the potential to become future leaders for measurement technologies.

Masayuki Adachi, Dr. Eng. Chief of the Organizing Committee for 2015 Masao Horiba Awards General Manager of Research & Development Division Director HORIBA, Ltd.

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Masao Horiba Awards Award Ceremony



#### Outline

The purpose of this award is to encourage and recognize scientists and engineers relatively early in their careers who are achieving distinguished results in the field of analytical science and technology. We cordially invite applications from researchers all over the world who are enthusiastically engaged in original research and development at universities or public research facilities.

#### **Eligible Field of Technology**

The 2015 Masao Horiba Award is open to any researcher in the field of Nanoparticle Measurement. This would include innovative research into the measurement of the state or properties of particles such as size, number, shape, dispersibility or other physical properties; or practical applications of these measurements. The research will fall into one or more of the following research areas.

- 1. Technologies related to the sample preparation for analysis of nano materials.
- 2. New principles or approaches to nanoparticle measurements or enhancement to existing measurement technologies such as response time, sensitivity, etc.
- 3. Technologies applying these measurement approaches to in-situ measurements of the nano materials.

The materials to be measured would include nano-sized organic or inorganic materials designed to solve industrial challenges by utilizing these material's unique features or properties.

#### **Eligibility of Applicant**

An applicant should be a researcher or an engineer at a university or a public research facility worldwide, engaged in research and development in the field described above. The applicant should fulfill one of the following criteria:

- The applicant is expected to achieve outstanding academic or technological inventions or discoveries in research or development in a field eligible for this award.
- The applicant is expected to solve important academic or technological issues in the field eligible for this award.
- Potential of the applicant is highly evaluated rather than his/her current achievement.

Applications from outside Japan must be made at the invitation from an employee of a HORIBA Group company.

#### Incentive

A certificate of commendation will be presented to each recipient of the 2015 Masao Horiba Awards at the award ceremony.

A supplementary award will also be made. Research subsidy of JPY500, 000 yen will be presented in the first year and the same amount yearly for the next two years.

The award and the supplementary award will be given on the condition that the winners accept the invitation to attend the award ceremony held in Kyoto on Oct. 16, 2015 and that the winners continue to meet the eligibility described above.

#### Application for the 2015 Masao Horiba Awards

Applicants are required to submit:

- i) an original completed application form with 1 copy for the 2015 Masao Horiba Awards and a CD-R or DVD which was stored in a PDF file form,
- ii ) an original signed recommendation letter written by the director/president of the institution or his/her supervisor using the designated form with 1 copy, and a CD-R or DVD which was stored in a PDF file form, and
- iii) a maximum three publications which are central to the applied research with 1 copy each, and a CD-R or DVD which was stored in a PDF file form.

For detailed information, please contact HORIBA office in your region.

#### **Submission Deadline**

Applicants must submit the above original application documents with 1 copy, and a CD-R or DVD to the HORIBA Group company employee who invited them to apply for the award by Friday, May 22, 2015.

### Screening

The members of the Screening Committee for the 2015 Masao Horiba Awards listed below will determine the winners through examination of the achievements and future prospects of the applicants, based on their application documents.

# Screening Committee for the 2015 Masao Horiba Awards

Honorary Chairperson:	Masao Horiba, Ph.D., Supreme Counsel, HORIBA, Ltd.
Chairperson:	Atsushi Horiba, Chairman, President and CEO, HORIBA, Ltd.
Deputy Chairperson:	Satoru Watano, Professor
	Department of Chemical Engineering, Graduate School of Engineering
	Osaka Prefecture University
Judges:	Reginald M. Penner
	Chairman and Chancellor's Professor of Chemistry
	University of California, Irvine
	Kazunari Akiyoshi, Professor
	Department of Polymer Chemistry, Graduate School of Engineering
	Kyoto University
	Yoshio Otani, Professor
	Department of Chemical Engineering
	School of Natural System, Kanazawa University
	Toshiyuki Fujimoto, Deputy Director
	National Metrology Institute of Japan
	National Institute of Advanced Industrial Science and Technology
	Yoshiteru Yasuda, Department Manager
	Application R&D Department, HORIBA, Ltd.
	Tetsuji Yamaguchi, Ph.D.
	Application R&D Department, HORIBA, Ltd.

# Results

Applicants will be notified of the screening results by the end of July, 2015.

## Award Ceremony and Commemorative Seminar

Award ceremony and commemorative seminar for the 2015 Masao Horiba Awards, followed by a reception, will be held on October 16, 2015 at Shiran Kaikan, Kyoto University, Kyoto, Japan.

# **Publication of Awarded Research**

Award-winning research will be published in HORIBA's technical journal Readout.

