

# Foreword

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## A Memorable Foundation of the Dr. Masao Horiba's Award



Kozo Ishida, Dr.  
HORIBA, Ltd.  
Executive Vice President

A handwritten signature in black ink, appearing to read 'K. Ishida', written in a cursive style.

In 2003, HORIBA's 50th Anniversary, President Atsushi Horiba announced a plan to establish a central laboratory with an innovative global concept toward the 21st century.

The task of establishing such a laboratory can be likened overcoming the inertia of a heavy object. The initial push needs to be enormous and this 'push', a driving force, came from the founding of the Dr. Masao Horiba's Award.

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HORIBA has been endeavoring with product Research and Development and looking at the themes that will represent the 50th Anniversary of the company foundation. In Readout, you can see many articles on such special, commemorative products, and no less the articles of the award winners and the summarized lectures given by the award judges. We have added these product-oriented feature articles because we would like to retain for the record what products, and by what members we have developed at the time of the 50th Anniversary, and because we would like to let our users know our R&D style covers a wide product range in a straightforward way.

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It was 1990 when HORIBA first produced Readout. This technical journal was born from the spirit of wanting to share by building a bridge to users. The spirit can be roughly conveyed as follows: Analytical measurement technology is by nature a fundamental technology for every user's worksite, including manufacturers' factories and researchers' laboratories in various industrial fields. HORIBA, as the professionals for production and sales of such analytical measurement instruments, are taking up the mission of transmitting information on our unique technology, fundamental or applied, and on our products positively to the world. Through this course HORIBA can make itself understood by users and can reciprocate by sincerely listening to their requests.

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Over the past 15 years since the Readout was first issued there has been dramatic technical advancement in natural science, but I would rather emphasize that this advancement has always been backed up by an even further advancement of analytical measurement technology, with applied analysis innovations. This is significantly represented by the feats of Dr. Masatoshi Koshiha in winning the Nobel Prize in Physics 2002 for the detection of cosmic neutrinos, and of Dr. John B. Fenn & Mr. Koichi Tanaka for the development of soft desorption ionization methods for mass spectrometric analyses of biological macromolecules and Dr. Kurt Wuthrich for the development of nuclear magnetic resonance spectroscopy for determining the 3D structure of biological macromolecules in solution, in winning the Nobel Prize in Chemistry 2002.

Their accomplishments are good chances for the governments, universities, and other research institutes to understand and recognize what an important role analytical measurement technology, as well as its product development take in the research and development of advanced natural science and/or other technology research fields. Thanks to the persistent commitment from Dr. Masao Horiba toward the government, a large government budget was assigned to this research area.

Using this opportunity, which I feel is quite meaningful, the Dr. Masao Horiba's Award has been founded for promising researchers working in the analytical measurement fields.

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Dr. Masao Horiba once said, "The analytical measurement technology essential to the advancement of science technology has long been rather under-valued not only in the eyes of the general public but also in the academic field, even though it is always required to be of the highest standards. How much I want to encourage the researchers who are trying so hard to establish the basic principles and clarify advancing analytical technology!" Foundation of the Award surely reflects his enthusiasm, and surely encourages the researchers involved with analytical technologies in many fields. I am sure no one would disagree with my expressing gratitude for Dr. Masao Horiba's untiring efforts here.

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In October 2004, the First "Dr. Masao Horiba's Award" was won by the three researchers working in pH related research, the origins of HORIBA technology. They were: "Development of apparatus for potentiometric pH measurement for supercritical aqueous solutions" by Dr. Kiwamu Sue, "Development of an intracellular pH measurement method using DNA as a sensing material" by Dr. Naoki Sugimoto, and "Development of an ISFET sensor for in-situ pH measurement in the ocean" by Dr. Kiminori Shitashima. These three articles brought us a chance to return to the origins of pH technology and to know how profound the technology has become. Many readers, inside and outside this area of research, would agree what an essential role pH measurement technology plays in the most advanced R&D fields.

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In 2005, HORIBA marks the 60th Anniversary of its business start. The Second Dr. Masao Horiba's Award targets researchers in the area of infrared measurement and its fundamental technology. I sincerely hope the spirit of the Dr. Masao Horiba's Award reaches to every researcher devoted to development, conveying with it the same enthusiasm all over the world. This will in turn result in many participants and winners. Moreover, through the presence of this Award year by year, the circle of researchers will expanded in number, clarifying the image of the HORIBA Central Laboratory in more specific way. I am sure, from this seed of technology, many innovations of analytical measurement will emerge, contributing to the progress and prosperity of the world.