# Speech

## Message for the Second Masao Horiba Awards

## Masao Horiba

Honorable Chairperson of the Screening Committee for Masao Horiba Awards HORIBA, Ltd. Supreme Counsel Doctor of Medical Science



### Establishing Masao Horiba Awards

I am so delighted, as the host, to be able to hold the seminar of the Second Masao Horiba Awards with the attendance of the award winners, many distinguished guests, and all those who supported this award.

This award was started when HORIBA's 50<sup>th</sup> birthday and my 80<sup>th</sup> birthday was approaching. To mark this milestone, I had wanted to do something to contribute to society. I had one longtime dream and I decided to realize it on this occasion.

I have been engaged in research, development, and production of analyzers for almost 60 years. I have to say it is a work of low profile. But to make an analyzer, the most advanced technology in various fields including physics, chemistry, electricity, mechanics, and biology is required. Our work inevitably has involved collaboration between academia and industries, whose importance has been recently spotlighted and emphasized. When we started business, analytical science was the base of all sciences. Universities had independent laboratories of analytical science and they were very active in research and education. But as the time went by, analysis itself had been increasingly underestimated in my opinion.

Although there were many needs for analysis in our society, analytical science had not been treated as it deserved in educational and academic societies. Subsidies from the Ministry of Education (at that time) had seldom been granted on the researches of pure analytical science. In addition, because of the trade imbalance between Japan and US, the government issued an order to national universities and research institutes to purchase imported analyzers and measuring instruments, except when an equivalent to Japanese instruments couldn't be found. This hardship for Japanese analytical society had lasted for quite a long time, which impelled the industry diminish. Consequently, the academic society started thinking that analytical science was nothing but a black box, a mere tool for research and development. I found this situation very regrettable and alarming. I was afraid if this trend had continued, a very fundamental and important field of science, that was to analyze substances, would have been disappeared from Japan.

As you know, analyzers perform relative measurement. Most of them cannot perform absolute measurement. It means a standard substance is required. I had been earnestly explaining the government officials the need to self-supply standard substances. Many gave me rather deplorable response as officials of an independent country, which was we could buy them from NBS (National Bureau of Standards)<sup>\*1</sup>.

Under these circumstances, I had been strongly hoping the appearance of young researchers who would contribute to our country by conducting significant research in the less recognized but important field of analytical science. Last year, I finally made a decision to set up the Masao Horiba Awards with full support of my company and here I am today for the second award ceremony.

\*1 National Bureau of Standards: National Bureau of Standards in the U.S. It is currently called NIST.

#### Human is Wonderful

Some time after I started the company, I launched a campaign of "Obtain Doctorates with on-going research projects at work". I declared to my employees, "I will obtain my Doctorate! So why don't you try?" Later I regret having said this.

My employees worked very hard. As a result, Doctors of Science and Engineering were born in our company. Although it was great news, it caused me a problem. My employees started asking me, "What becomes of your promise of gaining a doctorate? We've already got them." At that time, I was the company president. I told them that I was extremely busy financing the company and handling complaints. I couldn't find even a short time to write a thesis. But as a company president, I knew I had to keep my word.

I planned to write a thesis on my research relating to the analysis of general



Figure 1 Masao Horiba's Degree Thesis "Influence on Hydrogen Peroxide catalyzed Degradation by Alcohol" (Stored in Kansai branch of National Diet Library)

substances using thermal analysis method, which I had not completed. However, as my employees had already got doctorates in science, I wasn't happy to follow suit. Same went for doctorates of engineering. I had no background in pharmacy and agriculture. After serious consideration, I decided to explore the possibility of gaining a doctorate in medical science. I talked to a professor in a faculty of medicine. He suggested that I could analyze something in a biological system.

I chose a theme of analyzing blood, especially blood serum, using thermal analysis. I started writing theses every day after work (Figure 1). Finally I managed to complete the thesis and brought it to my professor. He said, "Generally, it's all right but you need to study more about basic medical science because the undergraduate course you finished was physics, not medical science. So I studied medical science every day after work.

Through the study, I made "new discovery". As a physicist, I had been looking things in an inorganic way. But medical science made me notice the unlimited capability of life, especially that of human beings. I was amazed by the marvelous functions of life which were unimaginable even with all the available scientific knowledge putting together. Before I studied medical science, I hardly realize how wonderful we were. This discovery changed my philosophy of life. I started to wonder, "We, these wonderful creatures, were born in this world but are destined to die someday. Then do we have to lead a life really challenging and worth living, especially during our most active 40 years from age 20 to 60? How can we achieve this? What is happiness for human beings?" I came to a conclusion that when one found one's work challenging, or when one found something to live for, one must be the happiest. Because company workers spend most of these 40 years at work, I wanted my company to be able to offer such opportunities.

#### Joy and Fun

When I became the chairman from the president about 30 years ago, I designated our company precept as "Joy and Fun" (Figure 2). Reception inside the company was not favorable at all. Reputation outside the company was even worse. People thought we lacked seriousness and diligence. At that time, it was common to work even during weekends, so it was not surprising that this precept was not regarded appropriate for a company. But recently it has been widely approved that work has to be performed with joy and fun.

Even when a lot of people were against this precept, I myself had a great confidence. I knew it was true from my own experiences. When I was highly

motivated and found my work very interesting, I could work most efficiently and never felt tired. When you are forced to do some work without any motivation, the outcome is always poor and it makes you very tired. I think nothing is more wonderful than having a work which is joyful and fun, with high efficiency and not tiring.

I believe "Joy and Fun" is a key for a company to produce wonderful products. And supplying wonderful products makes customers happy. I have been working with a firm belief that this relationship is very important for a company.

I just had a very good conversation with the award winners over lunch. I am very glad to hear that all the three winners have been carrying out their researches with the spirit of "Joy and Fun" and produced such outstanding results.

Lastly, I would like to express my sincere gratitude and respects to the members of the screening committee. The status of an award depends on the quality of screening. I appreciate your excellent work which has raised the status of the Masao Horiba Awards.

<From the speech at the Second Masao Horiba Awards Ceremony (Oct. 17<sup>th</sup>, 2005, at Shiran Kaikan Hall of Kyoto University) >



Figure 2 Relief of the Company Precept of HORIBA, Ltd., "Joy and Fun" A commemorative gift from HORIBA RAKURAKUKAI, an association of subcontractors, to mark/celebrate 25th birthday of HORIBA, Ltd. and 20th birthday of the association. The motif of supporting HORIBA at various angles creates an impression of strength and amusement. The Japanese characters meaning "Joy and Fun" are based on the handwriting by the chairman Masao Horiba (currently HORIBA's supreme counsel). This relief was made by Svomin Kobavashi, a judge of the Japan Fine Arts Exhibition, spending one-and-a-half years.