CHEMICAL HERITAGE FOUNDATION

# MASAO HORIBA

Transcript of Interviews
Conducted by

David C. Brock

at

HORIBA, Ltd.
Kyoto, Japan

on

19 and 20 November 2004

(With Subsequent Corrections and Additions)

*Courtesy of HORIBA, Ltd.*

# Masao Horiba

## ACKNOWLEDGMENT

The Chemical Heritage Foundation initiated this oral history on behalf of HORIBA, Ltd. It documents the personal perspective of HORIBA, Ltd.'s founder and aims to record the human dimensions of the company's growth.

This oral history is made possible through the generosity of HORIBA, Ltd.

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Chemical Heritage Foundation
Oral History Program
315 Chestnut Street
Philadelphia, Pennsylvania 19106

**MASAO HORIBA**

1924 Born in Kyoto, Japan on 1 December

## Education

1946 B.S., physics, Kyoto Imperial University
1961 Ph.D., medicine, Hyogo Prefectural School of Medicine

## Professional Experience

Horiba Radio Laboratory
1945 Founder

HORIBA, Ltd.
1953 Founder
1953-1978 President
1978-1995 Chairman
1995-2005 Board Chairman
2005-present Supreme Counsel

Advanced Software Technology & Mechatronics Research Institute of Kyoto
1988-2002 Chairman
2002-present Supreme Advisor

Japan Electric Measuring Instruments Manufacturers Association
1985-2003 Vice Chairman
2003-present Advisor

Kyoto Scientific Instruments Association
1978-present Chairman

Japan Association of New Business Incubation Organizations
1999-present Director General

Kyoto Chamber of Commerce and Industry
2001-present Vice Chairman

| | |
|---|---|
| | Kokoro Wa Venture, Television Program |
| 1997-1998 | Host |
| | |
| | HORIBA STEC Co., Ltd. [HORIBA STEC] |
| 1974-1995 | President |
| 1996-2005 | Honorary Chairman |
| 2005-present | Supreme Counsel |

## Honors

| | |
|---|---|
| 1982 | Blue Ribbon Medal, National |
| 2004 | Establishment of the Masao Horiba Award, HORIBA, Ltd. |
| 2006 | Pittcon Heritage Award, Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy and the Chemical Heritage Foundation |

## ABSTRACT

**Masao Horiba** begins the interview by discussing his childhood experiences in Japan during the 1920s and 1930s. Horiba suffered from juvenile rheumatoid arthritis and spent much of his childhood listening to music, and building models and radio receivers. As the youngest child of chemistry professor Shinkichi Horiba, Horiba had the privilege of seeing the inner workings of various Japanese chemical plants and laboratories while accompanying his father as he visited his former university students. These visits, coupled with his education from Konan Boys' High School, increased Horiba's interest in science and made him feel at ease in the research laboratory. As Horiba matured, he cured his rheumatoid arthritis by working through his pain. Soon he was able to play sports, rugby in particular, and participate in extracurricular activities, such as the ham radio club. The looming presence of World War II forced Horiba to graduate from high school early, much to his dissatisfaction, as he was unable to study organic chemistry. Too young to join the military, Horiba decided to continue his education at Kyoto Imperial University, studying nuclear physics under Bunsaku Arakatsu.

After earning a B.S. in physics, Horiba decided to join the Japanese army's research center, to develop a radar system for the Shusui aircraft. However, the war ended before the Shusui's engine was completed, so the capability of Horiba's radar system was never demonstrated in combat. When the American occupation of Japan began in 1945, Horiba established his own private research laboratory, called the Horiba Radio Laboratory. His laboratory produced emergency power outage lamps, high-speed counters, electric-pulse oscillators, and high-quality capacitors. During the Korean War, Horiba modified the laboratory's products to meet the agrichemical needs of the country by building a pH meter better suited to Japan's humid environment.

In 1953, Horiba incorporated his laboratory and renamed it HORIBA, Ltd. The new company continued to improve the Model H pH meter, and began developing inorganic single crystal windows. The company began producing infrared-based gas analyzers in 1958. They also began producing all of Hitachi, Ltd.'s analytical instrumentation under the double brand name of HITACHI-HORIBA. The Japanese government's interest in HORIBA, Ltd.'s work was peaked in the early 1960s, and they suggested that HORIBA build an analyzer for automobile emissions testing. Masahiro Oura, then a young employee but who eventually became the second president of HORIBA, developed the MEXA analyzer for testing automobile emissions. The MEXA analyzer soon became the world standard for testing emissions.

The Osaka and Kyoto Stock Exchanges listed HORIBA, Ltd. as a public company in 1971, much to the joy of the company's original investors. Over a decade later, the Tokyo Stock Exchange listed the company. Horiba was quick to strengthen bonds with other countries and established a subsidiary in the United States. The company also has affiliates throughout Europe and Asia. In 1978, as the company celebrated its twenty-fifth anniversary, it adopted the simple yet highly effective corporate motto, "Joy and Fun." That same year, Masao Horiba retired as president and assumed the office of chairman. Currently, Horiba's son, Atsushi

Horiba, is president of the company. Horiba concludes the interview with reflections on his innovations in corporate management and the importance of venture capitalism.

## INTERVIEWER

**David C. Brock** is senior research fellow at the Chemical Heritage Foundation. In 1995 he received his M.A. in the history of science from Princeton University, and in 1992 he earned an M.Sc. in the sociology of scientific knowledge from the University of Edinburgh.

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1. Paul McKnight Deeley, *Electrolytic Capacitors: Theory, Construction, Characteristics and Applications* (New Jersey: The Cornell-Dubilier Electric Corp., 1938).

2. Masao Horiba, *Joy and Fun* (Japan: “Joy and Fun” Publication Project, 1995).

3. See Note 2.

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