Seiko Instruments Inc.

Yoshinobu Hirata
Vice President

On September 1, 2004 our company name in Japanese was changed from *Seikô Insutsurumentsu* to *Seikô Insutsuru* (romanized form of the Japanese; the English name remains unchanged as Seiko Instruments Inc.). *Insutsuru* is derived from the Latin word *instruere*, meaning to prepare, provide, or build. This word embodies our desire to build a new value in society by preparing and providing products and services that anticipate any new era. It is also our wish that, by adopting a unique name, we can cultivate a business that is easy to remember and familiar to everyone. We look forward to your continued patronage.

The following is a description of the micro-technologies in which Seiko Instruments is engaged.

1. Micro-technology and nano-technology

Seiko Instruments was established as a watch manufacturer in 1937. Using several of its original technologies, we produced what could be called the first commercialized micromachine, a mechanical watch that achieved unparalleled precision. During a subsequent process to develop a quartz watch with even higher precision, we worked with such components as semiconductors, quartz oscillators, batteries, and liquid crystals display. We have since applied these technologies fostered through watch manufacturing to other products for which compactness and efficiency have become an obsession.

Seiko Instruments began working on micromachines in a recent project on micromachine research. We participated in the technological development of a microfactory in an effort to conserve energy, space, and resources in production equipment and produced a trial manufacturing system for micromachining and assembly in a joint project involving seven companies. During this project, we uncovered much information regarding various issues and advantages in producing compact production equipment. With this trial production system we succeeded in performing electrochemical micromachining at the micron-level.

Seiko Instruments has conducted R&D on a scanning probe for use in an atomic force microscope (AFM), one commercialized product using MEMS technology. An AFM normally employs a highly sensitive optical lever for detecting displacement of a cantilever. This is disadvantageous in that the displacement sensing system must be large in order to ensure a sufficiently long optical path for the optical lever system, and the system does not operate well when submerged. Accordingly, we produced a self-sensing cantilever that incorporates a displacement sensing function in the cantilever. Fig. 1 is a photomicrograph of the self-sensing cantilever.

Our recent endeavors in nanotechnology that have attracted attention are the development and sales of scanning probe microscopes with sufficient resolution to observe atoms and molecules and focused ion beam systems enabling measurement and processing on the order of several nanometers. These devices are primarily employed in advanced nanotechnology research, but may also be used in semiconductor fabs.

2. Future Endeavors

By pursuing compactness and efficiency, Seiko Instruments continues to create useful products that are unique in the world. We are developing products through a combination of MEMS and machining technology, which we developed when manufacturing watches to form micro-parts, and creating devices through the fusion of MEMS and nanotechnology. We are also working actively to produce more compact manufacturing equipment and to achieve innovations in manufacturing and production technology.

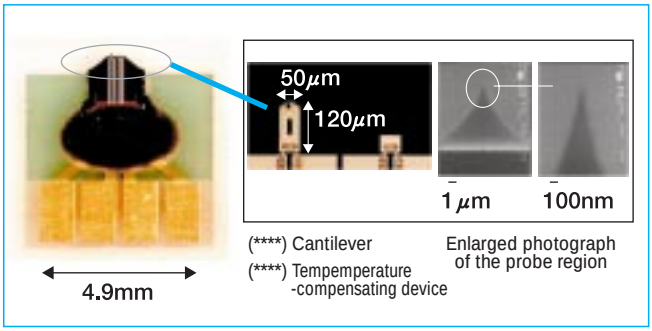

Fig. 1 Photomicrograph of an AFM cantilever