

## The Koichi Tanaka Mass Spectrometry Research Laboratory has been established to explore new possibilities in mass spectrometry

On January 1, 2003, the "Koichi Tanaka Mass Spectrometry Research Laboratory" was inaugurated. Koichi Tanaka, who received a Nobel Prize in Chemistry in 2002 for soft laser desorption ionization, will head the new laboratory, where research relating to mass spectrometry, the core technology of our life science business, will be performed.

For the time being, the laboratory will focus on improving the performance of the AXIMA-QIT

and developing applications for this time-of-flight (TOF) mass analyzer, which was developed into a product at our UK subsidiary. In the medium and long term, the research laboratory will gradually expand the scope of research to include areas such as developing new technologies and products relating to protein mass spectrometry and applying mass spectrometry to drug discovery and diagnosis.

The new laboratory, as a component of our

strategy for the life science business, will promote mutual cooperation with Shimadzu's other research organizations including the Life Science Laboratory, Kratos Group PLC and Shimadzu Research Laboratory(Europe) Ltd in the UK. Furthermore, exchanges with researchers from other cutting-edge research institutions in Japan and abroad will be aggressively pursued to operate the facility in an open manner.

## Mr. Kikuo Fujiwara, Shimadzu Senior Corporate Advisor, becomes Honorary Consul of Brazil

Shimadzu's senior corporate adviser, Mr. Kikuo Fujiwara, has recently been appointed Honorary Consul in Kyoto for the Federal Republic of Brazil. Mr. Fujiwara has extensive business experience overseas and has contributed to building business relations with Brazil, via projects such as the construction of the Sao Paulo Prefecture Industrial Technology Research Center. Looking ahead, he will

remain committed to building international relations by being a guide for Brazilian guests in Kyoto and participating in events sponsored by groups related to Brazil. The appointment as Honorary Consul in Kyoto was served from 1978 to 2002 by late Dr. Ryoji Uenishi, Shimadzu's former senior corporate advisor.



Mr. Kikuo Fujiwara at The Brazilian Embassy in Japan with Ambassador Mr. Ivan Cannabrava

## Professor Satoshi Kawata, of Osaka University, Graduate School of Engineering, Receives the "Shimadzu Prize" for his "Near-Field Spectroscopy and Nano-Photonics Research".

On February 4, the Shimadzu Science Foundation awarded Professor Satoshi Kawata of Osaka University, Graduate School of Engineering, the Shimadzu Prize. The prize was awarded for his work in "Near-Field Spectroscopy and Nano-Photonics Research". Prof. Kawata's research is expected to contribute

to the expansion of the conventional field of photonics and spectroscopy into nano-scale optical science and technology. His research will also be a strong drive for the development of other fields such as biotechnology, materials science, and quantum devices.



Shimadzu Prize granted to Prof. Kawata.

## Kunming office started as the tenth sales office in China

Shimadzu (Hong Kong) Ltd., which has been developing business in Mainland China, established the Kunming Office in August 2002, as a new base of operations in Kunming City, Yunnan Province. As a result, Shimadzu

currently has ten sales and service offices, three manufacturing locations, and one distribution center in China. The China market is becoming more active due to China's WTO accession and major redevelopment of west-

ern China. Shimadzu has responded to these developments by increasing the number of sales and service offices from 5 to 10 over the past two years. We plan to continue increasing our market share with future projects.

## Ambassador Bernhard Zepter, Delegation of the European Commission in Japan, visits Shimadzu

On February 28, the ambassador from the Delegation of the European Commission in Japan, Ambassador Bernhard Zepter and his wife, came to Shimadzu to meet President Yajima and see our products and research facilities. The visit to Shimadzu by the ambassador, who was appointed in October of last year, was part of a trip to visit laboratories and research facilities in the Kansai Region, in order to bolster Japan-EU cooperative rela-

tions in the fields of science and technology. The ambassador and his delegation were received by President Yajima, Managing Director Mr. Yamamoto, and Nobel laureate Mr. Tanaka. After greetings, ambassador Zepter visited facilities including the Koichi Tanaka Mass Spectrometry Research Laboratory. The ambassador showed considerable interest in the AXIMA-QIT mass spectrometer and other equipment.



President Yajima and Ambassador Zepter shaking hands

## Two products in the field of life science have received national awards in Japan

### Xcise, an automated pretreatment system for mass spectrometry and MALDI-TOFMS AXIMA-QIT

Two of our products in the field of life science received national awards in Japan. The first product is Xcise, a pretreatment system for mass spectrometry. It won the "Ten Major New Products Award" that Nikkan Kogyo Shimbun, a leading industrial newspaper in Japan, awards to the ten most outstanding new products developed by industry each year.

The Xcise is a system that automatically pretreats protein samples for mass spectrometry. It is the world's first system that can automatically perform six pretreatment steps with one machine, such as spot cutting from gel that has been separated into respective protein types



Xcise, an automated pretreatment system for mass spectrometry

using 2D electrophoresis, destaining, dehydrating, and dispensing onto mass spectrometer sample plates. The system can handle large quantities of

samples (384 samples can be treated at a time) and since the samples do not need to be transferred between steps, there is no risk of contamination. These features significantly increase efficiency and accuracy.

The other product is a newly developed laser ionized time-of-flight (TOF) type quadrupole ion trap (QIT) mass spectrometer system, named AXIMA-QIT. It was selected by Japan's largest financial newspaper, the Nihon Keizai Shimbun, for the Nikkei Sangyo Newspaper's Superior Product and Service Awards. These awards are given once a year to 15 outstanding products and services. This is the first time Shimadzu has received this award.

The AXIMA-QIT system provides support for the structural analysis of unknown proteins. Its core technology was developed at our Shimadzu Research Laboratory (Europe) and developed into a product at Kratos Group PLC (UK). It is a unique system that combines a mass spectrometer employing laser desorption



ionization technology and an ion trap type mass spectrometer. It allows the process of cutting away the amino acids that make up the protein structure, to be repeated as many times as desired (theoretically). This makes it possible to conduct mass spectrometry analysis consecutively. Using this system, the structure of organic compounds can be analyzed with extremely high accuracy and sensitivity. We expect the AXIMA-QIT to be widely employed in universities, research institutions, and pharmaceutical companies throughout the world, not only for proteomics research, but also in fields such as biology, pharmacology, medical science, and synthetic chemistry.

## Significant increases in measurement sensitivity for micro-area analysis The $\mu$ Rayny Series X-ray Fluorescence Spectrometer

As a new line of compact x-ray fluorescence spectrometers, the  $\mu$ EDX-1200/1300/1400 series (nicknamed  $\mu$ Rayny) has been released. The  $\mu$ Rayny incorporates the newly developed x-ray condenser lens to dramatically improve analytical sensitivity and accuracy in micro-area sample analysis, responding to the increasing demand in the semiconductor and electronic parts industries.

The sales of x-ray fluorescence spectrometers, which can detect substances such as cadmium

contained in plastics, have been increasing because of the EU hazardous materials regulations expected in 2006. Demand also has been increasing from the semiconductor and electronics industries to use micro-area x-ray fluorescence spectrometry for thin-film analysis on wafers and electronic materials and parts. The  $\mu$ Rayny series, particularly focusing on these demands, achieves extremely high sensitivity in micro-area analysis. The most important feature of the  $\mu$ Rayny series is Shi-



madzu's original x-ray condenser lens that can focus the x-ray down to a diameter of 50  $\mu$ m. This lens allows highly sensitive and highly precise analysis of micro-areas (ten times more sensitive and three times more accurate than our previous models).