

## Ernst Abbe Lecture 2000



Fig. 1: Dr. Heinz Gundlach, Carl Zeiss, member of RMS, presents the certificate to Professor Mary Ng.

The Ernst Abbe Lecture is a scientific award presented for the first time in September 1996 by the Royal Microscopical Society (RMS) and Carl Zeiss during the scientific RMS symposium in London to mark the 150<sup>th</sup> anniversary of Carl Zeiss. In the year

2000, the Lecture was awarded to Professor Mary Mah-Lee Ng from the Microbiology and Electron Microscopy Department of the Faculty of Medicine at the University of Singapore.

During the 7<sup>th</sup> Asia-Pacific Electron Microscopy Conference in Singapore in June 2000, Ms Mary Ng gave the Ernst Abbe Lecture entitled "Confocal Microscopy: a Bridge Between Optical and Electron Microscopy" to an audience of more than 300 people. Ms Mary Ng received the award both in recognition of her major contribution to light and electron microscopy and confocal laser scanning microscopy and their applications in microbiology and medicine, and for the organization of training courses in light and electron microscopy.

## LEO - A Carl Zeiss Subsidiary

Since April 1, 2001, LEO Electron Microscopy Ltd., Cambridge (UK), in which Carl Zeiss held a partial interest, has been a 100 % subsidiary of Carl Zeiss. Until this date, LEO operated as a joint venture in which Carl Zeiss and Lancet Holding BV, Rijswijk (Netherlands) each held a stake of 50 %. LEO develops, produces and sells scanning electron microscopes and transmission electron microscopes used in materials examination and defect analysis in the semiconductor industry. Carl Zeiss will continue to run LEO as a separate and independent subsidiary. Electron beam technology is playing an important role in many current and future applications on the semiconductor market. The complete acquisition of LEO expands Carl Zeiss' technological base. LEO employs a staff of 320 worldwide.

## Large Order from South-East Asia

The Microelectronic Systems division has landed a large order for wafer review and inspection systems from South-East Asia. The order totals 17 systems for the latest 300 mm wafer generation and represents a sales volume of more than DM 15m. The technical lead of Carl Zeiss inspection systems was the all-deciding factor in favor of the company compared to international competition. The customer is one of the biggest Taiwanese chip manufacturers which is planning currently the world's largest chip fab. The inspection systems ordered are highly specialized microscopes used for quality inspection in chip fabrication.



## Software Specialist MicroSpec Acquired

The Microelectronic Systems division of Carl Zeiss has acquired the Israeli software manufacturer MicroSpec Technologies. MicroSpec develops software for automatic defect detection and classification (ADC) in the manufacture of semiconductor components. The highly specialized software which is used in light and electron-optical inspection systems increases the reliability of the optical testing process. The two companies have been cooperating closely since

the beginning of 1998. The ADC software is already in use in the **Axiospect 200** and **Axiospect 300** Wafer Inspection Systems from Carl Zeiss and in systems from several other international suppliers. The main benefit of the ADC software from MicroSpec is its open architecture, allowing its very easy integration in practically any inspection and review system currently on the market.

## Two Planetariums for Switzerland



Fig. 1: In the Bernese mountains, only the 8 m dome of the Schwanden planetarium can be seen from above, next to the observatory.

Kreuzlingen will be the site of the first planetarium on Lake Constance. The planetarium of the type **Skymaster® ZKP 3** which will be run by the Kreuzlingen Observatory Foundation is due to start operation in spring 2002. In October 2000, a Zeiss planetarium in an 8 m dome was opened in Schwanden near the Swiss capital Bern. Until then, the planetarium in Lucerne's Transport Museum was the only one in Switzerland for over 30 years.



Fig. 2: Kreuzlingen will be the home of the first planetarium on Lake Constance.

## New Building for Lithography Optics

Close to the company's headquarters in Oberkochen, the world's most modern production plant for lithography optics is currently being built. To be able to meet the growing demand, Carl Zeiss must increase its production capacities for the high-performance lenses and illumination systems used in wafer steppers. The Semiconductor Technology business group has been growing dramatically for many years now, with a ten-fold increase in sales in the last six years alone. And the worldwide demand for semiconductor components shows no signs of slowing. This new building will meet present and future exacting requirements for optimum cleanliness, air-conditioning, freedom from vibration, and efficient manu-



facturing processes. The first production facilities are scheduled to come on stream before the end of this year.