



## **Professor Sune Roland Svanberg**

**Foreign Member of the Lithuanian Academy of Sciences since 1997**

Professor of Physics, Senior Professor at the Lund Laser Centre, Lund University.

Sune Svanberg was born in 1943 in Trollhättan, Sweden. After matriculation exam in Trollhättan in 1962 he started studies of natural sciences at the University of Göteborg, where he received his BSc in 1966. He enrolled the graduate school in physics at University of Göteborg/Chalmers University of Technology and first spent half a year at the Technical University of Berlin studying atomic resonance spectroscopy. He brought this field back to his university and defended his PhD in this field 1972.

After a post-doc year at Columbia University, New York and initial work on atomic laser spectroscopy he continued laser-based spectroscopy at Chalmers up till 1980, when he became professor and head of the Atomic Physics Division at Lund Institute of Technology (technical faculty at Lund University) up till 2008. In Lund a vigorous program of laser spectroscopy, including basic atomic physics and applications to energy, environmental and medical research has been pursued. Basic studies include studies of radiative properties of atoms and ions as well as superintense laser/matter interactions (high harmonics generation, X-ray laser pumping and broadband X-ray generation). Applications include laser radar sounding of pollutants in the atmosphere and hydrosphere, laser diagnostics of combustion processes, and laser-based detection and treatment of cancer and cardio-vascular disease. He has taken the initiative to the formation of three centres for interdisciplinary work: the Combustion Centre, the Environmental Monitoring Centre and the Medical Laser Centre. He also proposed and helped establish a HighPower Laser Facility, including a multi-terawatt 10 Hz laser.

In 1995 professor was appointed director of the newly established Lund Laser Centre, which also gained the EC status of a European Large Scale Facility. He remained its director till 2010, and continues as Senior Professor at the centre.

Since 2011 he is a part-time Distinguished professor at the South China Normal University, Guangzhou. He has trained a large number of PhD students from home and abroad through the

years. He is a member of the Royal Academy of Sciences (and during 10 years a member of its Nobel Committee for Physics; two years as chairman), and the Royal Academy of Engineering Sciences. Up till 1995 he was a member of the Swedish National Space Board and the chairman of its Remote Sensing Committee. He served on the Board of the Swedish Research Council during 2004-2009. He is a Dr honoris causa at the Lund University Medical Faculty, at the Science Faculty of University of Latvia, at the Science Faculty of Université de Liège, at the Universidad Nacional de Ingeniería, Lima, a Foreign Member of the Lithuanian Academy of Sciences and the Académie Royale de Belgique, an Associate Fellow of the Third World Academy of Sciences (TWAS), an Honorary Professor at the Zhejiang University, Jilin University and at HIT-Harbin, China, and a Fellow of the American Physical Society, the Optical Society of America, the European Optical Society, the Electromagnetic Academy, and the Society of Photo-Optical Instrumentation Engineers (SPIE).

He has been a member of the Board of Directors of the Optical Society of America and is the recipient of the first EPS Quantum Electronics Prize (1996) and recipient of the first Azko Nobel Science Award (1999). 2004 he was awarded the SKAPA Innovation Prize, in 2005 the W.E. Lamb Medal, in 2006 the Celsius Gold Medal (Uppsala), in 2009 the Memorial Gold Medal (Lund) and the V.K. Zworykin Award of the International Federation of Medical and Biological Engineering, in 2010 the Adelskold Medal of the Royal Academy of Sciences and the Large Gold Medal from the Royal Academy of Engineering Sciences, Stockholm, and in 2012 the Gold Medal of His Majesty the King of Sweden. He is an “Einstein Professor” of the Chinese Academy of Sciences since 2006, and received China’s highest distinction for non-Chinese, the China Friendship Award in 2013, and became Honorary Citizen of Guangzhou, China, in 2015.

Prof. S. R. Svanberg serves on numerous international conference, evaluation and advisory committees. During the years 1987-93 he was a member of the TetraPak Scientific Council and 1993-2000 a member of the Scientific Council of the Volvo Research Foundation. He has supervised a large number of graduate students to their PhD in Physics.

Prof. S. R. Svanberg is the co-author of more than 670 scientific papers and over 40 patents and patent applications, had scientific collaboration with major international companies and helped in the formation of several spin-off companies. He worked extensively with physicists in developing countries, and helped arrange hands-on workshops where realistic equipment related to medicine, environment and agriculture was introduced.

Full list of publications: <http://www.atomic.physics.lu.se>

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27 03 2019