

Curriculum vitae for Lars Samuelson

Director of the Nanometer Structure Consortium (nmC) at Lund University.

Lars Samuelson obtained his Ph.D. in Solid State Physics at Lund University in 1977. After a post-doc at IBM Research Laboratories in San José, California, he returned to Lund in 1979. In 1986 he became Professor in Semiconductor Physics at Chalmers/Göteborg University and returned to the Physics Department of Lund University in 1988 to take up the Professorship in Semiconductor Electronics. He is the director of the Nanometer Structure Consortium, started in 1988, and today the primary center for Nanoscience in Sweden. He is the scientific leader of a Strategic Research Center in Microelectronics, "NANOSCIENCE for Future Electronic Devices", of a Strategic Research Center "Nanowires for emerging nanoelectronics and life-science applications", and of a major European Integrated Project, called "Nanowire-based One-Dimensional Electronics" (NODE), with participation by leading European electronics industries, research institutes and academic research teams. In 2001/2002 he took the initiative to create a new university degree program in "Engineering Nanoscience" at LTH/LU, which started in the fall 2003.

Lars Samuelson is internationally recognized for his breakthrough research on low-dimensional structures and the physics and applications made possible by these structures. In the 1990s this primarily involved: (i) studies of self-assembly of quantum dots and studies of physical phenomena via single-quantum-dot spectroscopy, and (ii) the realization of quantum devices by manipulation of pre-fabricated nanostructures. In recent years his research has been directed towards new ways for the formation of ideal one-dimensional nanowires through self-assembly, their physical properties, and applications of semiconductor nanowires in electronics, photonics and the life-sciences.

He is Fellow of the Institute of Physics, FinstP, in the United Kingdom, and Member of the Royal Swedish Academy of Sciences (Physics class).

Samuelson is the author of more than 300 articles in refereed journals, and has given about 150 plenary/invited talks at international conferences and workshops.