

Nanowires as a generic technology for basic science and future applications

Lars Samuelson*

*Lund University, Solid State Physics and Nanometer Structure Consortium,
Box 118, S-221 00 Lund, Sweden*

Very often, progress in science and technology comes as consequences of new achievements in materials science and technology. I will here describe one such technology step related to the realization of guided self-assembly for the growth of semiconductor nanowires. Beside the obvious importance this has had for materials science, this has also enabled progress in many other areas of science and technology, such as in low-dimensional physics, in life-science, in nanoelectronics as well as in energy and optoelectronics applications. I will in this talk review the development of the field of semiconductor nanowires and indicate the opportunities it offers for future applications especially related to energy and optoelectronic applications.

*lars.samuelson@ftf.lth.se