**Klaus H. Ploog**

**“Pivotal Role of Molecular Beam Epitaxy (MBE) in the Development of Nanoscience and Nanotechnology”**

Klaus H. Ploog is one of the pioneers of molecular beam epitaxy (MBE), a versatile tool to fabricate semiconductor, metal, and oxide nanostructures. The technique of molecular beam epitaxy has been established in the early 1970s, i.e. long before the hype on „Nano“ started to dominate the worldwide research funding policies in the late 1990s.

Using molecular beam epitaxy, Klaus H. Ploog has designed and fabricated numerous new semiconductor and magnetic nanostructures which showed unique quantum size effects and which have led to a number of novel device concepts. His research achievements have been published in more than 1500 papers in international refereed journals, and he has received several prestigious awards. In his career, he has held several visiting professor positions in Europe, USA, Japan, Australia, and Taiwan.

In 2006, after having reached the age of 65, Klaus H. Ploog has retired from his position of director of the Paul Drude Institute for Solid State Electronics (PDI) in Berlin and his joint position of professor at the Physics Department of the Humboldt University Berlin. His current interest on materials for sustainable energy evolved from his research on III-Nitrides for solid state lighting, where he has paved the way for more efficient blue, green and violet Nitride LEDs by using non-polar (m-plane) layers and heterostructures.