Controllable Synthesis, Characterization and Optical Properties of Semiconductor Nanowires

Presented by

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Abstract:

We present the synthesis of high-density well-aligned ZnO nanorod arrays on ZnO film coated Si substrates, their Raman spectra, temperature dependence of and time-resolved photoluminescence spectra, and laser emission; synthesis and optical properties of the doped ZnO nanobelts with (0001) polar plane as dominated surface and ZnO:In superlattice nanowires. We also category superlattice nanowires and nanobelts into three types and demonstrate the first characterization of planar superlattice nanobelts by X-ray diffraction and cross section transmission electron microscopy techniques.

Date: Sunday, 6 Jan 2008
Time: 2.30pm to 3.30pm
Venue: PAP Meeting Room (SBS B3n-19)

Biography:

Guanzhong Wang got his Ph.D from the University of Science and Technology of China (USTC) in 1996. He then worked at Tokyo University (Japan), the Department of Physics in USTC, Laboratoire de Physico-Chimie des Matériaux Luminescents (CNRS, France) and the University of Nottingham (UK). He is currently professor of physics at the University of Science and Technology of China. His research activities include preparation and properties of nanostructures and nanodevices, and optical properties of condensed matter.