Invited Talk

Monday 9:30–10:00

Simple ways to complex nanowires and their application — Rainer Adelung¹, Mady Elbahri¹, Seid Jebril¹, Sebastian Wille¹, and Michael Scharnberg² — ¹Functional Nanomaterials, Institute for Materials Science, CAU Kiel — ²Chair for Multicomponent Materials, Institute for Materials Science, CAU Kiel

Many syntheses exist for nanowire fabrication. This development was driven by the promise of novel applications. In order to realize these applications, simple and rapid ways have to be found for organized nanowire fabrication, because often applications require large area coverage with nanostructures or low production costs for mass fabrication. Some contributions from our lab that were developed over the last years, ranging from tabletop chemistry to UHV processing, will be presented [1-4]. In the talk, different specific properties of nanowires will be shown and compared with bulk material; furthermore some demonstration devices for practical applications will be presented. This includes properties and applications like the electrical conductivity through metallic nanowires for sensors, or water jet reflection on nanowire surfaces for microfluidics.