
MM 1: HV Adeling

Time: Monday 9:30–10:00

Location: H 1058

Invited Talk

MM 1.1 Mon 9:30 H 1058

Simple ways to complex nanowires and their application

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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 fab-

rication. 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.

[1] R. Adeling et al. *Nature Mater.* 3, 375, (2004) [2] M. Elbahri et al. *Adv. Mater.* 18, 1059 (2006) [3] M. Elbahri et al. *Adv. Mater.* 19, 1262 (2007) [4] C.Bain, *Nature Nanotech.* 2, 344 (2007)