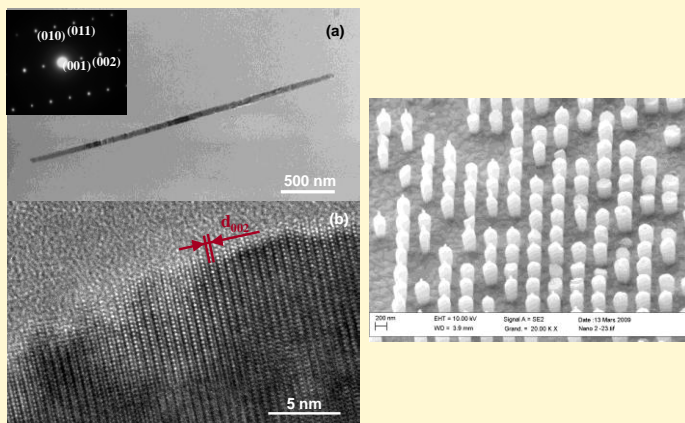


Staff: 45 researchers, professors, lecturers, engineers and technicians
55 PhD students, post-docs and temporary staff

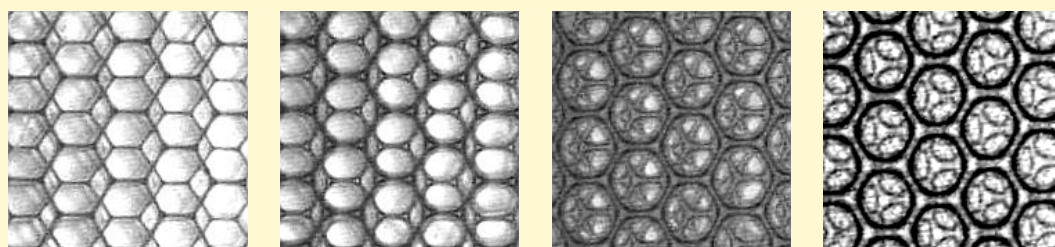
Research fields: Nanomaterials, heterogenous media (LPMDI)
Multi-scale modeling and simulation (MSME)

Research topics in Micro and NanoSystems

- Prediction of properties of complex materials
- Electromechanical coupling in nanostructured ionic materials
- Microfluidics / Heat transfer in porous materials and in newtonian fluids
- Nanomaterials growth and characterization
- Rheology of foams and new optical probes
- Physics of foams and interfaces
- Acoustics of granular / heterogenous media



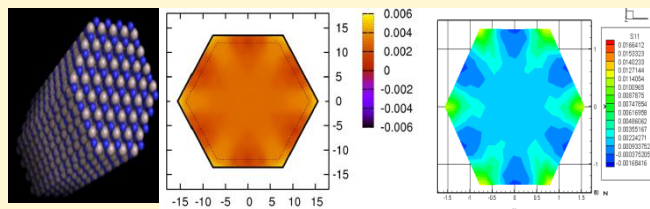
TEM and HRTEM images of a monocrystalline ZnO nanowire ($d \sim 60$ nm) with an orientation growth towards the c-axis.
SEM image of ZnO nanodot array



Bubble crystals with fcc and bcc crystalline structure depending on osmotic pressure

Technology

- Electroplating of ZnO nanowires
- Nanoimprint
- Various experimental setups related to study of complex media



Continuous modelling of Nanostructures : Comparison between atomistic and continuous models