

PostDoc position – ‘NanoPhox-Nanophotonics with oxide semiconductors’

The research group *‘NanoPhox-Nanophotonics with oxide semiconductors’* focuses on the development of novel photonic devices based on zinc oxide (ZnO). Zinc oxide is a wide bandgap semiconductor and can be used for optical emitters in the blue/UV spectral range. This project is supported by the German Ministry of Education and Research (BMBF) in the framework of the ‘NanoFutur’ initiative (grant number 03X5509).

Within the project, a wide variety of state-of-the-art experimental techniques is available, comprising the epitaxial growth of (Zn,Cd,Mg)O-heterostructures using molecular beam epitaxy (MBE) as well as nanopatterning methods such as lithography (both optical and electron beam) and plasma-etching techniques (ICP-RIE). Moreover, the fabricated photonic devices are being characterized with UV-microphotoluminescence and simulated using numerical methods (3D-FDTD).

Currently, a PostDoc position is available in this project. The candidate should have a PhD in engineering/material science or physics.

She or he will be responsible for the operation and the installation/setup of a new commercial MBE system for the growth of (Zn,Cd,Mg)O-heterostructures.

The successful candidate is expected to

- have experience in UHV-techniques and/or epitaxial growth of semiconductor heterostructures,
- have know-how on the physics and technology of semiconductor hetero- and quantum-structures,
- is able to work in a team and
- is able to work scientifically independent.

Moreover, the candidate should be motivated to participate in the education and supervision of bachelor/master/PhD students.

Applicants should send their documents, including CV and list of publications and/or patents to:

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