



Einladung

- Es spricht: **Florian Federer**
Walter-Schottky-Institut, München
- Zeit: **Donnerstag, 23. Juni 2016, 14:00 Uhr**
- Ort: **Technische Universität Berlin
Institut für Festkörperphysik
Hardenbergstraße 36, 10623 Berlin
Raum EW 431**
- Thema: **„InP-based VCSELs at 2.5 μ m using Type-II
Quantum Wells for Highly Sensitive Gas
Sensing Applications”**

Abstract:

Many gases like CH₄, CO, NO and SO₂ have strong absorption lines in the mid-infrared region between 2 – 4 μ m. Using highly-sensitive optical gas sensing schemes like Tunable Diode Laser Absorption Spectroscopy (TDLAS), these distinct absorption lines can be detected. We present an InP-based Vertical Cavity Surface Emitting Laser (VCSEL) emitting at 2.5 μ m, using type-II GaInAs/GaAsSb “W-shaped” QWs. These devices demonstrate single-mode CW room temperature operation, with a side-mode suppression ratio of 30 dB, an output power of around 1mW at -20°C and a current tuning range of more than 5 nm, paving the way for highly precise, compact and convenient gas sensing systems in the wavelength range between 2-4 μ m.

Gäste sind herzlich willkommen!
Mitglieder der School of Nanophotonics