

NEXT LITE-SEMINAR

Interband Cascade Lasers

Prof. Sven Höfling
Universität Würzburg

Date and Time: **Thursday, June 1st 2017, 14:00**

Location: **TU Wien, Institute of Solid State Electronics**

1040, Floragasse 7, 1st Floor, Seminar Room 362
Host: G. Strasser

Abstract

Interband Cascade lasers (ICLs) have proven to be very promising semiconductor heterostructure lasers to cover the spectral range between 3 to 5 μm and beyond. Compared to their intraband counterpart cascade lasers, the quantum cascade lasers, ICLs have attracted yet much less scientific attention, and many design aspects have not yet been completely optimized. Nevertheless, continuous wave operation at room temperature can be rather routinely obtained with ICL devices in the 2.8 to 5.7 μm range. Compared to quantum cascade lasers, ICLs can be operated at much lower power levels. In this talk, results on ICLs obtained in our group will be summarized, including the presentation of single mode emitting devices for highly sensitive gas detection.