



TECHNISCHE UNIVERSITÄT
CHEMNITZ

Institut für Physik Physikalisches Kolloquium



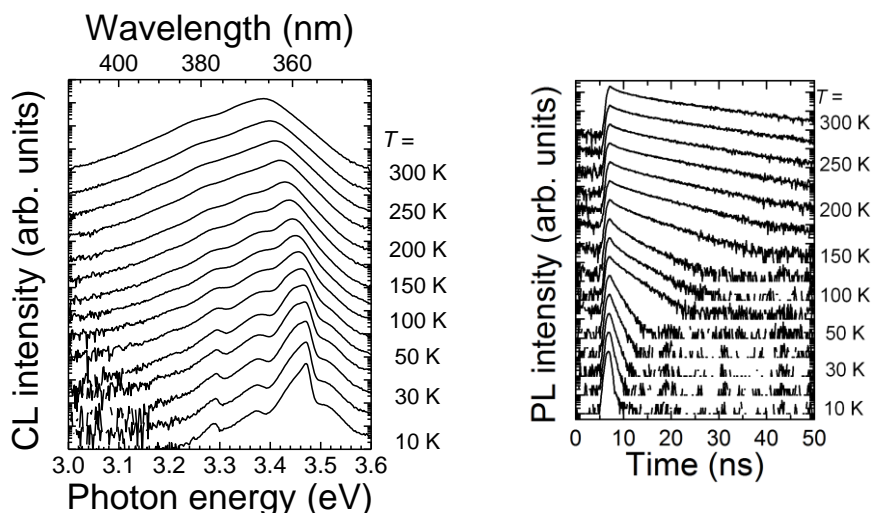
Mittwoch, 14.06.2017, um 16:00 Uhr

Ort: Reichenhainer Str. 90;
Zentrales Hörsaal- und Seminargebäude,
Raum 2/N013

Prof. Dr. Kazunobu Kojima
Universität Kyoto

Optical characterization of nitride single crystals and compounds

An m-plane freestanding GaN substrate satisfying both low resistivity ($8.5 \times 10^{-3} \text{ Ohm cm}$) and quite a low point-defect concentration, being applicable for vertically-conducting power-switching devices, was grown by hydride vapor phase epitaxy on a nearly bowing-free bulk GaN seed wafer synthesized by the ammonothermal method in a supercritical ammonia using an acidic mineralizer. Its threading dislocation and basal-plane stacking-fault densities were around 10^4 cm^{-2} and lower than 10^0 cm^{-1} , respectively. A record-long fast-component photoluminescence lifetime of 2.07 ns at room temperature was obtained for the near-band-edge emission, reflecting significantly low concentration of nonradiative recombination centers composed of Ga vacancies.



Alle Zuhörer sind ab 15:45 zu Kaffee und Tee vor dem Hörsaal eingeladen.

