



Einladung

Es spricht: **Prof. Dr. Dr. h.c. K.W. Böer**
University of Delaware

Zeit: **Dienstag, 13. Oktober 2015, 16:00 Uhr**

Ort: **Technische Universität Berlin
Institut für Festkörperphysik
Hardenbergstraße 36, 10623 Berlin
Raum EW 203**

Thema: **„High-Field Electrode-Adjacent Domains to
Analyze Trap Distributions in n- and p-type CdS“**

Abstract:

Electrode adjacent high-field domains provide thermodynamically stable electronic transport to measure unambiguously $n(F)$, $\mu(F)$ and the effective work-function. A small region between a blocking Metal and CdS is identified at which the quasi-Fermi levels are split to a degree determined by the light intensity and its spectrum. This split is maintained within the domain and to another degree in the remainder of the CdS. The energy distribution of traps can be analyzed within a few kT around these quasi-Fermi levels, and inhomogeneities detected by changing the domain width. Examples of n- and p-type quenching and the discovery of an extremely narrow and deep electronic quenching signal in the p-type range of CdS is given. This is significant for explaining that CdS can never be doped p-type.

Prof. Böer ist der Namensgeber und Sponsor des Lehrstuhls für Angewandte Physik.

Gäste sind herzlich willkommen!
Prof. Dr. D. Bimberg