



HZB KESTCELLS seminar #4

Quantitative Photoluminescence Imaging of Solar Cells

Tuesday, June 9th at 14:00 in room E115, LM-Campus, HZB

Abstract

Luminescence analysis and imaging is a powerful tool for the quantitative analysis of the electronic quality of photovoltaic materials, and is now routinely applied for crystalline silicon photovoltaics. The application of quantitative luminescence imaging is much more complicated in multinary compounds, because the optical properties are not constant from sample to sample. Several models have been proposed in recent years to analyse electroluminescence as well as photoluminescence for compound semiconductors such as chalcopyrites or kesterites. The advantages and disadvantages of these approaches will be discussed.

Agenda

- 14:00 Introduction (Dr. Thomas Unold)
- 14:15 Quantitative Photoluminescence Analysis (Dr. Alex Redinger)
- 15:15 Quantitative EL und PL Imaging (Dr. Thomas Unold)
- 16:15 Demonstration of the Imaging Setup
- 16:15 Discussion and Conclusions