



Optimizing Photoluminescence in high-brightness LED emitters

Job offer for bachelor and master students in the field of photonics, electronics, electrical and telecommunication engineering

Lumileds R&D is searching for graduate and undergraduate students willing to contribute to the solid state lighting industry. The student/s will work in a high tech industry facility together with a professional research team of electrical engineers and physicists. The specific research project they are asked to participate in relates to fundamental studies on optical properties of photoluminescence materials for high brightness LEDs. The proposed area of investigation deals with numerical methods and computational techniques to model the processes of photo-conversion and light scattering in power LED (Light-Emitting Diodes) emitters. An optics model of thin film microstructures ought to be developed, tested, and experimentally validated. The student will have the opportunity to closely work with a team working on advanced multiphysics LED models to guide us in the understanding of a number of exciting fundamental physical mechanisms.

Responsibilities:

- Support research team on the theoretical analysis of photoluminescence materials
- Develop and test photoluminescence InGaN based LED models
- Model calibration
- Data processing

Skills: English, computational engineering, photonics, device physics modeling

Administrative requirement: Eligible or have a legal permit or able to obtain a legal permit to work in Germany without the help of Lumileds.

Starts as soon as possible. Assignment duration: 6 months to 1 year depending on interest and availability. Interested candidate, please contact Toni López (toni.lopez@lumileds.com).