

SESSION 11a: LED

Chairs: Drew Hanser, *SRI International* and Shyh-Chiang Shen, *Georgia Tech*

This session will start with an invited presentation describing the manufacturing and applications of the high-brightness InGaN and AlInGaP light-emitting diodes (LEDs) by Osram Opto Semiconductors. This presentation will provide an overview of these technologies and discuss key challenges of low-cost manufacturing. Another invited talk will follow with a focus on optoelectronic devices grown on nonpolar and semipolar free-standing (FS) GaN substrates. In this talk, researchers from the University of California at Santa-Barbara will present a summary of material and device developments for laser diodes and LEDs on several orientations of non-polar and semipolar free-standing GaN. In the second half of the session, a paper concerning the characterization of reverse-biased electroluminescence of InGaN/GaN LEDs and a student paper on InGaN/GaN nano-rod LEDs using a top-down etching processes will be presented.