External Awards

International Workshop on Nitride Semiconductors 2012 Best Paper Award

Winners: Yoshitaka Taniyasu[†1], Jean-François Carlin[†2], Antonino Castiglia[†2], Raphaël Butté[†2], and Nicolas Grandjean[†2]

†1 NTT Basic Research Laboratories
†2 Ecole Polytechnique Fédérale de Lausanne

Date: October 19, 2012
Organization: International Workshop on Nitride Semiconductors

For "AlInN/GaN MQW UV-LEDs".

Among III-Nitride semiconductors, the AlInN can only be grown lattice-matched to GaN. The lattice-matched AlInN/GaN structure should be free from cracks and strain-driven defects, which limit the performance of UV/Visible LEDs and LDs using conventional lattice-mismatched AlGaN/GaN and InGaN/GaN structures. In addition, the AlInN/GaN structure has a larger bandgap discontinuity and a larger refractive index contrast, which more strongly confine the injected carriers in the quantum wells and the emitted light in the active region. Thus, the AlInN/GaN structures are expected not only to improve the device properties but also to increase the design flexibility for novel III-nitride devices. Here we report the achievement of p-type doping in AlInN and describe AlInN-based light-emitting devices.

Fellowship in the American Physical Society

Winner: William John Munro, NTT Basic Research Laboratories
Date: November 3, 2012
Organization: American Physical Society

For his extensive contributions to applied quantum information.