SESSION 11a:
GaN GATE DIELECTRICS
Chair: Patrick Fay, *University of Notre Dame*

In this session, insulated-gate GaN FETs and the properties of the insulator/nitride interface are the focal point. The session opens with an invited talk by Prof. Hashizume of Hokkaido University on the characterization and control of interfaces between insulator and GaN-based materials for FET applications. This is followed by a student paper from Georgia Tech describing recent results on ALD-deposited Al_2O_3 films for use as gate dielectrics in III-N devices. The third paper, by authors from ROHM and the Univ. of Fukui, describes the use of thermal oxidation to control interface state densities between etched GaN surfaces and ALD-deposited Al_2O_3. A student paper from the Univ. of Illinois describes the performance obtained in a fluorine-treated AlGaN/GaN insulated-gate HEMT with a two-layer gate oxide based on Al_2O_3 and SiO_2. The session finishes with a paper from Raytheon describing the performance and reliability of insulated-gate HEMTs and MMICs fabricated on Si substrates.