

Abstract Submitted  
for the MAR08 Meeting of  
The American Physical Society

**Growth and characterizations of m-plane GaN and InN on gamma-LiAlO<sub>2</sub> substrate grown by plasma-assisted molecular beam epitaxy** LI-WEI TU, Z. L. LEE, Y. T. LIN, C. Y. HO, Y. L. CHENG, K. L. WU, Z. H. GONG, B. H. TSENG, M. C. CHOU, National Sun Yat-Sen University, Taiwan, Q. Y. CHEN<sup>1</sup>, University of Houston, H. W. SEO, University of Arkansas, W. K. CHU, University of Houston — Non-polar nitrides are investigated in this report. Substrate used is gamma-phase LiAlO<sub>2</sub> (LAO) (100) grown by Czochralski pulling method. The in-plane lattice mismatch between the LAO (100) plane and the GaN (1-100) plane, is small with a lattice mismatch of [0001]GaN|[010]LAO ~ 0.3% and [11 $\bar{2}$ 0]GaN|[001]LAO ~1.7%. M-plane GaN epilayer and InN were successfully grown by ultra-high vacuum plasma-assisted molecular beam epitaxy system. Extensive characterizations have been carried out which include x-ray diffraction theta/two-theta scan, rocking curve measurement, scanning electron microscopy, cathodoluminescence, photoluminescence, and Raman spectroscopy. Details will be presented.

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Date submitted: 27 Nov 2007

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