

Abstract Submitted  
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**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  $[0001]\text{GaN}||[010]\text{LAO} \sim 0.3\%$  and  $[11\bar{2}0]\text{GaN}||[001]\text{LAO} \sim 1.7\%$ . 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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