

Abstract Submitted
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Growth of M-plane gallium nitride on γ -LiAlO₂ (100) substrate by radio frequency plasma-assisted molecular beam epitaxy¹ CHIA HO HSIEH , M.H. GAO, Y.L. CHEN, W.Y. PANG, Y.I. CHANG, IKAI LO, M.C. CHOU — We present a study of the growth of GaN (1 $\bar{1}$ 00) thin films on γ -LiAlO₂ (100) by radio frequency plasma-assisted molecular beam epitaxy. The films were monitored in-situ by reflection high-energy electron diffraction. After growth, the samples are characterized by double crystal X-ray diffraction (XRD), transmission electron microscopy (TEM), and photoluminescence measurements. X-ray diffraction measurements show the pure M-plane GaN of the samples. The cross-sectional TEM micrographs show anisotropy in defect structure. The morphological images show that the lattice lines are either parallel or perpendicular to the GaN caxis.

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