

Abstract Submitted
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Effect of N to In flux ratio on the InN surface morphologies grown on single crystal ZnO (000 $\bar{1}$) substrate by plasma-assisted molecular beam epitaxy¹ CHENG-HUNG SHIH, IKAI LO, WEN-YUAN PANG, SHIH-HUNG CHUANG, CHIA-HSUAN HU, Department of physics, National Sun Yat-sen University, Kaohsiung, Taiwan, R.O.C., CHIA-HO HSIEH, Institute of Material Science and Engineering, National Sun Yat-Sen University, Kaohsiung, Taiwan, — The surface morphology of InN epitaxial films grown on ZnO (000 $\bar{1}$) substrate by plasma-assisted molecular beam epitaxy has been investigated. We found that the evolution of InN surface morphology was sensitive to the N/In flux ratio. With N/In flux ratio decreasing, the growth mode was changing from 3D to 2D growth. In addition, we found that In₂O₃ layer was formed at the interface between InN and ZnO when the N/In flux ratio was lower than 32 by the observation of XRD and TEM.

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