

目次

1. Si 基板上 GaN 縦型デバイス実現に向けたエピ技術	1
2. 本研究に関連した発表・論文	73
[1] Characterization of dislocations in GaN layer grown on 4-inch Si(111) with AlGaN/AlN strained layer superlattices	73
[2] Analysis of reaction between c+a and -c+a dislocations in GaN layer grown on 4-inch Si(111) substrate with AlGaN/AlN strained layer superlattice by transmission electron microscopy	79
[3] Modeling of the wafer bow in GaN-on-Si epiwafers employing GaN/AlN multilayer buffer structures	86
[4] Novel fully vertical GaN p-n diode on Si substrate grown by metalorganic chemical vapor deposition	93
[5] Influence of the Al content of the AlGaN buffer layer in AlGaN/GaN high-electron-mobility transistor structures on a Si substrate	97
[6] Device characteristics and performance estimation of nearly lattice-matched InAlN/AlGaN heterostructure field-effect transistors	102
[7] Effect of well layer thickness on quantum and energy conversion efficiencies for InGaN/GaN multiple quantum well solar cells	106
[8] Improved performance of InGaN/GaN multilayer solar cells with an atomic-layer-deposited Al ₂ O ₃ passivation film	112
[9] Self-forming graphene/Ni patterns on sapphire utilizing the pattern-controlled catalyst metal agglomeration technique	114
教職員名簿	118