

目次

1. Studies on MOCVD Grown AlGaIn/GaN HEMTs on 4-in Si substrate for High Power Device Applications	1
2. 本研究に関連した発表・論文	55
[1] Metal-organic chemical vapor deposition of quasi-normally-off AlGaIn/GaN field-effect transistors on silicon substrates using low-temperature grown AlN cap layers	55
[2] High vertical breakdown strength with low specific on-resistance in AlGaIn/AlN/GaN HEMTs on silicon	58
[3] Correlation between growth pits, optical and structural properties of AlGaIn/GaN high-electron-mobility transistors on 4" silicon substrate	61
[4] Study on the electron overflow in 264 nm AlGaIn light-emitting diodes	64
[5] High performance InGaIn LEDs on Si (111) substrates grown by MOCVD	70
[6] Effect of Al _{0.06} Ga _{0.94} N/GaN strained-layer superlattices cladding underlayer to InGaIn-based multi-quantum well grown on Si(111) substrate with AlN/GaN intermediate layer	78
[7] Characterization of AlInN/GaN structures on AlN templates for high-performance ultraviolet photodiodes	83
[8] Metal organic chemical vapor deposition growth and characterization of AlInN-based schottky ultraviolet photodiodes on AlN template	89
[9] Photoluminescence studies of high -quality InAlN layer lattice-matched to GaN grown by metal organic chemical vapor deposition	93
[10] Vertical GaN-based light-emitting diodes structure on Si(111) substrate with through-holes	96
[11] The contribution of coumarin 6 in light harvesting and photocurrent of P3HT:PCBM bulk heterojunction solar cell	99
[12] Magnetic anisotropy of Ni-doped ZnO nanocrystalline thin films	105
[13] 非ホロノミック 2 次チェインドシステムの大域的指数安定化制御(オブザーバと安定化補償器の設計)	109
[14] 非ホロノミック二輪車両型移動ロボットシステムのサンプル値制御-大域的指数安定化離散時間フィードバック補償器の設計-	120
[15] 高次チェインドシステムの大域的指数安定化制御-サンプル値制御法に基づいたオブザーバとフィードバック補償器の設計-	130
[16] 定常風に対する飛行船システムの大域的な位置と姿勢の制御	140
[17] Static stability analysis of spatial grasps including contact surface geometry	150
[18] Static stability analysis of grasping multiple objects in 2D	176
[19] Robust control of an underactuated airship with parameter uncertainties	192
[20] Robust control of an uncertain underactuated airship with asymptotic rejection against wind disturbance	201

[21] Sensitivity reduction of adaptive repetitive control system with asymptotical rejection against uncertain periodic disturbance	207
[22] Autonomous sensing strategy for parameter identification of contact conditions by active force sensing	213
[23] Adaptive repetitive control systems for fast rejection of periodic disturbances with uncertain multiple periods	219
本研究関連の新聞記事・表彰	227
教職員名簿	235