# Ryuji Katayama

## List of Publications by Citations



| | | | |
|---|---|---|---|
| 87 papers | 571 citations | 12 h-index | 17 g-index |
| 94 ext. papers | 626 ext. citations | 1.6 avg, IF | 2.98 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 87 | Growth and characterization of InAsN alloy films and quantum wells. *Journal of Crystal Growth*, **2005**, 278, 254-258 | 1.6 | 32 |
| 86 | Nitrogen supply rate dependence of InGaN growth properties, by RF-MBE. *Journal of Crystal Growth*, **2007**, 305, 12-18 | 1.6 | 28 |
| 85 | Complementary analyses on the local polarity in lateral polarity-inverted GaN heterostructure on sapphire (0001) substrate. *Applied Physics Letters*, **2006**, 89, 231910 | 3.4 | 21 |
| 84 | Hall effect measurement of InAsN alloy films grown directly on GaAs(001) substrates by RF-MBE. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2003**, 2765-2768 | | 21 |
| 83 | MBE growth and photoreflectance study of GaAsN alloy films grown on GaAs (0 0 1). *Journal of Crystal Growth*, **2003**, 251, 427-431 | 1.6 | 19 |
| 82 | Growth of In-rich InGaN films on sapphire via GaN layer by RF-MBE. *Journal of Crystal Growth*, **2007**, 301-302, 473-477 | 1.6 | 18 |
| 81 | Improvement of surface morphology of nitrogen-polar GaN by introducing indium surfactant during MOVPE growth. *Japanese Journal of Applied Physics*, **2014**, 53, 085501 | 1.4 | 16 |
| 80 | Twin photoluminescence peaks from single isoelectronic traps in nitrogen □doped GaAs. *Physica E: Low-Dimensional Systems and Nanostructures*, **2008**, 40, 2110-2112 | 3 | 16 |
| 79 | RF-MBE growth and structural characterization of cubic InN films on GaAs. *Physica Status Solidi (B): Basic Research*, **2006**, 243, 1451-1455 | 1.3 | 16 |
| 78 | Buffer design for nitrogen polarity GaN on sapphire by RF-MBE and application to the nanostructure formation using KOH etching. *Physica E: Low-Dimensional Systems and Nanostructures*, **2006**, 32, 245-248 | 3 | 13 |
| 77 | Enhancement of surface migration by Mg doping in the metalorganic vapor phase epitaxy of N-polar $(000bar{1})$ GaN/sapphire. *Japanese Journal of Applied Physics*, **2014**, 53, 05FL05 | 1.4 | 12 |
| 76 | Photoluminescence from single isoelectronic traps in nitrogen delta-doped GaAs grown on GaAs(1 1 1)A. *Physica E: Low-Dimensional Systems and Nanostructures*, **2010**, 42, 2529-2531 | 3 | 12 |
| 75 | Fabrication of lateral lattice-polarity-inverted GaN heterostructure. *Journal of Crystal Growth*, **2007**, 301-302, 447-451 | 1.6 | 12 |
| 74 | Piezoelectric Photothermal and Photoreflectance Spectra of InxGa1-xN Grown by Radio-Frequency Molecular Beam Epitaxy. *Japanese Journal of Applied Physics*, **2006**, 45, 4601-4603 | 1.4 | 12 |
| 73 | Micro-photoluminescence study of nitrogen delta-doped GaAs grown by metalorganic vapor phase epitaxy. *Journal of Crystal Growth*, **2007**, 298, 73-75 | 1.6 | 11 |
| 72 | MOVPE and characterization of InAsN/GaAs multiple quantum wells. *Journal of Crystal Growth*, **2007**, 298, 544-547 | 1.6 | 11 |
| 71 | Structural transition control of laterally overgrown c-GaN and h-GaN on stripe-patterned GaAs (001) substrates by MOVPE. *Physica Status Solidi (B): Basic Research*, **2007**, 244, 1769-1774 | 1.3 | 11 |

| | | | |
|---|---|---|---|
| 70 | MOVPE growth and optical characterization of GaAsN films with higher nitrogen concentrations. *Physica Status Solidi (A) Applications and Materials Science*, **2006**, 203, 1641-1644 | 1.6 | 11 |
| 69 | RF-MBE growth of InAsN layers on GaAs (001) substrates using a thick InAs buffer layer. *Journal of Crystal Growth*, **2003**, 251, 422-426 | 1.6 | 11 |
| 68 | Phase diagram on phase purity of InN grown pressurized-reactor MOVPE. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2012**, 9, 654-657 | | 10 |
| 67 | Effect of growth temperature on structure properties of InN grown by pressurized-reactor metalorganic vapor phase epitaxy. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2011**, 8, 482-484 | | 10 |
| 66 | Correlation between Raman intensity of the N-related local vibrational mode and N content in GaAsN strained layers grown by MOVPE. *Journal of Crystal Growth*, **2007**, 298, 107-110 | 1.6 | 10 |
| 65 | RF□MBE growth and structural characterization of cubic InN films on yttria-stabilized zirconia (001) substrates. *Journal of Crystal Growth*, **2007**, 301-302, 508-512 | 1.6 | 10 |
| 64 | Modulation spectroscopic investigation on lattice polarity of gallium nitride. *Applied Physics Letters*, **2007**, 91, 061917 | 3.4 | 10 |
| 63 | MOVPE growth of InAsN films on GaAs(001) substrates with an InAs buffer layer. *Physica Status Solidi (B): Basic Research*, **2006**, 243, 1411-1415 | 1.3 | 10 |
| 62 | Optical properties of InN films grown by pressurized-reactor metalorganic vapor phase epitaxy. *Thin Solid Films*, **2013**, 536, 152-155 | 2.2 | 9 |
| 61 | Optical characterization of InAsN single quantum wells grown by RF-MBE. *Physica Status Solidi (B): Basic Research*, **2004**, 241, 2791-2794 | 1.3 | 9 |
| 60 | MOVPE growth and characterization of high-N content InGaPN alloy lattice-matched to GaP. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2003**, 2773-2777 | | 9 |
| 59 | Biexciton Luminescence from Individual Isoelectronic Traps in Nitrogen $delta$-Doped GaAs. *Applied Physics Express*, **2012**, 5, 111201 | 2.4 | 8 |
| 58 | Growth and optical characterization of InAsN quantum dots. *Physica Status Solidi (B): Basic Research* , **2006**, 243, 1657-1660 | 1.3 | 8 |
| 57 | Reduction of Planar Defect Density in Laterally Overgrown Cubic-GaN on Patterned GaAs(001) Substrates by MOVPE. *Physica Status Solidi (B): Basic Research*, **2002**, 234, 840-844 | 1.3 | 8 |
| 56 | Scanning tunneling microscope□athodoluminescence measurement of the GaAs/AlGaAs heterostructure. *Journal of Vacuum Science & Technology B*, **2009**, 27, 1874 | | 7 |
| 55 | Structural investigation of InGaAsN films grown on pseudo-lattice-matched InGaAs substrates by metalorganic vapor phase epitaxy. *Journal of Crystal Growth*, **2007**, 298, 111-115 | 1.6 | 7 |
| 54 | Post-growth thermal annealing of high N-content GaAsN by MOVPE and its effect on strain relaxation. *Journal of Crystal Growth*, **2007**, 298, 140-144 | 1.6 | 7 |
| 53 | High-nitrogen-content InGaAsN films on GaAs grown by metalorganic vapor phase epitaxy with TBAs and DMHy. *Physica Status Solidi (A) Applications and Materials Science*, **2006**, 203, 1612-1617 | 1.6 | 7 |

| | | | |
|---|---|---|---|
| 52 | Substrate Misorientation Dependence of the Hexagonal Phase Inclusion in Cubic GaN Films Grown by Metalorganic Vapor Phase Epitaxy. *Physica Status Solidi A*, **1999**, 176, 513-517 | | 7 |
| 51 | Effect ofc-plane sapphire substrate miscut angle on indium content of MOVPE-grown N-polar InGaN. *Japanese Journal of Applied Physics*, **2014**, 53, 05FL07 | 1.4 | 6 |
| 50 | Excitation power dependent photoluminescence of In0.7Ga0.3As1−xNx quantum dots grown on GaAs (0 0 1). *Journal of Crystal Growth*, **2005**, 278, 244-248 | 1.6 | 6 |
| 49 | Metastable cubic InN layers on GaAs (001) substrates grown by MBE: Growth condition and crystal structure. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2009**, 6, S376-S380 | | 5 |
| 48 | Paving the way to high-quality indium nitride: the effects of pressurized reactor **2011**, | | 5 |
| 47 | Effect of Phase Purity on Dislocation Density of Pressurized-Reactor Metalorganic Vapor Phase Epitaxy Grown InN. *Japanese Journal of Applied Physics*, **2012**, 51, 04DH02 | 1.4 | 5 |
| 46 | MOVPE growth and optical investigations of InGaPN alloys. *Journal of Crystal Growth*, **2005**, 275, e1017-e1021 | 1.6 | 5 |
| 45 | RF-MBE growth of cubic AlN on MgO (001) substrates via 2-step c-GaN buffer layer. *Journal of Crystal Growth*, **2013**, 378, 307-309 | 1.6 | 4 |
| 44 | MOVPE growth of InN films using 1,1-dimethylhydrazine as a nitrogen precursor. *Journal of Crystal Growth*, **2009**, 311, 2802-2805 | 1.6 | 4 |
| 43 | Carrier-concentration dependent photoluminescence of InAsN films grown by RF-MBE. *Journal of Crystal Growth*, **2011**, 323, 26-29 | 1.6 | 4 |
| 42 | Optical properties of the periodic polarity-inverted GaN waveguides **2012**, | | 4 |
| 41 | Substrate-surface orientation dependence of N content in MOVPE growth of GaAsN films on GaAs. *Journal of Crystal Growth*, **2007**, 298, 135-139 | 1.6 | 4 |
| 40 | Electrically biased photoreflectance study of cubic GaN/GaAs(001) heterointerface. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2003**, 2597-2601 | | 4 |
| 39 | Cubic GaN Films on GaAs (001) Substrates without Deep-Level Luminescence Grown by Metalorganic Vapor Phase Epitaxy. *Physica Status Solidi A*, **2000**, 180, 15-19 | | 4 |
| 38 | Investigation of indium incorporation into InGaN by nitridation of sapphire substrate in MOVPE. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2013**, 10, 417-420 | | 3 |
| 37 | Relationship between residual carrier density and phase purity in InN grown by pressurized-reactor MOVPE. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2012**, 9, 681-684 | | 3 |
| 36 | Tilted Domain and Indium Content of InGaN Layer on $m$-Plane GaN Substrate Grown by Metalorganic Vapor Phase Epitaxy. *Japanese Journal of Applied Physics*, **2012**, 51, 04DH01 | 1.4 | 3 |
| 35 | MOVPE growth and optical characterization of InGaAsN T-shaped quantum wires lattice-matched to GaAs. *Physica Status Solidi (A) Applications and Materials Science*, **2010**, 207, 1418-1420 | 1.6 | 3 |

| | | | |
|---|---|---|---|
| 34 | Lateral patterning of GaN polarity using wet etching process. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2010**, 7, 1922-1924 | | 3 |
| 33 | MOVPE growth and optical characterization of GaPN films using tertiarybutylphosphine (TBP) and 1,1-dimethylhydrazine (DMHy). *Journal of Crystal Growth*, **2007**, 298, 103-106 | 1.6 | 3 |
| 32 | Electrical conduction in cubic GaN films grown on GaAs(001) by RF-MBE. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 1805-1807 | | 3 |
| 31 | Surface photovoltage spectroscopy characterization of InGaPN alloys grown on GaP substrates. *Journal of Physics Condensed Matter*, **2007**, 19, 096009 | 1.8 | 3 |
| 30 | Microstructures, defects, and localization luminescence in InGaAsN alloy films. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2003**, 2778-2781 | | 3 |
| 29 | Lattice-Latching Effect in Metalorganic Vapor Phase Epitaxy Growth of InGaAsN Film Lattice-Matched to Bulk InGaAs Substrate. *Japanese Journal of Applied Physics*, **2010**, 49, 040202 | 1.4 | 2 |
| 28 | Single Photon Generation from Nitrogen Atomic-Layer Doped Gallium Arsenide. *Materials Science Forum*, **2012**, 706-709, 2916-2921 | 0.4 | 2 |
| 27 | Growth and post-growth rapid thermal annealing of InGaPN on GaP grown by metalorganic vapor phase epitaxy. *Journal of Crystal Growth*, **2007**, 298, 150-153 | 1.6 | 2 |
| 26 | Photoluminescence and photoluminescence-excitation spectroscopy of InGaPN/GaP lattice-matched single quantum well structures grown by MOVPE. *Journal of Crystal Growth*, **2007**, 298, 531-535 | 1.6 | 2 |
| 25 | Structural and optical characterization of high In content cubic InGaN on GaAs(001) substrates by RF-MBE. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2007**, 4, 2437-2440 | | 2 |
| 24 | RF-MBE growth of cubic InN films on YSZ(001) vicinal substrates. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 1712-1714 | | 2 |
| 23 | Built-in electric field at cubic GaN/GaAs(001) heterointerfaces investigated by phase-selected photoreflectance excitation. *Physica Status Solidi (B): Basic Research*, **2004**, 241, 2749-2753 | 1.3 | 2 |
| 22 | Physical Mechanisms of Photoluminescence of InGaAs(N) Alloy Films Grown by MOVPE. *Physica Status Solidi (B): Basic Research*, **2002**, 234, 782-786 | 1.3 | 2 |
| 21 | Photoconductivity and Electroreflectance Study of Cubic GaN/GaAs(001) Heterostructures by Optical-Biasing Technique. *Physica Status Solidi (B): Basic Research*, **2002**, 234, 877-881 | 1.3 | 2 |
| 20 | Characterization of MOVPE-grown GaN layers on GaAs (111)B with a cubic-GaN (111) epitaxial intermediate layer. *Physica Status Solidi (B): Basic Research*, **2003**, 240, 305-309 | 1.3 | 2 |
| 19 | Growth mechanism and structural characterization of hexagonal GaN films grown on cubic GaN (1 1 1)/GaAs (1 1 1)B substrates by MOVPE. *Journal of Crystal Growth*, **2005**, 275, e1023-e1027 | 1.6 | 2 |
| 18 | Fabrication of cubic and hexagonal GaN micro-crystals on GaAs(0 0 1) substrates with relatively thin low-temperature GaN buffer layer. *Journal of Crystal Growth*, **2005**, 278, 431-436 | 1.6 | 2 |
| 17 | Molecular beam epitaxy of ErGaAs alloys on GaAs (0 0 1) substrates. *Journal of Crystal Growth*, **2013**, 378, 85-87 | 1.6 | 1 |

| | | | |
|---|---|---|---|
| 16 | AlGaN/GaN MIS-gate HEMTs with SiCN gate stacks. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2013**, 10, 790-793 | | 1 |
| 15 | Scanning tunneling microscope-based local electroluminescence spectroscopy of p-AlGaAs/i-GaAs/n-AlGaAs double heterostructure. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2012**, 30, 021802 | 1.3 | 1 |
| 14 | Band alignment of lattice-matched InGaPN/GaAs and GaAs/InGaPN quantum wells grown by MOVPE. *Physica E: Low-Dimensional Systems and Nanostructures*, **2010**, 42, 1176-1179 | 3 | 1 |
| 13 | MOVPE growth of high optical quality InGaPN layers on GaAs (001) substrates. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2010**, 7, 2079-2081 | | 1 |
| 12 | Characterization of MOVPE Grown GaAs1-xNx/GaAs Multiple Quantum Wells Emitting Around 1.3-□m-Wavelength Region **2007**, | | 1 |
| 11 | InAsN quantum dots grown on GaAs(001) substrates by MOVPE. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2007**, 4, 2387-2390 | | 1 |
| 10 | Shutterless nitrogen flux modulation using a dual-mode rf-plasma operation during RF-MBE growth of GaN. *Physica Status Solidi (A) Applications and Materials Science*, **2007**, 204, 277-281 | 1.6 | 1 |
| 9 | Band gap energy fluctuations in InGaN films grown by RF-MBE with changing nitrogen supply rate investigated by a piezoelectric photothermal spectroscopy. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 499-502 | | 1 |
| 8 | MOVPE growth and photoluminescence properties of InAsN QDs. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 1715-1718 | | 1 |
| 7 | Highly luminescent cubic GaN microcrystals grown on GaAs(001) substrates by RF-MBE. *Physica Status Solidi (B): Basic Research*, **2004**, 241, 2739-2743 | 1.3 | 1 |
| 6 | Key Factors for Metal Organic Chemical Vapor Deposition of InGaN Films with High InN Molar Fraction. *Applied Mechanics and Materials*, **2013**, 341-342, 204-207 | 0.3 | |
| 5 | A Novel Material for Laser Diodes of Optical Fiber Communication. *Advanced Materials Research*, **2013**, 760-762, 45-49 | 0.5 | |
| 4 | Development of Novel System Combining Scanning Tunneling Microscope-Based Cathodoluminescence and Electroluminescence Nanospectroscopies. *Japanese Journal of Applied Physics*, **2011**, 50, 08LB18 | 1.4 | |
| 3 | Effect of Nitridation on Indium-Composition of InGaN Films. *Key Engineering Materials*, **2012**, 508, 193-198 | 0.4 | |
| 2 | Photoluminescence study of type-II InGaPN/GaAs quantum wells. *Journal of Nanoscience and Nanotechnology*, **2010**, 10, 7154-7 | 1.3 | |
| 1 | Incorporation of N in high N-content GaAsN films investigated by Raman scattering. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 2923-2925 | | |