# Johji Nishio

List of Publications by Year
in descending order



| 66 | 1,332 | 623734 | 377865 |
|---|---|---|---|
| papers | citations | 14 h-index | 34 g-index |

| 68 | 68 | 68 | 856 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Native point defects in lowâ€temperatureâ€grown GaAs. Applied Physics Letters, 1995, 67, 279-281. | 3.3 | 242 |
| 2 | Room Temperature Pulsed Operation of Nitride Based Multi-Quantum-Well Laser Diodes with Cleaved Facets on Conventional C-Face Sapphire Substrates. Japanese Journal of Applied Physics, 1996, 35, L1315-L1317. | 1.5 | 219 |
| 3 | Doping characteristics and electrical properties of Mg-doped AlGaN grown by atmospheric-pressure MOCVD. Journal of Crystal Growth, 1998, 189-190, 511-515. | 1.5 | 93 |
| 4 | Effects of thermal treatment of low-temperature GaN buffer layers on the quality of subsequent GaN layers. Journal of Applied Physics, 1997, 82, 4877-4882. | 2.5 | 91 |
| 5 | Epitaxial Growth of High-Quality 4H-SiC Carbon-Face by Low-Pressure Hot-Wall Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2003, 42, L637-L639. | 1.5 | 66 |
| 6 | p-type conduction in as-grown Mg-doped GaN grown by metalorganic chemical vapor deposition. Applied Physics Letters, 1998, 72, 1748-1750. | 3.3 | 40 |
| 7 | Characterization of InGaN multiquantum well structures for blue semiconductor laser diodes. Applied Physics Letters, 1997, 70, 3431-3433. | 3.3 | 32 |
| 8 | Ultralow-Loss SiC Floating Junction Schottky Barrier Diodes (Super-SBDs). IEEE Transactions on Electron Devices, 2008, 55, 1954-1960. | 3.0 | 30 |
| 9 | Stoichiometry of undoped LEC GaAs. Journal of Crystal Growth, 1986, 79, 463-468. | 1.5 | 29 |
| 10 | Influence of stacking faults on the performance of 4Hâ€“SiC Schottky barrier diodes fabricated on (112Ì„0) face. Applied Physics Letters, 2002, 81, 2974-2976. | 3.3 | 27 |
| 11 | Dependences of contraction/expansion of stacking faults on temperature and current density in 4H-SiC pâ€“iâ€“n diodes. Japanese Journal of Applied Physics, 2018, 57, 061301. | 1.5 | 27 |
| 12 | Magnetic field effect on residual impurity concentrations for LEC GaAs crystal growth. Journal of Crystal Growth, 1987, 84, 247-252. | 1.5 | 26 |
| 13 | Influence of melt preparation on residual impurity concentration in semi-insulating LEC GaAs. Journal of Crystal Growth, 1989, 96, 605-608. | 1.5 | 19 |
| 14 | Gas phase contribution to carbon incorporation and extraction mechanisms for LEC GaAs. Journal of Crystal Growth, 1990, 99, 680-684. | 1.5 | 16 |
| 15 | Band-gap separation in InGaN epilayers grown by metalorganic chemical vapor deposition. Journal of Applied Physics, 1998, 83, 2860-2862. | 2.5 | 14 |
| 16 | Analysis of transverse modes of nitride-based laser diodes. IEEE Journal of Selected Topics in Quantum Electronics, 1999, 5, 765-770. | 2.9 | 14 |
| 17 | Ambient gas constituents and segregation of carbon and boron in LEC GaAs single crystals: the role of water in boric oxide encapsulants. Journal of Crystal Growth, 1993, 134, 97-104. | 1.5 | 13 |
| 18 | Growth of silicon carbide epitaxial layers on 150-mm-diameter wafers using a horizontal hot-wall chemical vapor deposition. Journal of Crystal Growth, 2013, 381, 139-143. | 1.5 | 13 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Photoluminescence Analysis of Individual Partial Dislocations in 4H-SiC Epilayers. Materials Science Forum, 0, 1004, 376-386. | 0.3 | 13 |
| 20 | Direct confirmation of structural differences in single Shockley stacking faults expanding from different origins in 4H-SiC PiN diodes. Journal of Applied Physics, 2020, 128, . | 2.5 | 13 |
| 21 | Origin and Generation Process of a Triangular Single Shockley Stacking Fault Expanding from the Surface Side in 4H-SiC PIN Diodes. Journal of Electronic Materials, 2021, 50, 6504-6511. | 2.2 | 13 |
| 22 | Chargeâ€Ðensityâ€Waveâ€Like Transition in V<sub>3</sub>Te<sub>4</sub>. Physica Status Solidi (B): Basic Research, 1983, 118, K99. | 1.5 | 12 |
| 23 | Fabrication of 4H-SiC Floating Junction Schottky Barrier Diodes (Super-SBDs) and their Electrical Properties. Materials Science Forum, 2006, 527-529, 1175-1178. | 0.3 | 12 |
| 24 | Triangular Single Shockley Stacking Fault Analyses on 4H-SiC PiN Diode with Forward Voltage Degradation. Journal of Electronic Materials, 2020, 49, 5232-5239. | 2.2 | 12 |
| 25 | Process and Device Simulation of a SiC Floating Junction Schottky Barrier Diode (Super-SBD). Materials Science Forum, 2005, 483-485, 921-924. | 0.3 | 10 |
| 26 | V<sub>F</sub> Degradation of 4H-SiC PiN Diodes Using Low-BPD Wafers. Materials Science Forum, 0, 778-780, 851-854. | 0.3 | 10 |
| 27 | Single Shockley stacking fault expansion from immobile basal plane dislocations in 4H-SiC. Japanese Journal of Applied Physics, 2021, 60, SBBD01. | 1.5 | 10 |
| 28 | Precise melt composition control for LEC GaAs. Journal of Crystal Growth, 1987, 85, 469-471. | 1.5 | 9 |
| 29 | Suppression of short step bunching generated on 4Hâ€“SiC Si-face substrates with vicinal off-angle. Journal of Crystal Growth, 2014, 401, 673-676. | 1.5 | 9 |
| 30 | Scatterings of Shallow Threshold Voltage on Si-Implanted WN Self-Alignment Gate GaAs Metal-Semiconductor Field-Effect Transistors on Different Composition 2-Inch Substrates by Growing in Three Kinds of Furnaces. Japanese Journal of Applied Physics, 1991, 30, 2432-2437. | 1.5 | 8 |
| 31 | Investigation of Residual Impurities in 4H-SiC Epitaxial Layers Grown by Hot-Wall Chemical Vapor Deposition. Materials Science Forum, 2002, 389-393, 215-218. | 0.3 | 8 |
| 32 | Simulation, Fabrication and Characterization of 4H-SiC Floating Junction Schottky Barrier Diodes (Super-SBDs). Materials Science Forum, 2007, 556-557, 881-884. | 0.3 | 8 |
| 33 | Doping Concentration Optimization for Ultra-Low-Loss 4H-SiC Floating Junction Schottky Barrier Diode (Super-SBD). Materials Science Forum, 2009, 615-617, 655-658. | 0.3 | 8 |
| 34 | Influence of Epi-Layer Growth Pits on SiC Device Characteristics. Materials Science Forum, 0, 821-823, 177-180. | 0.3 | 8 |
| 35 | Carrier Lifetimes in 4H-SiC Epitaxial Layers on the C-Face Enhanced by Carbon Implantation. Materials Science Forum, 0, 924, 432-435. | 0.3 | 8 |
| 36 | Structural study of single Shockley stacking faults terminated near substrate/epilayer interface in 4H-SiC. Japanese Journal of Applied Physics, 2022, 61, SC1005. | 1.5 | 8 |

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| 37 | SiC Device Limitation Breakthrough with Novel Floating Junction Structure on 4H-SiC. Materials Science Forum, 2003, 433-436, 887-890. | 0.3 | 7 |
| 38 | Design Consideration of High Power Density Inverter with Low-on-voltage SiC-JBS and High-speed Gate Driving of Si-IGBT. , 2009, , . | | 7 |
| 39 | Dependence of 4H-SiC Epitaxial Layer Quality on Growth Conditions with Wafer Size Corresponding to 150 mm. Materials Research Society Symposia Proceedings, 2012, 1433, 59. | 0.1 | 7 |
| 40 | Suppression of 3C-Inclusion Formation during Growth of 4H-SiC Si-Face Homoepitaxial Layers with a 1Â° Off-Angle. Materials, 2014, 7, 7010-7021. | 2.9 | 7 |
| 41 | Initiation of Shockley Stacking Fault Expansion in 4H-SiC P-i-N Diodes. Materials Science Forum, 0, 963, 280-283. | 0.3 | 7 |
| 42 | Informative Aspects of Molten KOH Etch Pits Formed at Basal Plane Dislocations on the Surface of 4Hâ€SiC. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000332. | 1.8 | 7 |
| 43 | Homoepitaxial growth and investigation of stacking faults of 4H-SiC C-face epitaxial layers with a 1Â° off-angle. Japanese Journal of Applied Physics, 2015, 54, 04DP04. | 1.5 | 7 |
| 44 | Photoluminescence study of GaN/InGaN multiquantum well structures at room temperature. Journal of Crystal Growth, 1998, 189-190, 128-132. | 1.5 | 6 |
| 45 | Uniformity of 4Hâ€“SiC epitaxial layers grown on 3-in diameter substrates. Journal of Crystal Growth, 2003, 258, 113-122. | 1.5 | 6 |
| 46 | Conversion of Shockley partial dislocation pairs from unexpandable to expandable combinations after epitaxial growth of 4H-SiC. Journal of Applied Physics, 2021, 130, . | 2.5 | 6 |
| 47 | Transport restriction effect for gaseous components on the carbon content of LEC GaAs. Journal of Crystal Growth, 1991, 108, 150-156. | 1.5 | 5 |
| 48 | Properties of GaN epitaxial layers grown at high growth rates by metalorganic chemical vapor deposition. Journal of Electronic Materials, 2001, 30, 23-26. | 2.2 | 5 |
| 49 | Epitaxial Growth of (11-20) 4H-SiC Using Substrate Grown in the [11-20] Direction. Materials Science Forum, 2002, 389-393, 195-198. | 0.3 | 5 |
| 50 | Homo-Epitaxial Growth on 2Â° Off-Cut 4H-SiC(0001) Si-Face Substrates Using H<sub>2</sub>-SiH<sub>4</sub>-C<sub>3</sub>H<sub>8</sub> CVD System. Materials Science Forum, 2014, 778-780, 214-217. | 0.3 | 5 |
| 51 | Evaluation of Effect of Mechanical Stress on Stacking Fault Expansion in 4H-SiC P-i-N Diode. Materials Science Forum, 0, 963, 288-293. | 0.3 | 5 |
| 52 | Phase field model of single Shockley stacking fault expansion in 4H-SiC PiN diode. Japanese Journal of Applied Physics, 2021, 60, 024004. | 1.5 | 5 |
| 53 | Transmission Electron Microscopy Study of Single Shockley Stacking Faults in 4H-SiC Expanded from Basal Plane Dislocation Segments Accompanied by Threading Edge Dislocations on both Ends. Materials Science Forum, 0, 1062, 258-262. | 0.3 | 5 |
| 54 | Optimization of a SiC Super-SBD Based on Scaling Properties of Power Devices. Materials Science Forum, 2006, 527-529, 1179-1182. | 0.3 | 4 |

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| 55 | Conversion of Basal Plane Dislocations to Threading Edge Dislocations in Growth of Epitaxial Layers on 4H-SiC Substrates with a Vicinal Off-Angle. Materials Science Forum, 0, 778-780, 99-102. | 0.3 | 4 |
| 56 | C-Face Epitaxial Growth of 4H-SiC on Quasi-150-mm Diameter Wafers with High Throughput. Materials Science Forum, 0, 778-780, 109-112. | 0.3 | 4 |
| 57 | Uniformity Improvement in Carrier Concentration on 150 mm Diameter C-Face Epitaxial Growth of 4H-SiC. Materials Science Forum, 2015, 821-823, 169-172. | 0.3 | 4 |
| 58 | Reduction of background carrier concentration and lifetime improvement for 4H-SiC C-face epitaxial growth. Japanese Journal of Applied Physics, 2017, 56, 081302. | 1.5 | 4 |
| 59 | Theoretical analysis for the segregation in the liquid encapsulated Czochralski system. Journal of Crystal Growth, 1994, 141, 249-255. | 1.5 | 3 |
| 60 | The analysis of contact resistivity between a p-type GaN layer and electrode in InGaN MQW laser diodes. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 59, 366-369. | 3.5 | 3 |
| 61 | Epitaxial Overgrowth of 4H-SiC for Devices with p-Buried Floating Junction Structure. Materials Science Forum, 2005, 483-485, 147-150. | 0.3 | 3 |
| 62 | Vacuum Bakeout Effect on Ambient Gas in a High Pressure LEC Puller. Japanese Journal of Applied Physics, 1992, 31, 1726-1729. | 1.5 | 2 |
| 63 | Internal Stress Distribution Estimation in Liquid-Encapsulated Czochralski Grown GaAs Single Crystals Using Measured Temperature on Dummy Crystals. Japanese Journal of Applied Physics, 1993, 32, 716-721. | 1.5 | 2 |
| 64 | Improvement of 4H-SiC Epitaxial Layers Grown on 2<sup>o</sup> Offcut Si-Face Substrates. Materials Science Forum, 0, 858, 133-136. | 0.3 | 2 |
| 65 | Reduction in Background Carrier Concentration for 4H-SiC C-face Epitaxial Growth. MRS Advances, 2016, 1, 3631-3636. | 0.9 | 2 |
| 66 | Dynamics Analysis of Single Shockley Stacking Fault Expansion in 4H-SiC P-i-N Diode Based on Free Energy. Materials Science Forum, 0, 963, 263-267. | 0.3 | 2 |