Johji Nishio

List of Publications by Year
in descending order

66 papers	1,332 citations	623734 14 h-index	377865 34 g-index
68 all docs	68 docs citations	68 times ranked	856 citing authors

#	Article	IF	Citations
1	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
2	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
3	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
4	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
5	Single Shockley stacking fault expansion from immobile basal plane dislocations in 4H-SiC. Japanese Journal of Applied Physics, 2021, 60, SBBD01.	1.5	10
6	Informative Aspects of Molten KOH Etch Pits Formed at Basal Plane Dislocations on the Surface of 4Hâ€ŠSiC. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000332.	1.8	7
7	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
8	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
9	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
10	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
11	Reduction in Background Carrier Concentration for 4H-SiC C-face Epitaxial Growth. MRS Advances, 2016, 1, 3631-3636.	0.9	2
12	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
13	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
14	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
15	Homo-Epitaxial Growth on 2Â° Off-Cut 4<i>H</i>-SiC(0001) Si-Face Substrates Using H₂-SiH₄-C₃H₈ CVD System. Materials Science Forum, 2014, 778-780, 214-217.	0.3	5
16	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
17	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
18	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

#	Article	IF	Citations
19	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
20	Design Consideration of High Power Density Inverter with Low-on-voltage SiC-JBS and High-speed Gate Driving of Si-IGBT. , 2009, , .		7
21	Ultralow-Loss SiC Floating Junction Schottky Barrier Diodes (Super-SBDs). IEEE Transactions on Electron Devices, 2008, 55, 1954-1960.	3.0	30
22	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
23	Optimization of a SiC Super-SBD Based on Scaling Properties of Power Devices. Materials Science Forum, 2006, 527-529, 1179-1182.	0.3	4
24	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
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	Epitaxial Overgrowth of 4H-SiC for Devices with p-Buried Floating Junction Structure. Materials Science Forum, 2005, 483-485, 147-150.	0.3	3
27	Uniformity of 4Hâ€"SiC epitaxial layers grown on 3-in diameter substrates. Journal of Crystal Growth, 2003, 258, 113-122.	1.5	6
28	SiC Device Limitation Breakthrough with Novel Floating Junction Structure on 4H-SiC. Materials Science Forum, 2003, 433-436, 887-890.	0.3	7
29	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
30	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
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	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
33	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
34	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
35	Analysis of transverse modes of nitride-based laser diodes. IEEE Journal of Selected Topics in Quantum Electronics, 1999, 5, 765-770.	2.9	14
36	Photoluminescence study of GaN/InGaN multiquantum well structures at room temperature. Journal of Crystal Growth, 1998, 189-190, 128-132.	1.5	6

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37	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
38	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
39	Band-gap separation in InGaN epilayers grown by metalorganic chemical vapor deposition. Journal of Applied Physics, 1998, 83, 2860-2862.	2.5	14
40	Characterization of InGaN multiquantum well structures for blue semiconductor laser diodes. Applied Physics Letters, 1997, 70, 3431-3433.	3.3	32
41	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
42	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
43	Native point defects in lowâ€temperatureâ€grown GaAs. Applied Physics Letters, 1995, 67, 279-281.	3.3	242
44	Theoretical analysis for the segregation in the liquid encapsulated Czochralski system. Journal of Crystal Growth, 1994, 141, 249-255.	1.5	3
45	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
46	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
47	Vacuum Bakeout Effect on Ambient Gas in a High Pressure LEC Puller. Japanese Journal of Applied Physics, 1992, 31, 1726-1729.	1.5	2
48	Transport restriction effect for gaseous components on the carbon content of LEC GaAs. Journal of Crystal Growth, 1991, 108, 150-156.	1.5	5
49	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
50	Gas phase contribution to carbon incorporation and extraction mechanisms for LEC GaAs. Journal of Crystal Growth, 1990, 99, 680-684.	1.5	16
51	Influence of melt preparation on residual impurity concentration in semi-insulating LEC GaAs. Journal of Crystal Growth, 1989, 96, 605-608.	1.5	19
52	Precise melt composition control for LEC GaAs. Journal of Crystal Growth, 1987, 85, 469-471.	1.5	9
53	Magnetic field effect on residual impurity concentrations for LEC GaAs crystal growth. Journal of Crystal Growth, 1987, 84, 247-252.	1.5	26
54	Stoichiometry of undoped LEC GaAs. Journal of Crystal Growth, 1986, 79, 463-468.	1.5	29

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55	Chargeâ€Densityâ€Waveâ€Like Transition in V₃Te₄. Physica Status Solidi (B): Basic Research, 1983, 118, K99.	1.5	12
56	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
57	V_F Degradation of 4H-SiC PiN Diodes Using Low-BPD Wafers. Materials Science Forum, 0, 778-780, 851-854.	0.3	10
58	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
59	Influence of Epi-Layer Growth Pits on SiC Device Characteristics. Materials Science Forum, 0, 821-823, 177-180.	0.3	8
60	Improvement of 4H-SiC Epitaxial Layers Grown on 2^o Offcut Si-Face Substrates. Materials Science Forum, 0, 858, 133-136.	0.3	2
61	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
62	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
63	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
64	Initiation of Shockley Stacking Fault Expansion in 4H-SiC P-i-N Diodes. Materials Science Forum, 0, 963, 280-283.	0.3	7
65	Photoluminescence Analysis of Individual Partial Dislocations in 4H-SiC Epilayers. Materials Science Forum, 0, 1004, 376-386.	0.3	13
66	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