Kazuhiro Mochizuki

List of Publications by Year
in descending order

27	192	1307594 7	1281871 11
papers	citations	h-index	g-index

28	28	28	123
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Analysis of relaxation time for nitrogen-containing species to enter steps on misoriented (0001) surfaces during homoepitaxial growth of 4H-SiC. Japanese Journal of Applied Physics, 2022, 61, 078003.	1.5	1
2	Possible contribution of the Gibbsâ^'Thomson effect to filling nanopipes in GaN homoepitaxial layers. Japanese Journal of Applied Physics, 2021, 60, 078001.	1.5	1
3	Possible influence of oxygen segregation on reducing specific surface energies for m-plane sides of nanopipes in GaN. Japanese Journal of Applied Physics, 2021, 60, 098002.	1.5	1
4	Step-edge segregation model for step-velocity dependences of carbon and oxygen concentrations in GaN layers grown on m-plane GaN. Japanese Journal of Applied Physics, 2021, 60, 018002.	1.5	1
5	Analysis of surface diffusion of carbon- and nitrogen-containing molecules during homoepitaxial growth of 4H-SiC (0001) under silicon-rich conditions. Japanese Journal of Applied Physics, 2021, 60, 018001.	1.5	3
6	Analysis of step-velocity-dependent concentration of magnesium in GaN based on Burtonâ^'Cabreraâ^'Frank theory and step-edge segregation model. Japanese Journal of Applied Physics, 2021, 60, 128003.	1.5	3
7	Fast-filling of 4H-SiC trenches at 10ÂÎ¼m/h by enhancing partial pressures of source species in chemical vapor deposition processes. Journal of Crystal Growth, 2020, 546, 125809.	1.5	0
8	Step-edge and kink segregation models for analysis of reported step-velocity dependences of carbon concentration in GaN. Japanese Journal of Applied Physics, 2020, 59, 068001.	1.5	5
9	Estimation of surface-diffusion length of aluminum-containing species on 4H-SiC (0001). Japanese Journal of Applied Physics, 2020, 59, 088003.	1.5	3
10	Modeling of Al Doping During 4H-SiC Chemical-Vapor-Deposition Trench Filling. IEEE Journal of the Electron Devices Society, 2019, 7, 470-475.	2.1	3
11	Breaking the Theoretical Limit of 6.5 kV-Class 4H-SiC Super-Junction (SJ) MOSFETs by Trench-Filling Epitaxial Growth. , 2019, , .		40
12	Effect of HCL on Surface Free Energy of SiC during CVD Trench Filling. Materials Science Forum, 2019, 963, 136-140.	0.3	1
13	Topography Simulation of 4H-SiC-Chemical-Vapor-Deposition Trench Filling Including an OrientationDependent Surface Free Energy. , 2018, , .		2
14	Vertical GaN bipolar devices: Gaining competitive advantage from photon recycling. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600489.	1.8	9
15	A Commercial-Simulator-Based Numerical-Analysis Methodology for 4H-SiC Power Devices Formed on Misoriented (0001) Substrates. IEEE Journal of the Electron Devices Society, 2015, 3, 316-322.	2.1	3
16	A Proposal to Apply Effective Acceptor Level for Representing Increased Ionization Ratio of Mg Acceptors in Extrinsically Photon-Recycled GaN. Materials Science Forum, 2014, 778-780, 1189-1192.	0.3	2
17	Numerical Determination of Schottky Barrier Height of Nickel/n-Type Gallium Nitride Diodes Formed on Free-standing Substrates. Journal of Modern Mathematics Frontier, 2014, 3, 29.	0.3	3
18	Optical-Thermo-Transition Model of Reduction in On-Resistance of Small GaN pâ€“n Diodes. Japanese Journal of Applied Physics, 2013, 52, 08JN10.	1.5	17

#	Article	IF	Citations
19	Determination of Lateral Extension of Extrinsic Photon Recycling in p-GaN by Using Transmission-Line-Model Patterns Formed with GaN pâ€“n Junction Epitaxial Layers. Japanese Journal of Applied Physics, 2013, 52, 08JN22.	1.5	16
20	Influence of Surface Recombination on Forward Currentâ€“Voltage Characteristics of Mesa GaN $hbox{p}^{+}hbox{n}$ Diodes Formed on GaN Free-Standing Substrates. IEEE Transactions on Electron Devices, 2012, 59, 1091-1098.	3.0	14
21	Numerical Analysis of Forward-Current/Voltage Characteristics of Vertical GaN Schottky-Barrier Diodes and p-n Diodes on Free-Standing GaN Substrates. IEEE Transactions on Electron Devices, 2011, 58, 1979-1985.	3.0	30
22	Analysis of Leakage Current at Pd/AlGaN Schottky Barriers Formed on GaN Free-Standing Substrates. Applied Physics Express, 2011, 4, 024104.	2.4	9
23	MBE Growth of GaAs1-xSbxand InyGa1-yAs and Application of BCF Theory to Study the Alloy Composition. Japanese Journal of Applied Physics, 1988, 27, 1585-1592.	1.5	18
24	Estimation of Shockleyâ€“Readâ€“Hall Lifetime in Homoepitaxial nâ€GaN on Lowâ€Dislocationâ€Density GaN Substrates Prepared by Hydride Vapor Phase Epitaxy and Maskless 3D. Physica Status Solidi (B): Basic Research, 0, , 2100215.	1.5	1
25	No significant contribution of hole-trap-enhanced conductivity modulation in GaN p⁺n diodes formed on low-dislocation-density GaN substrates. Japanese Journal of Applied Physics, 0, , .	1.5	0
26	Reâ€evaluation of Ni/ <scp>pâ€GaN Schottkyâ€Barrier</scp> Height Based on <scp>Thermionicâ€Emissionâ€Diffusion</scp> Theory. IEEJ Transactions on Electrical and Electronic Engineering, 0, , .	1.4	0
27	Models for Impurity Incorporation during Vapor-Phase Epitaxy. Materials Science Forum, 0, 1062, 3-7.	0.3	2