Yoshiyuki Yonezawa

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

71 papers	951 citations	17 h-index	27 g-index
75 ext. papers	1,157 ext. citations	2 avg, IF	4.08 L-index

#	Paper	IF	Citations
71	Direct visualization of kinetic reversibility of crystallization and dissolution behavior at solution growth interface of SiC in Si-Cr solvent. *Surfaces and Interfaces*, **2022**, 28, 101664	4.1	1
70	Crystalline Quality Evaluation of SiC p/n Column Layers Formed by Trench-Filling-Epitaxial Growth. *Materials Science Forum*, **2020**, 1004, 445-450	0.4	
69	Low V F 4H-SiC N-i-P diodes using newly developed low-resistivity p-type substrates. *Japanese Journal of Applied Physics*, **2020**, 59, SGGD14	1.4	
68	Fast-filling of 4H-SiC trenches at 10□m/h by enhancing partial pressures of source species in chemical vapor deposition processes. *Journal of Crystal Growth*, **2020**, 546, 125809	1.6	
67	Breaking the Theoretical Limit of 6.5 kV-Class 4H-SiC Super-Junction (SJ) MOSFETs by Trench-Filling Epitaxial Growth **2019**,		22
66	Ideal phonon-scattering-limited mobility in inversion channels of 4H-SiC(0001) MOSFETs with ultralow net doping concentrations. *Applied Physics Letters*, **2019**, 115, 132102	3.4	12
65	Impact of crystal faces of 4H-SiC in SiO2/4H-SiC structures on interface trap densities and mobilities. *Applied Physics Express*, **2019**, 12, 021003	2.4	12
64	Relationship between depth of basal-plane dislocations and expanded stacking faults by application of forward current to 4H□SiC p-i-n diodes. *Applied Physics Express*, **2019**, 12, 051007	2.4	8
63	Selection of ion species suited for channeled implantation to be used in multi-epitaxial growth for SiC superjunction devices. *Japanese Journal of Applied Physics*, **2019**, 58, 050905	1.4	5
62	Gibbs□homson effect on aluminum doping during trench-filling epitaxial growth of 4H-SiC. *Japanese Journal of Applied Physics*, **2019**, 58, 051009	1.4	0
61	Expansion and contraction of single Shockley stacking faults in SiC epitaxial layer under ultraviolet irradiation. *Applied Physics Express*, **2019**, 12, 041006	2.4	6
60	Modeling of Al Doping During 4H-SiC Chemical-Vapor-Deposition Trench Filling. *IEEE Journal of the Electron Devices Society*, **2019**, 7, 470-475	2.3	2
59	A Study of CVD Growth Parameters to Fill 50-□m-Deep 4H-SiC Trenches. *Materials Science Forum*, **2019**, 963, 131-135	0.4	1
58	Effect of HCL on Surface Free Energy of SiC during CVD Trench Filling. *Materials Science Forum*, **2019**, 963, 136-140	0.4	1
57	Initiation of Shockley Stacking Fault Expansion in 4H-SiC P-i-N Diodes. *Materials Science Forum*, **2019**, 963, 280-283	0.4	5
56	Structural analysis of interfacial dislocations and expanded single Shockley-type stacking faults in forward-current degradation of 4H-SiC p-i-n diodes. *Japanese Journal of Applied Physics*, **2019**, 58, 011005	1.4	4
55	Dynamic Behavior of a Medium-Voltage N-Channel SiC-IGBT With Ultrafast Switching Performance of 300 kV/□. *IEEE Transactions on Industry Applications*, **2018**, 54, 3558-3565	4.3	5

54	Accurate evaluation of fast threshold voltage shift for SiC MOS devices under various gate bias stress conditions. *Japanese Journal of Applied Physics*, **2018**, 57, 04FA07	1.4	8
53	Influence of basal-plane dislocation structures on expansion of single Shockley-type stacking faults in forward-current degradation of 4H-SiC pin diodes. *Japanese Journal of Applied Physics*, **2018**, 57, 04FR07	1.4	15
52	Current status and perspectives of ultrahigh-voltage SiC power devices. *Materials Science in Semiconductor Processing*, **2018**, 78, 43-56	4.3	53
51	CVD Filling of Narrow Deep 4H-SiC Trenches in a Quasi-Selective Epitaxial Growth Mode. *Materials Science Forum*, **2018**, 924, 116-119	0.4	3
50	Dependences of contraction/expansion of stacking faults on temperature and current density in 4H-SiC pin diodes. *Japanese Journal of Applied Physics*, **2018**, 57, 061301	1.4	20
49	Improved channel mobility of 4H-SiC n-MOSFETs by ultrahigh-temperature gate oxidation with low-oxygen partial-pressure cooling. *Japanese Journal of Applied Physics*, **2018**, 57, 120304	1.4	5
48	Injected carrier concentration dependence of the expansion of single Shockley-type stacking faults in 4H-SiC PiN diodes. *Journal of Applied Physics*, **2018**, 123, 025707	2.5	30
47	Effect of boron incorporation on slow interface traps in SiO2/4H-SiC structures. *Applied Physics A: Materials Science and Processing*, **2017**, 123, 1	2.6	11
46	Characterization of traps at nitrided SiO2/SiC interfaces near the conduction band edge by using Hall effect measurements. *Applied Physics Express*, **2017**, 10, 046601	2.4	72
45	Impact of rapid cooling process in ultrahigh-temperature oxidation of 4H-SiC(0001). *Japanese Journal of Applied Physics*, **2017**, 56, 04CR04	1.4	7
44	Strong impact of slight trench direction misalignment from $[11bar{2}0]$ on deep trench filling epitaxy for SiC super-junction devices. *Japanese Journal of Applied Physics*, **2017**, 56, 04CR05	1.4	14
43	Origin analysis of expanded stacking faults by applying forward current to 4H-SiC pin diodes. *Applied Physics Express*, **2017**, 10, 081201	2.4	11
42	An empirical growth window concerning the input ratio of HCl/SiH4gases in filling 4H-SiC trench by CVD. *Applied Physics Express*, **2017**, 10, 055505	2.4	9
41	Evaluation of drain current decrease by AC gate bias stress in commercially available SiC MOSFETs **2017**,		2
40	Effect of H2 Carrier Gas on CVD Growth Rate for 4H-SiC Trench Filling. *Materials Science Forum*, **2016**, 858, 181-184	0.4	4
39	Pragmatic Approach to the Characterization of SiC/SiO2 Interface Traps near the Conduction Band with Split C-V and Hall Measurements. *Materials Science Forum*, **2016**, 858, 477-480	0.4	3
38	Threshold-voltage instability in 4H-SiC MOSFETs with nitrided gate oxide revealed by non-relaxation method. *Japanese Journal of Applied Physics*, **2016**, 55, 04ER11	1.4	23
37	Growth of Shockley type stacking faults upon forward degradation in 4H-SiC p-i-n diodes. *Journal of Applied Physics*, **2016**, 119, 095711	2.5	53

36	Numerical analysis of the Gibbs–Thomson effect on trench-filling epitaxial growth of 4H-SiC. *Applied Physics Express*, **2016**, 9, 035601	2.4	8
35	Short minority carrier lifetimes in highly nitrogen-doped 4H-SiC epilayers for suppression of the stacking fault formation in PiN diodes. *Journal of Applied Physics*, **2016**, 120, 115101	2.5	47
34	Analysis of Dislocation Structures in 4H-SiC by Synchrotron X-Ray Topography. *Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi)*, **2016**, 197, 3-17	0.4	5
33	Temperature-dependent analysis of conduction mechanism of leakage current in thermally grown oxide on 4H-SiC. *Journal of Applied Physics*, **2015**, 117, 024505	2.5	37
32	Device Performance and Switching Characteristics of 16 kV Ultrahigh-Voltage SiC Flip-Type n-Channel IE-IGBTs. *Materials Science Forum*, **2015**, 821-823, 842-846	0.4	18
31	Exact Characterization of Threshold Voltage Instability in 4H-SiC MOSFETs by Non-Relaxation Method. *Materials Science Forum*, **2015**, 821-823, 685-688	0.4	8
30	Development of Ultrahigh-Voltage SiC Devices. *IEEE Transactions on Electron Devices*, **2015**, 62, 396-404	2.9	52
29	Dynamic characteristics of large current capacity module using 16-kV ultrahigh voltage SiC flip-type n-channel IE-IGBT **2014**,		10
28	Static and dynamic performance evaluation of > 13 kV SiC p-channel IGBTs at high temperatures **2014**,		5
27	Conduction Mechanism of Leakage Current in Thermal Oxide on 4H-SiC. *Materials Science Forum*, **2014**, 778-780, 579-582	0.4	1
26	Development of ultrahigh voltage SiC power devices **2014**,		2
25	Effect of Current-Spreading Layer Formed by Ion Implantation on the Electrical Properties of High-Voltage 4H-SiC p-Channel IGBTs. *Materials Science Forum*, **2014**, 778-780, 1038-1041	0.4	9
24	Improved Channel Mobility in 4H-SiC MOSFETs by Boron Passivation. *IEEE Electron Device Letters*, **2014**, 35, 1176-1178	4.4	83
23	13-kV, 20-A 4H-SiC PiN Diodes for Power System Applications. *Materials Science Forum*, **2014**, 778-780, 855-858	0.4	5
22	High Voltage and Fast Switching Reverse Recovery Characteristics of 4H-SiC PiN Diode. *Materials Science Forum*, **2014**, 778-780, 841-844	0.4	1
21	Reliability Improvement and Optimization of Trench Orientation of 4H-SiC Trench-Gate Oxide. *Materials Science Forum*, **2014**, 778-780, 537-540	0.4	3
20	**2013**,		18
19	Fabrication of a P-Channel SiC-IGBT with High Channel Mobility. *Materials Science Forum*, **2013**, 740-742, 958-961	0.4	29

18	Ultrahigh voltage SiC bipolar devices **2013**,		2
17	Effect of Post-Oxidation Annealing in Wet O2 and N2O Ambient on Thermally Grown SiO2/4H-SiC Interface for P-Channel MOS Devices. *Materials Science Forum*, **2012**, 717-720, 709-712	0.4	6
16	Screening of metal flux for SiC solution growth by a thin-film combinatorial method. *Science and Technology of Advanced Materials*, **2011**, 12, 054209	7.1	11
15	Analyses of High Leakage Currents in Al+ Implanted 4H SiC pn Diodes Caused by Threading Screw Dislocations. *Materials Science Forum*, **2010**, 645-648, 913-916	0.4	28
14	Characterization of Screw Dislocations in a 4H-Silicon Carbide Diode Using X-Ray Microbeam Three-Dimensional Topography. *Materials Science Forum*, **2009**, 615-617, 251-254	0.4	8
13	Ceramic liquid droplets stabilized in vacuum. *Journal of Applied Physics*, **2007**, 101, 033511	2.5	9
12	Perfect Bi4Ti3O12 Single-Crystal Films via Flux-Mediated Epitaxy. *Advanced Functional Materials*, **2006**, 16, 485-491	15.6	34
11	Dislocation-Related Etch Protrusions Formed on 4H-SiC (000-1) Surfaces by Molten KOH Etching. *Materials Research Society Symposia Proceedings*, **2006**, 911, 22		2
10	Nanoskyscrapers of ferroelectric Bi4Ti3O12. *Applied Physics Letters*, **2006**, 88, 152904	3.4	13
9	Combinatorial exploration of flux material for Bi4Ti3O12 single crystal film growth. *Applied Surface Science*, **2006**, 252, 2477-2481	6.7	12
8	Flux-mediated epitaxy for ferroelectric Bi4Ti3O12 single crystal film growth. *Journal of Electroceramics*, **2006**, 17, 189-195	1.5	
7	45°rotational epitaxy of SrTiO3 thin films on sulfide-buffered Si. *Applied Physics Letters*, **2003**, 82, 4125-4127	3.4	12
6	Growth and Electrical Properties of Fe doped (Ba, Sr)TiO3 Thin Films Deposited by Pulsed Laser Deposition. *Materials Research Society Symposia Proceedings*, **2001**, 688, 1		1
5	Composition Distribution of Compound Oxide Films Deposited by Magnetron Sputtering. *Japanese Journal of Applied Physics*, **2000**, 39, 5379-5383	1.4	5
4	High-sensitivity two-dimensional thermal- and mechanical-stress-induced birefringence measurements in a Nd:YAG rod. *Applied Optics*, **1994**, 33, 6368-72	1.7	17
3	Overlapping repulsive energies between ions (Y3+, Ba2+, Cu3+, Cu2+ and O2−)and their effects on the nature of the bonds in Y2O3, BaO, CuO and YBa2Cu3Ox. *Journal of Physics and Chemistry of Solids*, **1990**, 51, 313-322	3.9	11
2	Madelung Potentials in YBa2Cu3Ox (x=7 and 8). *Japanese Journal of Applied Physics*, **1987**, 26, L1492-L1494	1.4	12
1	Depth Distribution of Defects in SiC PiN Diodes Formed Using Ion Implantation or Epitaxial Growth. *Physica Status Solidi (B): Basic Research*,2100419	1.3	