Tsunenobu Kimoto

List of Publications by Year in Descending Order

456 papers	12,059 citations	56 h-index	92 g-index
487 ext. papers	13,517 ext. citations	2.4 avg, IF	6.94 L-index

#	Paper	IF	Citations
456	Carrier Trapping Effects on Forward Characteristics of SiC p-i-n Diodes Fabricated on High-Purity Semi-Insulating Substrates. *IEEE Transactions on Electron Devices*, **2022**, 69, 1989-1994	2.9	1
455	High-voltage SiC power devices for improved energy efficiency.. *Proceedings of the Japan Academy Series B: Physical and Biological Sciences*, **2022**, 98, 161-189	4	1
454	Critical electric field for transition of thermionic field emission/field emission transport in heavily doped SiC Schottky barrier diodes. *Applied Physics Letters*, **2022**, 120, 172103	3.4	0
453	SiC complementary junction field-effect transistor logic gate operation at 623 K. *IEEE Electron Device Letters*, **2022**, 1-1	4.4	1
452	Breakdown Electric Field of GaN p+-n and p-n+ Junction Diodes with Various Doping Concentrations. *IEEE Electron Device Letters*, **2021**, 1-1	4.4	1
451	Short-Channel Effects in SiC MOSFETs Based on Analyses of Saturation Drain Current. *IEEE Transactions on Electron Devices*, **2021**, 68, 1382-1384	2.9	5
450	Lateral spreads of ion-implanted Al and P atoms in silicon carbide. *Japanese Journal of Applied Physics*, **2021**, 60, 051001	1.4	2
449	Impact ionization coefficients and critical electric field in GaN. *Journal of Applied Physics*, **2021**, 129, 185703	2.5	23
448	Expansion patterns of single Shockley stacking faults from scratches on 4H-SiC. *Japanese Journal of Applied Physics*, **2021**, 60, 068001	1.4	0
447	Orientation and size effects on electronic structure of rectangular cross-sectional Sn nanowires. *Journal of Applied Physics*, **2021**, 129, 224302	2.5	
446	Mobility improvement of 4H-SiC (0001) MOSFETs by a three-step process of H2 etching, SiO2 deposition, and interface nitridation. *Applied Physics Express*, **2021**, 14, 031001	2.4	16
445	Improvement of Both n- and p-Channel Mobilities in 4H-SiC MOSFETs by High-Temperature N Annealing. *IEEE Transactions on Electron Devices*, **2021**, 68, 638-644	2.9	5
444	Nearly Fermi-level-pinning-free interface in metal/heavily-doped SiC Schottky structures. *Japanese Journal of Applied Physics*, **2021**, 60, SBBD14	1.4	6
443	Depth profiles of electron traps generated during reactive ion etching in n-type 4H-SiC characterized by using isothermal capacitance transient spectroscopy. *Journal of Applied Physics*, **2021**, 130, 105703	2.5	1
442	Forward thermionic field emission transport and significant image force lowering caused by high electric field at metal/heavily-doped SiC Schottky interfaces. *Applied Physics Express*, **2020**, 13, 041001	2.4	9
441	Temperature Dependence of Conductivity Modulation in SiC Bipolar Junction Transistors. *IEEE Transactions on Electron Devices*, **2020**, 67, 1699-1704	2.9	3
440	Grain-boundary structures and their impact on the electrical properties of NiO films deposited by reactive sputtering. *Thin Solid Films*, **2020**, 709, 138203	2.2	1

439	Tunneling Current in 4H-SiC p-n Junction Diodes. *IEEE Transactions on Electron Devices*, **2020**, 67, 3329-3334	2.9	7
438	Dual-color-sub-bandgap-light-excited isothermal capacitance transient spectroscopy for quick measurement of carbon-related hole trap density in n-type GaN. *Japanese Journal of Applied Physics*, **2020**, 59, SGGD05	1.4	1
437	Unique resistive switching phenomena exhibiting both filament-type and interface-type switching in Ti/Pr0.7Ca0.3MnO3/Pt ReRAM cells. *Applied Physics Letters*, **2020**, 116, 013501	3.4	6
436	Electron-spin-resonance and electrically detected-magnetic-resonance characterization on PbC center in various 4H-SiC(0001)/SiO2 interfaces. *Journal of Applied Physics*, **2020**, 127, 145301	2.5	9
435	Estimation of the critical condition for expansion/contraction of single Shockley stacking faults in 4H-SiC PiN diodes. *Applied Physics Letters*, **2020**, 116, 092105	3.4	10
434	Transformation of hollow-core screw dislocations: transitional configuration of superscrew dislocations. *Japanese Journal of Applied Physics*, **2020**, 59, 095502	1.4	2
433	Design and formation of SiC (0001)/SiO2 interfaces via Si deposition followed by low-temperature oxidation and high-temperature nitridation. *Applied Physics Express*, **2020**, 13, 091003	2.4	17
432	Formation of high-quality SiC(0001)/SiO2 structures by excluding oxidation process with H2 etching before SiO2 deposition and high-temperature N2 annealing. *Applied Physics Express*, **2020**, 13, 121002	2.4	10
431	Defect engineering in SiC technology for high-voltage power devices. *Applied Physics Express*, **2020**, 13, 120101	2.4	44
430	Rapid Revolution Speed Control of the Brushless DC Motor for Automotive LIDAR Applications. *IEICE Transactions on Electronics*, **2020**, E103.C, 324-331	0.4	
429	Comprehensive and systematic design of metal/high-k gate stack for high-performance and highly reliable SiC power MOSFET. *Japanese Journal of Applied Physics*, **2020**, 59, 021001	1.4	3
428	Analysis of carrier lifetimes in n-type 4H-SiC by rate equations. *Applied Physics Express*, **2020**, 13, 011006	2.4	3
427	Experimental Study on Short-Channel Effects in Double-Gate Silicon Carbide JFETs. *IEEE Transactions on Electron Devices*, **2020**, 67, 4538-4540	2.9	3
426	Effect of quantum confinement on the defect-induced localized levels in 4H-SiC(0001)/SiO2 systems. *Journal of Applied Physics*, **2020**, 128, 095702	2.5	5
425	Experimental Determination of Impact Ionization Coefficients Along <1120> in 4H-SiC. *IEEE Transactions on Electron Devices*, **2020**, 67, 3740-3744	2.9	9
424	Spin transport in n-type 3C-SiC observed in a lateral spin-pumping device. *Solid State Communications*, **2020**, 305, 113754	1.6	2
423	Theoretical analysis of band structure effects on impact ionization coefficients in wide-bandgap semiconductors. *Applied Physics Express*, **2020**, 13, 041006	2.4	3
422	Franz-Keldysh effect in 4H-SiC p-i-n junction diodes under high electric field along the <11$bar{{bf{2}}}$0> direction. *Japanese Journal of Applied Physics*, **2019**, 58, 091007	1.4	2

421	Demonstration of Conductivity Modulation in SiC Bipolar Junction Transistors With Reduced Base Spreading Resistance. *IEEE Transactions on Electron Devices*, **2019**, 66, 4870-4874	2.9	5
420	Measurement of avalanche multiplication utilizing Franz-Keldysh effect in GaN p-n junction diodes with double-side-depleted shallow bevel termination. *Applied Physics Letters*, **2019**, 115, 142101	3.4	14
419	Electronic energy model for single Shockley stacking fault formation in 4H-SiC crystals. *Journal of Applied Physics*, **2019**, 126, 105703	2.5	18
418	Design and Fabrication of GaN p-n Junction Diodes With Negative Beveled-Mesa Termination. *IEEE Electron Device Letters*, **2019**, 40, 941-944	4.4	45
417	Normally-off 400 °C Operation of n- and p-JFETs With a Side-Gate Structure Fabricated by Ion Implantation Into a High-Purity Semi-Insulating SiC Substrate. *IEEE Electron Device Letters*, **2019**, 40, 866-869	4.4	15
416	Reduction of interface state density in SiC (0001) MOS structures by low-oxygen-partial-pressure annealing. *Applied Physics Express*, **2019**, 12, 031001	2.4	12
415	Two modes of bipolar resistive switching characteristics in asymmetric TaOx-based ReRAM cells. *MRS Advances*, **2019**, 4, 2601-2607	0.7	1
414	SiC Vertical-Channel n- and p-JFETs Fully Fabricated by Ion Implantation. *Materials Science Forum*, **2019**, 963, 841-844	0.4	3
413	Estimation of Impact Ionization Coefficient in GaN by Photomulitiplication Measurement Utilizing Franz-Keldysh Effect **2019**,		2
412	Dominant conduction mechanism in TaO x -based resistive switching devices. *Japanese Journal of Applied Physics*, **2019**, 58, 090914	1.4	3
411	Shockley–Read–Hall lifetime in homoepitaxial p-GaN extracted from recombination current in GaN p+-n+ junction diodes. *Japanese Journal of Applied Physics*, **2019**, 58, SCCB14	1.4	12
410	Deep-level transient spectroscopy studies of electron and hole traps in n-type GaN homoepitaxial layers grown by quartz-free hydride-vapor-phase epitaxy. *Applied Physics Letters*, **2019**, 115, 012103	3.4	28
409	Influence of vacuum annealing on interface properties of SiC (0001) MOS structures. *Japanese Journal of Applied Physics*, **2019**, 58, 078001	1.4	1
408	Impact Ionization Coefficients in GaN Measured by Above- and Sub-Eg Illuminations for p+n+ Junction **2019**,		15
407	Impact ionization coefficients of 4H-SiC in a wide temperature range. *Japanese Journal of Applied Physics*, **2019**, 58, 018001	1.4	14
406	Updated trade-off relationship between specific on-resistance and breakdown voltage in 4H-SiC{0001} unipolar devices. *Japanese Journal of Applied Physics*, **2019**, 58, 018002	1.4	18
405	Structural determination of phosphosilicate glass based on first-principles molecular dynamics calculation. *Japanese Journal of Applied Physics*, **2019**, 58, 011001	1.4	
404	Impacts of energy relaxation process on quasi-ballistic hole transport capability in germanium and silicon nanowires. *Journal of Applied Physics*, **2018**, 123, 024305	2.5	0

403	Deep-ultraviolet light emission from 4H-AlN/4H-GaN short-period superlattice grown on 4H-SiC(112□0). *Applied Physics Letters*, **2018**, 112, 012106	3.4	6
402	Sources of carrier compensation in metalorganic vapor phase epitaxy-grown homoepitaxial n-type GaN layers with various doping concentrations. *Applied Physics Express*, **2018**, 11, 041001	2.4	41
401	High-Temperature Operation of n- and p-Channel JFETs Fabricated by Ion Implantation Into a High-Purity Semi-Insulating SiC Substrate. *IEEE Electron Device Letters*, **2018**, 39, 723-726	4.4	20
400	Suppression of Punch-Through Current in 3 kV 4H-SiC Reverse-Blocking MOSFET by Using Highly Doped Drift Layer. *IEEE Journal of the Electron Devices Society*, **2018**, 6, 449-453	2.3	8
399	Current status and perspectives of ultrahigh-voltage SiC power devices. *Materials Science in Semiconductor Processing*, **2018**, 78, 43-56	4.3	53
398	Theoretical analysis of Hall factor and hole mobility in p-type 4H-SiC considering anisotropic valence band structure. *Journal of Applied Physics*, **2018**, 123, 245704	2.5	9
397	Passivation of Surface Recombination at the Si-Face of 4H-SiC by Acidic Solutions. *ECS Journal of Solid State Science and Technology*, **2018**, 7, Q127-Q130	2	6
396	Accurate method for estimating hole trap concentration in n-type GaN via minority carrier transient spectroscopy. *Applied Physics Express*, **2018**, 11, 071002	2.4	16
395	Glide velocities of Si-core partial dislocations for double-Shockley stacking fault expansion in heavily nitrogen-doped SiC during high-temperature annealing. *Journal of Applied Physics*, **2018**, 124, 025705	2.5	6
394	Carrier lifetime and breakdown phenomena in SiC power device material. *Journal Physics D: Applied Physics*, **2018**, 51, 363001	3	24
393	Estimation of Threshold Voltage in SiC Short-Channel MOSFETs. *IEEE Transactions on Electron Devices*, **2018**, 65, 3077-3080	2.9	15
392	Interface carbon defects at 4H-SiC(0001)/SiO2 interfaces studied by electron-spin-resonance spectroscopy. *Applied Physics Letters*, **2018**, 113, 061605	3.4	23
391	Phonon-assisted optical absorption due to Franz□Keldysh effect in 4H-SiC p□i junction diode under high reverse bias voltage. *Applied Physics Express*, **2018**, 11, 091302	2.4	7
390	Progress in High and Ultrahigh Voltage Silicon Carbide Device Technology **2018**,		2
389	Parallel-Plane Breakdown Fields of 2.8-3.5 MV/cm in GaN-on-GaN p-n Junction Diodes with Double-Side-Depleted Shallow Bevel Termination **2018**,		23
388	Effects of Parasitic Region in SiC Bipolar Junction Transistors on Forced Current Gain. *Materials Science Forum*, **2018**, 924, 629-632	0.4	4
387	Effects of TiO2 crystallinity and oxygen composition on forming characteristics in Pt/TiO2/Pt resistive switching cells. *AIP Advances*, **2018**, 8, 125010	1.5	5
386	Microscopic mechanism of carbon annihilation upon SiC oxidation due to phosphorus treatment: Density functional calculations combined with ion mass spectrometry. *Applied Physics Express*, **2018**, 11, 121301	2.4	1

385	Determination of Surface Recombination Velocity From Current–Voltage Characteristics in SiC p-n Diodes. *IEEE Transactions on Electron Devices*, **2018**, 65, 4786-4791	2.9	3
384	Conductance fluctuation in NiO-based resistive switching memory. *Journal of Applied Physics*, **2018**, 124, 152134	2.5	9
383	Observation of carrier recombination in single Shockley stacking faults and at partial dislocations in 4H-SiC. *Journal of Applied Physics*, **2018**, 124, 095702	2.5	11
382	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
381	Impacts of Finger Numbers on ON-State Characteristics in Multifinger SiC BJTs With Low Base Spreading Resistance. *IEEE Transactions on Electron Devices*, **2018**, 65, 2771-2777	2.9	4
380	Franz-Keldysh effect in GaN p-n junction diode under high reverse bias voltage. *Applied Physics Letters*, **2018**, 112, 252104	3.4	13
379	Phonon frequencies of a highly strained AlN layer coherently grown on 6H-SiC (0001). *AIP Advances*, **2017**, 7, 015105	1.5	3
378	Interface properties of NO-annealed 4H-SiC (0001), (11 2 □0), and (1 1 □00) MOS structures with heavily doped p-bodies. *Journal of Applied Physics*, **2017**, 121, 145703	2.5	9
377	Reduction of interface state density in SiC (0001) MOS structures by post-oxidation Ar annealing at high temperature. *AIP Advances*, **2017**, 7, 045008	1.5	15
376	Effect of Postoxidation Nitridation on Forward Current–Voltage Characteristics in 4H-SiC Mesa p-n Diodes Passivated With SiO2. *IEEE Transactions on Electron Devices*, **2017**, 64, 3016-3018	2.9	4
375	Electrical properties of n- and p-type 4H-SiC formed by ion implantation into high-purity semi-insulating substrates. *Japanese Journal of Applied Physics*, **2017**, 56, 070306	1.4	18
374	Observation of double Shockley stacking fault expansion in heavily-nitrogen-doped 4H-SiC using PL technique. *Journal of Crystal Growth*, **2017**, 468, 889-893	1.6	12
373	Design Criterion for SiC BJTs to Avoid ON-Characteristics Degradation Due to Base Spreading Resistance. *IEEE Transactions on Electron Devices*, **2017**, 64, 2086-2091	2.9	6
372	Ultrahigh-Voltage SiC MPS Diodes With Hybrid Unipolar/Bipolar Operation. *IEEE Transactions on Electron Devices*, **2017**, 64, 874-881	2.9	24
371	Reliability-aware design of metal/high-k gate stack for high-performance SiC power MOSFET **2017**,		7
370	Calibration on wide-ranging aluminum doping concentrations by photoluminescence in high-quality uncompensated p-type 4H-SiC. *Applied Physics Letters*, **2017**, 111, 072101	3.4	7
369	Suppression of the Forward Degradation in 4H-SiC PiN Diodes by Employing a Recombination-Enhanced Buffer Layer. *Materials Science Forum*, **2017**, 897, 419-422	0.4	5
368	TaC-coated graphite prepared via a wet ceramic process: Application to CVD susceptors for epitaxial growth of wide-bandgap semiconductors. *Journal of Crystal Growth*, **2017**, 478, 163-173	1.6	12

367	Structural analysis of double-layer Shockley stacking faults formed in heavily-nitrogen-doped 4H-SiC during annealing. *Journal of Applied Physics*, **2017**, 122, 045707	2.5	16
366	Carrier Lifetimes in Lightly-Doped p-Type 4H-SiC Epitaxial Layers Enhanced by Post-growth Processes and Surface Passivation. *Journal of Electronic Materials*, **2017**, 46, 6411-6417	1.9	4
365	High-Temperature Characteristics of 3-kV 4H-SiC Reverse Blocking MOSFET for High-Performance Bidirectional Switch. *IEEE Transactions on Electron Devices*, **2017**, 64, 4167-4174	2.9	9
364	Correlation between shapes of Shockley stacking faults and structures of basal plane dislocations in 4H-SiC epilayers. *Philosophical Magazine*, **2017**, 97, 2736-2752	1.6	22
363	Carbon ejection from a SiO2/SiC(0001) interface by annealing in high-purity Ar. *Applied Physics Letters*, **2017**, 111, 062101	3.4	25
362	Appearance of quantum point contact in Pt/NiO/Pt resistive switching cells. *Journal of Materials Research*, **2017**, 32, 2631-2637	2.5	12
361	Understanding and reduction of degradation phenomena in SiC power devices **2017**,		25
360	Characterization of Thermal Oxides on 4H-SiC Epitaxial Substrates Using Fourier-Transform Infrared Spectroscopy. *Applied Spectroscopy*, **2017**, 71, 911-918	3.1	5
359	Progress and future challenges of SiC power devices and process technology **2017**,		7
358	ESR Study on Hydrogen Passivation of Intrinsic Defects in p-Type and Semi-Insulating 4H-SiC. *Materials Science Forum*, **2016**, 858, 318-321	0.4	2
357	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
356	Bulk and epitaxial growth of silicon carbide. *Progress in Crystal Growth and Characterization of Materials*, **2016**, 62, 329-351	3.5	66
355	Stress Characterization of 4H-SiC Metal-Oxide-Semiconductor Field-Effect Transistor (MOSFET) using Raman Spectroscopy and the Finite Element Method. *Applied Spectroscopy*, **2016**, 70, 1209-13	3.1	11
354	Impact of NO Annealing on Flatband Voltage Instability due to Charge Trapping in Si□MOS Devices. *Materials Science Forum*, **2016**, 858, 599-602	0.4	24
353	Promise and Challenges of High-Voltage SiC Bipolar Power Devices. *Energies*, **2016**, 9, 908	3.1	26
352	Strain control in AlN top layer by inserting an ultrathin GaN interlayer on an AlN template coherently grown on SiC(0001) by PAMBE. *Physica Status Solidi (B): Basic Research*, **2016**, 253, 814-818	1.3	2
351	Ion implantation technology in SiC for high-voltage/high-temperature devices **2016**,		7
350	Effect of NiO crystallinity on forming characteristics in Pt/NiO/Pt cells as resistive switching memories. *Journal of Applied Physics*, **2016**, 120, 115308	2.5	9

349	Control of carrier lifetime of thick n-type 4H-SiC epilayers by high-temperature Ar annealing. *Applied Physics Express*, **2016**, 9, 061303	2.4	27
348	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
347	Interface state density of SiO2/p-type 4H-SiC (0001), (112□0), (11□00) metal-oxide-semiconductor structures characterized by low-temperature subthreshold slopes. *Applied Physics Letters*, **2016**, 108, 152108	3.4	24
346	Analysis of High-Field Hole Transport in Germanium and Silicon Nanowires Based on Boltzmann's Transport Equation. *IEEE Nanotechnology Magazine*, **2016**, 1-1	2.6	2
345	Control of carbon vacancy in SiC toward ultrahigh-voltage power devices. *Superlattices and Microstructures*, **2016**, 99, 151-157	2.8	9
344	Analysis of ballistic and quasi-ballistic hole transport properties in germanium nanowires based on an extended □top of the Barrier□model. *Solid-State Electronics*, **2016**, 123, 143-149	1.7	2
343	Demonstration of 3 kV 4H-SiC reverse blocking MOSFET **2016**,		11
342	Dominant conduction mechanism in NiO-based resistive memories. *Journal of Applied Physics*, **2015**, 117, 225701	2.5	9
341	Interface Properties of 4H-SiC ($11bar {2}0$) and ($1bar {1}00$) MOS Structures Annealed in NO. *IEEE Transactions on Electron Devices*, **2015**, 62, 309-315	2.9	52
340	Impact Ionization Coefficients in 4H-SiC Toward Ultrahigh-Voltage Power Devices. *IEEE Transactions on Electron Devices*, **2015**, 62, 3326-3333	2.9	53
339	Development of Ultrahigh-Voltage SiC Devices. *IEEE Transactions on Electron Devices*, **2015**, 62, 396-404	2.9	52
338	Ultrahigh-Voltage SiC p-i-n Diodes With Improved Forward Characteristics. *IEEE Transactions on Electron Devices*, **2015**, 62, 374-381	2.9	88
337	Oxidation-induced majority and minority carrier traps in n- and p-type 4H-SiC. *Applied Physics Express*, **2015**, 8, 111301	2.4	7
336	Temperature dependence of conductance in NiO-based resistive switching memory showing two modes in the forming process. *Applied Physics Letters*, **2015**, 107, 233510	3.4	13
335	Application of UV photoluminescence imaging spectroscopy for stacking faults identification on thick, lightly n-type doped, 4□-off 4H-SiC epilayers. *AIP Advances*, **2015**, 5, 037121	1.5	5
334	Material science and device physics in SiC technology for high-voltage power devices. *Japanese Journal of Applied Physics*, **2015**, 54, 040103	1.4	558
333	Characterization of traps in SiC/SiO2interfaces close to the conduction band by deep-level transient spectroscopy. *Japanese Journal of Applied Physics*, **2015**, 54, 111301	1.4	8
332	Phonon-Limited Electron Mobility in Rectangular Cross-Sectional Ge Nanowires. *IEEE Transactions on Electron Devices*, **2014**, 61, 1993-1998	2.9	9

331	. *IEEE Electron Device Letters*, **2014**, 35, 339-341	4.4	10
330	Decay curve analyses in carrier lifetime measurements of p- and n-type 4H-SiC epilayers. *Japanese Journal of Applied Physics*, **2014**, 53, 111301	1.4	4
329	Identification of dislocations in 4H-SiC epitaxial layers and substrates using photoluminescence imaging. *Japanese Journal of Applied Physics*, **2014**, 53, 020304	1.4	21
328	Ion implantation technology in SiC for power device applications **2014**,		19
327	Characterization of inhomogeneity in silicon dioxide films on 4H-silicon carbide epitaxial substrate using a combination of Fourier transform infrared and cathodoluminescence spectroscopy. *Applied Spectroscopy*, **2014**, 68, 1176-80	3.1	4
326	**2014**,		391
325	Temperature Dependence of Impact Ionization Coefficients in 4H-SiC. *Materials Science Forum*, **2014**, 778-780, 461-466	0.4	19
324	Impact of conduction type and doping density on thermal oxidation rate of SiC(0001). *Applied Physics Express*, **2014**, 7, 121301	2.4	4
323	Ab initio prediction of SiC nanotubes with negative strain energy. *Applied Physics Letters*, **2014**, 104, 033107	3.4	4
322	Quantitative comparison between Z1⁄2 center and carbon vacancy in 4H-SiC. *Journal of Applied Physics*, **2014**, 115, 143705	2.5	33
321	Detection of minority carrier traps in p-type 4H-SiC. *Applied Physics Letters*, **2014**, 104, 092105	3.4	13
320	Geometrical and band-structure effects on phonon-limited hole mobility in rectangular cross-sectional germanium nanowires. *Journal of Applied Physics*, **2014**, 116, 235701	2.5	5
319	Progress and future challenges of silicon carbide devices for integrated circuits **2014**,		4
318	Conduction-type dependence of thermal oxidation rate on SiC(0001) **2014**,		1
317	Quantum-confinement effects on conduction band structure of rectangular cross-sectional GaAs nanowires. *Journal of Applied Physics*, **2014**, 115, 053713	2.5	3
316	Progress in ultrahigh-voltage SiC devices for future power infrastructure **2014**,		9
315	Characterization of very fast states in the vicinity of the conduction band edge at the SiO2/SiC interface by low temperature conductance measurements. *Journal of Applied Physics*, **2014**, 115, 014502	2.5	25
314	Enhancement of carrier lifetime in lightly Al-doped p-type 4H-SiC epitaxial layers by combination of thermal oxidation and hydrogen annealing. *Applied Physics Express*, **2014**, 7, 085501	2.4	23

313	Temperature dependence of optical absorption coefficient of 4H- and 6H-SiC from room temperature to 300 °C. *Japanese Journal of Applied Physics*, **2014**, 53, 108003	1.4	8
312	First-principles study of Cl diffusion in cubic SiC. *Journal of Applied Physics*, **2013**, 113, 133706	2.5	0
311	Orientation and Shape Effects on Ballistic Transport Properties in Gate-All-Around Rectangular Germanium Nanowire nFETs. *IEEE Transactions on Electron Devices*, **2013**, 60, 944-950	2.9	9
310	AlGaN/SiC Heterojunction Bipolar Transistors Featuring AlN/GaN Short-Period Superlattice Emitter. *IEEE Transactions on Electron Devices*, **2013**, 60, 2768-2775	2.9	3
309	Negative-U carbon vacancy in 4H-SiC: Assessment of charge correction schemes and identification of the negative carbon vacancy at the quasicubic site. *Physical Review B*, **2013**, 88,	3.3	39
308	Ultrahigh-voltage SiC devices for future power infrastructure **2013**,		17
307	Effects of Nitridation on 4H-SiC MOSFETs Fabricated on Various Crystal Faces. *IEEE Transactions on Electron Devices*, **2013**, 60, 1260-1262	2.9	48
306	Single-crystalline 4H-SiC micro cantilevers with a high quality factor. *Sensors and Actuators A: Physical*, **2013**, 197, 122-125	3.9	14
305	Improvement of Carrier Lifetimes in Highly Al-Doped p-Type 4H-SiC Epitaxial Layers by Hydrogen Passivation. *Applied Physics Express*, **2013**, 6, 121301	2.4	15
304	Growth, Electrical Characterization, and Electroluminescence of GaN/SiC Heterojunction Diodes and Bipolar Transistors Fabricated on SiC Off-Axis Substrates. *Japanese Journal of Applied Physics*, **2013**, 52, 124102	1.4	2
303	Impact of the Oxygen Amount of an Oxide Layer and Post Annealing on Forming Voltage and Initial Resistance of NiO-based Resistive Switching Cells. *Materials Research Society Symposia Proceedings*, **2013**, 1562, 1		2
302	Characterization of silicon dioxide films on 4H-SiC (0001) Si, (1-100) M, and (11-20) A faces by cathodoluminescence spectroscopy. *Applied Physics Letters*, **2013**, 102, 051612	3.4	11
301	Resolving the EH6/7 level in 4H-SiC by Laplace-transform deep level transient spectroscopy. *Applied Physics Letters*, **2013**, 102, 152108	3.4	18
300	E1/E2 traps in 6H-SiC studied with Laplace deep level transient spectroscopy. *Applied Physics Letters*, **2013**, 102, 032104	3.4	11
299	Investigation on origin of Z1/2 center in SiC by deep level transient spectroscopy and electron paramagnetic resonance. *Applied Physics Letters*, **2013**, 102, 112106	3.4	44
298	Physics of SiC MOS interface and development of trench MOSFETs **2013**,		10
297	Determination of Phase Diagram of Electron–Hole Systems in 4H-SiC. *Journal of the Physical Society of Japan*, **2013**, 82, 063703	1.5	1
296	Abnormal behavior of longitudinal optical phonon in silicon dioxide films on 4H-SiC bulk epitaxial substrate using Fourier transform infrared (FT-IR) spectroscopy. *Applied Spectroscopy*, **2013**, 67, 542-5	3.1	10

295	Space-Modulated Junction Termination Extension for Ultrahigh-Voltage p-i-n Diodes in 4H-SiC. *IEEE Transactions on Electron Devices*, **2012**, 59, 414-418	2.9	76
294	Negative-U system of carbon vacancy in 4H-SiC. *Physical Review Letters*, **2012**, 109, 187603	7.4	176
293	Enhancement and control of carrier lifetimes in p-type 4H-SiC epilayers. *Journal of Applied Physics*, **2012**, 112, 064503	2.5	32
292	Generation of very fast states by nitridation of the SiO2/SiC interface. *Journal of Applied Physics*, **2012**, 112, 024520	2.5	111
291	Breakdown characteristics of 1200 kV-class 4H-SiC PiN diodes with improved junction termination structures **2012**,		9
290	Performance and reliability improvement in SiC power MOSFETs by implementing AlON high-k gate dielectrics **2012**,		19
289	21-kV SiC BJTs With Space-Modulated Junction Termination Extension. *IEEE Electron Device Letters*, **2012**, 33, 1598-1600	4.4	82
288	Breakdown Characteristics of 15-kV-Class 4H-SiC PiN Diodes With Various Junction Termination Structures. *IEEE Transactions on Electron Devices*, **2012**, 59, 2748-2752	2.9	33
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35	Power Conversion with SiC Devices at Extremely High Ambient Temperatures		5
34	Step-controlled epitaxial growth of SiC and its conductivity control		1
33	Efficient power Schottky rectifiers of 4H-SiC		17
32	Non-Basal Plane SiC Surfaces: Anisotropic Structures and Low-Dimensional Electron Systems375-394		
31	Measurements of Impact Ionization Coefficients of Electrons and Holes in 4H-SiC and their Application to Device Simulation341-362		
30	Effect of an Intermediate Graphite Layer on the Electronic Properties of Metal/SiC Contacts35-50		
29	Design and Technology Considerations for SiC Bipolar Devices: BJTs, IGBTs, and GTOs389-444		3
28	Development of SiC Diodes, Power MOSFETs and Intelligent Power Modules291-319		
27	Silicon Carbide Power-Device Products Status and Upcoming Challenges with a Special Attention to Traditional, Nonmilitary Industrial Applications21-33		
26	EPR Identification of Intrinsic Defects in SiC147-179		

25	Epitaxial Graphene: A New Material	453-472	
24	Reliability Aspects of SiC Schottky Diodes	51-75	
23	Inversion Layer Electron Transport in 4H-SiC Metal–Oxide–Semiconductor Field-Effect Transistors	267-290	
22	Design, Process, and Performance of All-Epitaxial Normally-Off SiC JFETs	77-119	
21	Comparative Columnar Porous Etching Studies on n-Type 6H SiC Crystalline Faces	395-409	
20	Alternative Techniques to Reduce Interface Traps in n-Type 4H-SiC MOS Capacitors	193-214	
19	Reliability Issues of SiC Power MOSFETs toward High Junction Temperature Operation	321-346	0
18	Identification of Intrinsic Defects in SiC: Towards an Understanding of Defect Aggregates by Combining Theoretical and Experimental Approaches	115-145	
17	Electrical and Topographical Characterization of Aluminum Implanted Layers in 4H Silicon Carbide	181-204	
16	Suppressed Surface-Recombination Structure and Surface Passivation for Improving Current Gain of 4H-SiC BJTs	445-465	1
15	Micro- and Nanomechanical Structures for Silicon Carbide MEMS and NEMS	411-451	
14	Optical Beam Induced Current Measurements: Principles and Applications to SiC Device Characterization	319-340	
13	SiC Avalanche Photodiodes and Photomultipliers for Ultraviolet and Solar-Blind Light Detection	467-486	
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9	Lifetime-Killing Defects in 4H-SiC Epilayers and Lifetime Control by Low-Energy Electron Irradiation	267-286	1
8	Identification and Carrier Dynamics of the Dominant Lifetime Limiting Defect in n-4H-SiC Epitaxial Layers	287-317	

List of Publications

7	Analysis of Interface Trap Parameters from Double-Peak Conductance Spectra Taken on N-Implanted 3C-SiC MOS Capacitors363-374	1
6	Bulk and Epitaxial Growth of Micropipe-Free Silicon Carbide on Basal and Rhombohedral Plane Seeds33-61	2
5	Formation of Extended Defects in 4H-SiC Epitaxial Growth and Development of a Fast Growth Technique63-94	2
4	4H-SiC MISFETs with Nitrogen-Containing Insulators235-265	2
3	Application of Silicon Carbide Transistors in Photovoltaic Inverters347-388	1
2	Extreme Temperature 6H-SiC JFET Integrated Circuit Technology121-155	2
1	1200 V SiC Vertical-Channel-JFETs and Cascode Switches157-191	4