

Mitsuo Okamoto

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Impact of nitridation on the reliability of 4H-SiC(112̄ ₁ ,0) MOS devices. Applied Physics Express, 2022, 15, 041002.	1.1	6
2	Comprehensive physical and electrical characterizations of NO nitrided SiO ₂ /4H-SiC(112̄ ₁ ,0) interfaces. Japanese Journal of Applied Physics, 2022, 61, SC1065.	0.8	7
3	Dipole scattering at the interface: The origin of low mobility observed in SiC MOSFETs. Journal of Applied Physics, 2022, 131, .	1.1	3
4	Impact of post-nitridation annealing in CO ₂ ambient on threshold voltage stability in 4H-SiC metal-oxide-semiconductor field-effect transistors. Applied Physics Express, 2022, 15, 061003.	1.1	2
5	Realization of Monolithic SiC Power IC Utilizing the Compatible Process for CMOS and Power MOSFET. , 2022, , .		2
6	Free carrier density enhancement of 4H-SiC Si-face MOSFET by Ba diffusion process and NO passivation. Japanese Journal of Applied Physics, 2021, 60, SBBD08.	0.8	2
7	Anomalous Behavior of Gate Current and TDDDB Lifetime by Constant Voltage Stress in NO-Annealed SiC-MOSFETs. IEEE Transactions on Electron Devices, 2021, 68, 1207-1213.	1.6	5
8	First Demonstration of a Monolithic SiC Power IC Integrating a Vertical MOSFET with a CMOS Gate Buffer. , 2021, , .		21
9	Accurate determination of threshold voltage shift during negative gate bias stress in 4H-SiC MOSFETs by fast on-the-fly method. Japanese Journal of Applied Physics, 2021, 60, 060901.	0.8	2
10	Negative Bias Temperature Instability in 4H-SiC MOSFETs Investigated by On-the-fly Methods. , 2021, , .		0
11	Difference in electron mobility at 4H-SiC/SiO ₂ interfaces with various crystal faces originating from effective-field-dependent scattering. Applied Physics Letters, 2020, 117, .	1.5	11
12	Electrically detected-magnetic-resonance identifications of defects at 4H-SiC(000 1 \hat{A} ⁻)/SiO ₂ interfaces with wet oxidation. Applied Physics Letters, 2019, 115, 151602.	1.5	8
13	Mobility-limiting Coulomb scattering in nitrided 4H-SiC inversion channel on 1 1 \hat{A} ⁻ 00 m-face and 11 2 \hat{A} ⁻ 0 a-face characterized by Hall effect measurements. Applied Physics Letters, 2019, 115, 132106.	1.5	7
14	Anomalous carbon clusters in 4H-SiC/SiO ₂ interfaces. Journal of Applied Physics, 2019, 125, .	1.1	20
15	Single photon sources in 4H-SiC metal-oxide-semiconductor field-effect transistors. Applied Physics Letters, 2018, 112, .	1.5	24
16	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.	0.8	10
17	(Invited) Interface Defects in C-face 4H-SiC MOSFETs: An Electrically-Detected-Magnetic-Resonance Study. ECS Transactions, 2017, 80, 147-153.	0.3	6
18	Evaluation of drain current decrease by AC gate bias stress in commercially available SiC MOSFETs. , 2017, , .		2

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19	Slow response in gate currentâ€“voltage characteristics of metalâ€“oxideâ€“semiconductor structures on the 4H-SiC(0001) face. Japanese Journal of Applied Physics, 2016, 55, 054103.	0.8	5
20	Development of Ultrahigh-Voltage SiC Devices. IEEE Transactions on Electron Devices, 2015, 62, 396-404.	1.6	78
21	C-Face Interface Defects in 4H-SiC MOSFETs Studied by Electrically Detected Magnetic Resonance. Materials Science Forum, 2014, 778-780, 414-417.	0.3	2
22	Dynamic characteristics of large current capacity module using 16-kV ultrahigh voltage SiC flip-type n-channel IE-IGBT. , 2014, , .		13
23	(Invited) SiC MOS Interface States: Similarity and Dissimilarity from Silicon. ECS Transactions, 2013, 50, 305-311.	0.3	6
24	Low V_{th} and highly reliable 16 kV ultrahigh voltage SiC flip-type n-channel implantation and epitaxial IGBT. , 2013, , .		21
25	(Invited) SiC MOS Interface States: Difference between Si Face and C Face. ECS Transactions, 2013, 58, 55-60.	0.3	13
26	Coexistence of Small Threshold Voltage Instability and High Channel Mobility in 4H-SiC Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors. Applied Physics Express, 2012, 5, 041302.	1.1	35
27	Characteristics of 4H-SiC n- and p-Channel Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors with Ion-Implanted Buried Channel. Japanese Journal of Applied Physics, 2012, 51, 02BF05.	0.8	0
28	Fabrication and Electrical Properties of Thermally Oxidized p-Channel Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors on 4H-SiC C-Face. Japanese Journal of Applied Physics, 2012, 51, 046504.	0.8	2
29	High Performance SiC IEMOSFET/SBD Module. Materials Science Forum, 2012, 717-720, 1053-1058.	0.3	8
30	Characteristics of 4H-SiC n- and p-Channel Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors with Ion-Implanted Buried Channel. Japanese Journal of Applied Physics, 2012, 51, 02BF05.	0.8	19
31	Fabrication and Electrical Properties of Thermally Oxidized p-Channel Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors on 4H-SiC C-Face. Japanese Journal of Applied Physics, 2012, 51, 046504.	0.8	3
32	Fabrication of P-Channel MOSFETs on 4H-SiC C-Face. Materials Science Forum, 2011, 679-680, 653-656.	0.3	0
33	Electrical Properties of 4H-Silicon Carbide Complementary Metalâ€“Oxideâ€“Semiconductor Devices with Wet-Processed Gate Oxide. Japanese Journal of Applied Physics, 2009, 48, 04C087.	0.8	12
34	Evaluation of 4H-SiC Thermal Oxide Reliability Using Area-Scaling Method. Japanese Journal of Applied Physics, 2009, 48, 081404.	0.8	18
35	A $4.3 \mu\text{m}^2$, 1100-V normally-off IEMOSFET on SiC. Electronics and Communications in Japan, 2008, 91, 9-14.	0.3	0
36	4H-SiC p-Channel MOSFETs with Epi-Channel Structure. Materials Science Forum, 2008, 600-603, 711-714.	0.3	0

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37	Three Dimensional Analysis of Turnoff Operation of SiC Buried Gate Static Induction Transistors (BG-SITs). Materials Science Forum, 2008, 600-603, 1075-1078.	0.3	2
38	1270V, 1.21m ² SiC Buried Gate Static Induction Transistors (SiC-BGSITs). Materials Science Forum, 2008, 600-603, 1071-1074.	0.3	10
39	Activation of p-Type Dopants in 4H-SiC Using Hybrid Super-Rapid Thermal Annealing Equipment. Japanese Journal of Applied Physics, 2007, 46, 5342-5344.	0.8	1
40	Demonstration of motor drive with SiC normally-off IBMOSFET/SBD power converter. , 2007, , .		7
41	Electrical Properties of p-Channel MOSFETs Fabricated on 4H- and 6H-SiC. Materials Science Forum, 2007, 556-557, 783-786.	0.3	0
42	4.3 m.OMEGA.cm ² , 1100 V normally-off IEMOSFET on SiC. IEEJ Transactions on Industry Applications, 2007, 127, 267-272.	0.1	2
43	Buried Gate Static Induction Transistors in 4H-SiC (SiC-BGSITs) with Ultra Low On-Resistance. , 2007, , .		5
44	1.8 m ² , 10 A Power MOSFET in 4H-SiC. , 2006, , .		15
45	Effect of the oxidation process on the electrical characteristics of 4H-SiC p-channel metal-oxide-semiconductor field-effect transistors. Applied Physics Letters, 2006, 89, 023502.	1.5	46
46	700-V 1.0- Ω cm ² Buried Gate SiC-SIT (SiC-BGSIT). IEEE Electron Device Letters, 2006, 27, 908-910.	2.2	40
47	Fabrication of 700V SiC-SIT with Ultra-Low On-Resistance of 1.01m ² . Materials Science Forum, 2006, 527-529, 1219-1222.	0.3	6
48	4.3 m ² , 1100 V 4H-SiC Implantation and Epitaxial MOSFET. Materials Science Forum, 2006, 527-529, 1281-1284.	0.3	10
49	Fabrication of 4H-SiC p-Channel MOSFET with High Channel Mobility. Materials Science Forum, 2006, 527-529, 1301-1304.	0.3	0
50	Analysis of Low On-Resistance in 4H-SiC Double-Epitaxial MOSFET. Materials Science Forum, 2005, 483-485, 813-816.	0.3	4
51	4H-SiC Lateral RESURF MOSFETs on Carbon-Face Substrates. Materials Science Forum, 2005, 483-485, 805-808.	0.3	0
52	Lifetime Control of the Minority Carrier in PiN Diodes by He ⁺ Ion Implantation. Materials Science Forum, 2005, 483-485, 985-988.	0.3	3
53	Fabrication of 4H-SiC Double-Epitaxial MOSFETs. Materials Science Forum, 2004, 457-460, 1421-1424.	0.3	2
54	Deep UV Excitation Raman Spectroscopy of Homoepitaxial 4H-SiC Films Grown by Microwave Plasma Chemical Vapor Deposition. Materials Science Forum, 2004, 457-460, 629-632.	0.3	2

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55	Lateral RESURF MOSFET Fabricated on 4H-SiC(0001)C-Face. IEEE Electron Device Letters, 2004, 25, 405-407.	2.2	26
56	8.5- $\times 10^5$ cm ² /V Double-Epitaxial MOSFETs in 4H-SiC. IEEE Electron Device Letters, 2004, 25, 292-294.	2.2	27
57	Influence of the Wet Re-Oxidation Procedure on Inversion Mobility of 4H-SiC MOSFETs. Materials Science Forum, 2002, 389-393, 1049-1052.	0.3	0
58	Homoepitaxial Growth of 4H-SiC Thin Film Below 1000°C by Microwave Plasma Chemical Vapor Deposition. Materials Science Forum, 2002, 389-393, 299-302.	0.3	2
59	Homoepitaxial 4H-SiC films grown by microwave plasma chemical vapor deposition. Materials Research Society Symposia Proceedings, 2002, 742, 561.	0.1	0
60	Strong dependence of the inversion mobility of 4H and 6H SiC(0001) MOSFETs on the water content in pyrogenic re-oxidation annealing. IEEE Electron Device Letters, 2002, 23, 136-138.	2.2	46
61	Influence of pressure control on the growth of bulk GaN single crystal using a Na flux. Journal of Crystal Growth, 2002, 237-239, 2112-2115.	0.7	8
62	The ohmic character of doped AlN films. Diamond and Related Materials, 2001, 10, 1322-1325.	1.8	9
63	Na: A New Flux for Growing Hexagonal Boron Nitride Crystals at Low Temperature. Japanese Journal of Applied Physics, 2000, 39, L300-L302.	0.8	17
64	Epitaxial aluminum nitride thin films grown by pulsed laser deposition in various nitrogen ambients. Diamond and Related Materials, 2000, 9, 516-519.	1.8	7
65	Growth of nitride crystals, BN, AlN and GaN by using a Na flux. Diamond and Related Materials, 2000, 9, 512-515.	1.8	47
66	Epitaxial Growth of AlN Thin Films on Sapphire by Pulsed Laser Deposition and Effect of N ₂ Ambient on Crystallinity. Japanese Journal of Applied Physics, 1999, 38, 2114-2115.	0.8	13
67	Control of Nucleation Site and Growth Orientation of Bulk GaN Crystals. Japanese Journal of Applied Physics, 1999, 38, L1121-L1123.	0.8	16
68	Aluminum Nitride Thin Films Grown by Plasma-Assisted Pulsed Laser Deposition on Si Substrates. Materials Research Society Symposia Proceedings, 1997, 468, 87.	0.1	3
69	Growth of AlN thin films on (111) and (100) silicon by pulsed laser deposition in nitrogen plasma ambient. Diamond and Related Materials, 1997, 6, 1015-1018.	1.8	15
70	Aluminum nitride thin films grown by plasma-assisted pulsed laser deposition. Applied Surface Science, 1997, 113-114, 57-60.	3.1	9
71	Influence of the Growth Atmosphere on the Properties of AlN Grown by Plasma - Assisted Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 1996, 423, 391.	0.1	3
72	Photo-Irradiation-Induced Narrowing of Photoluminescence Spectra from Porous Silicon. Materials Research Society Symposia Proceedings, 1996, 452, 529.	0.1	0

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73	Low on-resistance in inversion channel IEMOSFET formed on 4H-SiC C-face substrate. , 0, , .		8
74	Gate-Area Dependence of SiC Thermal Oxides Reliability. Materials Science Forum, 0, 600-603, 787-790.	0.3	3
75	Challenges of 4H-SiC MOSFETs on the C(000-1) Face toward the Achievement of Ultra Low On-Resistance. Materials Science Forum, 0, 600-603, 907-912.	0.3	0
76	Effect of Doping Concentration in Buried-Channel NMOSFETs on Electrical Properties of 4H-SiC CMOS Devices. Materials Science Forum, 0, 645-648, 995-998.	0.3	10
77	Controlling Characteristics of 4H-SiC(0001) p-Channel MOSFETs Fabricated on Ion-Implanted n-Well. Materials Science Forum, 0, 717-720, 781-784.	0.3	8
78	Effect of Post-Oxidation Annealing in Wet O ₂ and N ₂ O Ambient on Thermally Grown SiO ₂ /4H-SiC Interface for P-Channel MOS Devices. Materials Science Forum, 0, 717-720, 709-712.	0.3	8
79	Fabrication of a P-Channel SiC-IGBT with High Channel Mobility. Materials Science Forum, 0, 740-742, 958-961.	0.3	37
80	Improvement of Channel Mobility in 4H-SiC C-Face MOSFETs by H ₂ Rich Wet Re-Oxidation. Materials Science Forum, 0, 778-780, 975-978.	0.3	15
81	Device Performance and Switching Characteristics of 16 kV Ultrahigh-Voltage SiC Flip-Type n-Channel IE-IGBTs. Materials Science Forum, 0, 821-823, 842-846.	0.3	22
82	Dynamic Characterization of the Threshold Voltage Instability under the Pulsed Gate Bias Stress in 4H-SiC MOSFET. Materials Science Forum, 0, 897, 549-552.	0.3	7
83	Oxidation-Process Dependence of Single Photon Sources Embedded in 4H-SiC MOSFETs. Materials Science Forum, 0, 924, 281-284.	0.3	2