Hitoshi Umezawa

List of Publications by Year
in descending order

191 papers	4,869 citations	94433 37 h-index	133252 59 g-index
194 all docs	194 docs citations	194 times ranked	2331 citing authors

#	Article	IF	Citations
1	Superconductivity in diamond thin films well above liquid helium temperature. Applied Physics Letters, 2004, 85, 2851-2853.	3.3	277
2	High temperature application of diamond power device. Diamond and Related Materials, 2012, 24, 201-205.	3.9	133
3	Electrolyte-Solution-Gate FETs Using Diamond Surface for Biocompatible Ion Sensors. Physica Status Solidi A, 2001, 185, 79-83.	1.7	122
4	Diamond Metalâ€“Semiconductor Field-Effect Transistor With Breakdown Voltage Over 1.5 kV. IEEE Electron Device Letters, 2014, 35, 1112-1114.	3.9	122
5	Recent advances in diamond power semiconductor devices. Materials Science in Semiconductor Processing, 2018, 78, 147-156.	4.0	122
6	Leakage current analysis of diamond Schottky barrier diode. Applied Physics Letters, 2007, 90, 073506.	3.3	121
7	Spontaneous polarization model for surface orientation dependence of diamond hole accumulation layer and its transistor performance. Applied Physics Letters, 2008, 92, .	3.3	106
8	Superconducting properties of homoepitaxial CVD diamond. Diamond and Related Materials, 2007, 16, 911-914.	3.9	104
9	High-frequency performance of diamond field-effect transistor. IEEE Electron Device Letters, 2001, 22, 390-392.	3.9	91
10	1 Î© On-Resistance Diamond Vertical-Schottky Barrier Diode Operated at 250 Â°C. Applied Physics Express, 2013, 6, 011302.	2.4	90
11	Fabrication of 1 Inch Mosaic Crystal Diamond Wafers. Applied Physics Express, 2010, 3, 051301.	2.4	86
12	Control wettability of the hydrogen-terminated diamond surface and the oxidized diamond surface using an atomic force microscope. Diamond and Related Materials, 2003, 12, 560-564.	3.9	85
13	Fabrication and fundamental characterizations of tiled clones of single-crystal diamond with 1-inch size. Diamond and Related Materials, 2012, 24, 29-33.	3.9	75
14	An equivalence class of quantum field theories at finite temperature. Journal of Mathematical Physics, 1984, 25, 3076-3085.	1.1	73
15	Superconductivity in polycrystalline diamond thin films. Diamond and Related Materials, 2005, 14, 1936-1938.	3.9	72
16	Low specific contact resistance of heavily phosphorus-doped diamond film. Applied Physics Letters, 2008, 93, .	3.3	68
17	Thermally Stable Schottky Barrier Diode by Ru/Diamond. Applied Physics Express, 2009, 2, 011202.	2.4	67
18	Characterization of leakage current on diamond Schottky barrier diodes using thermionic-field emission modeling. Diamond and Related Materials, 2006, 15, 1949-1953.	3.9	66

#	Article	IF	Citations
19	Increase in Reverse Operation Limit by Barrier Height Control of Diamond Schottky Barrier Diode. IEEE Electron Device Letters, 2009, 30, 960-962.	3.9	62
20	Characterization of locally modified diamond surface using Kelvin probe force microscope. Surface Science, 2005, 581, 207-212.	1.9	58
21	Renormalization group at finite temperature. Physical Review D, 1984, 29, 1116-1124.	4.7	56
22	Over 20-GHz Cutoff Frequency Submicrometer-Gate Diamond MISFETs. IEEE Electron Device Letters, 2004, 25, 480-482.	3.9	56
23	Ozone-treated channel diamond field-effect transistors. Diamond and Related Materials, 2003, 12, 1971-1975.	3.9	55
24	Low-temperature direct bonding of Î²-Ga2O3 and diamond substrates under atmospheric conditions. Applied Physics Letters, 2020, 116, .	3.3	53
25	Surface-modified Diamond Field-effect Transistors for Enzyme-immobilized Biosensors. Japanese Journal of Applied Physics, 2004, 43, L814-L817.	1.5	51
26	Characterization of Schottky barrier diodes on a 0.5-inch single-crystalline CVD diamond wafer. Diamond and Related Materials, 2010, 19, 208-212.	3.9	49
27	Diamond Schottky barrier diode for high-temperature, high-power, and fast switching applications. Japanese Journal of Applied Physics, 2014, 53, 05FP06.	1.5	49
28	High-Performance Diamond Metal-Semiconductor Field-Effect Transistor with 1 Âµm Gate Length. Japanese Journal of Applied Physics, 1999, 38, L1222-L1224.	1.5	47
29	High-performance p-channel diamond MOSFETs with alumina gate insulator. , 2007, , .		45
30	Nanofabrication on Hydrogen-Terminated Diamond Surfaces by Atomic Force Microscope Probe-Induced Oxidation. Japanese Journal of Applied Physics, 2000, 39, 4631-4632.	1.5	44
31	Clâ^’ sensitive biosensor used electrolyte-solution-gate diamond FETs. Biosensors and Bioelectronics, 2003, 19, 137-140.	10.1	44
32	Characterization of crystallographic defects in homoepitaxial diamond films by synchrotron X-ray topography and cathodoluminescence. Diamond and Related Materials, 2011, 20, 523-526.	3.9	44
33	Atomically flat diamond (111) surface formation by homoepitaxial lateral growth. Diamond and Related Materials, 2008, 17, 1051-1054.	3.9	43
34	Large reduction of threading dislocations in diamond by hot-filament chemical vapor deposition accompanying W incorporations. Applied Physics Letters, 2018, 113, .	3.3	43
35	Fabrication of a field plate structure for diamond Schottky barrier diodes. Diamond and Related Materials, 2009, 18, 292-295.	3.9	40
36	Vertical structure Schottky barrier diode fabrication using insulating diamond substrate. Diamond and Related Materials, 2010, 19, 1324-1329.	3.9	40

#	Article	IF	Citations
37	Low propagation loss in a one-port SAW resonator fabricated on single-crystal diamond for super-high-frequency applications. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 986-992.	3.0	40
38	Device scaling of pseudo-vertical diamond power Schottky barrier diodes. Diamond and Related Materials, 2009, 18, 1196-1199.	3.9	39
39	Surface roughening of diamond (001) films during homoepitaxial growth in heavy boron doping. Diamond and Related Materials, 2007, 16, 767-770.	3.9	37
40	Fabrication of single-hole transistors on hydrogenated diamond surface using atomic force microscope. Applied Physics Letters, 2002, 81, 2854-2856.	3.3	36
41	Effect of iodide ions on the hydrogen-terminated and partially oxygen-terminated diamond surface. Diamond and Related Materials, 2003, 12, 618-622.	3.9	35
42	Characterization of diamond metal-insulator-semiconductor field-effect transistors with aluminum oxide gate insulator. Applied Physics Letters, 2006, 88, 112117.	3.3	35
43	Edge termination techniques for p-type diamond Schottky barrier diodes. Diamond and Related Materials, 2008, 17, 809-812.	3.9	35
44	Characterization of specific contact resistance on heavily phosphorus-doped diamond films. Diamond and Related Materials, 2009, 18, 782-785.	3.9	35
45	Room-temperature bonding of single-crystal diamond and Si using Au/Au atomic diffusion bonding in atmospheric air. Microelectronic Engineering, 2018, 195, 68-73.	2.4	34
46	Potential applications of surface channel diamond field-effect transistors. Diamond and Related Materials, 2001, 10, 1743-1748.	3.9	33
47	Device processing, fabrication and analysis of diamond pseudo-vertical Schottky barrier diodes with low leak current and high blocking voltage. Diamond and Related Materials, 2009, 18, 299-302.	3.9	33
48	Growth of atomically step-free surface on diamond {111} mesas. Diamond and Related Materials, 2010, 19, 288-290.	3.9	33
49	High Q surface acoustic wave resonators in 2–3 GHz range using ScAlN/single crystalline diamond structure. , 2012, , .		33
50	Control of adsorbates and conduction on CVD-grown diamond surface, using scanning probe microscope. Applied Surface Science, 2000, 159-160, 578-582.	6.1	32
51	Cu/CaF2/Diamond Metal-Insulator-Semiconductor Field-Effect Transistor Utilizing Self-Aligned Gate Fabrication Process. Japanese Journal of Applied Physics, 2000, 39, L908-L910.	1.5	32
52	Low resistivity p+ diamond (100) films fabricated by hot-filament chemical vapor deposition. Diamond and Related Materials, 2015, 58, 110-114.	3.9	32
53	High temperature switching operation of a power diamond Schottky barrier diode. IEICE Electronics Express, 2012, 9, 1835-1841.	0.8	31
54	Structural analysis of dislocations in type-IIa single-crystal diamond. Diamond and Related Materials, 2012, 29, 37-41.	3.9	31

#	Article	IF	Citations
55	Leakage current analysis of diamond Schottky barrier diodes by defect imaging. Diamond and Related Materials, 2013, 40, 56-59.	3.9	31
56	Fabrication of diamond single-hole transistors using AFM anodization process. Diamond and Related Materials, 2002, 11, 387-391.	3.9	30
57	Effect of an Ultraflat Substrate on the Epitaxial Growth of Chemical-Vapor-Deposited Diamond. Applied Physics Express, 2013, 6, 025506.	2.4	30
58	Radiation hardness of a single crystal CVD diamond detector for MeV energy protons. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 784, 147-150.	1.6	30
59	Free energy in thermo field dynamics. Physical Review D, 1985, 31, 1495-1498.	4.7	29
60	High performance diamond MISFETs using CaF2 gate insulator. Diamond and Related Materials, 2003, 12, 399-402.	3.9	29
61	Electrical activity of doped phosphorus atoms in (001) nâ€type diamond. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2195-2199.	1.8	29
62	Fabrication of Metalâ€“Oxideâ€“Diamond Field-Effect Transistors with Submicron-Sized Gate Length on Boron-Doped (111) H-Terminated Surfaces Using Electron Beam Evaporated SiO2 and Al2O3. Journal of Electronic Materials, 2011, 40, 247-252.	2.2	29
63	Characterization of free-standing single-crystal diamond prepared by hot-filament chemical vapor deposition. Diamond and Related Materials, 2014, 48, 19-23.	3.9	29
64	Diamond nanofabrication and characterization for biosensing application. Physica Status Solidi A, 2003, 199, 39-43.	1.7	28
65	Hillock-Free Heavily Boron-Doped Homoepitaxial Diamond Films on Misoriented (001) Substrates. Japanese Journal of Applied Physics, 2007, 46, 1469-1470.	1.5	28
66	Characterization of vertical Mo/diamond Schottky barrier diode from non-ideal Iâ€“V and Câ€“V measurements based on MIS model. Diamond and Related Materials, 2013, 35, 1-6.	3.9	28
67	Trapping mechanism on oxygen-terminated diamond surfaces. Applied Physics Letters, 2006, 89, 203503.	3.3	27
68	Local stress distribution of dislocations in homoepitaxial chemical vapor deposite single-crystal diamond. Diamond and Related Materials, 2012, 23, 109-111.	3.9	27
69	Switching characteristics of a diamond Schottky barrier diode. IEICE Electronics Express, 2010, 7, 1246-1251.	0.8	25
70	Schottky barrier diodes fabricated on diamond mosaic wafers: Dislocation reduction to mitigate the effect of coalescence boundaries. Applied Physics Letters, 2019, 114, .	3.3	25
71	RF Performance of High Transconductance and High-Channel-Mobility Surface-Channel Polycrystalline Diamond Metal-Insulator-Semiconductor Field-Effect Transistors. Japanese Journal of Applied Physics, 2002, 41, 2611-2614.	1.5	24
72	DC and RF characteristics of 0.7-Î¼m-gate-length diamond metalâ€“insulatorâ€“semiconductor field effect transistor. Diamond and Related Materials, 2002, 11, 378-381.	3.9	24

#	Article	IF	Citations
73	Miniaturized diamond field-effect transistors for application in biosensors in electrolyte solution. Applied Physics Letters, 2007, 90, 063901.	3.3	24
74	Growth and evaluation of self-standing CVD diamond single crystals on off-axis (001) surface of HP/HT type IIa substrates. Diamond and Related Materials, 2012, 26, 45-49.	3.9	23
75	Toward Highâ€Performance Diamond Electronics: Control and Annihilation of Dislocation Propagation by Metalâ€Assisted Termination. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900498.	1.8	23
76	Ultrawide-bandgap semiconductors: An overview. Journal of Materials Research, 2021, 36, 4601-4615.	2.6	23
77	RF performance of diamond MISFETs. IEEE Electron Device Letters, 2002, 23, 121-123.	3.9	22
78	High-performance diamond radiation detectors produced by lift-off method. Europhysics Letters, 2016, 113, 62001.	2.0	22
79	Large-Area Synthesis of Carbon Nanofibers by Low-Power Microwave Plasma-Assisted CVD. Chemical Vapor Deposition, 2004, 10, 125-128.	1.3	21
80	RF Diamond Transistors: Current Status and Future Prospects. Japanese Journal of Applied Physics, 2005, 44, 7789-7794.	1.5	21
81	Electric field distribution using floating metal guard rings edge-termination for Schottky diodes. Diamond and Related Materials, 2018, 82, 160-164.	3.9	21
82	Tilde substitution law in thermo field dynamics: Thermal state conditions. Physical Review D, 1985, 31, 429-432.	4.7	20
83	Effect of Cl-Ionic Solutions on Electrolyte-Solution-Gate Diamond Field-Effect Transistors. Japanese Journal of Applied Physics, 2002, 41, 2595-2597.	1.5	20
84	Diamond Schottky pâ€“n diode with high forward current density. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2086-2090.	1.8	20
85	Nanometer Scale Height Standard Using Atomically Controlled Diamond Surface. Applied Physics Express, 0, 2, 055001.	2.4	20
86	Equivalence theorem and gauge theory at finite temperature. Physical Review D, 1983, 28, 1931-1938.	4.7	19
87	Defect and field-enhancement characterization through electron-beam-induced current analysis. Applied Physics Letters, 2017, 110, .	3.3	19
88	Ultrahigh conversion efficiency of betavoltaic cell using diamond pn junction. Applied Physics Letters, 2020, 117, .	3.3	19
89	Low-temperature direct bonding of diamond (100) substrate on Si wafer under atmospheric conditions. Scripta Materialia, 2021, 191, 52-55.	5.2	19
90	A diamond 14 MeV neutron energy spectrometer with high energy resolution. Review of Scientific Instruments, 2016, 87, 023503.	1.3	18

#	Article	IF	Citations
91	X-ray topographic study of defect in pâˆ’ diamond layer of Schottky barrier diode. Diamond and Related Materials, 2015, 57, 22-27.	3.9	17
92	Ohmic contact formation to heavily boron-doped p+ diamond prepared by hot-filament chemical vapor deposition. MRS Advances, 2016, 1, 3489-3495.	0.9	17
93	Growth and characterization of freestanding p+ diamond (100) substrates prepared by hot-filament chemical vapor deposition. Diamond and Related Materials, 2018, 81, 33-37.	3.9	17
94	Characterization of Diamond Surface-Channel Metal-Semiconductor Field-Effect Transistor with Device Simulation. Japanese Journal of Applied Physics, 2001, 40, 3101-3107.	1.5	16
95	Hydrophilic low-temperature direct bonding of diamond and Si substrates under atmospheric conditions. Scripta Materialia, 2020, 175, 24-28.	5.2	16
96	Hydrophilic direct bonding of diamond (111) substrate using treatment with H₂SO₄/H₂O₂. Japanese Journal of Applied Physics, 2020, 59, SBBA01.	1.5	16
97	A diagrammatic approach to spin algebras. Physics Letters, Section A: General, Atomic and Solid State Physics, 1984, 103, 408-410.	2.1	15
98	MOSFETs on polished surfaces of polycrystalline diamond. Diamond and Related Materials, 1999, 8, 1831-1833.	3.9	15
99	High Temperature Characteristics of Diamond SBDs. Materials Science Forum, 2010, 645-648, 1231-1234.	0.3	15
100	Diamond/Î²-Ga2O3 pn heterojunction diodes fabricated by low-temperature direct-bonding. AIP Advances, 2021, 11, .	1.3	15
101	Roughening of atomically flat diamond (111) surfaces by a hot HNO3/H2SO4 solution. Diamond and Related Materials, 2008, 17, 486-488.	3.9	14
102	Vertical Diamond Schottky Barrier Diode Fabricated on Insulating Diamond Substrate Using Deep Etching Technique. IEEE Transactions on Electron Devices, 2013, 60, 1416-1420.	3.0	14
103	X-ray Topography Used to Observe Dislocations in Epitaxially Grown Diamond Film. Japanese Journal of Applied Physics, 2012, 51, 090103.	1.5	13
104	Fano factor evaluation of diamond detectors for alpha particles. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2629-2633.	1.8	13
105	Radiation hardened H-diamond MOSFET (RADDFET) operating after 1 MGy irradiation. Applied Physics Letters, 2021, 118, .	3.3	13
106	High yield uniformity in pseudo-vertical diamond Schottky barrier diodes fabricated on half-inch single-crystal wafers. Applied Physics Letters, 2020, 117, .	3.3	13
107	X-ray Topography Used to Observe Dislocations in Epitaxially Grown Diamond Film. Japanese Journal of Applied Physics, 2012, 51, 090103.	1.5	13
108	Flattening of oxidized diamond (111) surfaces with H2SO4/H2O2 solutions. Diamond and Related Materials, 2009, 18, 213-215.	3.9	12

#	Article	IF	Citations
109	Deep sub-micron gate diamond MISFETs. Diamond and Related Materials, 2003, 12, 1814-1818.	3.9	11
110	Fabrication of diamond MISFET with micron-sized gate length on boron-doped (111) surface. Diamond and Related Materials, 2005, 14, 2043-2046.	3.9	11
111	The role of boron atoms in heavily boron-doped semiconducting homoepitaxial diamond growth â€" Study of surface morphology. Diamond and Related Materials, 2007, 16, 409-411.	3.9	11
112	Design and optimization of planar mesa termination for diamond Schottky barrier diodes. Diamond and Related Materials, 2013, 36, 51-57.	3.9	11
113	Investigation of Current-Voltage Characteristics of Oxide Region Induced by Atomic Force Microscope on Hydrogen-Terminated Diamond Surface. Japanese Journal of Applied Physics, 2002, 41, 4980-4982.	1.5	10
114	Memory effect of diamond in-plane-gated field-effect transistors. Applied Physics Letters, 2004, 85, 139-141.	3.3	10
115	Recent Progress of Diamond Device toward Power Application. Materials Science Forum, 2009, 615-617, 999-1002.	0.3	10
116	Diamond Vertical Schottky Barrier Diode with Al₂O₃ Field Plate. Materials Science Forum, 0, 717-720, 1319-1321.	0.3	10
117	Leakage current analysis of diamond Schottky barrier diodes operated at high temperature. Japanese Journal of Applied Physics, 2014, 53, 04EP04.	1.5	10
118	Characterization of breakdown behavior of diamond Schottky barrier diodes using impact ionization coefficients. Japanese Journal of Applied Physics, 2017, 56, 04CR12.	1.5	10
119	Heterogeneous direct bonding of diamond and semiconductor substrates using NH3/H2O2 cleaning. Applied Physics Letters, 2020, 117, 201601.	3.3	10
120	Fabrication of T-Shaped Gate Diamond Metalâ€"Insulatorâ€"Semiconductor Field-Effect Transistors. Japanese Journal of Applied Physics, 2006, 45, 5681-5684.	1.5	9
121	Low-temperature direct bonding of SiC and Ga2O3 substrates under atmospheric conditions. Journal of Applied Physics, 2021, 130, .	2.5	9
122	X-Ray Topographic Study of a Homoepitaxial Diamond Layer on an Ultraviolet-Irradiated Precision Polished Substrate. Acta Physica Polonica A, 2014, 125, 969-971.	0.5	9
123	Spin rotational invariance and the thermal excitation of magnons at low temperatures. Physical Review B, 1984, 29, 423-432.	3.2	8
124	Cryogenic operation of surface-channel diamond field-effect transistors. Diamond and Related Materials, 2003, 12, 1800-1803.	3.9	8
125	Micropatterning Oligonucleotides on Single-Crystal Diamond Surface by Photolithography. Japanese Journal of Applied Physics, 2005, 44, L295-L298.	1.5	8
126	One-port SAW resonators fabricated on single-crystal diamond. , 2013, , .		8

#	Article	IF	Citations
127	Pulse height reduction effects of single-crystal CVD diamond detector for low-energy heavy ions. Europhysics Letters, 2013, 104, 22003.	2.0	8
128	Modeling and simulation of non-ideal characteristics of vertical Mo/diamond Schottky barrier diode based on MIS model. Transactions of the Materials Research Society of Japan, 2014, 39, 297-303.	0.2	8
129	Lifetime and migration length of B-related admolecules on diamond {1 0 0}-surface: Comparative study of hot-filament and microwave plasma-enhanced chemical vapor deposition. Journal of Crystal Growth, 2017, 479, 52-58.	1.5	8
130	Suppression of killer defects in diamond vertical-type Schottky barrier diodes. Japanese Journal of Applied Physics, 2020, 59, SGGD10.	1.5	8
131	Development of diamond-based power devices. Synthesiology, 2013, 6, 147-157.	0.2	8
132	Channel mobility evaluation for diamond MOSFETs using gate-to-channel capacitance measurement. Diamond and Related Materials, 2008, 17, 1256-1258.	3.9	7
133	Characterization of Fast Switching Capability for Diamond Schottky Barrier Diode. Materials Science Forum, 0, 679-680, 820-823.	0.3	7
134	Fabrication of p+-Si/p-diamond heterojunction diodes and effects of thermal annealing on their electrical properties. Diamond and Related Materials, 2021, 120, 108665.	3.9	7
135	Fabrication of diamond in-plane-gated field effect transistors using oxygen plasma etching. Diamond and Related Materials, 2003, 12, 408-412.	3.9	6
136	Parasitic resistance analysis of pseudovertical structure diamond Schottky barrier diode. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1997-2001.	1.8	6
137	Non-linear increases in excitonic emission in synthetic type-IIa diamond. Diamond and Related Materials, 2003, 12, 1995-1998.	3.9	5
138	Submicron-scale diamond selective-area growth by hot-filament chemical vapor deposition. Thin Solid Films, 2016, 615, 239-242.	1.8	5
139	Formation of Nitrogen-Vacancy Centers in Homoepitaxial Diamond Thin Films Grown via Microwave Plasma-Assisted Chemical Vapor Deposition. IEEE Nanotechnology Magazine, 2016, 15, 614-618.	2.0	5
140	Characterization of X-ray radiation hardness of diamond Schottky barrier diode and metal-semiconductor field-effect transistor. , 2017, , .		5
141	Selective-Area Growth of Thick Diamond Films Using Chemically Stable Masks of Ru/Au and Mo/Au. Japanese Journal of Applied Physics, 2012, 51, 070202.	1.5	5
142	Diamond high-temperature power devices. Power Semiconductor Devices & IC's, 2009 ISPSD 2009 21st International Symposium on, 2009, , .	0.0	4
143	Low propagation loss in a one-port resonator fabricated on single-crystal diamond. , 2011, , .		4
144	Lattice structure of a freestanding nitrogen doped large single crystal diamond plate fabricated using the lift-off process: X-ray diffraction studies. Diamond and Related Materials, 2012, 25, 119-123.	3.9	4

#	Article	IF	Citations
145	Doping-induced strain in heavily B-doped (100) diamond films prepared by hot-filament chemical vapor deposition. Thin Solid Films, 2019, 680, 85-88.	1.8	4
146	Nanodevice fabrication on hydrogenated diamond surface using atomic force microscope. Materials Research Society Symposia Proceedings, 2001, 675, 1.	0.1	3
147	Fabrication of 0.1 Âµm channel diamond Metal-Insulator-Semiconductor Field-Effect Transistor. Materials Research Society Symposia Proceedings, 2001, 680, 1.	0.1	3
148	Development of diamond-based power devices. Synthesiology, 2013, 6, 152-161.	0.2	3
149	Investigation of electrically-active deep levels in single-crystalline diamond by particle-induced charge transient spectroscopy. Nuclear Instruments & Methods in Physics Research B, 2016, 372, 151-155.	1.4	3
150	Characterization of insulated-gate bipolar transistor temperature on insulating, heat-spreading polycrystalline diamond substrate. Japanese Journal of Applied Physics, 2017, 56, 011301.	1.5	3
151	Thermally stable heavily boron-doped diamond resistors fabricated via selective area growth by hot-filament chemical vapor deposition. Thin Solid Films, 2019, 680, 81-84.	1.8	3
152	Improved drain current of diamond metalâ€“semiconductor field-effect transistor by selectively grown p+ contact layer. Japanese Journal of Applied Physics, 2019, 58, SBBD17.	1.5	3
153	Microwave Performance of Diamond Field-Effect Transistors. Japanese Journal of Applied Physics, 2002, 41, 2591-2594.	1.5	2
154	DC and RF Performance of Diamond MISFETs with Alumina Gate Insulator. Materials Science Forum, 2008, 600-603, 1349-1351.	0.3	2
155	Device Characteristics Dependence on Diamond SDBs Area. Materials Science Forum, 0, 615-617, 1003-1006.	0.3	2
156	Selective-Area Growth of Thick Diamond Films Using Chemically Stable Masks of Ru/Au and Mo/Au. Japanese Journal of Applied Physics, 2012, 51, 070202.	1.5	2
157	Response measurement of single-crystal chemical vapor deposition diamond radiation detector for intense X-rays aiming at neutron bang-time and neutron burn-history measurement on an inertial confinement fusion with fast ignition. Review of Scientific Instruments, 2015, 86, 053503.	1.3	2
158	Crystal orientation dependence of piezoresistivity in boron doped single crystalline diamond films. Diamond and Related Materials, 2016, 63, 218-221.	3.9	2
159	Substrate Effects on Charge Carrier Transport Properties of Singleâ€Crystal CVD Diamonds and an 8â€‰mm Square Radiation Energy Spectrometer. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800333.	1.8	2
160	Ga2O3/Si and Al2O3/Si Room-Temperature Wafer Bonding Using in-Situ Deposited Si Thin Film. ECS Transactions, 2018, 86, 169-174.	0.5	2
161	Electrolyte-Solution-Gate FETs Using Diamond Surface for Biocompatible Ion Sensors. , 2001, 185, 79.		2
162	Diamond Semiconductor Devices, state-of-the-art of material growth and device processing. , 2020, , .		2

#	Article	IF	Citations
163	High frequency application of high transconductance surface-channel diamond field-effect transistors. , 0, , .		1
164	Diamond MISFETs fabricated on high quality polycrystalline CVD diamond. , 2007, , .		1
165	Characteristics of Diamond SBDâ€™s Fabricated on Half Inch Size CVD Wafer Made by the â€œDirect Wafer Fabrication Techniqueâ€. Materials Science Forum, 2010, 645-648, 1227-1230.	0.3	1
166	High temperature operation of diamond power SBD. , 2013, , .		1
167	Determination of Current Leakage Sites in Diamond pâ€“n Junction. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900243.	1.8	1
168	Hydrophilic direct bonding of monocrystalline (111) diamond substrate onto Si wafer. , 2019, , .		1
169	Doping Position Control of Nitrogen-vacancy Centers in Diamond using Nitrogen-doped Chemical Vapor Deposition on Micropatterned Substrate. , 2013, , .		1
170	Characterization of mosaic diamond wafers and hot-filament epilayers by using HR-EBSD technics. Diamond and Related Materials, 2022, 123, 108839.	3.9	1
171	Impact of Laserâ€Induced Graphitization on Diamond Schottky Barrier Diodes. Physica Status Solidi (A) Applications and Materials Science, 0, , .	1.8	1
172	Diamond Semiconductor Devices for harsh environmental applications. , 2022, , .		1
173	High-Performance Surface-Channel Diamond Field-Effect Transistors. Materials Science Forum, 2001, 353-356, 815-0.	0.3	0
174	Low-temperature operation of diamond surface-channel field-effect transistors. Materials Research Society Symposia Proceedings, 2002, 719, 551.	0.1	0
175	Electrical Properties of Diamond MISFETs with Submicron-Sized Gate on Boron-Doped (111) Surface. Materials Research Society Symposia Proceedings, 2005, 891, 1.	0.1	0
176	Local Stress-strain Structure in CVD Diamond Observed by Raman Peak-shift Mapping. Materials Research Society Symposia Proceedings, 2011, 1282, 61.	0.1	0
177	CVD Diamond Dislocations Observed by X-ray Topography, Birefrengence Image and Cathodoluminesence mapping. Materials Research Society Symposia Proceedings, 2011, 1282, 73.	0.1	0
178	Observation of Epitaxial Diamond Layer by Using X-ray Topography. Nihon Kessho Gakkaishi, 2012, 54, 54-58.	0.0	0
179	Position and density control of nitrogen-vacancy centers in diamond using micropatterned substrate for chemical vapor deposition. , 2013, , .		0
180	Pulse shape distortion of output signals from single-crystal CVD diamond detector in few-GHz broadband amplifiers. Europhysics Letters, 2014, 106, 22001.	2.0	0

#	Article	IF	Citations
181	Status of Beam Line Detectors for the BigRIPS Fragment Separator at RIKEN RI Beam Factory: Issues on High Rates and Resolution. , 2015, , .		0
182	Thermal conductivity measurement of diamond and Î²-Ga<inf>2</inf>O<inf>3</inf> thin films by a 3Ï‰ method. , 2018, , .		0
183	Electric Field Characterization of Diamond Metal Semiconductor Field Effect Transistors Using Electron Beam Induced Current. Materials Science Forum, 2018, 924, 935-938.	0.3	0
184			