Hiroshi Kawarada

List of Publications by Year
in descending order

342	10,085	31902	56606
papers	citations	53 h-index	83 g-index

356	356	356	5319
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Over 1 A/mm drain current density and 3.6ÂW/mm output power density in 2DHG diamond MOSFETs with highly doped regrown source/drain. Carbon, 2022, 188, 220-228.	5.4	10
2	580 V Breakdown Voltage in Vertical Diamond Trench MOSFETs With a P^{â^'}-Drift Layer. IEEE Electron Device Letters, 2022, 43, 88-91.	2.2	5
3	MOSFETs on (110) Câ€“H Diamond: ALD Alâ„Oâ„ƒ/Diamond Interface Analysis and High Performance Normally-OFF Operation Realization. IEEE Transactions on Electron Devices, 2022, 69, 949-955.	1.6	23
4	â^'10 V Threshold Voltage High-Performance Normally-OFF Câ€“Si Diamond MOSFET Formed by p⁺-Diamond-First and Silicon Molecular Beam Deposition Approaches. IEEE Transactions on Electron Devices, 2022, 69, 2236-2242.	1.6	11
5	â^'400 mA mm^{â^'1}Drain Current Density Normally-Off Polycrystalline Diamond MOSFETs. IEEE Electron Device Letters, 2022, 43, 789-792.	2.2	4
6	pH Measurement at Elevated Temperature with Vessel Gate and Oxygen-Terminated Diamond Solution Gate Field Effect Transistors. Sensors, 2022, 22, 1807.	2.1	1
7	An enhanced two-dimensional hole gas (2DHG) Câ€“H diamond with positive surface charge model for advanced normally-off MOSFET devices. Scientific Reports, 2022, 12, 4203.	1.6	7
8	Fluorine-Terminated Polycrystalline Diamond Solution-Gate Field-Effect Transistor Sensor with Smaller Amount of Unexpectedly Generated Fluorocarbon Film Fabricated by Fluorine Gas Treatment. Materials, 2022, 15, 2966.	1.3	0
9	C-Si interface on SiO2/(1 1 1) diamond p-MOSFETs with high mobility and excellent normally-off operation. Applied Surface Science, 2022, 593, 153368.	3.1	11
10	High Temperature Performance of Enhanced Endurance Hydrogen Terminated Transparent Polycrystalline Diamond FET. IEEE Electron Device Letters, 2022, 43, 1101-1104.	2.2	3
11	Electrical Characterization of Metal/Alâ„Oâ„ƒ/SiOâ„/Oxidized-Si-Terminated (Câ€“Siâ€“O) Diamond Capacitors. IEEE Transactions on Electron Devices, 2022, 69, 3604-3610.	1.6	5
12	Normally-Off Oxidized Si-Terminated (111) Diamond MOSFETs via ALD-Al₂O₃ Gate Insulator With Drain Current Density Over 300 mA/mm. IEEE Transactions on Electron Devices, 2022, 69, 4144-4152.	1.6	5
13	300 mA/mm Drain Current Density P-Type Enhancement-Mode Oxidized Si-terminated (111) Diamond MOSFETs with ALD Al₂O₃ Gate Insulator. , 2022, , .		0
14	Over 59â€‰mVâ€‰pH â^'1 Sensitivity with Fluorocarbon Thin Film via Fluorine Termination for pH Sensing Using Boronâ€Doped Diamond Solutionâ€Gate Fieldâ€Effect Transistors. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000278.	0.8	3
15	Microwave diamond devices technology: Fieldâ€effect transistors and modeling. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2021, 34, .	1.2	9
16	Drain Current Density Over 1.1 A/mm in 2D Hole Gas Diamond MOSFETs With Regrown p++-Diamond Ohmic Contacts. IEEE Electron Device Letters, 2021, 42, 204-207.	2.2	26
17	Câ€“Si bonded two-dimensional hole gas diamond MOSFET with normally-off operation and wide temperature range stability. Carbon, 2021, 175, 525-533.	5.4	26
18	Space-charge-controlled field emission analysis of current conduction in amorphous and crystallized atomic-layer-deposited Al2O3 on GaN. Journal of Applied Physics, 2021, 129, .	1.1	6

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19	Microstructure, Morphology and Magnetic Property of (001)-Textured MnAlGe Films on Si/SiO₂ Substrate. Materials Transactions, 2021, 62, 680-687.	0.4	3
20	(111) vertical-type two-dimensional hole gas diamond MOSFETs with hexagonal trench structures. Carbon, 2021, 176, 349-357.	5.4	8
21	Low ON-Resistance (2.5 mÎ© Â· cm²) Vertical-Type 2-D Hole Gas Diamond MOSFETs With Trench Gate Structure. IEEE Transactions on Electron Devices, 2021, 68, 3490-3496.	1.6	9
22	Crystal analysis of grain boundaries in boron-doped diamond superconducting quantum interference devices operating above liquid helium temperature. Carbon, 2021, 181, 379-388.	5.4	2
23	High Output Power Density of 2DHG Diamond MOSFETs With Thick ALD-Al₂O₃. IEEE Transactions on Electron Devices, 2021, 68, 3942-3949.	1.6	18
24	Highly aligned 2D NV ensemble fabrication from nitrogen-terminated (111) surface. Carbon, 2021, 180, 127-134.	5.4	4
25	Postdeposition annealing effect on atomic-layer-deposited Al2O3 gate insulator on (001) Î²-Ga2O3. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2021, 39, .	0.6	2
26	Ten Years Progress of Electrical Detection of Heavy Metal Ions (HMIs) Using Various Field-Effect Transistor (FET) Nanosensors: A Review. Biosensors, 2021, 11, 478.	2.3	21
27	Effect of Surface Charge Model in the Characterization of Two-dimensional Hydrogenated Nanocrystalline-diamond Metal Oxide Semiconductor Field Effect Transistor (MOSFET) with Device Simulation. , 2021, , .		0
28	Over 12000 A/cm²and 3.2 m$Omega$ cm²Miniaturized Vertical-Type Two-Dimensional Hole Gas Diamond MOSFET. IEEE Electron Device Letters, 2020, 41, 111-114.	2.2	21
29	Feasibility Study of TiO_x Encapsulation of Diamond Solutionâ€Gate Fieldâ€Effect Transistor Metal Contacts for Miniature Biosensor Applications. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000634.	0.8	0
30	Local initial heteroepitaxial growth of diamond (111) on Ru (0001)/c-sapphire by antenna-edge-type microwave plasma chemical vapor deposition. Applied Physics Letters, 2020, 117, .	1.5	7
31	Epitaxial Combination of Two-Dimensional Hexagonal Boron Nitride with Single-Crystalline Diamond Substrate. ACS Applied Materials & Interfaces, 2020, 12, 46466-46475.	4.0	13
32	Application of 2DHG Diamond p-FET in Cascode With Normally-OFF Operation and a Breakdown Voltage of Over 1.7 kV. IEEE Transactions on Electron Devices, 2020, 67, 4006-4009.	1.6	5
33	Postdeposition annealing effect on the reliability of atomic-layer-deposited Al2O3 films on GaN. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, .	0.6	6
34	Oxidized Si terminated diamond and its MOSFET operation with SiO2 gate insulator. Applied Physics Letters, 2020, 116, .	1.5	33
35	Dynamic space-charge-controlled field emission model of current conduction in metalâ€“insulatorâ€“semiconductor capacitors. Journal of Applied Physics, 2020, 127, .	1.1	5
36	Gate/insulator-interfacial-dipole-controlled current conduction in Al2O3 metal-insulator-semiconductor capacitors. Journal of Applied Physics, 2019, 126, .	1.1	10

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37	Correlation between the Carbon Nanotube Growth Rate and Byproducts in Antennaâ€Type Remote Plasma Chemical Vapor Deposition Observed by Vacuum Ultraviolet Absorption Spectroscopy. Small, 2019, 15, e1901504.	5.2	4
38	Electrical property measurement of two-dimensional hole-gas layer on hydrogen-terminated diamond surface in vacuum-gap-gate structure. Applied Physics Letters, 2019, 114, .	1.5	6
39	Pointâ€Arc Remote Plasma Chemical Vapor Deposition for Highâ€Quality Singleâ€Crystal Diamond Selective Growth. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900227.	0.8	3
40	Carbon Nanotube Forests on SiC: Structural and Electrical Properties. , 2019, , 605-620.		0
41	Single-crystalline boron-doped diamond superconducting quantum interference devices with regrowth-induced step edge structure. Scientific Reports, 2019, 9, 15214.	1.6	7
42	Nitrogen-Terminated Diamond Surface for Nanoscale NMR by Shallow Nitrogen-Vacancy Centers. Journal of Physical Chemistry C, 2019, 123, 3594-3604.	1.5	46
43	Deoxyribonucleic-acid-sensitive Polycrystalline Diamond Solution-gate Field-effect Transistor with a Carboxyl-terminated Boron-doped Channel. Analytical Sciences, 2019, 35, 923-927.	0.8	3
44	Triple nitrogen-vacancy centre fabrication by C5N4Hn ion implantation. Nature Communications, 2019, 10, 2664.	5.8	33
45	Normally-OFF Two-Dimensional Hole Gas Diamond MOSFETs Through Nitrogen-Ion Implantation. IEEE Electron Device Letters, 2019, 40, 933-936.	2.2	31
46	Advanced photo-assisted capacitanceâ€“voltage characterization of insulator/wide-bandgap semiconductor interface using super-bandgap illumination. Journal of Applied Physics, 2019, 125, .	1.1	9
47	Carbon 1s X-ray photoelectron spectra of realistic samples of hydrogen-terminated and oxygen-terminated CVD diamond (111) and (001). Diamond and Related Materials, 2019, 93, 105-130.	1.8	25
48	3.8 W/mm RF Power Density for ALD Al₂O₃-Based Two-Dimensional Hole Gas Diamond MOSFET Operating at Saturation Velocity. IEEE Electron Device Letters, 2019, 40, 279-282.	2.2	83
49	Carboxyl-functionalized graphene SGFET: pH sensing mechanism and reliability of anodization. Diamond and Related Materials, 2019, 91, 15-21.	1.8	10
50	Time-dependent dielectric breakdown of atomic-layer-deposited Al2O3 films on GaN. Journal of Applied Physics, 2018, 123, .	1.1	19
51	In-plane electrical conduction mechanisms of highly dense carbon nanotube forests on silicon carbide. Journal of Applied Physics, 2018, 123, 045104.	1.1	3
52	Heteroepitaxial Diamond Field-Effect Transistor for High Voltage Applications. IEEE Electron Device Letters, 2018, 39, 51-54.	2.2	17
53	Role of Carboxyl and Amine Termination on a Boron-Doped Diamond Solution Gate Field Effect Transistor (SGFET) for pH Sensing. Sensors, 2018, 18, 2178.	2.1	13
54	Ionic-liquid-gating setup for stable measurements and reduced electronic inhomogeneity at low temperatures. Review of Scientific Instruments, 2018, 89, 103903.	0.6	2

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55	Irradiation-Induced Modification of the Superconducting Properties of Heavily-Boron-Doped Diamond. Physical Review Applied, 2018, 10, .	1.5	7
56	Superconductivity in nano- and micro-patterned high quality single crystalline boron-doped diamond films. Diamond and Related Materials, 2018, 90, 181-187.	1.8	9
57	Vertical-type two-dimensional hole gas diamond metal oxide semiconductor field-effect transistors. Scientific Reports, 2018, 8, 10660.	1.6	40
58	Electrical contact properties between carbon nanotube ends and a conductive atomic force microscope tip. Journal of Applied Physics, 2018, 123, .	1.1	4
59	Lithographically engineered shallow nitrogen-vacancy centers in diamond for external nuclear spin sensing. New Journal of Physics, 2018, 20, 083029.	1.2	18
60	Post-deposition-annealing effect on current conduction in Al2O3 films formed by atomic layer deposition with H2O oxidant. Journal of Applied Physics, 2017, 121, .	1.1	16
61	Normally-Off Câ€“H Diamond MOSFETs With Partial Câ€“O Channel Achieving 2-kV Breakdown Voltage. IEEE Electron Device Letters, 2017, 38, 363-366.	2.2	144
62	Smart Power Devices and ICs Using GaAs and Wide and Extreme Bandgap Semiconductors. IEEE Transactions on Electron Devices, 2017, 64, 856-873.	1.6	106
63	Aptamer strategy for ATP detection on nanocrystalline diamond functionalized by a nitrogen and hydrogen radical beam system. Journal of Applied Physics, 2017, 121, .	1.1	6
64	Vertical edge graphite layer on recovered diamond (001) after highâ€dose ion implantation and highâ€temperature annealing. Physica Status Solidi (B): Basic Research, 2017, 254, 1700040.	0.7	4
65	Durability-enhanced two-dimensional hole gas of C-H diamond surface for complementary power inverter applications. Scientific Reports, 2017, 7, 42368.	1.6	85
66	High Voltage Stress Induced in Transparent Polycrystalline Diamond Field-Effect Transistor and Enhanced Endurance Using Thick Al₂O₃Passivation Layer. IEEE Electron Device Letters, 2017, 38, 607-610.	2.2	23
67	Sheet resistance underneath the Au ohmic-electrode on hydrogen-terminated surface-conductive diamond (001). Diamond and Related Materials, 2017, 80, 93-98.	1.8	7
68	Vertical edge graphite layer on recovered diamond (001) after high-dose ion implantation and high-temperature annealing (Phys. Status Solidi B 9/2017). Physica Status Solidi (B): Basic Research, 2017, 254, 1770249.	0.7	0
69	Fabrication of photo-electrochemical biosensors for ultrasensitive screening of mono-bioactive molecules: the effect of geometrical structures and crystal surfaces. Journal of Materials Chemistry B, 2017, 5, 7985-7996.	2.9	88
70	Effect of a radical exposure nitridation surface on the charge stability of shallow nitrogen-vacancy centers in diamond. Applied Physics Express, 2017, 10, 055503.	1.1	19
71	Charge state stabilization of shallow nitrogen vacancy centers in diamond by oxygen surface modification. Japanese Journal of Applied Physics, 2017, 56, 04CK08.	0.8	46
72	Threshold voltage control of electrolyte solution gate field-effect transistor by electrochemical oxidation. Applied Physics Letters, 2017, 111, .	1.5	7

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73	Polycrystalline Boron-doped Diamond Electrolyte-solution-gate Field-effect Transistor Applied to the Measurement of Water Percentage in Ethanol. Analytical Sciences, 2017, 33, 1193-1196.	0.8	4
74	An All-Solid-State pH Sensor Employing Fluorine-Terminated Polycrystalline Boron-Doped Diamond as a pH-Insensitive Solution-Gate Field-Effect Transistor. Sensors, 2017, 17, 1040.	2.1	7
75	Aptamer-Based Carboxyl-Terminated Nanocrystalline Diamond Sensing Arrays for Adenosine Triphosphate Detection. Sensors, 2017, 17, 1686.	2.1	4
76	Space-charge-controlled field emission model of current conduction through Al2O3 films. Journal of Applied Physics, 2016, 119, .	1.1	19
77	Effect of atomic layer deposition temperature on current conduction in Al2O3 films formed using H2O oxidant. Journal of Applied Physics, 2016, 120, .	1.1	25
78	High voltage breakdown (1.8â€‰kV) of hydrogenated black diamond field effect transistor. Applied Physics Letters, 2016, 109, .	1.5	30
79	Hydrogen-terminated diamond vertical-type metal oxide semiconductor field-effect transistors with a trench gate. Applied Physics Letters, 2016, 109, .	1.5	38
80	Contact Conductivity of Uncapped Carbon Nanotubes Formed by Silicon Carbide Decomposition. Journal of Physical Chemistry C, 2016, 120, 6232-6238.	1.5	4
81	Polycrystalline boron-doped diamond with an oxygen-terminated surface channel as an electrolyte-solution-gate field-effect transistor for pH sensing. Electrochimica Acta, 2016, 212, 10-15.	2.6	15
82	Spin-induced anomalous magnetoresistance at the (100) surface of hydrogen-terminated diamond. Physical Review B, 2016, 94, .	1.1	12
83	Radially oriented nanostrand electrodes to boost glucose sensing in mammalian blood. Biosensors and Bioelectronics, 2016, 77, 656-665.	5.3	41
84	Research Progress on Materials for MEMS and Electronics Devices of Electronics Materials Development Group. Materia Japan, 2015, 54, 232-235.	0.1	0
85	Oneâ€Pot Fabrication of Dendritic NiO@carbonâ€“nitrogen Dot Electrodes for Screening Blood Glucose Level in Diabetes. Advanced Healthcare Materials, 2015, 4, 2110-2119.	3.9	52
86	Functionalized carbon microarrays platform for high sensitive detection of HIV-Tat peptide. RSC Advances, 2015, 5, 65042-65047.	1.7	5
87	Direct partial CH3 termination into carboxyl terminated diamond surface for biosensor. , 2015, , .		0
88	Signature of high Tc above 25â€‰K in high quality superconducting diamond. Applied Physics Letters, 2015, 106, 052601.	1.5	54
89	Very low Schottky barrier height at carbon nanotube and silicon carbide interface. Applied Physics Letters, 2015, 106, .	1.5	13
90	Isotope analysis of diamond-surface passivation effect of high-temperature H2O-grown atomic layer deposition-Al2O3 films. Journal of Applied Physics, 2015, 117, .	1.1	29

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91	Blocking characteristics of diamond junctions with a punch-through design. Journal of Applied Physics, 2015, 117, 124503.	1.1	18
92	Electron transport dependence of nanoscale hemeprotein molecular structures for engineering electrochemical nanosensor. Nano Structures Nano Objects, 2015, 2, 35-44.	1.9	5
93	Room-temperature amorphous alloy field-effect transistor exhibiting particle and wave electronic transport. Journal of Applied Physics, 2015, 117, 084302.	1.1	1
94	Large-current-controllable carbon nanotube field-effect transistor in electrolyte solution. Applied Physics Letters, 2015, 106, .	1.5	4
95	Repulsive effects of hydrophobic diamond thin films on biomolecule detection. Applied Surface Science, 2015, 328, 314-318.	3.1	6
96	Quantum oscillations of the two-dimensional hole gas at atomically flat diamond surfaces. Physical Review B, 2014, 89, .	1.1	28
97	Substitution Effects of Cr or Fe on the Curie Temperature for Mn-Based Layered Compounds MnAlGe and MnGaGe With Cu₂Sb-Type Structure. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	13
98	High-reliability passivation of hydrogen-terminated diamond surface by atomic layer deposition of Al2O3. Journal of Applied Physics, 2014, 115, .	1.1	70
99	C-H surface diamond field effect transistors for high temperature (400â€‰Â°C) and high voltage (500â€‰V) operation. Applied Physics Letters, 2014, 105, .	1.5	161
100	Diamond surface conductivity: Properties, devices, and sensors. MRS Bulletin, 2014, 39, 542-548.	1.7	64
101	Comparison of Different Oxidation Techniques for Biofunctionalization of Pyrolyzed Carbon. Material Science Research India, 2014, 11, 01-08.	0.9	8
102	Figure of merit of diamond power devices based on accurately estimated impact ionization processes. Journal of Applied Physics, 2013, 114, .	1.1	49
103	Effect of hydrogen and cluster morphology on the electronic behavior of Ni-Nb-Zr-H glassy alloys with subnanometer-sized icosahedral Zr5Ni5Nb5 clusters. European Physical Journal D, 2013, 67, 1.	0.6	2
104	Understanding the stability of a sputtered Al buffer layer for single-walled carbon nanotube forest synthesis. Carbon, 2013, 57, 401-409.	5.4	13
105	Increasing the length of a single-wall carbon nanotube forest by adding titanium to a catalytic substrate. Carbon, 2013, 57, 79-87.	5.4	14
106	SPATIAL VARIATION OF TUNNELING SPECTRA IN (111)-ORIENTED FILMS OF BORON-DOPED DIAMOND PROBED BY STM/STS. International Journal of Modern Physics B, 2013, 27, 1362014.	1.0	4
107	Platelet-derived growth factor oncoprotein detection using three-dimensional carbon microarrays. Biosensors and Bioelectronics, 2013, 39, 118-123.	5.3	30
108	Effects of diamond-FET-based RNA aptamer sensing for detection of real sample of HIV-1 Tat protein. Biosensors and Bioelectronics, 2013, 40, 277-282.	5.3	83

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109	Low-Temperature Transport Properties of Holes Introduced by Ionic Liquid Gating in Hydrogen-Terminated Diamond Surfaces. Journal of the Physical Society of Japan, 2013, 82, 074718.	0.7	30
110	Accuracy assessment of sheet-charge approximation for Fowler-Nordheim tunneling into charged insulators. Journal of Applied Physics, 2013, 114, .	1.1	10
111	Effect of Hydrogen Absorption on Electrical Transport Properties for Ni₃₆Nb₂₄Zr₄₀ Amorphous Alloy Ribbons. Materials Transactions, 2013, 54, 1339-1342.	0.4	4
112	High-Current Metal Oxide Semiconductor Field-Effect Transistors on H-Terminated Diamond Surfaces and Their High-Frequency Operation. Japanese Journal of Applied Physics, 2012, 51, 090111.	0.8	53
113	Fluorescence-Signaling Aptasensor for ATP and PDGF Detection on Functionalized Diamond Surface. Journal of the Electrochemical Society, 2012, 159, J182-J187.	1.3	11
114	Capacitance Distribution of Ni-Nb-Zr-H Glassy Alloys. Journal of Nanoscience and Nanotechnology, 2012, 12, 3848-3852.	0.9	5
115	High Priority of Nanocrystalline Diamond as a Biosensing Platform. Japanese Journal of Applied Physics, 2012, 51, 090125.	0.8	3
116	Refractory two-dimensional hole gas on hydrogenated diamond surface. Journal of Applied Physics, 2012, 112, .	1.1	54
117	Fabrication of carbon nanostructures using photo-nanoimprint lithography and pyrolysis. Journal of Micromechanics and Microengineering, 2012, 22, 045024.	1.5	34
118	Highly sensitive detection of platelet-derived growth factor on a functionalized diamond surface using aptamer sandwich design. Analyst, The, 2012, 137, 1692.	1.7	47
119	Controllable oxidization of boron doped nanodiamond covered with different solution via UV/ozone treatment. Diamond and Related Materials, 2012, 24, 146-152.	1.8	14
120	Effective Surface Functionalization of Nanocrystalline Diamond Films by Direct Carboxylation for PDGF Detection via Aptasensor. ACS Applied Materials & Interfaces, 2012, 4, 3526-3534.	4.0	31
121	Mesoporous NiO nanomagnets as catalysts and separators of chemical agents. Applied Catalysis B: Environmental, 2012, 127, 1-10.	10.8	48
122	Growth and electrical characterisation of Î´-doped boron layers on (111) diamond surfaces. Journal of Applied Physics, 2012, 111, 033710.	1.1	37
123	Three-dimensional graphene nanosheet encrusted carbon micropillar arrays for electrochemical sensing. Nanoscale, 2012, 4, 3673.	2.8	52
124	Vertical SNS weak-link Josephson junction fabricated from only boron-doped diamond. Physical Review B, 2012, 85, .	1.1	14
125	High quality single-walled carbon nanotube synthesis using remote plasma CVD. Diamond and Related Materials, 2012, 24, 184-187.	1.8	18
126	Multidirectional porous NiO nanoplatelet-like mosaics as catalysts for green chemical transformations. Applied Catalysis B: Environmental, 2012, 123-124, 162-173.	10.8	35

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127	Boron Î´-doped (111) diamond solution gate field effect transistors. Biosensors and Bioelectronics, 2012, 33, 152-157.	5.3	14
128	High-Current Metal Oxide Semiconductor Field-Effect Transistors on H-Terminated Diamond Surfaces and Their High-Frequency Operation. Japanese Journal of Applied Physics, 2012, 51, 090111.	0.8	40
129	High Priority of Nanocrystalline Diamond as a Biosensing Platform. Japanese Journal of Applied Physics, 2012, 51, 090125.	0.8	3
130	Higher coverage of carboxylic acid groups on oxidized single crystal diamond (001). Diamond and Related Materials, 2011, 20, 1319-1324.	1.8	43
131	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.	1.0	29
132	Diamond electrolyte solution gate FETs for DNA and protein sensors using DNA/RNA aptamers. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 2005-2016.	0.8	54
133	Photoemission study of electronic structure evolution across the metalâ€“insulator transition of heavily B-doped diamond. Journal of Physics and Chemistry of Solids, 2011, 72, 582-584.	1.9	7
134	Human immunodeficiency virus trans-activator of transcription peptide detection via ribonucleic acid aptamer on aminated diamond biosensor. Applied Physics Letters, 2011, 99, .	1.5	10
135	Aptasensor for Oncoprotein Platelet-Derived Growth Factor Detection on Functionalized Diamond Surface by Signal-Off Optical Method. Applied Physics Express, 2011, 4, 027001.	1.1	10
136	Pressure effect of superconducting transition temperature for boron-doped (111) diamond films. Journal of Physics: Conference Series, 2010, 215, 012143.	0.3	3
137	Schottky barrier heights, carrier density, and negative electron affinity of hydrogen-terminated diamond. Physical Review B, 2010, 81, .	1.1	42
138	Superconductor-to-insulator transition in boron-doped diamond films grown using chemical vapor deposition. Physical Review B, 2010, 82, .	1.1	66
139	Critical concentrations of superconductor to insulator transition in (1 1 1) and (0 0 1) CVD boron-doped diamond. Physica C: Superconductivity and Its Applications, 2010, 470, S604-S607.	0.6	2
140	Ultrashallow TiC Source/Drain Contacts in Diamond MOSFETs Formed by Hydrogenation-Last Approach. IEEE Transactions on Electron Devices, 2010, 57, 966-972.	1.6	42
141	Fabrication of calcium ion sensitive diamond field effect transistors (FETs) based on immobilized calmodulin. Materials Letters, 2010, 64, 2321-2324.	1.3	2
142	Stacked SNS Josephson junction of all boron doped diamond. Physica C: Superconductivity and Its Applications, 2010, 470, S613-S615.	0.6	11
143	Cross-sectional TEM study and film thickness dependence of Tc in heavily boron-doped superconducting diamond. Physica C: Superconductivity and Its Applications, 2010, 470, S610-S612.	0.6	16
144	Electronic structures of B 2p levels in homo-epitaxial growth boron-doped diamond by soft X-rays absorption spectroscopy. Physica C: Superconductivity and Its Applications, 2010, 470, S671-S672.	0.6	2

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145	Aptamer-based biosensor for sensitive PDGF detection using diamond transistor. Biosensors and Bioelectronics, 2010, 26, 1599-1604.	5.3	29
146	Low-temperature synthesis of multiwalled carbon nanotubes by graphite antenna CVD in a hydrogen-free atmosphere. Carbon, 2010, 48, 825-831.	5.4	13
147	High-Performance P-Channel Diamond Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors on H-Terminated (111) Surface. Applied Physics Express, 2010, 3, 044001.	1.1	62
148	Low drift and small hysteresis characteristics of diamond electrolyte-solution-gate FET. Journal Physics D: Applied Physics, 2010, 43, 374020.	1.3	25
149	IshizakaetÂal.Reply:. Physical Review Letters, 2009, 102, .	2.9	0
150	Direct amination on 3-dimensional pyrolyzed carbon micropattern surface for DNA detection. Materials Letters, 2009, 63, 2680-2683.	1.3	28
151	Mathematical study of trade-off relations in logistics systems. Journal of Computational and Applied Mathematics, 2009, 232, 122-126.	1.1	3
152	Soft X-ray Core-Level Photoemission Study of Boron Sites in Heavily Boron-Doped Diamond Films. Journal of the Physical Society of Japan, 2009, 78, 034703.	0.7	3
153	Low-temperature STM/STS studies on boron-doped (111) diamond films. Journal of Physics and Chemistry of Solids, 2008, 69, 3027-3030.	1.9	7
154	Functionalization of ultradispersed diamond for DNA detection. Journal of Nanoparticle Research, 2008, 10, 69-75.	0.8	19
155	Pressure effect of superconducting transition temperature for boron-doped diamond films. Physica C: Superconductivity and Its Applications, 2008, 468, 1228-1230.	0.6	5
156	Near EF electronic structure of heavily boron-doped superconducting diamond. Journal of Physics and Chemistry of Solids, 2008, 69, 2978-2981.	1.9	9
157	Highly selective growth of vertically aligned doubleâ€walled carbon nanotubes by a controlled heating method and their electric doubleâ€layer capacitor properties. Physica Status Solidi - Rapid Research Letters, 2008, 2, 53-55.	1.2	13
158	Detection of Mismatched DNA on Partially Negatively Charged Diamond Surfaces by Optical and Potentiometric Methods. Journal of the American Chemical Society, 2008, 130, 13251-13263.	6.6	62
159	Holes in the Valence Band of Superconducting Boron-Doped Diamond Film Studied by Soft X-ray Absorption and Emission Spectroscopy. Journal of the Physical Society of Japan, 2008, 77, 054711.	0.7	22
160	Channel mobility evaluation for diamond MOSFETs using gate-to-channel capacitance measurement. Diamond and Related Materials, 2008, 17, 1256-1258.	1.8	7
161	Vertically aligned carbon nanotube growth from Ni nanoparticles prepared by ion implantation. Diamond and Related Materials, 2008, 17, 1443-1446.	1.8	3
162	Characterization of boron-doped diamonds using 11B high-resolution NMR at high magnetic fields. Diamond and Related Materials, 2008, 17, 1835-1839.	1.8	6

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163	Robustness of CNT Via Interconnect Fabricated by Low Temperature Process over a High-Density Current. , 2008, , .		24
164	Mechanism Analysis of Interrupted Growth of Single-Walled Carbon Nanotube Arrays. Nano Letters, 2008, 8, 886-890.	4.5	43
165	Precise detection of singly mismatched DNA with functionalized diamond electrolyte solution gate FET.. , 2008, , .		1
166	DC and RF Performance of Diamond MISFETs with Alumina Gate Insulator. Materials Science Forum, 2008, 600-603, 1349-1351.	0.3	2
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