

Jiangwei Liu

List of Publications by Year in descending order

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papers

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times ranked

3492
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigation of Ohmic Contact Resistance, Surface Resistance, and Channel Resistance for Hydrogen-Terminated Diamond MOSFETs. IEEE Transactions on Electron Devices, 2022, 69, 1181-1185.	1.6	3
2	Evaluation of dielectric function models for calculation of electron inelastic mean free path. Journal of Applied Physics, 2022, 131, .	1.1	6
3	Science and Technology of Integrated Super-High Dielectric Constant AlO _x /TiO _y Nanolaminates / Diamond for MOS Capacitors and MOSFETs. Carbon, 2021, 172, 112-121.	5.4	10
4	Low-energy electron inelastic mean free path and elastic mean free path of graphene. Applied Physics Letters, 2021, 118, .	1.5	4
5	Reliable Ohmic Contact Properties for Ni/Hydrogen-Terminated Diamond at Annealing Temperature up to 900 Å°C. Coatings, 2021, 11, 470.	1.2	0
6	Secondary electron-, Auger electron- and reflected electron-spectroscopy study on sp ² -hybridization carbon materials: HOPG, carbon glass and carbon fiber. Journal of Electron Spectroscopy and Related Phenomena, 2021, 250, 147086.	0.8	5
7	Boron-Doped Diamond MOSFETs With High Output Current and Extrinsic Transconductance. IEEE Transactions on Electron Devices, 2021, 68, 3963-3967.	1.6	10
8	Charging effect induced by electron beam irradiation: a review. Science and Technology of Advanced Materials, 2021, 22, 932-971.	2.8	11
9	Electrical Properties of Al ₂ O ₃ /ZnO Metal-Insulator-Semiconductor Capacitors. IEEE Transactions on Electron Devices, 2020, 67, 5033-5038.	1.6	5
10	Monte Carlo simulation study of reflection electron energy loss spectroscopy of an Fe/Si overlayer sample. Surface and Interface Analysis, 2020, 52, 742-754.	0.8	6
11	Fixed charges investigation in Al ₂ O ₃ /hydrogenated-diamond metal-oxide-semiconductor capacitors. Applied Physics Letters, 2020, 117, .	1.5	18
12	Design of the VRLA Battery Real-Time Monitoring System Based on Wireless Communication. Sensors, 2020, 20, 4350.	2.1	4
13	Interface Chemistry and Dielectric Optimization of TMA-Passivated high-κ/Ge Gate Stacks by ALD-Driven Laminated Interlayers. ACS Applied Materials & Interfaces, 2020, 12, 25390-25399.	4.0	10
14	Thermal stability investigation for Ohmic contact properties of Pt, Au, and Pd electrodes on the same hydrogen-terminated diamond. AIP Advances, 2020, 10, .	0.6	6
15	Electronic and magnetic properties of the topological semimetal candidate NdSbTe. Physical Review B, 2020, 101, .	1.1	20
16	Effect of Annealing Temperature on Performances of Boron-Doped Diamond Metal-Insulator-Semiconductor Field-Effect Transistors. IEEE Transactions on Electron Devices, 2020, 67, 1680-1685.	1.6	10
17	Measurement of the Low-Energy Electron Inelastic Mean Free Path in Monolayer Graphene. Physical Review Applied, 2020, 13, .	1.5	10
18	High Output Current Boron-Doped Diamond Metal-Semiconductor Field-Effect Transistors. IEEE Electron Device Letters, 2019, 40, 1748-1751.	2.2	17

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19	Observation of Plasmon Energy Gain for Emitted Secondary Electron in Vacuo. Journal of Physical Chemistry Letters, 2019, 10, 5770-5775.	2.1	8
20	High Current Output Hydrogenated Diamond Triple-Gate MOSFETs. IEEE Journal of the Electron Devices Society, 2019, 7, 561-565.	1.2	3
21	Operations of hydrogenated diamond metal-oxide semiconductor field-effect transistors after annealing at 500 °C. Journal Physics D: Applied Physics, 2019, 52, 315104.	1.3	13
22	White-beam electron technique for nanomaterial characterization. Journal of Surface Analysis (Online), 2019, 26, 110-111.	0.1	0
23	A density functional study of the effect of hydrogen on electronic properties and band discontinuity at anatase TiO ₂ /diamond interface. Journal of Applied Physics, 2018, 123, .	1.1	8
24	Annealing effects on hydrogenated diamond NOR logic circuits. Applied Physics Letters, 2018, 112, .	1.5	15
25	An Overview of High-k Oxides on Hydrogenated-Diamond for Metal-Oxide-Semiconductor Capacitors and Field-Effect Transistors. Sensors, 2018, 18, 1813.	2.1	12
26	Effect of off-cut angle of hydrogen-terminated diamond(111) substrate on the quality of AlN towards high-density AlN/diamond(111) interface hole channel. Journal of Applied Physics, 2017, 121, .	1.1	16
27	Enhancement-mode hydrogenated diamond metal-oxide-semiconductor field-effect transistors with Y ₂ O ₃ oxide insulator grown by electron beam evaporator. Applied Physics Letters, 2017, 110, .	1.5	64
28	Logic Circuits With Hydrogenated Diamond Field-Effect Transistors. IEEE Electron Device Letters, 2017, 38, 922-925.	2.2	49
29	Deposition of TiO ₂ /Al ₂ O ₃ bilayer on hydrogenated diamond for electronic devices: Capacitors, field-effect transistors, and logic inverters. Journal of Applied Physics, 2017, 121, .	1.1	42
30	Virtual substrate method for nanomaterials characterization. Nature Communications, 2017, 8, 15629.	5.8	25
31	Fabrication of Hydrogenated Diamond Metal-Insulator-Semiconductor Field-Effect Transistors. Methods in Molecular Biology, 2017, 1572, 217-232.	0.4	5
32	Protrusions or holes in graphene: which is the better choice for sodium ion storage?. Energy and Environmental Science, 2017, 10, 979-986.	15.6	164
33	Effect of Sputter Deposition Atmosphere of AlN on the Electrical Properties of Hydrogen-Terminated Diamond Field Effect Transistor with AlN/Al ₂ O ₃ Stack Gate. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700463.	0.8	1
34	Semiconductors: Materials, Physics, and Devices. Active and Passive Electronic Components, 2016, 2016, 1-2.	0.3	0
35	Structural properties and transfer characteristics of sputter deposition AlN and atomic layer deposition Al ₂ O ₃ bilayer gate materials for H-terminated diamond field effect transistors. Journal of Applied Physics, 2016, 120, .	1.1	22
36	Assembly of a high-dielectric constant thin TiO _x layer directly on H-terminated semiconductor diamond. Applied Physics Letters, 2016, 108, .	1.5	26

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37	High-k ZrO ₂ /Al ₂ O ₃ bilayer on hydrogenated diamond: Band configuration, breakdown field, and electrical properties of field-effect transistors. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	25
38	Self-assembling diacetylene molecules on atomically flat insulators. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 31600-31605.	1.3	8
39	Design and fabrication of high-performance diamond triple-gate field-effect transistors. <i>Scientific Reports</i> , 2016, 6, 34757.	1.6	37
40	Amorphous Phosphorus/Nitrogen-Doped Graphene Paper for Ultrastable Sodium-Ion Batteries. <i>Nano Letters</i> , 2016, 16, 2054-2060.	4.5	314
41	Control of normally on/off characteristics in hydrogenated diamond metal-insulator-semiconductor field-effect transistors. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	35
42	Impedance analysis of Al ₂ O ₃ /H-terminated diamond metal-oxide-semiconductor structures. <i>Applied Physics Letters</i> , 2015, 106, 083506.	1.5	16
43	Cu/Li ₄ Ti ₅ O ₁₂ scaffolds as superior anodes for lithium-ion batteries. <i>NPG Asia Materials</i> , 2015, 7, e171-e171.	3.8	37
44	Electrical properties of atomic layer deposited HfO ₂ /Al ₂ O ₃ multilayer on diamond. <i>Diamond and Related Materials</i> , 2015, 54, 55-58.	1.8	21
45	Diamond logic inverter with enhancement-mode metal-insulator-semiconductor field effect transistor. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	29
46	Triple-core Yolked ZnO/CdS Hollow Spheres for Semiconductor-Sensitized Solar Cells. <i>Particle and Particle Systems Characterization</i> , 2014, 31, 757-762.	1.2	9
47	Flexible Ultraviolet Photodetectors with Broad Photoresponse Based on Branched ZnS/ZnO Heterostructure Nanofilms. <i>Advanced Materials</i> , 2014, 26, 3088-3093.	11.1	251
48	Photosensing performance of branched CdS/ZnO heterostructures as revealed by in situ TEM and photodetector tests. <i>Nanoscale</i> , 2014, 6, 8084.	2.8	64
49	Interface control and modification of band alignment and electrical properties of HfTiO/GaAs gate stacks by nitrogen incorporation. <i>Journal of Materials Chemistry C</i> , 2014, 2, 5299-5308.	2.7	142
50	Photodetectors: Flexible Ultraviolet Photodetectors with Broad Photoresponse Based on Branched ZnS-ZnO Heterostructure Nanofilms (<i>Adv. Mater.</i> 19/2014). <i>Advanced Materials</i> , 2014, 26, 3087-3087.	11.1	1
51	Low on-resistance diamond field effect transistor with high-k ZrO ₂ as dielectric. <i>Scientific Reports</i> , 2014, 4, 6395.	1.6	107
52	Interfacial electronic band alignment of Ta ₂ O ₅ /hydrogen-terminated diamond heterojunction determined by X-ray photoelectron spectroscopy. <i>Diamond and Related Materials</i> , 2013, 38, 24-27.	1.8	11
53	Cathodoluminescence and field emission from GaN/MgAl ₂ O ₄ grown by metalorganic chemical vapor deposition: substrate-orientation dependence. <i>Journal of Materials Chemistry C</i> , 2013, 1, 238-245.	2.7	5
54	Electrical characteristics of hydrogen-terminated diamond metal-oxide-semiconductor with atomic layer deposited HfO ₂ as gate dielectric. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	42

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55	Ultrathin nanoporous Fe ₃ O ₄ @carbon nanosheets with enhanced supercapacitor performance. Journal of Materials Chemistry A, 2013, 1, 1952.	5.2	168
56	Band Configuration of SiO ₂ /m-Plane ZnO Heterointerface Correlated with Electrical Properties of Al/SiO ₂ /ZnO Structures. Japanese Journal of Applied Physics, 2013, 52, 011101.	0.8	3
57	Interfacial band configuration and electrical properties of LaAlO ₃ /Al ₂ O ₃ /hydrogenated-diamond metal-oxide-semiconductor field effect transistors. Journal of Applied Physics, 2013, 114, .	1.1	60
58	Electrical properties of amorphous-Al ₂ O ₃ /single-crystal ZnO heterointerfaces. Applied Physics Letters, 2013, 103, 172101.	1.5	15
59	Normally-off HfO ₂ -gated diamond field effect transistors. Applied Physics Letters, 2013, 103, .	1.5	105
60	Interfacial chemical bonding state and band alignment of CaF ₂ /hydrogen-terminated diamond heterojunction. Journal of Applied Physics, 2013, 113, 123706.	1.1	7
61	Integration of high-dielectric constant Ta ₂ O ₅ oxides on diamond for power devices. Applied Physics Letters, 2012, 101, .	1.5	41
62	Band offsets of Al ₂ O ₃ and HfO ₂ oxides deposited by atomic layer deposition technique on hydrogenated diamond. Applied Physics Letters, 2012, 101, .	1.5	76
63	Interfacial Electronic Structures of Amorphous Al ₂ O ₃ /ZnO Correlated with Electrical Properties of Al/Al ₂ O ₃ /ZnO Metal-Oxide-Semiconductor Structures. E-Journal of Surface Science and Nanotechnology, 2012, 10, 165-168.	0.1	8
64	Band offsets of polar and nonpolar GaN/ZnO heterostructures determined by synchrotron radiation photoemission spectroscopy. Physica Status Solidi (B): Basic Research, 2011, 248, 956-959.	0.7	24
65	Electronic structures of c-plane and a-plane AlN/ZnO heterointerfaces determined by synchrotron radiation photoemission spectroscopy. Applied Physics Letters, 2010, 97, 252111.	1.5	12