Jiangwei Liu

List of Publications by Year in descending order

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		279701	206029
65 papers	2,301 citations	23 h-index	48 g-index

65 all docs	65 docs citations	65 times ranked	3492 citing authors

#	Article	IF	Citations
1	Amorphous Phosphorus/Nitrogen-Doped Graphene Paper for Ultrastable Sodium-Ion Batteries. Nano Letters, 2016, 16, 2054-2060.	4.5	314
2	Flexible Ultraviolet Photodetectors with Broad Photoresponse Based on Branched ZnSâ€ZnO Heterostructure Nanofilms. Advanced Materials, 2014, 26, 3088-3093.	11.1	251
3	Ultrathin nanoporous Fe3O4â€“carbon nanosheets with enhanced supercapacitor performance. Journal of Materials Chemistry A, 2013, 1, 1952.	5.2	168
4	â€œProtrusionsâ€•or â€œholesâ€•in graphene: which is the better choice for sodium ion storage?. Energy and Environmental Science, 2017, 10, 979-986.	15.6	164
5	Interface control and modification of band alignment and electrical properties of HfTiO/GaAs gate stacks by nitrogen incorporation. Journal of Materials Chemistry C, 2014, 2, 5299-5308.	2.7	142
6	Low on-resistance diamond field effect transistor with high-k ZrO2 as dielectric. Scientific Reports, 2014, 4, 6395.	1.6	107
7	Normally-off HfO2-gated diamond field effect transistors. Applied Physics Letters, 2013, 103, .	1.5	105
8	Band offsets of Al2O3 and HfO2 oxides deposited by atomic layer deposition technique on hydrogenated diamond. Applied Physics Letters, 2012, 101, .	1.5	76
9	Photosensing performance of branched CdS/ZnO heterostructures as revealed by in situ TEM and photodetector tests. Nanoscale, 2014, 6, 8084.	2.8	64
10	Enhancement-mode hydrogenated diamond metal-oxide-semiconductor field-effect transistors with Y2O3 oxide insulator grown by electron beam evaporator. Applied Physics Letters, 2017, 110, .	1.5	64
11	Interfacial band configuration and electrical properties of LaAlO3/Al2O3/hydrogenated-diamond metal-oxide-semiconductor field effect transistors. Journal of Applied Physics, 2013, 114, .	1.1	60
12	Logic Circuits With Hydrogenated Diamond Field-Effect Transistors. IEEE Electron Device Letters, 2017, 38, 922-925.	2.2	49
13	Electrical characteristics of hydrogen-terminated diamond metal-oxide-semiconductor with atomic layer deposited HfO2 as gate dielectric. Applied Physics Letters, 2013, 102, .	1.5	42
14	Deposition of TiO2/Al2O3 bilayer on hydrogenated diamond for electronic devices: Capacitors, field-effect transistors, and logic inverters. Journal of Applied Physics, 2017, 121, .	1.1	42
15	Integration of high-dielectric constant Ta2O5 oxides on diamond for power devices. Applied Physics Letters, 2012, 101, .	1.5	41
16	Cu/Li4Ti5O12 scaffolds as superior anodes for lithium-ion batteries. NPG Asia Materials, 2015, 7, e171-e171.	3.8	37
17	Design and fabrication of high-performance diamond triple-gate field-effect transistors. Scientific Reports, 2016, 6, 34757.	1.6	37
18	Control of normally on/off characteristics in hydrogenated diamond metal-insulator-semiconductor field-effect transistors. Journal of Applied Physics, 2015, 118, .	1.1	35

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19	Diamond logic inverter with enhancement-mode metal-insulator-semiconductor field effect transistor. Applied Physics Letters, 2014, 105, .	1.5	29
20	Assembly of a high-dielectric constant thin TiOx layer directly on H-terminated semiconductor diamond. Applied Physics Letters, 2016, 108, .	1.5	26
21	High-k ZrO2/Al2O3 bilayer on hydrogenated diamond: Band configuration, breakdown field, and electrical properties of field-effect transistors. Journal of Applied Physics, 2016, 120, .	1.1	25
22	Virtual substrate method for nanomaterials characterization. Nature Communications, 2017, 8, 15629.	5.8	25
23	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
24	Structural properties and transfer characteristics of sputter deposition AlN and atomic layer deposition Al2O3 bilayer gate materials for H-terminated diamond field effect transistors. Journal of Applied Physics, 2016, 120, .	1.1	22
25	Electrical properties of atomic layer deposited HfO2/Al2O3 multilayer on diamond. Diamond and Related Materials, 2015, 54, 55-58.	1.8	21
26	Electronic and magnetic properties of the topological semimetal candidate NdSbTe. Physical Review B, 2020, 101, .	1.1	20
27	Fixed charges investigation in Al2O3/hydrogenated-diamond metal-oxide-semiconductor capacitors. Applied Physics Letters, 2020, 117, .	1.5	18
28	High Output Current Boron-Doped Diamond Metal-Semiconductor Field-Effect Transistors. IEEE Electron Device Letters, 2019, 40, 1748-1751.	2.2	17
29	Impedance analysis of Al2O3/H-terminated diamond metal-oxide-semiconductor structures. Applied Physics Letters, 2015, 106, 083506.	1.5	16
30	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
31	Electrical properties of amorphous-Al2O3/single-crystal ZnO heterointerfaces. Applied Physics Letters, 2013, 103, 172101.	1.5	15
32	Annealing effects on hydrogenated diamond NOR logic circuits. Applied Physics Letters, 2018, 112, .	1.5	15
33	Operations of hydrogenated diamond metalâ€“oxideâ€“semiconductor field-effect transistors after annealing at 500 Â°C. Journal Physics D: Applied Physics, 2019, 52, 315104.	1.3	13
34	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
35	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
36	Interfacial electronic band alignment of Ta2O5/hydrogen-terminated diamond heterojunction determined by X-ray photoelectron spectroscopy. Diamond and Related Materials, 2013, 38, 24-27.	1.8	11

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37	Charging effect induced by electron beam irradiation: a review. Science and Technology of Advanced Materials, 2021, 22, 932-971.	2.8	11
38	Interface Chemistry and Dielectric Optimization of TMA-Passivated high-k/Ge Gate Stacks by ALD-Driven Laminated Interlayers. ACS Applied Materials & Interfaces, 2020, 12, 25390-25399.	4.0	10
39	Effect of Annealing Temperature on Performances of Boron-Doped Diamond Metalâ€“Semiconductor Field-Effect Transistors. IEEE Transactions on Electron Devices, 2020, 67, 1680-1685.	1.6	10
40	Measurement of the Low-Energy Electron Inelastic Mean Free Path in Monolayer Graphene. Physical Review Applied, 2020, 13, .	1.5	10
41	Science and Technology of Integrated Super-High Dielectric Constant AlOx/TiOy Nanolaminates / Diamond for MOS Capacitors and MOSFETs. Carbon, 2021, 172, 112-121.	5.4	10
42	Boron-Doped Diamond MOSFETs With High Output Current and Extrinsic Transconductance. IEEE Transactions on Electron Devices, 2021, 68, 3963-3967.	1.6	10
43	Tripleâ€Yolked ZnO/CdS Hollow Spheres for Semiconductorâ€Sensitized Solar Cells. Particle and Particle Systems Characterization, 2014, 31, 757-762.	1.2	9
44	Self-assembling diacetylene molecules on atomically flat insulators. Physical Chemistry Chemical Physics, 2016, 18, 31600-31605.	1.3	8
45	A density functional study of the effect of hydrogen on electronic properties and band discontinuity at anatase TiO2/diamond interface. Journal of Applied Physics, 2018, 123, .	1.1	8
46	Observation of Plasmon Energy Gain for Emitted Secondary Electron in Vacuo. Journal of Physical Chemistry Letters, 2019, 10, 5770-5775.	2.1	8
47	Interfacial Electronic Structures of Amorphous Al₂O₃/ZnO Correlated with Electrical Properties of Al/Al₂O₃/ZnO Metal-Oxide-Semiconductor Structures. E-Journal of Surface Science and Nanotechnology, 2012, 10, 165-168.	0.1	8
48	Interfacial chemical bonding state and band alignment of CaF2/hydrogen-terminated diamond heterojunction. Journal of Applied Physics, 2013, 113, 123706.	1.1	7
49	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
50	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
51	Evaluation of dielectric function models for calculation of electron inelastic mean free path. Journal of Applied Physics, 2022, 131, .	1.1	6
52	Cathodoluminescence and field emission from GaN/MgAl₂O₄grown by metalorganic chemical vapor deposition: substrate-orientation dependence. Journal of Materials Chemistry C, 2013, 1, 238-245.	2.7	5
53	Fabrication of Hydrogenated Diamond Metalâ€“Insulatorâ€“Semiconductor Field-Effect Transistors. Methods in Molecular Biology, 2017, 1572, 217-232.	0.4	5
54	Electrical Properties of Al₂O₃/ZnO Metalâ€“Insulatorâ€“Semiconductor Capacitors. IEEE Transactions on Electron Devices, 2020, 67, 5033-5038.	1.6	5

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55	Secondary electron-, Auger electron- and reflected electron-spectroscopy study on sp2-hybridization carbon materials: HOPG, carbon glass and carbon fiber. Journal of Electron Spectroscopy and Related Phenomena, 2021, 250, 147086.	0.8	5
56	Design of the VRLA Battery Real-Time Monitoring System Based on Wireless Communication. Sensors, 2020, 20, 4350.	2.1	4
57	Low-energy electron inelastic mean free path and elastic mean free path of graphene. Applied Physics Letters, 2021, 118, .	1.5	4
58	Band Configuration of SiO₂/m-Plane ZnO Heterointerface Correlated with Electrical Properties of Al/SiO₂/ZnO Structures. Japanese Journal of Applied Physics, 2013, 52, 011101.	0.8	3
59	High Current Output Hydrogenated Diamond Triple-Gate MOSFETs. IEEE Journal of the Electron Devices Society, 2019, 7, 561-565.	1.2	3
60	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
61	Photodetectors: Flexible Ultraviolet Photodetectors with Broad Photoresponse Based on Branched ZnS-ZnO Heterostructure Nanofilms (Adv. Mater. 19/2014). Advanced Materials, 2014, 26, 3087-3087.	11.1	1
62	Effect of Sputter Deposition Atmosphere of AlN on the Electrical Properties of Hydrogenâ€Terminated Diamond Field Effect Transistor with AlN/Al₂O₃ Stack Gate. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700463.	0.8	1
63	Semiconductors: Materials, Physics, and Devices. Active and Passive Electronic Components, 2016, 2016, 1-2.	0.3	0
64	Reliable Ohmic Contact Properties for Ni/Hydrogen-Terminated Diamond at Annealing Temperature up to 900 Â°C. Coatings, 2021, 11, 470.	1.2	0
65	White-beam electron technique for nanomaterial characterization. Journal of Surface Analysis (Online), 2019, 26, 110-111.	0.1	0