

Hong-Xing Wang

List of Publications by Year in descending order

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103
papers

1,009
citations

471509

17
h-index

580821

25
g-index

104
all docs

104
docs citations

104
times ranked

824
citing authors

#	ARTICLE	IF	CITATIONS
1	Fabrication of UV Photodetector on TiO ₂ /Diamond Film. Scientific Reports, 2015, 5, 14420.	3.3	81
2	An Enhancement-Mode Hydrogen-Terminated Diamond Field-Effect Transistor With Lanthanum Hexaboride Gate Material. IEEE Electron Device Letters, 2020, 41, 585-588.	3.9	52
3	UV-photodetector based on NiO/diamond film. Applied Physics Letters, 2018, 112, .	3.3	42
4	Normally-off hydrogen-terminated diamond field-effect transistor with Al ₂ O ₃ dielectric layer formed by thermal oxidation of Al. Diamond and Related Materials, 2018, 81, 113-117.	3.9	39
5	Normally Off Hydrogen-Terminated Diamond Field-Effect Transistor With Ti/TiO _x Gate Materials. IEEE Transactions on Electron Devices, 2020, 67, 4784-4788.	3.0	28
6	Normally-off hydrogen-terminated diamond field effect transistor with yttrium gate. Carbon, 2021, 176, 307-312.	10.3	28
7	Fabrication of three dimensional diamond ultraviolet photodetector through down-top method. Applied Physics Letters, 2016, 109, 153507.	3.3	27
8	Photovoltaic Three-Dimensional Diamond UV Photodetector With Low Dark Current and Fast Response Speed Fabricated by Bottom-Up Method. IEEE Electron Device Letters, 2019, 40, 1186-1189.	3.9	27
9	Controllable hybrid shape of correlation and squeezing. Physical Review A, 2016, 94, .	2.5	24
10	Fabrication of monolithic diamond photodetector with microlenses. Optics Express, 2017, 25, 31586.	3.4	23
11	LiF/Al ₂ O ₃ as Dielectrics for MOSFET on Single Crystal Hydrogen-Terminated Diamond. IEEE Electron Device Letters, 2020, 41, 808-811.	3.9	21
12	Efficient and Tunable Photoinduced Honeycomb Lattice in an Atomic Ensemble. Laser and Photonics Reviews, 2018, 12, 1800050.	8.7	20
13	Iridium size effects in localized surface plasmon-enhanced diamond UV photodetectors. Applied Surface Science, 2019, 487, 674-677.	6.1	19
14	Enhanced ultraviolet photoresponse of diamond photodetector using patterned diamond film and two-step growth process. Materials Science in Semiconductor Processing, 2019, 89, 110-115.	4.0	19
15	Enhanced Responsivity of Diamond UV Detector Based on Regrown Lens Structure. IEEE Electron Device Letters, 2020, 41, 1829-1832.	3.9	19
16	Soil Evaporation and its Affecting Factors under Crop Canopy. Communications in Soil Science and Plant Analysis, 2007, 38, 259-271.	1.4	18
17	Diamond MIP structure Schottky diode with different drift layer thickness. Diamond and Related Materials, 2017, 73, 15-18.	3.9	18
18	Two-dimensional Talbot self-imaging via Electromagnetically induced lattice. Scientific Reports, 2017, 7, 41790.	3.3	17

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19	Enhanced ultraviolet absorption in diamond surface via localized surface plasmon resonance in palladium nanoparticles. <i>Applied Surface Science</i> , 2019, 464, 455-457.	6.1	17
20	Photoelectrical characteristics of ultra thin TiO ₂ /diamond photodetector. <i>Materials Letters</i> , 2017, 188, 52-54.	2.6	16
21	Responsivity improvement of Ti-diamond-Ti structured UV photodetector through photocurrent gain. <i>Optics Express</i> , 2018, 26, 17092.	3.4	16
22	Diamond Schottky barrier diodes with floating metal rings for high breakdown voltage. <i>Materials Science in Semiconductor Processing</i> , 2019, 97, 101-105.	4.0	16
23	Hydrogen-terminated diamond field-effect transistor with AlO _x dielectric layer formed by autoxidation. <i>Scientific Reports</i> , 2019, 9, 5192.	3.3	16
24	Fabrication of dual-termination Schottky barrier diode by using oxygen-/fluorine-terminated diamond. <i>Applied Surface Science</i> , 2018, 457, 411-416.	6.1	14
25	Performance of hydrogen-terminated diamond MOSFET with bilayer dielectrics of YSZ/Al ₂ O ₃ . <i>Diamond and Related Materials</i> , 2019, 99, 107532.	3.9	13
26	Room temperature direct bonding of diamond and InGaP in atmospheric air. <i>Functional Diamond</i> , 2021, 1, 110-116.	3.8	13
27	Diamond Based Field-Effect Transistors of Zr Gate with Si_xN_i Layers. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-5.	2.7	12
28	Ohmic contact between iridium film and hydrogen-terminated single crystal diamond. <i>Scientific Reports</i> , 2017, 7, 12157.	3.3	12
29	Room temperature bonding of Si and Si wafers by using Mo/Au nano-adhesion layers. <i>Microelectronic Engineering</i> , 2019, 215, 111018.	2.4	12
30	Adjustable charge states of nitrogen-vacancy centers in low-nitrogen diamond after electron irradiation and subsequent annealing. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	12
31	Effect of depth of Buried-In Tungsten Electrodes on Single Crystal Diamond Photodetector. <i>MRS Advances</i> , 2016, 1, 1099-1104.	0.9	11
32	Annealing and lateral migration of defects in Ila diamond created by near-threshold electron irradiation. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	11
33	Analysis of diamond pseudo-vertical Schottky barrier diode through patterning tungsten growth method. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	11
34	Triple-mode squeezing with dressed six-wave mixing. <i>Scientific Reports</i> , 2016, 6, 25554.	3.3	10
35	Fabrication and Characterization of (100)-Oriented Single-Crystal Diamond p-n Junction Ultraviolet Detector. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 2000207.	1.8	9
36	Electrical properties of yttrium gate hydrogen-terminated diamond field effect transistor with Al ₂ O ₃ dielectric layer. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	9

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37	Characterization of UV photodetector based on ZnO/diamond film. Optics Express, 2019, 27, 36750.	3.4	9
38	FEM thermal analysis of Cu/diamond/Cu and diamond/SiC heat spreaders. AIP Advances, 2017, 7, 035102.	1.3	8
39	Performance Improved Vertical Diamond Schottky Barrier Diode With Fluorination-Termination Structure. IEEE Electron Device Letters, 2019, 40, 1229-1232.	3.9	8
40	Fabrication of Diamond Submicron Lenses and Cylinders by ICP Etching Technique with SiO ₂ Balls Mask. Materials, 2019, 12, 1622.	2.9	8
41	Fabrication of micro lens array on diamond surface. AIP Advances, 2019, 9, .	1.3	8
42	Temperature dependence of optical centres in ultrapure diamond after 200 keV electron irradiation. Journal Physics D: Applied Physics, 2020, 53, 135303.	2.8	8
43	Effects of surface activation time on Si-Si direct wafer bonding at room temperature. Materials Research Express, 2021, 8, 085901.	1.6	8
44	Performance-Improved Vertical Zr/Diamond Schottky Barrier Diode With Lanthanum Hexaboride Interfacial Layer. IEEE Electron Device Letters, 2021, 42, 1366-1369.	3.9	8
45	Self-powered diamond ultraviolet photodetector with a transparent Ag nanowire electrode. Nanotechnology, 2019, 30, 325204.	2.6	7
46	Enhancing diamond NV center density in HPHT substrate and epitaxy lateral overgrowth layer by tungsten pattern. Materials Letters, 2019, 240, 233-237.	2.6	7
47	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, .	3.3	7
48	Pd nanoparticle size effects in localized surface plasmon-enhanced diamond photodetectors. Optical Materials, 2020, 107, 110031.	3.6	7
49	Heteroepitaxy of single crystal diamond on Ir buffered KTaO ₃ (001) substrates. Applied Physics Letters, 2021, 119, .	3.3	7
50	Schottky Barrier Height Modulation of Zr/p-Diamond Schottky Contact by Inserting Ultrathin Atomic Layer-Deposited Al ₂ O ₃ . IEEE Transactions on Electron Devices, 2021, 68, 5995-6000.	3.0	7
51	FEM thermal and stress analysis of bonded GaN-on-diamond substrate. AIP Advances, 2017, 7, 095105.	1.3	6
52	Development of an all-optical framing camera and its application on the Z-pinch. Optics Express, 2017, 25, 32074.	3.4	6
53	Ohmic Contact of Pt/Au on Hydrogen-Terminated Single Crystal Diamond. Coatings, 2019, 9, 539.	2.6	6
54	Reducing Threading Dislocations of Single-Crystal Diamond via In Situ Tungsten Incorporation. Materials, 2022, 15, 444.	2.9	6

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55	Solution-processed tin oxide thin film for normally-off hydrogen terminated diamond field effect transistor. Applied Physics Letters, 2022, 120, .	3.3	6
56	Argon Ion Beam Current Dependence of Si-Si Surface Activated Bonding. Materials, 2022, 15, 3115.	2.9	6
57	Investigation of an InP-based image converter with optical excitation. Review of Scientific Instruments, 2017, 88, 033109.	1.3	5
58	FEM thermal analysis of high power GaN-on-diamond HEMTs. Journal of Semiconductors, 2018, 39, 104005.	3.7	5
59	RF Performance of Hydrogenated Single Crystal Diamond MOSFETs. , 2019, , .		5
60	3D TiO ₂ /Diamond Ultraviolet Detector Using Back-to-Back Pd Schottky Electrode. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000218.	1.8	5
61	Surface Morphology and Microstructure Evolution of Single Crystal Diamond during Different Homoepitaxial Growth Stages. Materials, 2021, 14, 5964.	2.9	5
62	Large V_{TH} of Normally-OFF Field Effect Transistor With Yttrium Gate Material Directly Deposited on Hydrogen-Terminated Diamond. IEEE Transactions on Electron Devices, 2022, 69, 3563-3567.	3.0	5
63	Small Subthreshold Swing Diamond Field Effect Transistors With SnO ₂ Gate Dielectric. IEEE Transactions on Electron Devices, 2022, 69, 4427-4431.	3.0	5
64	Effect of thermoelastic damping on silicon, GaAs, diamond and SiC micromechanical resonators. AIP Advances, 2017, 7, .	1.3	4
65	Investigating non-equilibrium carrier lifetimes in nitrogen-doped and boron-doped single crystal HPHT diamonds with an optical method. Applied Physics Letters, 2018, 112, 022103.	3.3	4
66	Schottky barrier diode fabricated on oxygen-terminated diamond using a selective growth approach. Diamond and Related Materials, 2019, 99, 107529.	3.9	4
67	Hydrogen-terminated diamond field-effect transistor with a bilayer dielectric of HfSiO ₄ /Al ₂ O ₃ . Diamond and Related Materials, 2019, 99, 107530.	3.9	4
68	Diamond field effect transistors using bilayer dielectrics Yb ₂ TiO ₅ /Al ₂ O ₃ on hydrogen-terminated diamond. Diamond and Related Materials, 2020, 106, 107866.	3.9	4
69	Hydrogen-terminated diamond field-effect transistor with a bilayer dielectric of HfSiON/Al ₂ O ₃ . AIP Advances, 2020, 10, 035327.	1.3	4
70	Fabrication of Dual-Barrier Planar Structure Diamond Schottky Diodes by Rapid Thermal Annealing. IEEE Transactions on Electron Devices, 2021, 68, 1176-1180.	3.0	4
71	Fabrication of a Micron-Scale Three-Dimensional Single Crystal Diamond Channel Using a Micro-Jet Water-Assisted Laser. Materials, 2021, 14, 3006.	2.9	4
72	A finite element analysis of the effects of geometrical shape on the elastic properties of chemical vapor deposited diamond nanowire. AIP Advances, 2017, 7, .	1.3	3

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73	Nonlinear optical induced lattice in atomic configurations. <i>Scientific Reports</i> , 2020, 10, 13396.	3.3	3
74	Visible-Light Activation of Photocatalytic for Reduction of Nitrogen to Ammonia by Introducing Impurity Defect Levels into Nanocrystalline Diamond. <i>Materials</i> , 2020, 13, 4559.	2.9	3
75	Hydrophobic Surface Coating of Nanodiamonds by Polyglycerol-Based Polymers with Alkyl Chains for Dispersing in an Organic Solvent. <i>ChemNanoMat</i> , 2020, 6, 1332-1336.	2.8	3
76	Nanocone Structures Enhancing Nitrogen-Vacancy Center Emissions in Diamonds. <i>Coatings</i> , 2020, 10, 513.	2.6	3
77	Temperature dependent thermal conductivity of Ila diamond by laser excited Raman spectroscopy. <i>Applied Physics Letters</i> , 2021, 118, 192104.	3.3	3
78	Simple way to fabricate orderly arranged nanostructure arrays on diamond utilizing metal dewetting effect. <i>Optics Express</i> , 2021, 29, 28359.	3.4	3
79	Performance of hydrogen-terminated diamond MOSFET with LaB ₆ /Al ₂ O ₃ bilayer dielectric. <i>Diamond and Related Materials</i> , 2021, 120, 108646.	3.9	3
80	Electrical and Thermal Characteristics of AlGa _N /Ga _N HEMT Devices with Dual Metal Gate Structure: A Theoretical Investigation. <i>Materials</i> , 2022, 15, 3818.	2.9	3
81	Creation and Migration of Intrinsic Defects in Si-Doped Diamond Produced Using Microwave Plasma Chemical Vapor Deposition. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900003.	1.8	2
82	Diamond avalanche diodes for obtaining high-voltage pulse with subnanosecond front edge. <i>AIP Advances</i> , 2020, 10, .	1.3	2
83	Suppressing Nitrogen-Vacancy Centers to Enhance Performance of Diamond Ultraviolet Photodetector via Growing With Tungsten. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 6228-6232.	3.0	2
84	Influence of near threshold energy electron irradiation on the thermal conductivity of Ila diamond. <i>Applied Physics Letters</i> , 2021, 119, 182105.	3.3	2
85	Structural changes during femtosecond laser percussion drilling of high-aspect-ratio diamond microholes. <i>Optical Engineering</i> , 2022, 61, .	1.0	2
86	Normally-off hydrogen-terminated diamond field effect transistor with a bilayer dielectric of Er ₂ O ₃ /Al ₂ O ₃ . <i>Diamond and Related Materials</i> , 2022, 123, 108848.	3.9	2
87	A 3-W High-Voltage Single-Chip Green Light-Emitting Diode with Multiple-Cells Network. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-4.	2.7	1
88	Hybrid Three-Mode Correlation and Squeezing in a Pr ³⁺ :YSO Crystal. <i>Scientific Reports</i> , 2017, 7, 1743.	3.3	1
89	Thickness Impact on the Morphology, Strain Relaxation and Defects of Diamond Heteroepitaxially Grown on Ir/Al ₂ O ₃ Substrates. <i>Materials</i> , 2022, 15, 624.	2.9	1
90	The influence of nitrogen doping on the thermal conductivity of diamond heat sink. <i>Spectroscopy Letters</i> , 0, , 1-6.	1.0	1

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91	Electrical Characteristics of Diamond MOSFET with 2DHG on a Heteroepitaxial Diamond Substrate. <i>Materials</i> , 2022, 15, 2557.	2.9	1
92	Transport Properties of the Two-Dimensional Hole Gas for H-Terminated Diamond with an Al ₂ O ₃ Passivation Layer. <i>Crystals</i> , 2022, 12, 390.	2.2	1
93	Detection of Glucose Using Diamond Solution-Gate Field-Effect Transistor. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 4534-4539.	3.0	1
94	Leakage current reduction of normally off hydrogen-terminated diamond field effect transistor utilizing dual-barrier Schottky gate. <i>Journal of Applied Physics</i> , 2022, 132, .	2.5	1
95	Optical defects and their depth penetration in 200 keV electron irradiated Ila diamond. <i>Radiation Effects and Defects in Solids</i> , 2020, 175, 1083-1092.	1.2	0
96	The role of tunable nonlinear dark resonances on vacuum Rabi splitting and optical bistability in an atom-cavity system. <i>Scientific Reports</i> , 2021, 11, 10503.	3.3	0
97	Operation of Diamond Solution-Gated Field-Effect Transistor in the Frequency Domain. <i>IEEE Transactions on Electron Devices</i> , 2021, , 1-7.	3.0	0
98	A Method for Demonstration of the Feasibility of InP as an All-optical Imaging Sensor. , 2018, , .		0
99	Progress of diamond substrate development. , 2021, , .		0
100	Room Temperature Bonding of Semiconductor Materials Based on Mo/Au Interlayer. , 2021, , .		0
101	Effect of HfO ₂ -Based Multi-Dielectrics on Electrical Properties of Amorphous In-Ga-Zn-O Thin Film Transistors. <i>Coatings</i> , 2021, 11, 1381.	2.6	0
102	HfAlO _x /Al ₂ O ₃ Bilayer Dielectrics for a Field Effect Transistor on a Hydrogen-Terminated Diamond. <i>Materials</i> , 2022, 15, 446.	2.9	0
103	Tunable Continuous Variable Tripartite Entanglement via Cascaded Third Order Nonlinear Processes in a Ring Cavity. <i>Annalen Der Physik</i> , 2022, 534, 2100396.	2.4	0