Zeng Liu

List of Publications by Year
in descending order

61 papers	1,527 citations	361296 20 h-index	345118 36 g-index
61 all docs	61 docs citations	61 times ranked	648 citing authors

#	Article	IF	Citations
1	Ultrasensitive, Superhigh Signal-to-Noise Ratio, Self-Powered Solar-Blind Photodetector Based on n-Ga₂O₃/p-CuSCN Coreâ€“Shell Microwire Heterojunction. ACS Applied Materials & Interfaces, 2019, 11, 35105-35114.	4.0	161
2	A self-powered solar-blind photodetector with largeV_{oc}enhancing performance based on the PEDOT:PSS/Ga₂O₃organicâ€“inorganic hybrid heterojunction. Journal of Materials Chemistry C, 2020, 8, 1292-1300.	2.7	94
3	Broadband Ultraviolet Self-Powered Photodetector Constructed on Exfoliated Î²-Ga₂O₃/CuI Coreâ€“Shell Microwire Heterojunction with Superior Reliability. Journal of Physical Chemistry Letters, 2021, 12, 447-453.	2.1	90
4	A high-performance ultraviolet solar-blind photodetector based on a Î²-Ga₂O₃ Schottky photodiode. Journal of Materials Chemistry C, 2019, 7, 13920-13929.	2.7	88
5	Review of gallium oxide based field-effect transistors and Schottky barrier diodes. Chinese Physics B, 2019, 28, 017105.	0.7	76
6	High sensitivity and fast response self-powered solar-blind ultraviolet photodetector with a Î²-Ga₂O₃/spiro-MeOTAD pâ€“n heterojunction. Journal of Materials Chemistry C, 2020, 8, 4502-4509.	2.7	69
7	Construction of a Î²-Ga₂O₃-based metalâ€“oxideâ€“semiconductor-structured photodiode for high-performance dual-mode solar-blind detector applications. Journal of Materials Chemistry C, 2020, 8, 5071-5081.	2.7	58
8	Fabrication of Ïµ-Ga₂O₃ solar-blind photodetector with symmetric interdigital Schottky contacts responding to low intensity light signal. Journal Physics D: Applied Physics, 2020, 53, 295109.	1.3	43
9	Comparison of optoelectrical characteristics between Schottky and Ohmic contacts to Î²-Ga₂O₃ thin film. Journal Physics D: Applied Physics, 2020, 53, 085105.	1.3	40
10	Multifunctional polypyrrole and rose-like silver flower-decorated E-textile with outstanding pressure/strain sensing and energy storage performance. Chemical Engineering Journal, 2022, 427, 130823.	6.6	40
11	Energy-band alignments at ZnO/Ga2O3 and Ta2O5/Ga2O3 heterointerfaces by X-ray photoelectron spectroscopy and electron affinity rule. Journal of Applied Physics, 2019, 126, .	1.1	38
12	Î²-Ga2O3-Based Power Devices: A Concise Review. Crystals, 2022, 12, 406.	1.0	34
13	Fabrication and characterization of Mg-doped Îµ-Ga2O3 solar-blind photodetector. Vacuum, 2020, 177, 109425.	1.6	33
14	Ultrahigh-performance planar Î²-Ga2O3 solar-blind Schottky photodiode detectors. Science China Technological Sciences, 2021, 64, 59-64.	2.0	32
15	16 Ã— 4 Linear Solar-Blind UV Photoconductive Detector Array Based on Î²-Ga₂O₃ Film. IEEE Transactions on Electron Devices, 2021, 68, 3435-3438.	1.6	30
16	Quasi-Epitaxial Growth of Î²-Ga₂O₃-Coated Wide Band Gap Semiconductor Tape for Flexible UV Photodetectors. ACS Applied Materials & Interfaces, 2022, 14, 1304-1314.	4.0	29
17	Band alignments of Î²-Ga₂O₃ with MgO, Al₂O₃ and MgAl₂O₄ measured by x-ray photoelectron spectroscopy. Journal Physics D: Applied Physics, 2019, 52, 295104.	1.3	28
18	Self-Powered Î²-Ga₂O₃ Solar-Blind Photodetector Based on the Planar Au/Ga₂O₃ Schottky Junction. ECS Journal of Solid State Science and Technology, 2020, 9, 065011.	0.9	28

#	Article	IF	Citations
19	Preliminary study for the effects of temperatures on optoelectrical properties of Î²-Ga2O3 thin films. Vacuum, 2019, 166, 79-83.	1.6	25
20	A broadband UV-visible photodetector based on a Ga₂O₃/BFO heterojunction. Physica Scripta, 2021, 96, 125823.	1.2	22
21	High-sensitive, self-powered deep UV photodetector based on p-CuSCN/n-Ga2O3 thin film heterojunction. Optics Communications, 2022, 504, 127483.	1.0	22
22	Reinforcement of double built-in electric fields in spiro-MeOTAD/Ga₂O₃/Si pâ€“iâ€“n structure for a high-sensitivity solar-blind UV photovoltaic detector. Journal of Materials Chemistry C, 2021, 9, 14788-14798.	2.7	21
23	Self-Powered Ultraviolet Photodetector Based on Î²-Ga₂O₃/WO₃ NPs Heterojunction With Low Noise and High Visible Rejection. IEEE Sensors Journal, 2021, 21, 26724-26730.	2.4	20
24	A self-powered Î²-Ga2O3/CsCu2I3 heterojunction photodiode responding to deep ultraviolet irradiation. Current Applied Physics, 2022, 33, 20-26.	1.1	20
25	Oxygen vacancies modulating self-powered photoresponse in PEDOT:PSS/Îµ-Ga2O3 heterojunction by trapping effect. Science China Technological Sciences, 2022, 65, 704-712.	2.0	20
26	Gaâ„Oâ‚ƒ/Vâ„Oâ‚… Oxide Heterojunction Photovoltaic Photodetector With Superhigh Solar-Blind Spectral Discriminability. IEEE Transactions on Electron Devices, 2022, 69, 2443-2448.	1.6	20
27	A Spiro-MeOTAD/Ga₂O₃/Si p-i-n Junction Featuring Enhanced Self-Powered Solar-Blind Sensing via Balancing Absorption of Photons and Separation of Photogenerated Carriers. ACS Applied Materials & Interfaces, 2021, 13, 57619-57628.	4.0	19
28	High-Performance Dual-Mode Solar-Blind Sensor of a Si-Doped Î²-Ga₂O₃ Trench Schottky Photodiode. IEEE Sensors Journal, 2021, 21, 18663-18669.	2.4	18
29	Enhancing the self-powered performance in VOx/Ga2O3 heterojunction ultraviolet photodetector by hole-transport engineering. Journal of Alloys and Compounds, 2022, 902, 163801.	2.8	17
30	The electronic structure and magnetic property of the Mn doped Î²-Ga2O3. Superlattices and Microstructures, 2019, 125, 330-337.	1.4	16
31	An inspiration from purple orchid leaves: Surface characteristics and wettability of nanoscale organometallic coatings electrodeposited on laser-patterned microstructures. Surface and Coatings Technology, 2021, 427, 127817.	2.2	16
32	Ti₃C₂/Îµ-Ga₂O₃Schottky Self-Powered Solar-Blind Photodetector With Robust Responsivity. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-8.	1.9	15
33	High-temperature reliability of all-oxide self-powered deep UV photodetector based on Îµ-Ga₂O₃/ZnO heterojunction. Journal Physics D: Applied Physics, 2022, 55, 375106.	1.3	14
34	Preparation of all-oxide Î²-Ga₂O₃/Î±-MoO₃ heterojunction towards self-driven deep ultraviolet photosensor. Physica Scripta, 2021, 96, 125844.	1.2	13
35	Enhancement-mode normally-off Î²-Ga₂O₃:Si metal-semiconductor field-effect deep-ultraviolet phototransistor. Semiconductor Science and Technology, 2022, 37, 015001.	1.0	13
36	Low MOCVD growth temperature controlled phase transition of Ga2O3 films for ultraviolet sensing. Vacuum, 2022, 203, 111270.	1.6	13

#	Article	IF	Citations
37	Electrical Characterizations of Planar Ga2O3 Schottky Barrier Diodes. Micromachines, 2021, 12, 259.	1.4	12
38	A study for the influences of temperatures on ZnGa₂O₄ films and solar-blind sensing performances. Journal Physics D: Applied Physics, 2021, 54, 405107.	1.3	12
39	Interfacial properties of two-dimensional graphene/ZrS2 and ScS2/ZrS2 contacts. Applied Surface Science, 2019, 476, 778-788.	3.1	11
40	Enhanced deep-ultraviolet sensing by an all-inorganic p-PZT/n-Ga₂O₃ thin-film heterojunction. Journal Physics D: Applied Physics, 2021, 54, 195104.	1.3	11
41	High-responsivity solar-blind photodetector based on MOCVD-grown Si-doped Î²-Ga₂O₃ thin film*. Chinese Physics B, 2021, 30, 057301.	0.7	11
42	A 4Ã—4 metal-semiconductor-metal rectangular deep-ultraviolet detector array of Ga₂O₃ photoconductor with high photo response. Chinese Physics B, 2022, 31, 088503.	0.7	11
43	Effects of Tailed Pulse-Bias on Ion Energy Distributions and Charging Effects on Insulating Substrates. Plasma Science and Technology, 2015, 17, 560-566.	0.7	10
44	Solution Spin-Coated BiFeO₃ Onto Ga₂O₃ Towards Self-Powered Deep UV Photo Detector of Ga₂O₃/BiFeO₃ Heterojunction. IEEE Sensors Journal, 2021, 21, 23987-23994.	2.4	10
45	Fabrication of a poly(N-vinyl carbazole)/Ïµ-Ga₂O₃ organicâ€“inorganic heterojunction diode for solar-blind sensing applications. Journal Physics D: Applied Physics, 2021, 54, 215104.	1.3	10
46	A broadband self-powered UV photodetector of a Î²-Ga₂O₃/Î³-CuI p-n junction. Chinese Physics B, 2022, 31, 024205.	0.7	10
47	Self-powered solar-blind photodiodes based on EFG-grown (100)-dominant Î²-Ga2O3 substrate*. Chinese Physics B, 2021, 30, 017302.	0.7	9
48	Rectifying Effect of the Sr₃Al₂O₆/Ga₂O₃ Heterojunction. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900570.	0.8	8
49	Photoresponsive characteristics of EFG-grown iron-doped (100) Ga₂O₃ substrate with low dark current. Physica Scripta, 2021, 96, 065801.	1.2	8
50	Planar rose-like ZnO/honeycombed gallium nitride heterojunction prepared by CVD towards enhanced H2 sensing without precious metal modification. Vacuum, 2021, 190, 110312.	1.6	8
51	X-ray photoelectron spectroscopy study for band alignments of BaTiO3/Ga2O3 and In2O3/Ga2O3 heterostructures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	8
52	Preparation and characterization of cellulose nanocrystals from spent edible fungus substrate. Journal of the Science of Food and Agriculture, 2022, 102, 2761-2772.	1.7	7
53	Construction of a low-temperature, highly sensitive H2S sensor based on surfaces and interfaces reaction triggered by Au-doped hierarchical structured composites. Chemical Physics Letters, 2021, 763, 138188.	1.2	6
54	Honeycomb-like gallium nitride prepared via dual-ion synergistic etching mechanism using amino acid as etchant. Chemical Physics Letters, 2021, 773, 138588.	1.2	6

#	Article	IF	Citations
55	The Effect of Mn Dopant on Structural and Optoelectronic Properties of Î³-Ga₂O₃ thin Film Photodetectors. ECS Journal of Solid State Science and Technology, 2020, 9, 055010.	0.9	6
56	In-situ preparation of water chestnut-based carbon aerogel and its application in binder-less electric double layer electrode and stress sensing. Vacuum, 2020, 181, 109731.	1.6	5
57	A Multi-Scale Study on Silicon-Oxide Etching Processes in C4F8/Ar Plasmas. Plasma Science and Technology, 2016, 18, 666-673.	0.7	4
58	Foam-like GaN: Study on the controlled tuning of pore size by R group change in amino acid etchant and its ultra-high photocurrent response. Vacuum, 2022, 196, 110779.	1.6	3
59	Band offsets and electronical properties of the Ga2O3/FTO heterojunction via transferring free-standing Ga2O3 onto FTO/glass. Chinese Physics B, 0, , .	0.7	2
60	An ultra-high aspect ratio BTO nanowires synthesized via slowing the release of barium ions. Vacuum, 2021, 194, 110629.	1.6	2
61	A self-powered deep-ultraviolet photodetector based on a hybrid organic-inorganic p-P3HT/n-Ga₂O₃ heterostructure. Physica Scripta, 2022, 97, 075804.	1.2	2