Jian-Dong Ye

List of Publications by Year
in descending order

120	3,629	147801	161849
papers	citations	31 h-index	54 g-index

123	123	123	2997
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	1.95-kV Beveled-Mesa NiO/Î²-Ga₂O₃ Heterojunction Diode With 98.5% Conversion Efficiency and Over Million-Times Overvoltage Ruggedness. IEEE Transactions on Power Electronics, 2022, 37, 1223-1227.	7.9	60
2	2.41 kV Vertical P-Nio/n-Ga₂O₃ Heterojunction Diodes With a Record Baliga's Figure-of-Merit of 5.18 GW/cm². IEEE Transactions on Power Electronics, 2022, 37, 3743-3746.	7.9	72
3	Over 1200 V Normally-OFF p-NiO Gated AlGaN/GaN HEMTs on Si With a Small Threshold Voltage Shift. IEEE Electron Device Letters, 2022, 43, 268-271.	3.9	9
4	Label-free fiber nanograting sensor for real-time in situ early monitoring of cellular apoptosis. Advanced Photonics, 2022, 4, .	11.8	12
5	Majority and Minority Carrier Traps in NiO/Î²-Ga₂O₃ p⁺-n Heterojunction Diode. IEEE Transactions on Electron Devices, 2022, 69, 981-987.	3.0	23
6	70-Î¼m-Body Ga₂O₃ Schottky Barrier Diode With 1.48 K/W Thermal Resistance, 59 A Surge Current and 98.9% Conversion Efficiency. IEEE Electron Device Letters, 2022, 43, 773-776.	3.9	19
7	Low density of interface trap states and temperature dependence study of Ga2O3 Schottky barrier diode with p-NiOx termination. Applied Physics Letters, 2022, 120, .	3.3	38
8	Dislocation dynamics in Î±-Ga2O3 micropillars from selective-area epitaxy to epitaxial lateral overgrowth. Applied Physics Letters, 2022, 120, .	3.3	5
9	M-Plane Î±-Gaâ„Oâ„ƒ Solar-Blind Detector With Record-High Responsivity-Bandwidth Product and High-Temperature Operation Capability. IEEE Electron Device Letters, 2022, 43, 541-544.	3.9	11
10	Demonstration of Î²-Gaâ„Oâ„ƒ Superjunction-Equivalent MOSFETs. IEEE Transactions on Electron Devices, 2022, 69, 2203-2209.	3.0	15
11	Unlocking the Single-Domain Heteroepitaxy of Orthorhombic Îº-Ga₂O₃ via Phase Engineering. ACS Applied Electronic Materials, 2022, 4, 461-468.	4.3	8
12	High-Responsivity and Fast-Response Ultraviolet Phototransistors Based on Enhanced p-GaN/AlGaN/GaN HEMTs. ACS Photonics, 2022, 9, 2040-2045.	6.6	14
13	Band alignment and polarization engineering in Îº-Ga2O3/GaN ferroelectric heterojunction. Science China: Physics, Mechanics and Astronomy, 2022, 65, .	5.1	8
14	Enhanced Contactless Salt-Collecting Solar Desalination. ACS Applied Materials & Interfaces, 2022, 14, 34151-34158.	8.0	13
15	Photoconductive and photovoltaic metal-semiconductor-metal Îº-Ga₂O₃ solar-blind detectors with high rejection ratios. Journal Physics D: Applied Physics, 2022, 55, 394003.	2.8	6
16	Sustainable Solar Evaporation while Salt Accumulation. ACS Applied Materials & Interfaces, 2021, 13, 4935-4942.	8.0	46
17	Î²-Ga2O3 hetero-junction barrier Schottky diode with reverse leakage current modulation and BV2/Ron,sp value of 0.93 GW/cm2. Applied Physics Letters, 2021, 118, .	3.3	72
18	Vertical Field-Plated NiO/Ga2O3 Heterojunction Power Diodes. , 2021, , .		6

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19	Demonstration of the p-NiO_x/n-Ga₂O₃ Heterojunction Gate FETs and Diodes With BV²/R_{on,sp} Figures of Merit of 0.39 GW/cm² and 1.38 GW/cm². IEEE Electron Device Letters, 2021, 42, 485-488.	3.9	86
20	Î²-Ga2O3 vertical heterojunction barrier Schottky diodes terminated with p-NiO field limiting rings. Applied Physics Letters, 2021, 118, .	3.3	65
21	In situ heteroepitaxial construction and transport properties of lattice-matched Î± -Ir2O3/ Î± -Ga2O3 p-n heterojunction. Applied Physics Letters, 2021, 118, .	3.3	24
22	Nitrogen modulation of boron doping behavior for accessible n-type diamond. APL Materials, 2021, 9, .	5.1	14
23	1.26 W/mm Output Power Density at 10 GHz for Si₃N₄Passivated H-Terminated Diamond MOSFETs. IEEE Transactions on Electron Devices, 2021, 68, 5068-5072.	3.0	8
24	1.37 kV/12 A NiO/Î²-Ga₂O₃Heterojunction Diode With Nanosecond Reverse Recovery and Rugged Surge-Current Capability. IEEE Transactions on Power Electronics, 2021, 36, 12213-12217.	7.9	77
25	The effect of oxygen annealing on characteristics of Î²-Ga2O3 solar-blind photodetectors on SiC substrate by ion-cutting process. Journal of Alloys and Compounds, 2021, 889, 161743.	5.5	12
26	Band Alignment and Enhanced Interfacial Conductivity Manipulated by Polarization in a Surfactant-Mediated Grown Î²-Ga₂O₃/In₂O₃ Heterostructure. ACS Applied Electronic Materials, 2021, 3, 795-803.	4.3	15
27	Gate-first AlGaN/GaN HEMT technology for enhanced threshold voltage stability based on MOCVD-grown in situ SiN_x. Journal Physics D: Applied Physics, 2021, 54, 015105.	2.8	7
28	Deep-level defects in gallium oxide. Journal Physics D: Applied Physics, 2021, 54, 043002.	2.8	57
29	Solution for Mass Production of High-Throughput Digital Microfluidic Chip Based on a-Si TFT with In-Pixel Boost Circuit. Micromachines, 2021, 12, 1199.	2.9	7
30	A self-powered solar-blind photodetector based on polyaniline/Î±-Ga2O3 pâ€“n heterojunction. Applied Physics Letters, 2021, 119, .	3.3	14
31	NiO/AlGaN interface reconstruction and transport manipulation of p-NiO gated AlGaN/GaN HEMTs. Applied Physics Reviews, 2021, 8, .	11.3	9
32	Strain-driven phase manipulation of Î±- and Îº-Ga2O3 by nanoepitaxial lateral overgrowth on embedded Î±-In2O3 submicron dots. Applied Physics Letters, 2021, 119, .	3.3	2
33	Field-Plated NiO/Ga₂O₃ p-n Heterojunction Power Diodes With High-Temperature Thermal Stability and Near Unity Ideality Factors. IEEE Journal of the Electron Devices Society, 2021, 9, 1166-1171.	2.1	10
34	Toward emerging gallium oxide semiconductors: A roadmap. Fundamental Research, 2021, 1, 697-716.	3.3	56
35	First Demonstration of RESURF and Superjunction ÃŸ- Ga₂O₃ MOSFETs with p-NiO/n- Ga₂O₃ Junctions. , 2021, , .		3
36	Over 1.8 GW/cm2 beveled-mesa NiO/Î²-Ga2O3 heterojunction diode with 800 V/10 A nanosecond switching capability. Applied Physics Letters, 2021, 119, .	3.3	24

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37	Hybrid Light Emitters and UV Solarâ€Blind Avalanche Photodiodes based on IIIâ€Nitride Semiconductors. Advanced Materials, 2020, 32, e1904354.	21.0	34
38	Tailoring of nitrogen-vacancy colour centers in diamond epilayers by in situ sulfur and nitrogen anion engineering. Journal Physics D: Applied Physics, 2020, 53, 075107.	2.8	5
39	High-${k}$ HfO₂-Based AlGaN/GaN MIS-HEMTs With Y₂O₃ Interfacial Layer for High Gate Controllability and Interface Quality. IEEE Journal of the Electron Devices Society, 2020, 8, 15-19.	2.1	19
40	Gallium oxide-based solar-blind ultraviolet photodetectors. Semiconductor Science and Technology, 2020, 35, 023001.	2.0	73
41	Sulfur regulation of boron doping and growth behavior for high-quality diamond in microwave plasma chemical vapor deposition. Applied Physics Letters, 2020, 117, .	3.3	15
42	A 1.86-kV double-layered NiO/ Î² -Ga2O3 vertical pâ€“n heterojunction diode. Applied Physics Letters, 2020, 117, .	3.3	136
43	Misfit epitaxial strain manipulated transport properties in cubic In2O3 hetero-epilayers. Applied Physics Letters, 2020, 117, 102104.	3.3	4
44	Fast Speed Ga2O3 Solar-blind Schottky Photodiodes with Large Sensitive Area. IEEE Electron Device Letters, 2020, , 1-1.	3.9	22
45	Polarizationâ€Independent Indium Phosphide Nanowire Photodetectors. Advanced Optical Materials, 2020, 8, 2000514.	7.3	9
46	Ellipsometric determination of anisotropic optical constants of single phase Ga2O3 thin films in its orthorhombic and monoclinic phases. Optical Materials, 2020, 102, 109807.	3.6	23
47	Band Alignment and Interface Recombination in NiO/Î²-Ga₂O₃ Type-II p-n Heterojunctions. IEEE Transactions on Electron Devices, 2020, 67, 3341-3347.	3.0	63
48	Anion Engineering Enhanced Response Speed and Tunable Spectral Responsivity in Gallium-Oxynitrides-Based Ultraviolet Photodetectors. ACS Applied Electronic Materials, 2020, 2, 808-816.	4.3	18
49	Plasmon-enhanced photoelectrochemical water splitting by InGaN/GaN nano-photoanodes. Semiconductor Science and Technology, 2020, 35, 025017.	2.0	17
50	Highly Enhanced Inductive Current Sustaining Capability and Avalanche Ruggedness in GaN p-i-n Diodes With Shallow Bevel Termination. IEEE Electron Device Letters, 2020, 41, 469-472.	3.9	16
51	Anisotropy and in-plane polarization of low-symmetrical Î²-Ga2O3 single crystal in the deep ultraviolet band. Applied Surface Science, 2020, 527, 146648.	6.1	13
52	Property manipulation through pulsed laser annealing in high dose Mg-implanted GaN. Journal of Applied Physics, 2020, 128, .	2.5	5
53	Applications of AlGaN/GaN high electron mobility transistor-based sensors in water quality monitoring. Semiconductor Science and Technology, 2020, 35, 123001.	2.0	15
54	Effects of Post Annealing on Electrical Performance of Polycrystalline Ga2O3 Photodetector on Sapphire. Nanoscale Research Letters, 2020, 15, 100.	5.7	21

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55	Localized surface plasmon enhanced Ga₂O₃ solar blind photodetectors. Optics Express, 2020, 28, 5731.	3.4	42
56	On the origin of dislocation generation and annihilation in Î± -Ga2O3 epilayers on sapphire. Applied Physics Letters, 2019, 115, .	3.3	37
57	Band alignment and band bending at Î±-Ga2O3/ZnO n-n isotype hetero-interface. Applied Physics Letters, 2019, 115, .	3.3	25
58	Carbonized Treeâ€Like Furry Magnolia Fruitâ€Based Evaporator Replicating the Feat of Plant Transpiration. Global Challenges, 2019, 3, 1900040.	3.6	30
59	Nanoplasmonically Enhanced High-Performance Metastable Phase Î±-Ga₂O₃ Solar-Blind Photodetectors. ACS Applied Materials & Interfaces, 2019, 11, 40283-40289.	8.0	31
60	Highly Narrow-Band Polarization-Sensitive Solar-Blind Photodetectors Based on Î²-Ga₂O₃ Single Crystals. ACS Applied Materials & Interfaces, 2019, 11, 7131-7137.	8.0	55
61	Realization of p-type gallium nitride by magnesium ion implantation for vertical power devices. Scientific Reports, 2019, 9, 8796.	3.3	24
62	Gate-first process compatible, high-quality in situ SiN_x for surface passivation and gate dielectrics in AlGaN/GaN MISHEMTs. Journal Physics D: Applied Physics, 2019, 52, 305105.	2.8	9
63	Carrier Transport and Gain Mechanisms in eta â€“Ga₂O₃-Based Metalâ€“Semiconductorâ€“Metal Solar-Blind Schottky Photodetectors. IEEE Transactions on Electron Devices, 2019, 66, 2276-2281.	3.0	59
64	Transition of photoconductive and photovoltaic operation modes in amorphous Ga ₂ O ₃ -based solar-blind detectors tuned by oxygen vacancies. Chinese Physics B, 2019, 28, 028501.	1.4	26
65	Large bandgap tunability of GaN/ZnO pseudobinary alloys through combined engineering of anions and cations. Applied Physics Letters, 2019, 115, .	3.3	9
66	Heteroepitaxial growth of thickÎ±-Ga₂O₃film on sapphire (0001) by MIST-CVD technique. Journal of Semiconductors, 2019, 40, 012804.	3.7	45
67	Toward facile broadband photodetectors based on self-assembled ZnO nanobridge/rubrene heterointerface. Nanotechnology, 2019, 30, 065202.	2.6	4
68	Carbonized Bamboos as Excellent 3D Solar Vaporâ€Generation Devices. Advanced Materials Technologies, 2019, 4, 1800593.	5.8	107
69	Review of gallium-oxide-based solar-blind ultraviolet photodetectors. Photonics Research, 2019, 7, 381.	7.0	391
70	Magnesium ion-implantation-based gallium nitride p-i-n photodiode for visible-blind ultraviolet detection. Photonics Research, 2019, 7, B48.	7.0	36
71	Photo-assisted hysteresis of electronic transport for ZnO nanowire transistors. Nanotechnology, 2018, 29, 115204.	2.6	10
72	The suppression of zinc interstitial related shallow donors in Te-doped ZnO microrods. Journal of Alloys and Compounds, 2018, 735, 1232-1238.	5.5	16

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73	Identification and tuning of zinc-site nitrogen-related complexes in ZnO material. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	2.1	4
74	Low-threshold ultraviolet stimulated emissions from large-sized single crystalline ZnO transferable membranes. Optics Express, 2018, 26, 31965.	3.4	3
75	Highly efficient solar steam generation by hybrid plasmonic structured TiN/mesoporous anodized alumina membrane. Journal of Materials Research, 2018, 33, 3857-3869.	2.6	19
76	Vertically Emitting Indium Phosphide Nanowire Lasers. Nano Letters, 2018, 18, 3414-3420.	9.1	33
77	Identification and modulation of electronic band structures of single-phase Î²-(AlxGa1â^'x)2O3 alloys grown by laser molecular beam epitaxy. Applied Physics Letters, 2018, 113, .	3.3	43
78	Tailored Emission Properties of ZnTe/ZnTe:O/ZnO Coreâ€"Shell Nanowires Coupled with an Al Plasmonic Bowtie Antenna Array. ACS Nano, 2018, 12, 7327-7334.	14.6	8
79	Formation of V Zn -N O acceptors with the assistance of tellurium in nitrogen-doped ZnO films. Journal of Alloys and Compounds, 2017, 699, 484-488.	5.5	11
80	Recent progress of the native defects and p-type doping of zinc oxide. Chinese Physics B, 2017, 26, 047702.	1.4	51
81	Distinct enhancement of sub-bandgap photoresponse through intermediate band in high dose implanted ZnTe:O alloys. Scientific Reports, 2017, 7, 44399.	3.3	10
82	Solar-Blind Photodetector with High Avalanche Gains and Bias-Tunable Detecting Functionality Based on Metastable Phase Î±-Ga₂O₃/ZnO Isotype Heterostructures. ACS Applied Materials & Interfaces, 2017, 9, 36997-37005.	8.0	158
83	Chiral Metamaterials: A Terahertz Controlledâ€NOT Gate Based on Asymmetric Rotation of Polarization in Chiral Metamaterials (Advanced Optical Materials 18/2017). Advanced Optical Materials, 2017, 5, .	7.3	0
84	Extreme absorption enhancement in ZnTe:O/ZnO intermediate band core-shell nanowires by interplay of dielectric resonance and plasmonic bowtie nanoantennas. Scientific Reports, 2017, 7, 7503.	3.3	12
85	A Terahertz Controlledâ€NOT Gate Based on Asymmetric Rotation of Polarization in Chiral Metamaterials. Advanced Optical Materials, 2017, 5, 1700108.	7.3	15
86	Optical fingerprints of donors and acceptors in high-quality NH_3-doped ZnO films. Optical Materials Express, 2017, 7, 1169.	3.0	8
87	Electrically tunable terahertz metamaterials with embedded large-area transparent thin-film transistor arrays. Scientific Reports, 2016, 6, 23486.	3.3	21
88	Structural transition, subgap states, and carrier transport in anion-engineered zinc oxynitride nanocrystalline films. Applied Physics Letters, 2016, 109, .	3.3	17
89	The Luminescent Inhomogeneity and the Distribution of Zinc Vacancy-Related Acceptor-Like Defects in N-Doped ZnO Microrods. Nanoscale Research Letters, 2016, 11, 511.	5.7	9
90	Identification and control of native defects in N-doped ZnO microrods. Optical Materials Express, 2016, 6, 2847.	3.0	12

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91	The roles of buffer layer thickness on the properties of the ZnO epitaxial films. Applied Surface Science, 2016, 388, 557-564.	6.1	11
92	The study of electronic structure and absorption coefficient of ZnTe:O alloys: A GGA+U method. Computational Materials Science, 2015, 109, 225-230.	3.0	5
93	Identification of defect-related emissions in ZnO hybrid materials. Applied Physics Letters, 2015, 107, .	3.3	19
94	Comparative study of the effect of H2 addition on ZnO films grown by different zinc and oxygen precursors. Journal of Materials Research, 2015, 30, 935-945.	2.6	4
95	Zinc vacancy related emission in homoepitaxial N-doped ZnO microrods. Journal of Luminescence, 2015, 161, 293-299.	3.1	19
96	Annealing in tellurium-nitrogen co-doped ZnO films: The roles of intrinsic zinc defects. Journal of Applied Physics, 2015, 117, 135304.	2.5	11
97	Influence of oxygen precursors and annealing on Fe3O4 films grown on GaN templates by metal organic chemical vapor deposition. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, 052801.	1.2	10
98	Second-order surface-plasmon assisted responsivity enhancement in germanium nano-photodetectors with bullâ€™s eye antennas. Optics Express, 2014, 22, 15949.	3.4	15
99	Effect of the V/III ratio during buffer layer growth on the yellow and blue luminescence in undoped GaN epilayer. Science China: Physics, Mechanics and Astronomy, 2013, 56, 1694-1698.	5.1	3
100	Anomalous circular photogalvanic effect of the spin-polarized two-dimensional electron gas in Mg0.2Zn0.8O/ZnO heterostructures at room temperature. Applied Physics Letters, 2013, 102, .	3.3	11
101	Temperature-dependent exciton-related transition energies mediated by carrier concentrations in unintentionally Al-doped ZnO films. Applied Physics Letters, 2013, 102, 221905.	3.3	9
102	Origin and transport properties of twoâ€dimensional electron gas at ZnMgO/ZnO interface grown by MOVPE. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1268-1271.	0.8	3
103	Defect formation and thermal stability of H in high dose H implanted ZnO. Journal of Applied Physics, 2013, 114, 083111.	2.5	19
104	Spin-polarized two-dimensional electron gas in undoped MgxZn1â^'xO/ZnO heterostructures. Applied Physics Letters, 2012, 100, 192105.	3.3	14
105	Mutually beneficial doping of tellurium and nitrogen in ZnO films grown by metal-organic chemical vapor deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	10
106	Raman probing of competitive laser heating and local recrystallization effect in ZnO nanocrystals. Optics Express, 2012, 20, 23281.	3.4	9
107	Temperature-dependent photoluminescence of ZnO films codoped with tellurium and nitrogen. Journal of Applied Physics, 2012, 112, 103534.	2.5	20
108	Spin-polarized Wide Electron Slabs in Functionally Graded Polar Oxide Heterostructures. Scientific Reports, 2012, 2, 533.	3.3	16

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109	Two-dimensional electron gas related emissions in ZnMgO/ZnO heterostructures. Applied Physics Letters, 2011, 99, .	3.3	27
110	Split Bullâ€™s Eye Shaped Aluminum Antenna for Plasmon-Enhanced Nanometer Scale Germanium Photodetector. Nano Letters, 2011, 11, 1289-1293.	9.1	80
111	Origins of green band emission in high-temperature annealed N-doped ZnO. Journal of Luminescence, 2011, 131, 1189-1192.	3.1	51
112	Influence of thermally diffused aluminum atoms from sapphire substrate on the properties of ZnO epilayers grown by metal-organic chemical vapor deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	2.1	24
113	Two-dimensional electron gas in Zn-polar ZnMgO/ZnO heterostructure grown by metal-organic vapor phase epitaxy. Applied Physics Letters, 2010, 97, .	3.3	64
114	Tellurium assisted realization of p-type N-doped ZnO. Applied Physics Letters, 2010, 96, .	3.3	36
115	Surfactant effect of arsenic doping on modification of ZnO (0001) growth kinetics. Applied Physics Letters, 2009, 95, 101905.	3.3	21
116	Raman-active FrÃ¶hlich optical phonon mode in arsenic implanted ZnO. Applied Physics Letters, 2009, 94, 011913.	3.3	49
117	Numerical and experimental comparative study of metal-organic chemical vapor deposition of ZnO. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 187-190.	2.1	1
118	Electroluminescent and transport mechanisms of n-ZnOâˆ•p-Si heterojunctions. Applied Physics Letters, 2006, 88, 182112.	3.3	233
119	Electrically tunable terahertz metamaterials with embedded large-area transparent thin-film transistor arrays. , 0, .		1
120	Gate-Controlled NiO/Graphene/4H-SiC Double Schottky Barrier Heterojunction Based on a Metal-Oxide-Semiconductor Structure for Dual-Mode and Wide Range Ultraviolet Detection. ACS Applied Electronic Materials, 0, , .	4.3	4