

Renxu Jia

List of Publications by Year in descending order

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times ranked

1487
citing authors

#	ARTICLE	IF	CITATIONS
1	Analytical Model and Structure of the Multilayer Enhancement-Mode $\text{In}^{2-}\text{Ga}^{2-}\text{O}^{3-}$ Planar MOSFETs. IEEE Transactions on Electron Devices, 2022, 69, 682-689.	1.6	9
2	Inverse photoconductivity effect in triple cation organic-inorganic hybrid perovskite memristors with various iodine concentrations, electrodes, and modified layers. Journal of Materials Chemistry C, 2022, 10, 1414-1420.	2.7	7
3	The Research on Screening Method to Reduce Chip Test Escapes by Using Multi-Correlation Analysis of Parameters. IEEE Transactions on Semiconductor Manufacturing, 2022, 35, 266-271.	1.4	0
4	“ $\epsilon^3\zeta\pm^3\epsilon\text{—}\zeta^2\text{â}\zeta\text{â}1/4\text{æ}^\circ\text{Sâ}\text{E—}\epsilon\text{“}\text{æ—}\text{¥}\zeta^2\text{â}\dots\%_0\zeta\text{”}\mu\text{æ}\text{Z}\text{æ}\mu\text{â}\text{TM}\text{”}\text{æ}\text{€}\text{S}\text{è}\text{f}1/2\zeta\text{”}\zeta\text{©}\text{¶}$. Scientia Sinica: Physica, Mechanica Et Astronomica, 2022, 46, 117-124.	1.4	0
5	A state-of-art review on gallium oxide field-effect transistors. Journal Physics D: Applied Physics, 2022, 55, 383003.	1.3	14
6	Surface modification of $\text{In}^{2-}\text{Ga}^{2-}\text{O}^{3-}$ layer using pt nanoparticles for improved deep UV photodetector performance. Journal of Alloys and Compounds, 2021, 872, 159508.	2.8	43
7	Analysis of electronic structure and properties of $\text{Ga}_2\text{O}_3/\text{CuAlO}_2$ heterojunction. Applied Surface Science, 2021, 568, 150826.	3.1	16
8	Progress of Ultra-Wide Bandgap $\text{Ga}^{2-}\text{O}^{3-}$ Semiconductor Materials in Power MOSFETs. IEEE Transactions on Power Electronics, 2020, 35, 5157-5179.	5.4	106
9	The further investigation of N-doped $\text{In}^{2-}\text{Ga}^{2-}\text{O}^{3-}$ thin films with native defects for Schottky-barrier diode. Journal of Alloys and Compounds, 2020, 812, 152026.	2.8	41
10	Self-powered photodetectors based on $\text{In}^{2-}\text{Ga}^{2-}\text{O}^{3-}/4\text{H-SiC}$ heterojunction with ultrahigh current on/off ratio and fast response. Journal of Alloys and Compounds, 2020, 821, 153532.	2.8	108
11	Hysteresis effects on carrier transport and photoresponse characteristics in hybrid perovskites. Journal of Materials Chemistry C, 2020, 8, 1962-1971.	2.7	13
12	Effect of iodine doping on photoelectric properties of perovskite-based MOS devices. Materials Letters, 2020, 261, 127040.	1.3	0
13	High-performance photodetector based on sol-gel epitaxially grown $\text{In}^{2-}/\text{In}^{2-}$ Ga_2O_3 thin films. Materials Today Communications, 2020, 25, 101532.	0.9	32
14	Improved Photoresponse Performance of Self-Powered $\text{In}^{2-}\text{Ga}^{2-},\text{O}^{3-}/\text{NiO}$ Heterojunction UV Photodetector by Surface Plasmonic Effect of Pt Nanoparticles. IEEE Transactions on Electron Devices, 2020, 67, 3199-3204.	1.6	74
15	Observation of room temperature ferromagnetism and exchange bias in a 55Mn^{+} ion-implanted unintentionally doped $\text{In}^{2-}\text{Ga}^{2-}\text{O}^{3-}$ single crystal. Journal of Magnetism and Magnetic Materials, 2020, 506, 166687.	1.0	7
16	Influence of Metal Gate Electrodes on Electrical Properties of Atomic-Layer-Deposited Al-Rich $\text{HfAlO}/\text{Ga}^{2-}\text{O}^{3-}$ MOSCAPs. IEEE Transactions on Electron Devices, 2020, 67, 1730-1736.	1.6	10
17	The relationship between the doping concentration and d0 ferromagnetism in n-type 4H-SiC. Journal of Applied Physics, 2020, 128, 193901.	1.1	1
18	Origination of Anomalous Current Fluctuation in Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 8138-8144.	2.5	3

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19	Self-powered behavior based on the light-induced self-poling effect in perovskite-based transport layer-free photodetectors. Journal of Materials Chemistry C, 2019, 7, 609-616.	2.7	29
20	Influence of annealing temperature on structure and photoelectrical performance of $\text{In}^{2-}\text{Ga}_2\text{O}_3/4\text{H-SiC}$ heterojunction photodetectors. Journal of Alloys and Compounds, 2019, 798, 458-466.	2.8	88
21	Preface "JSS Focus Issue on Gallium Oxide Based Materials and Devices. ECS Journal of Solid State Science and Technology, 2019, 8, Y3-Y3.	0.9	1
22	Stress-induced charge trapping and electrical properties of atomic-layer-deposited $\text{HfAlO}/\text{Ga}_2\text{O}_3/\text{metal-oxide-semiconductor}$ capacitors. Journal Physics D: Applied Physics, 2019, 52, 215104.	1.3	16
23	Organolead halide perovskite-based metal-oxide-semiconductor structure photodetectors achieving ultrahigh detectivity. Solar Energy, 2019, 183, 226-233.	2.9	14
24	Self-powered MSM deep-ultraviolet $\text{In}^{2-}\text{Ga}_2\text{O}_3$ photodetector realized by an asymmetrical pair of Schottky contacts. Optical Materials Express, 2019, 9, 1191.	1.6	79
25	Reliability hazard characterization of wafer-level spatial metrology parameters based on LOF-KNN method. , 2019, , .		1
26	Uncertainty analysis of sensitivity of MEMS microphone based on artificial neural network. IEICE Electronics Express, 2019, 16, 20190623-20190623.	0.3	3
27	Performance-enhanced solar-blind photodetector based on a $\text{CH}_3\text{NH}_3\text{PbI}_3/\text{In}^{2-}\text{Ga}_2\text{O}_3$ hybrid structure. Journal of Materials Chemistry C, 2019, 7, 14205-14211.	2.7	45
28	Effect of annealing temperature on the characteristics of Pt/ $\text{CH}_3\text{NH}_3\text{PbI}_3$ contact. Journal of Crystal Growth, 2019, 505, 10-14.	0.7	0
29	Effect of growth rate on morphology evolution of 4H-SiC thick homoepitaxial layers. Journal of Crystal Growth, 2019, 507, 143-145.	0.7	1
30	Elements (Si, Sn, and Mg) doped $\text{In}^{2-}\text{Ga}_2\text{O}_3$: First-principles investigations and predictions. Computational Materials Science, 2019, 156, 273-279.	1.4	38
31	Study of a new type nominal "washboard-like" triangular defects in 4H-SiC 4° off-axis ($0^\circ \leq \theta \leq 1^\circ$) Si-face homoepitaxial layers. Journal of Crystal Growth, 2019, 506, 14-18.	0.7	9
32	Analysis of the structural, anisotropic elastic and electronic properties of $\text{In}^{2-}\text{Ga}_2\text{O}_3$ with various pressures. Journal of Crystal Growth, 2019, 505, 74-81.	0.7	26
33	Ferromagnetism observed in silicon-carbide-derived carbon. Physical Review B, 2018, 97, .	1.1	8
34	Influence of [6,6]-Phenyl-C61-butyric Acid Methyl Ester doping on Au/ $\text{CH}_3\text{NH}_3\text{PbI}_3$ /Au metal-semiconductor-metal (MSM) photoelectric detectors. Materials Letters, 2018, 217, 139-142.	1.3	2
35	Leakage current conduction mechanisms and electrical properties of atomic-layer-deposited $\text{HfO}_2/\text{Ga}_2\text{O}_3/\text{MOS}$ capacitors. Journal Physics D: Applied Physics, 2018, 51, 075104.	1.3	26
36	Energy-band alignment of $(\text{HfO}_2)_x(\text{Al}_2\text{O}_3)_{1-x}$ gate dielectrics deposited by atomic layer deposition on $\text{In}^{2-}\text{Ga}_2\text{O}_3$ (-201). Applied Surface Science, 2018, 433, 530-534.	3.1	24

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37	The influence of temperature on the silicon droplet evolution in the homoepitaxial growth of 4H-SiC. <i>Journal of Crystal Growth</i> , 2018, 504, 37-40.	0.7	8
38	Giant Zero-Drift Electronic Behaviors in Methylammonium Lead Halide Perovskite Diodes by Doping Iodine Ions. <i>Materials</i> , 2018, 11, 1606.	1.3	11
39	Effects of oxygen vacancies on the structural and optical properties of \hat{I}^2 -Ga ₂ O ₃ . <i>Scientific Reports</i> , 2017, 7, 40160.	1.6	215
40	Ionic behavior of organic-inorganic metal halide perovskite based metal-oxide-semiconductor capacitors. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 13002-13009.	1.3	9
41	Inhibition of Zero Drift in Perovskite-Based Photodetector Devices via [6,6]-Phenyl-C61-butyric Acid Methyl Ester Doping. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 15638-15643.	4.0	34
42	The effect of ions on the magnetic moment of vacancy for ion-implanted 4H-SiC. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	5
43	First-principles calculations of electronic and optical properties of aluminum-doped \hat{I}^2 -Ga ₂ O ₃ with intrinsic defects. <i>Results in Physics</i> , 2017, 7, 1582-1589.	2.0	76
44	Ab initio study of N-doped \hat{I}^2 -Ga ₂ O ₃ with intrinsic defects: the structural, electronic and optical properties. <i>Journal of Alloys and Compounds</i> , 2017, 712, 379-385.	2.8	88
45	Temperature-dependence studies of organolead halide perovskite-based metal/semiconductor/metal photodetectors. <i>RSC Advances</i> , 2017, 7, 20206-20211.	1.7	13
46	Interfacial characteristics and leakage current transfer mechanisms in organometal trihalide perovskite gate-controlled devices via doping of PCBM. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 475101.	1.3	4
47	Effect of Low Pressure on Surface Roughness and Morphological Defects of 4H-SiC Epitaxial Layers. <i>Materials</i> , 2016, 9, 743.	1.3	7
48	Concentration of point defects in 4H-SiC characterized by a magnetic measurement. <i>AIP Advances</i> , 2016, 6, 095201.	0.6	10
49	Effects of post-annealing temperature and oxygen concentration during sputtering on the structural and optical properties of \hat{I}^2 -Ga ₂ O ₃ films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016, 34, .	0.9	78
50	Investigation of Leakage Current Mechanisms in La ₂ O ₃ /SiO ₂ /4H-SiC MOS Capacitors with Varied SiO ₂ Thickness. <i>Journal of Electronic Materials</i> , 2016, 45, 5600-5605.	1.0	8
51	A novel self-catalytic route to zinc stannate nanowires and cathodoluminescence and electrical transport properties of a single nanowire. <i>Journal of Alloys and Compounds</i> , 2016, 657, 394-399.	2.8	9
52	Fabrication of 3.1kV/10A 4H-SiC Junction Barrier Schottky Diodes. , 2015, , .		1
53	Novel radial vanadium pentoxide nanobelt clusters for Li-ion batteries. <i>Journal of Alloys and Compounds</i> , 2015, 633, 353-358.	2.8	7
54	Fabrication of a monolithic 4H-SiC junction barrier schottky diode with the capability of high current. <i>Science China Technological Sciences</i> , 2015, 58, 1369-1374.	2.0	3

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55	Electric properties of La ₂ O ₃ /SiO ₂ /4H-SiC MOS capacitors with different annealing temperatures. AIP Advances, 2015, 5, 087166.	0.6	11
56	Breathers and solitons in nonlinear optical materials. Journal of Electromagnetic Waves and Applications, 2014, 28, 873-879.	1.0	2
57	Effect of re-oxidation annealing process on the SiO ₂ /SiC interface characteristics. Journal of Semiconductors, 2014, 35, 066001.	2.0	7
58	Soliton interactions in dispersion-decreasing fibers with the exponential dispersion profile. Journal of Modern Optics, 2013, 60, 1992-1996.	0.6	8
59	Atomic layer deposited high-k Hf x Al(1-x)O as an alternative gate dielectric for 4H-SiC MIS based transistors. Science China Technological Sciences, 2012, 55, 606-609.	2.0	8
60	Reduction of deep level defects in unintentionally doped 4H-SiC homo-epilayers by ion implantation. Journal Wuhan University of Technology, Materials Science Edition, 2012, 27, 415-417.	0.4	1
61	Analysis and simulation of inverter employing SiC Schottky diode. , 2011, , .		0
62	Characterization of the heteroepitaxial growth of 3C-SiC on Si during low pressure chemical vapor deposition. Science Bulletin, 2010, 55, 3102-3106.	1.7	3
63	Performance investigations of novel dual-material gate (DMG) MOSFET with dielectric pockets (DP). Science in China Series D: Earth Sciences, 2009, 52, 2400-2405.	0.9	9
64	SiC epitaxial layers grown by chemical vapor deposition. , 2008, , .		1
65	Nitrogen incorporation characteristics of 4H-SiC epitaxial layer. , 2008, , .		0
66	Simulation of SiC deposition in a hot wall CVD reactor. Proceedings of SPIE, 2008, , .	0.8	1
67	Study on a novel Vertical Enhancement-mode Ga ₂ O ₃ MOSFET with FINFET structure. Chinese Physics B, 0, , .	0.7	3