

Jiawei Zhang

List of Publications by Year in descending order

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67
papers

2,603
citations

186265

28
h-index

189892

50
g-index

67
all docs

67
docs citations

67
times ranked

3349
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancement-Mode Ga ₂ O ₃ FET With High Mobility Using p-Type SnO Heterojunction. IEEE Electron Device Letters, 2022, 43, 44-47.	3.9	10
2	(In _x Ga _{1-x}) ₂ O ₃ Thin Film Based Solar-Blind Deep UV Photodetectors with Ultra-High Detectivity and On/Off Current Ratio. Advanced Optical Materials, 2022, 10, .	7.3	16
3	Modulation of the Bi ³⁺ 6s ² Lone Pair State in Perovskites for High-Mobility p-Type Oxide Semiconductors. Advanced Science, 2022, 9, e2104141.	11.2	23
4	Comparative Study of Short-Channel Effects Between Source-Gated Transistors and Standard Thin-Film Transistors. IEEE Transactions on Electron Devices, 2022, 69, 561-566.	3.0	7
5	Manipulating the metal-to-insulator transition and magnetic properties in manganite thin films via epitaxial strain. Physical Review B, 2022, 105, .	3.2	2
6	A thin-film transistor with no apparent channel for simplified, high aperture ratio pixel architectures. Journal of the Society for Information Display, 2022, 30, 765-774.	2.1	1
7	Tailoring the Chemical Potential of Crystal Growth Units to Tune the Bulk Structure of Nanocrystals. Small Methods, 2021, 5, e2000447.	8.6	6
8	Wide Bandgap Oxide Semiconductors: from Materials Physics to Optoelectronic Devices. Advanced Materials, 2021, 33, e2006230.	21.0	185
9	Sputtered Oxide Thin-Film Transistors With Tunable Synaptic Spiking Behavior at 1 V. IEEE Transactions on Electron Devices, 2021, 68, 2736-2741.	3.0	14
10	15.3: Low Voltage InGaZnO Thin-Film Transistors and Logic Circuits Using Ultra-Thin, Solution-Processed Al _x O _y Gate Dielectrics. Digest of Technical Papers SID International Symposium, 2021, 52, 210-210.	0.3	0
11	High-Performance Thin-Film IGZO Schottky Diodes With Sputtered PdO _a Anode. IEEE Transactions on Electron Devices, 2021, 68, 4444-4449.	3.0	7
12	Photoluminescent Semiconducting Graphene Nanoribbons via Longitudinally Unzipping Single-Walled Carbon Nanotubes. ACS Applied Materials & Interfaces, 2021, 13, 52892-52900.	8.0	10
13	Optimizing the Electronic Structure of In ₂ O ₃ through Mg Doping for NiO/In ₂ O ₃ p-n Heterojunction Diodes. ACS Applied Materials & Interfaces, 2020, 12, 53446-53453.	8.0	15
14	Graphene ballistic rectifiers: Theory and geometry dependence. Carbon, 2020, 168, 201-208.	10.3	13
15	Recent progress on the electronic structure, defect, and doping properties of Ga ₂ O ₃ . APL Materials, 2020, 8, .	5.1	295
16	Significant Performance Enhancement of Very Thin InGaZnO Thin-Film Transistors by a Self-Assembled Monolayer Treatment. ACS Applied Electronic Materials, 2020, 2, 301-308.	4.3	45
17	Fabrication and Interfacial Electronic Structure of Wide Bandgap NiO and Ga ₂ O ₃ p-n Heterojunction. ACS Applied Electronic Materials, 2020, 2, 456-463.	4.3	66
18	Significant Performance Improvement of Oxide Thin-Film Transistors by a Self-Assembled Monolayer Treatment. Advanced Electronic Materials, 2020, 6, 1901421.	5.1	20

#	ARTICLE	IF	CITATIONS
19	Solution-Processed TiO ₂ -Based Schottky Diodes With a Large Barrier Height. IEEE Electron Device Letters, 2019, 40, 1378-1381.	3.9	4
20	Analytical Theory of Thin-Film Schottky Diodes. ACS Applied Electronic Materials, 2019, 1, 1570-1580.	4.3	3
21	Schottky-barrier thin-film transistors based on HfO ₂ -capped InSe. Applied Physics Letters, 2019, 115, .	3.3	13
22	Low-Voltage, Full-Swing InGaZnO-Based Inverters Enabled by Solution-Processed, Ultra-Thin Al _x O _y . IEEE Electron Device Letters, 2019, 40, 1285-1288.	3.9	20
23	Metal-insulator-metal diodes based on alkyltrichlorosilane self-assembled monolayers. AIP Advances, 2019, 9, 065017.	1.3	8
24	Solution-Processed HfO _x for Half-Volt Operation of InGaZnO Thin-Film Transistors. ACS Applied Electronic Materials, 2019, 1, 1581-1589.	4.3	22
25	8.4: <i>Invited Paper:</i> Oxide devices for displays and low power electronics. Digest of Technical Papers SID International Symposium, 2019, 50, 81-84.	0.3	2
26	High Performance Graphene Ballistic Rectifiers for THz detection. , 2019, , .		1
27	Band edge evolution of transparent ZnM		

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37	Ambipolar SnOx thin-film transistors achieved at high sputtering power. Applied Physics Letters, 2018, 112, .	3.3	20
38	Amorphous-InGaZnO Thin-Film Transistors Operating Beyond 1 GHz Achieved by Optimizing the Channel and Gate Dimensions. IEEE Transactions on Electron Devices, 2018, 65, 1377-1382.	3.0	32
39	Interface energy band alignment at the all-transparent p-n heterojunction based on NiO and BaSnO3. Applied Physics Letters, 2018, 112, .	3.3	28
40	Low-Voltage, Flexible InGaZnO Thin-Film Transistors Gated with Solution-Processed, Ultra-Thin AlxOy. IEEE Electron Device Letters, 2018, , 1-1.	3.9	21
41	Sustainable production of highly conductive multilayer graphene ink for wireless connectivity and IoT applications. Nature Communications, 2018, 9, 5197.	12.8	206
42	A unipolar nano-diode detector with improved performance using the high-k material SiN x. Semiconductor Science and Technology, 2018, 33, 114016.	2.0	1
43	Toward Rationally Designing Surface Structures of Micro- and Nanocrystallites: Role of Supersaturation. Accounts of Chemical Research, 2018, 51, 2880-2887.	15.6	53
44	Cyclic Penta-Twinned Rhodium Nanobranches as Superior Catalysts for Ethanol Electro-oxidation. Journal of the American Chemical Society, 2018, 140, 11232-11240.	13.7	133
45	High-Performance Flexible Schottky Diodes Based on Sputtered InGaZnO. IEEE Transactions on Electron Devices, 2018, 65, 4326-4333.	3.0	20
46	Effects of substrate and anode metal annealing on InGaZnO Schottky diodes. Applied Physics Letters, 2017, 110, .	3.3	32
47	Terahertz Detection and Imaging Using Graphene Ballistic Rectifiers. Nano Letters, 2017, 17, 7015-7020.	9.1	100
48	Influence of interface inhomogeneities in thin-film Schottky diodes. Applied Physics Letters, 2017, 111, 213503.	3.3	15
49	Oxide-Based Electric-Double-Layer Thin-Film Transistors on a Flexible Substrate. IEEE Electron Device Letters, 2017, 38, 1680-1683.	3.9	28
50	A Sputtered Silicon Oxide Electrolyte for High-Performance Thin-Film Transistors. Scientific Reports, 2017, 7, 809.	3.3	37
51	High Performance Complementary Circuits Based on p-SnO and n-IGZO Thin-Film Transistors. Materials, 2017, 10, 319.	2.9	41
52	Transparent Thin-Film Transistors Based on Sputtered Electric Double Layer. Materials, 2017, 10, 429.	2.9	6
53	High performance InGaZnO-based Schottky diodes fabricated at room temperature. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 618-622.	0.8	14
54	Analysis of carrier transport and band tail states in p-type tin monoxide thin-film transistors by temperature dependent characteristics. Applied Physics Letters, 2016, 108, .	3.3	29

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55	Graphene ballistic nano-rectifier with very high responsivity. Nature Communications, 2016, 7, 11670.	12.8	74
56	High performance Schottky diodes based on indium-gallium-zinc-oxide. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	2.1	22
57	Effects of annealing conditions on resistive switching characteristics of SnOx thin films. Journal of Alloys and Compounds, 2016, 673, 54-59.	5.5	23
58	Influence of sputtering conditions on room-temperature fabricated InGaZnO-based Schottky diodes. Thin Solid Films, 2016, 616, 569-572.	1.8	15
59	Improving photoelectrochemical performance of highly-ordered TiO ₂ nanotube arrays with cosensitization of PbS and CdS quantum dots. RSC Advances, 2016, 6, 8118-8126.	3.6	31
60	Room Temperature Processed Ultrahigh-Frequency Indium-Gallium-Zinc-Oxide Schottky Diode. IEEE Electron Device Letters, 2016, 37, 389-392.	3.9	38
61	Low-frequency noise properties in Pt-indium gallium zinc oxide Schottky diodes. Applied Physics Letters, 2015, 107, 093505.	3.3	11
62	Flexible indium-gallium-zinc-oxide Schottky diode operating beyond 2.45%GHz. Nature Communications, 2015, 6, 7561.	12.8	143
63	Surfactant-Concentration-Dependent Shape Evolution of Au-Pd Alloy Nanocrystals from Rhombic Dodecahedron to Trisoctahedron and Hexoctahedron. Small, 2013, 9, 538-544.	10.0	88
64	Synthesis of spatially uniform metal alloys nanocrystals via a diffusion controlled growth strategy: The case of Au-Pd alloy trisoctahedral nanocrystals with tunable composition. Nano Research, 2012, 5, 618-629.	10.4	36
65	Facile syntheses and enhanced electrocatalytic activities of Pt nanocrystals with {hkk} high-index surfaces. Nano Research, 2012, 5, 181-189.	10.4	92
66	Facile syntheses and electrocatalytic properties of porous Pd and its alloy nanospheres. Journal of Materials Chemistry, 2011, 21, 9620.	6.7	62
67	Synthesis of Concave Palladium Nanocubes with High-Index Surfaces and High Electrocatalytic Activities. Chemistry - A European Journal, 2011, 17, 9915-9919.	3.3	98