

Xinwei Guan

List of Publications by Year in descending order

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44
papers

3,708
citations

201674

27
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276875

41
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44
all docs

44
docs citations

44
times ranked

4863
citing authors

#	ARTICLE	IF	CITATIONS
1	All-inorganic perovskite nanocrystal scintillators. <i>Nature</i> , 2018, 561, 88-93.	27.8	1,274
2	Flexible and efficient perovskite quantum dot solar cells via hybrid interfacial architecture. <i>Nature Communications</i> , 2021, 12, 466.	12.8	176
3	Light-Responsive Ion-Redistribution-Induced Resistive Switching in Hybrid Perovskite Schottky Junctions. <i>Advanced Functional Materials</i> , 2018, 28, 1704665.	14.9	169
4	Metal Oxides as Efficient Charge Transporters in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1602803.	19.5	147
5	Halide Perovskites: A New Era of Solution-Processed Electronics. <i>Advanced Materials</i> , 2021, 33, e2005000.	21.0	138
6	Recent Progress in Short- to Long-Wave Infrared Photodetection Using 2D Materials and Heterostructures. <i>Advanced Optical Materials</i> , 2021, 9, 2001708.	7.3	118
7	Enhancing the Performance of Quantum Dot Light-Emitting Diodes Using Room-Temperature-Processed Ga-Doped ZnO Nanoparticles as the Electron Transport Layer. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 15605-15614.	8.0	113
8	High- κ perovskite membranes as insulators for two-dimensional transistors. <i>Nature</i> , 2022, 605, 262-267.	27.8	109
9	Hybrid Organic-Inorganic Materials and Composites for Photoelectrochemical Water Splitting. <i>ACS Energy Letters</i> , 2020, 5, 1487-1497.	17.4	104
10	Nonvolatile Multistates Memories for High-Density Data Storage. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 42449-42471.	8.0	101
11	Advances on Emerging Materials for Flexible Supercapacitors: Current Trends and Beyond. <i>Advanced Functional Materials</i> , 2020, 30, 2002993.	14.9	92
12	Giant Optical Anisotropy of Perovskite Nanowire Array Films. <i>Advanced Functional Materials</i> , 2020, 30, 1909275.	14.9	89
13	Low-Dimensional Lead-Free Inorganic Perovskites for Resistive Switching with Ultralow Bias. <i>Advanced Functional Materials</i> , 2020, 30, 2002110.	14.9	78
14	Quantum Dots for Photovoltaics: A Tale of Two Materials. <i>Advanced Energy Materials</i> , 2021, 11, 2100354.	19.5	77
15	Solution-processed resistive switching memory devices based on hybrid organic-inorganic materials and composites. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 23837-23846.	2.8	68
16	Enhancing Resistive Switching Performance and Ambient Stability of Hybrid Perovskite Single Crystals via Embedding Colloidal Quantum Dots. <i>Advanced Functional Materials</i> , 2020, 30, 2002948.	14.9	59
17	Electrode Engineering in Halide Perovskite Electronics: Plenty of Room at the Interfaces. <i>Advanced Materials</i> , 2022, 34, e2108616.	21.0	55
18	Designed growth and patterning of perovskite nanowires for lasing and wide color gamut phosphors with long-term stability. <i>Nano Energy</i> , 2020, 73, 104801.	16.0	53

#	ARTICLE	IF	CITATIONS
19	A monolithic artificial iconic memory based on highly stable perovskite-metal multilayers. Applied Physics Reviews, 2020, 7, .	11.3	46
20	P-type SnO Thin Film Phototransistor with Perovskite-Mediated Photogating. Advanced Electronic Materials, 2019, 5, 1800538.	5.1	45
21	Phase segregation in inorganic mixed-halide perovskites: from phenomena to mechanisms. Photonics Research, 2020, 8, A56.	7.0	45
22	Synergistic effect of electron transport layer and colloidal quantum dot solid enable PbSe quantum dot solar cell achieving over 10 % efficiency. Nano Energy, 2019, 64, 103922.	16.0	43
23	P-type Charge Transport and Selective Gas Sensing of All-Inorganic Perovskite Nanocrystals. , 2020, 2, 1368-1374.		40
24	Optimizing Surface Chemistry of PbS Colloidal Quantum Dot for Highly Efficient and Stable Solar Cells via Chemical Binding. Advanced Science, 2021, 8, 2003138.	11.2	40
25	Quantum Dot Passivation of Halide Perovskite Films with Reduced Defects, Suppressed Phase Segregation, and Enhanced Stability. Advanced Science, 2022, 9, e2102258.	11.2	35
26	Morphology-Tailored Halide Perovskite Platelets and Wires: From Synthesis, Properties to Optoelectronic Devices. Advanced Optical Materials, 2018, 6, 1800413.	7.3	34
27	Highly UV Resistant Inch-Scale Hybrid Perovskite Quantum Dot Papers. Advanced Science, 2020, 7, 1902439.	11.2	33
28	Linking Phase Segregation and Photovoltaic Performance of Mixed-Halide Perovskite Films through Grain Size Engineering. ACS Energy Letters, 0, , 1649-1658.	17.4	33
29	All-Solution-Processed Quantum Dot Electrical Double-Layer Transistors Enhanced by Surface Charges of Ti_3C_2 MXene Contacts. ACS Nano, 2021, 15, 5221-5229.	14.6	30
30	A Solution-Processed All-Perovskite Memory with Dual-Band Light Response and Tri-Mode Operation. Advanced Functional Materials, 2022, 32, 2110975.	14.9	30
31	Metal nitride-based nanostructures for electrochemical and photocatalytic hydrogen production. Science and Technology of Advanced Materials, 2022, 23, 76-119.	6.1	28
32	Illumination-Induced Phase Segregation and Suppressed Solubility Limit in Br-Rich Mixed-Halide Inorganic Perovskites. ACS Applied Materials & Interfaces, 2020, 12, 38376-38385.	8.0	27
33	One-Step Vapor-Phase Synthesis and Quantum-Confined Exciton in Single-Crystal Platelets of Hybrid Halide Perovskites. Journal of Physical Chemistry Letters, 2019, 10, 2363-2371.	4.6	25
34	Enhancing the Efficiency and Stability of PbS Quantum Dot Solar Cells through Engineering an Ultrathin NiO Nanocrystalline Interlayer. ACS Applied Materials & Interfaces, 2020, 12, 46239-46246.	8.0	24
35	Quantum-Dot Tandem Solar Cells Based on a Solution-Processed Nanoparticle Intermediate Layer. ACS Applied Materials & Interfaces, 2020, 12, 2313-2318.	8.0	19
36	Facile Patterning of Silver Nanowires with Controlled Polarities via Inkjet-Assisted Manipulation of Interface Adhesion. ACS Applied Materials & Interfaces, 2020, 12, 34086-34094.	8.0	19

#	ARTICLE	IF	CITATIONS
37	Bismuth telluride topological insulator synthesized using liquid metal alloys: Test of NO ₂ selective sensing. Applied Materials Today, 2021, 22, 100954.	4.3	18
38	Light-Enhanced Spin Diffusion in Hybrid Perovskite Thin Films and Single Crystals. ACS Applied Materials & Interfaces, 2020, 12, 3205-3213.	8.0	17
39	Ferroelectric Polarization Rotation in Order-Disorder-Type LiNbO ₃ Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 41471-41478.	8.0	13
40	Anomalous Structural Evolution and Glassy Lattice in Mixed-Halide Hybrid Perovskites. Small, 2022, 18, e2200847.	10.0	13
41	Giant Electric Bias-Induced Tunability of Photoluminescence and Photoresistance in Hybrid Perovskite Films on Ferroelectric Substrates. Advanced Optical Materials, 2019, 7, 1901092.	7.3	8
42	Confinement-Induced Giant Spin-Orbit-Coupled Magnetic Moment of Co Nanoclusters in TiO ₂ Films. ACS Applied Materials & Interfaces, 2019, 11, 43781-43788.	8.0	8
43	Emerging Transistor Applications Enabled by Halide Perovskites. Accounts of Materials Research, 2022, 3, 8-20.	11.7	8
44	Perovskite Quantum Dot Solar Cells Fabricated from Recycled Lead-Acid Battery Waste. , 2022, 4, 120-127.		7