

# Haibo Zeng

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/5809327/haibo-zeng-publications-by-citations.pdf>

**Version:** 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

318  
papers

34,031  
citations

93  
h-index

179  
g-index

327  
ext. papers

39,140  
ext. citations

9.9  
avg, IF

7.71  
L-index

#	Paper	IF	Citations
318	Quantum Dot Light-Emitting Diodes Based on Inorganic Perovskite Cesium Lead Halides (CsPbX <sub>3</sub> ). <i>Advanced Materials</i> , <b>2015</b> , 27, 7162-7	24	1975
317	CsPbX <sub>3</sub> Quantum Dots for Lighting and Displays: Room-Temperature Synthesis, Photoluminescence Superiorities, Underlying Origins and White Light-Emitting Diodes. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 2435-2445	15.6	1548
316	Blue Luminescence of ZnO Nanoparticles Based on Non-Equilibrium Processes: Defect Origins and Emission Controls. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 561-572	15.6	1368
315	Atomically thin arsenene and antimonene: semimetal-semiconductor and indirect-direct band-gap transitions. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 3112-5	16.4	994
314	All-Inorganic Colloidal Perovskite Quantum Dots: A New Class of Lasing Materials with Favorable Characteristics. <i>Advanced Materials</i> , <b>2015</b> , 27, 7101-8	24	919
313	Carbon and Graphene Quantum Dots for Optoelectronic and Energy Devices: A Review. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 4929-4947	15.6	885
312	50-Fold EQE Improvement up to 6.27% of Solution-Processed All-Inorganic Perovskite CsPbBr QLEDs via Surface Ligand Density Control. <i>Advanced Materials</i> , <b>2017</b> , 29, 1603885	24	819
311	Nanomaterials via Laser Ablation/Irradiation in Liquid: A Review. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 1333-1353	15.6	646
310	"White graphenes": boron nitride nanoribbons via boron nitride nanotube unwrapping. <i>Nano Letters</i> , <b>2010</b> , 10, 5049-55	11.5	643
309	Two-dimensional antimonene single crystals grown by van der Waals epitaxy. <i>Nature Communications</i> , <b>2016</b> , 7, 13352	17.4	633
308	Recent progress in 2D group-VA semiconductors: from theory to experiment. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 982-1021	58.5	549
307	Semiconducting Group 15 Monolayers: A Broad Range of Band Gaps and High Carrier Mobilities. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 1666-9	16.4	535
306	Monolayer and Few-Layer All-Inorganic Perovskites as a New Family of Two-Dimensional Semiconductors for Printable Optoelectronic Devices. <i>Advanced Materials</i> , <b>2016</b> , 28, 4861-9	24	533
305	Stabilizing Cesium Lead Halide Perovskite Lattice through Mn(II) Substitution for Air-Stable Light-Emitting Diodes. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 11443-11450	16.4	524
304	ZnO-based hollow nanoparticles by selective etching: elimination and reconstruction of metal-semiconductor interface, improvement of blue emission and photocatalysis. <i>ACS Nano</i> , <b>2008</b> , 2, 1661-70	16.7	505
303	Engineering surface states of carbon dots to achieve controllable luminescence for solid-luminescent composites and sensitive Be <sup>2+</sup> detection. <i>Scientific Reports</i> , <b>2015</b> , 4,	4.9	447
302	Toward Efficient Orange Emissive Carbon Nanodots through Conjugated sp <sup>2</sup> -Domain Controlling and Surface Charges Engineering. <i>Advanced Materials</i> , <b>2016</b> , 28, 3516-21	24	443

301	All Inorganic Halide Perovskites Nanosystem: Synthesis, Structural Features, Optical Properties and Optoelectronic Applications. <i>Small</i> , <b>2017</b> , 13, 1603996	11	438
300	A comprehensive review of one-dimensional metal-oxide nanostructure photodetectors. <i>Sensors</i> , <b>2009</b> , 9, 6504-29	3.8	421
299	Nonlinear Absorption and Low-Threshold Multiphoton Pumped Stimulated Emission from All-Inorganic Perovskite Nanocrystals. <i>Nano Letters</i> , <b>2016</b> , 16, 448-53	11.5	409
298	Composition/structural evolution and optical properties of ZnO/Zn nanoparticles by laser ablation in liquid media. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 18260-6	3.4	326
297	Atomically Thin Arsenene and Antimonene: Semimetal/Semiconductor and Indirect/Direct Band-Gap Transitions. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 3155-3158	3.6	323
296	Room-Temperature Triple-Ligand Surface Engineering Synergistically Boosts Ink Stability, Recombination Dynamics, and Charge Injection toward EQE-11.6% Perovskite QLEDs. <i>Advanced Materials</i> , <b>2018</b> , 30, e1800764	24	309
295	Organic-Inorganic Hybrid Passivation Enables Perovskite QLEDs with an EQE of 16.48. <i>Advanced Materials</i> , <b>2018</b> , 30, e1805409	24	291
294	Two-dimensional semiconductors: recent progress and future perspectives. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 2952	7.1	287
293	In Situ Passivation of PbBr <sub>6</sub> <sup>4-</sup> Octahedra toward Blue Luminescent CsPbBr <sub>3</sub> Nanoplatelets with Near 100% Absolute Quantum Yield. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 2030-2037	20.1	281
292	ZnO and ZnS Nanostructures: Ultraviolet-Light Emitters, Lasers, and Sensors. <i>Critical Reviews in Solid State and Materials Sciences</i> , <b>2009</b> , 34, 190-223	10.1	274
291	Improving All-Inorganic Perovskite Photodetectors by Preferred Orientation and Plasmonic Effect. <i>Small</i> , <b>2016</b> , 12, 5622-5632	11	271
290	Temperature-dependent shifts of three emission bands for ZnO nanoneedle arrays. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 161101	3.4	264
289	From unstable CsSnI <sub>3</sub> to air-stable Cs <sub>2</sub> SnI <sub>6</sub> : A lead-free perovskite solar cell light absorber with bandgap of 1.48 eV and high absorption coefficient. <i>Solar Energy Materials and Solar Cells</i> , <b>2017</b> , 159, 227-234	6.4	258
288	Semiconducting Group 15 Monolayers: A Broad Range of Band Gaps and High Carrier Mobilities. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 1698-1701	3.6	254
287	Healing All-Inorganic Perovskite Films via Recyclable Dissolution/Recrystallization for Compact and Smooth Carrier Channels of Optoelectronic Devices with High Stability. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 5903-5912	15.6	253
286	2D V-V Binary Materials: Status and Challenges. <i>Advanced Materials</i> , <b>2019</b> , 31, e1902352	24	236
285	Superstable transparent conductive Cu@Cu <sub>4</sub> Ni nanowire elastomer composites against oxidation, bending, stretching, and twisting for flexible and stretchable optoelectronics. <i>Nano Letters</i> , <b>2014</b> , 14, 6298-305	11.5	232
284	Constructing Fast Carrier Tracks into Flexible Perovskite Photodetectors To Greatly Improve Responsivity. <i>ACS Nano</i> , <b>2017</b> , 11, 2015-2023	16.7	222

283	State of the Art and Prospects for Halide Perovskite Nanocrystals. <i>ACS Nano</i> , <b>2021</b> , 15, 10775-10981	16.7	222
282	Antimonene Oxides: Emerging Tunable Direct Bandgap Semiconductor and Novel Topological Insulator. <i>Nano Letters</i> , <b>2017</b> , 17, 3434-3440	11.5	217
281	Broadband Nonlinear Photoresponse of 2D TiS <sub>2</sub> for Ultrashort Pulse Generation and All-Optical Thresholding Devices. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1701166	8.1	217
280	Amino-Mediated Anchoring Perovskite Quantum Dots for Stable and Low-Threshold Random Lasing. <i>Advanced Materials</i> , <b>2017</b> , 29, 1701185	24	215
279	Intercrossed carbon nanorings with pure surface states as low-cost and environment-friendly phosphors for white-light-emitting diodes. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 1759-64	16.4	213
278	Template Deformation-Tailored ZnO Nanorod/Nanowire Arrays: Full Growth Control and Optimization of Field-Emission. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 3165-3172	15.6	211
277	Two-Dimensional, Porous Nickel-Cobalt Sulfide for High-Performance Asymmetric Supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 19316-23	9.5	210
276	CsPbBr Quantum Dots 2.0: Benzenesulfonic Acid Equivalent Ligand Awakens Complete Purification. <i>Advanced Materials</i> , <b>2019</b> , 31, e1900767	24	189
275	Violet photoluminescence from shell layer of Zn/ZnO core-shell nanoparticles induced by laser ablation. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 171910	3.4	189
274	Solution-Processed Low Threshold Vertical Cavity Surface Emitting Lasers from All-Inorganic Perovskite Nanocrystals. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1605088	15.6	184
273	"Chemical blowing" of thin-walled bubbles: high-throughput fabrication of large-area, few-layered BN and C(x)-BN nanosheets. <i>Advanced Materials</i> , <b>2011</b> , 23, 4072-6	24	184
272	Ultralarge All-Inorganic Perovskite Bulk Single Crystal for High-Performance Visible/Infrared Dual-Modal Photodetectors. <i>Advanced Optical Materials</i> , <b>2017</b> , 5, 1700157	8.1	182
271	2D materials via liquid exfoliation: a review on fabrication and applications. <i>Science Bulletin</i> , <b>2015</b> , 60, 1994-2008	10.6	180
270	Nonlinear Saturable Absorption of Liquid-Exfoliated Molybdenum/Tungsten DiteLLuride Nanosheets. <i>Small</i> , <b>2016</b> , 12, 1489-97	11	179
269	Morphology-dependent stimulated emission and field emission of ordered CdS nanostructure arrays. <i>ACS Nano</i> , <b>2009</b> , 3, 949-59	16.7	178
268	Monolayer MoS <sub>2</sub> -Graphene Hybrid Aerogels with Controllable Porosity for Lithium-Ion Batteries with High Reversible Capacity. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 2680-7	9.5	173
267	Surface Chemistry of All Inorganic Halide Perovskite Nanocrystals: Passivation Mechanism and Stability. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1701662	4.6	170
266	Cu-N dopants boost electron transfer and photooxidation reactions of carbon dots. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 6540-4	16.4	169

265	High Performance Metal Halide Perovskite Light-Emitting Diode: From Material Design to Device Optimization. <i>Small</i> , <b>2017</b> , 13, 1701770	11	167
264	Double-Protected All-Inorganic Perovskite Nanocrystals by Crystalline Matrix and Silica for Triple-Modal Anti-Counterfeiting Codes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 26556-26564	9.5	167
263	Integrating large specific surface area and high conductivity in hydrogenated NiCo <sub>2</sub> O <sub>4</sub> double-shell hollow spheres to improve supercapacitors. <i>NPG Asia Materials</i> , <b>2015</b> , 7, e165-e165	10.3	156
262	WS <sub>2</sub> saturable absorber for dissipative soliton mode locking at 1.06 and 1.55 $\mu$ m. <i>Optics Express</i> , <b>2015</b> , 23, 27509-19	3.3	156
261	A promising two-dimensional solar cell donor: Black arsenic phosphorus monolayer with 1.54 eV direct bandgap and mobility exceeding 14,000 cm <sup>2</sup> V <sup>-1</sup> s <sup>-1</sup> . <i>Nano Energy</i> , <b>2016</b> , 28, 433-439	17.1	152
260	Controllable Pt/ZnO Porous Nanocages with Improved Photocatalytic Activity. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 19620-19624	3.8	151
259	Polystyrene sphere-assisted one-dimensional nanostructure arrays: synthesis and applications. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 40-56		142
258	Boosting Two-Dimensional MoS <sub>2</sub> /CsPbBr <sub>3</sub> Photodetectors via Enhanced Light Absorbance and Interfacial Carrier Separation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 2801-2809	9.5	140
257	Controlled Synthesis of Ultrathin 2D In <sub>2</sub> S <sub>3</sub> with Broadband Photoresponse by Chemical Vapor Deposition. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1702448	15.6	139
256	Enhanced photocatalytic activity of hierarchical ZnO nanoplate-nanowire architecture as environmentally safe and facilely recyclable photocatalyst. <i>Nanoscale</i> , <b>2011</b> , 3, 5020	7.7	137
255	Few-Layer Antimonene: Anisotropic Expansion and Reversible Crystalline-Phase Evolution Enable Large-Capacity and Long-Life Na-Ion Batteries. <i>ACS Nano</i> , <b>2018</b> , 12, 1887-1893	16.7	135
254	Microstructure control of Zn/ZnO core/shell nanoparticles and their temperature-dependent blue emissions. <i>Journal of Physical Chemistry B</i> , <b>2007</b> , 111, 14311-7	3.4	133
253	All-inorganic quantum-dot light-emitting diodes based on perovskite emitters with low turn-on voltage and high humidity stability. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 4565-4570	7.1	128
252	Lateral black phosphorene PN junctions formed via chemical doping for high performance near-infrared photodetector. <i>Nano Energy</i> , <b>2016</b> , 25, 34-41	17.1	126
251	Hydrogenated arsenenes as planar magnet and Dirac material. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 022103	3.4	122
250	Optimizing Hybridization of 1T and 2H Phases in MoS <sub>2</sub> Monolayers to Improve Capacitances of Supercapacitors. <i>Materials Research Letters</i> , <b>2015</b> , 3, 177-183	7.4	121
249	Progress of Carbon Quantum Dots in Photocatalysis Applications. <i>Particle and Particle Systems Characterization</i> , <b>2016</b> , 33, 457-472	3.1	121
248	Black phosphorene as a hole extraction layer boosting solar water splitting of oxygen evolution catalysts. <i>Nature Communications</i> , <b>2019</b> , 10, 2001	17.4	120

247	Transparent Electrodes Printed with Nanocrystal Inks for Flexible Smart Devices. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 9760-74	16.4	119
246	GeSe monolayer semiconductor with tunable direct band gap and small carrier effective mass. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 122107	3.4	116
245	Remedying Defects in Carbon Nitride To Improve both Photooxidation and H <sub>2</sub> Generation Efficiencies. <i>ACS Catalysis</i> , <b>2016</b> , 6, 3365-3371	13.1	115
244	Semiconductor-topological insulator transition of two-dimensional SbAs induced by biaxial tensile strain. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	111
243	Efficient and bright white light-emitting diodes based on single-layer heterophase halide perovskites. <i>Nature Photonics</i> , <b>2021</b> , 15, 238-244	33.9	111
242	Solution-Grown CsPbBr <sub>2</sub> /Cs <sub>2</sub> PbBr <sub>3</sub> Perovskite Nanocomposites: Toward Temperature-Insensitive Optical Gain. <i>Small</i> , <b>2017</b> , 13, 1701587	11	110
241	Shining Emitter in a Stable Host: Design of Halide Perovskite Scintillators for X-ray Imaging from Commercial Concept. <i>ACS Nano</i> , <b>2020</b> , 14, 5183-5193	16.7	110
240	Low-Voltage Photodetectors with High Responsivity Based on Solution-Processed Micrometer-Scale All-Inorganic Perovskite Nanoplatelets. <i>Small</i> , <b>2017</b> , 13, 1700364	11	109
239	Narrowband Perovskite Photodetector-Based Image Array for Potential Application in Artificial Vision. <i>Nano Letters</i> , <b>2018</b> , 18, 7628-7634	11.5	109
238	Epitaxial ZnO nanowire-on-nanoplate structures as efficient and transferable field emitters. <i>Advanced Materials</i> , <b>2013</b> , 25, 5750-5	24	107
237	Characterization, Cathodoluminescence, and Field-Emission Properties of Morphology-Tunable CdS Micro/Nanostructures. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 2423-2430	15.6	106
236	A bilateral interfacial passivation strategy promoting efficiency and stability of perovskite quantum dot light-emitting diodes. <i>Nature Communications</i> , <b>2020</b> , 11, 3902	17.4	105
235	Highly Efficient Carbon Dots with Reversibly Switchable Green-Red Emissions for Trichromatic White Light-Emitting Diodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 16005-16014	9.5	104
234	Controllable polyol synthesis of uniform palladium icosahedra: effect of twinned structure on deformation of crystalline lattices. <i>Angewandte Chemie - International Edition</i> , <b>2009</b> , 48, 6883-7	16.4	102
233	Highly Luminescent and Stable Halide Perovskite Nanocrystals. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 673-681	20.1	100
232	Photon Driven Transformation of Cesium Lead Halide Perovskites from Few-Monolayer Nanoplatelets to Bulk Phase. <i>Advanced Materials</i> , <b>2016</b> , 28, 10637-10643	24	100
231	Recent progress of metal halide perovskite photodetectors. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 11369-11394	7.1	96
230	Two-Dimensional Metal Halide Perovskites: Theory, Synthesis, and Optoelectronics. <i>Small Methods</i> , <b>2017</b> , 1, 1600018	12.8	95

229	Capping CsPbBr <sub>3</sub> with ZnO to improve performance and stability of perovskite memristors. <i>Nano Research</i> , <b>2017</b> , 10, 1584-1594	10	95
228	Tube-in-tube TiO <sub>2</sub> nanotubes with porous walls: fabrication, formation mechanism, and photocatalytic properties. <i>Small</i> , <b>2011</b> , 7, 445-9	11	95
227	Ultrathin Bismuth Nanosheets for Stable Na-Ion Batteries: Clarification of Structure and Phase Transition by in Situ Observation. <i>Nano Letters</i> , <b>2019</b> , 19, 1118-1123	11.5	93
226	Size and Structure Control of Si Nanoparticles by Laser Ablation in Different Liquid Media and Further Centrifugation Classification. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 19091-19095	3.8	93
225	Room temperature synthesized rutile TiO <sub>2</sub> nanoparticles induced by laser ablation in liquid and their photocatalytic activity. <i>Nanotechnology</i> , <b>2009</b> , 20, 285707	3.4	92
224	Near-Infrared Plasmonic 2D Semimetals for Applications in Communication and Biology. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 1793-1802	15.6	88
223	Two-dimensional BX (X = P, As, Sb) semiconductors with mobilities approaching graphene. <i>Nanoscale</i> , <b>2016</b> , 8, 13407-13	7.7	84
222	Fabrication and Size-Dependent Optical Properties of FeO Nanoparticles Induced by Laser Ablation in a Liquid Medium. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 3261-3266	3.8	84
221	Surface Halogen Compensation for Robust Performance Enhancements of CsPbX <sub>3</sub> Perovskite Quantum Dots. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1900276	8.1	83
220	Surface optical phonon Raman scattering in ZnZnO core-shell structured nanoparticles. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 181905	3.4	82
219	Space-Confined Growth of CsPbBr <sub>3</sub> Film Achieving Photodetectors with High Performance in All Figures of Merit. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1804394	15.6	81
218	Origin of Blue Emission from Silicon Nanoparticles: Direct Transition and Interface Recombination. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 21056-21062	3.8	79
217	Van der Waals bilayer antimonene: A promising thermophotovoltaic cell material with 31% energy conversion efficiency. <i>Nano Energy</i> , <b>2017</b> , 38, 561-568	17.1	78
216	Field-Effect Transistors Based on van-der-Waals-Grown and Dry-Transferred All-Inorganic Perovskite Ultrathin Platelets. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 4785-4792	6.4	78
215	Advances of 2D bismuth in energy sciences. <i>Chemical Society Reviews</i> , <b>2020</b> , 49, 263-285	58.5	78
214	Stable, Efficient Red Perovskite Light-Emitting Diodes by (H)CsPbI <sub>3</sub> Phase Engineering. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1804285	15.6	78
213	Amorphous ZnO based resistive random access memory. <i>RSC Advances</i> , <b>2016</b> , 6, 17867-17872	3.7	76
212	Approaching the Theoretical Capacity of Li <sub>3</sub> VO <sub>4</sub> via Electrochemical Reconstruction. <i>Advanced Materials Interfaces</i> , <b>2016</b> , 3, 1500340	4.6	75

211	Ultra-fine SiC quantum dots fabricated by laser ablation in reactive liquid at room temperature and their violet emission. <i>Journal of Materials Chemistry</i> , <b>2009</b> , 19, 7119		71
210	Metal Halide Perovskites: Synthesis, Ion Migration, and Application in Field-Effect Transistors. <i>Small</i> , <b>2018</b> , 14, e1801460	11	69
209	Polyhedral Zn <sub>2</sub> SnO <sub>4</sub> : Synthesis, enhanced gas sensing and photocatalytic performance. <i>Sensors and Actuators B: Chemical</i> , <b>2016</b> , 229, 627-634	8.5	68
208	Two-dimensional GeS with tunable electronic properties via external electric field and strain. <i>Nanotechnology</i> , <b>2016</b> , 27, 274001	3.4	68
207	Dimensionality and Interface Engineering of 2D Homologous Perovskites for Boosted Charge-Carrier Transport and Photodetection Performances. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 2565-2572	6.4	67
206	Constructing Mie-Scattering Porous Interface-Fused Perovskite Films to Synergistically Boost Light Harvesting and Carrier Transport. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 5232-5236	16.4	67
205	Localized surface plasmon resonance of Cu nanoparticles by laser ablation in liquid media. <i>RSC Advances</i> , <b>2015</b> , 5, 79738-79745	3.7	67
204	Reshaping Formation and Luminescence Evolution of ZnO Quantum Dots by Laser-Induced Fragmentation in Liquid. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 5038-5043	3.8	66
203	Luminescent hollow carbon shells and fullerene-like carbon spheres produced by laser ablation with toluene. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 4432		65
202	Large Scale Fabrication of Quasi-Aligned ZnO Stacking Nanoplates. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 5267-5270	3.8	65
201	Modulating Epitaxial Atomic Structure of Antimonene through Interface Design. <i>Advanced Materials</i> , <b>2019</b> , 31, e1902606	24	63
200	Efficient Blue Perovskite Light-Emitting Diodes Boosted by 2D/3D Energy Cascade Channels. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2001732	15.6	62
199	Recent advances and prospects toward blue perovskite materials and light-emitting diodes. <i>Information Materials</i> , <b>2019</b> , 1, 211-233	23.1	61
198	Energy Manipulation in Lanthanide-Doped Core-Shell Nanoparticles for Tunable Dual-Mode Luminescence toward Advanced Anti-Counterfeiting. <i>Advanced Materials</i> , <b>2020</b> , 32, e2002121	24	61
197	Perovskite nanocrystals: synthesis, properties and applications. <i>Science Bulletin</i> , <b>2017</b> , 62, 369-380	10.6	59
196	Two-dimensional SiP: an unexplored direct band-gap semiconductor. <i>2D Materials</i> , <b>2017</b> , 4, 015030	5.9	59
195	Fabrication and characterization of beaded SiC quantum rings with anomalous red spectral shift. <i>Advanced Materials</i> , <b>2012</b> , 24, 5598-603	24	59
194	Structural transformation, photocatalytic, and field-emission properties of ridged TiO <sub>2</sub> nanotubes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2011</b> , 3, 1352-8	9.5	58



193	Self-powered fiber-shaped wearable omnidirectional photodetectors. <i>Nano Energy</i> , <b>2016</b> , 30, 173-179	17.1	57
192	Enhancement of the ultraviolet emission of ZnO nanostructures by polyaniline modification. <i>Chemical Physics Letters</i> , <b>2007</b> , 446, 370-373	2.5	56
191	Tinene: a two-dimensional Dirac material with a 72 meV band gap. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 12634-8	3.6	55
190	Two-dimensional halide perovskite as $\beta$ -ray scintillator for nuclear radiation monitoring. <i>Nature Communications</i> , <b>2020</b> , 11, 3395	17.4	55
189	Ordered n-type ZnO nanorod arrays. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 132112	3.4	55
188	3D white graphene foam scavengers: vesicant-assisted foaming boosts the gram-level yield and forms hierarchical pores for superstrong pollutant removal applications. <i>NPG Asia Materials</i> , <b>2015</b> , 7, e168-e168	10.3	53
187	Aging-Induced Self-Assembly of Zn/ZnO Treelike Nanostructures from Nanoparticles and Enhanced Visible Emission. <i>Crystal Growth and Design</i> , <b>2007</b> , 7, 1092-1097	3.5	53
186	Electrochemical Deposition of ZnO Nanowire Arrays: Organization, Doping, and Properties. <i>Science of Advanced Materials</i> , <b>2010</b> , 2, 336-358	2.3	53
185	Strong localization effect in temperature dependence of violet-blue emission from ZnO nanoshells. <i>Journal of Applied Physics</i> , <b>2007</b> , 102, 104307	2.5	52
184	Hydrothermal synthesis of blue-fluorescent monolayer BN and BCNO quantum dots for bio-imaging probes. <i>RSC Advances</i> , <b>2016</b> , 6, 79090-79094	3.7	51
183	ZnO-Based Transparent Conductive Thin Films: Doping, Performance, and Processing. <i>Journal of Nanomaterials</i> , <b>2013</b> , 2013, 1-9	3.2	51
182	Ternary Oxide Nanocrystals: Universal Laser-Hydrothermal Synthesis, Optoelectronic and Electrochemical Applications. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 5051-5060	15.6	50
181	A General One-Pot Strategy for the Synthesis of High-Performance Transparent-Conducting-Oxide Nanocrystal Inks for All-Solution-Processed Devices. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 472-476	3.6	49
180	Nanowire-based transparent conductors for flexible electronics and optoelectronics. <i>Science Bulletin</i> , <b>2017</b> , 62, 143-156	10.6	48
179	Origin of green luminescence in carbon quantum dots: specific emission bands originate from oxidized carbon groups. <i>New Journal of Chemistry</i> , <b>2018</b> , 42, 4603-4611	3.6	48
178	Quantum Dots: CsPbX <sub>3</sub> Quantum Dots for Lighting and Displays: Room-Temperature Synthesis, Photoluminescence Superiorities, Underlying Origins and White Light-Emitting Diodes (Adv. Funct. Mater. 15/2016). <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 2584-2584	15.6	48
177	N- and p-type doping of antimonene. <i>RSC Advances</i> , <b>2016</b> , 6, 14620-14625	3.7	48
176	Enriching Photoelectrons via Three Transition Channels in Amino-Conjugated Carbon Quantum Dots to Boost Photocatalytic Hydrogen Generation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 14118-24	9.5	47

175	Welding Perovskite Nanowires for Stable, Sensitive, Flexible Photodetectors. <i>ACS Nano</i> , <b>2020</b> , 14, 2777-2787	26.7	46
174	Highly stable and flexible photodetector arrays based on low dimensional CsPbBr <sub>3</sub> microcrystals and on-paper pencil-drawn electrodes. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 7441-7445	7.1	45
173	Bionic Detectors Based on Low-Bandgap Inorganic Perovskite for Selective NIR-I Photon Detection and Imaging. <i>Advanced Materials</i> , <b>2020</b> , 32, e1905362	24	45
172	Polycrystalline Si nanoparticles and their strong aging enhancement of blue photoluminescence. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 023516	2.5	44
171	Perovskite light-emitting/detecting bifunctional fibres for wearable LiFi communication. <i>Light: Science and Applications</i> , <b>2020</b> , 9, 163	16.7	44
170	Ultrathin tellurium dioxide: emerging direct bandgap semiconductor with high-mobility transport anisotropy. <i>Nanoscale</i> , <b>2018</b> , 10, 8397-8403	7.7	43
169	Switching excitonic recombination and carrier trapping in cesium lead halide perovskites by air. <i>Communications Physics</i> , <b>2018</b> , 1,	5.4	43
168	Designing sub-10-nm Metal-Oxide-Semiconductor Field-Effect Transistors via Ballistic Transport and Disparate Effective Mass: The Case of Two-Dimensional BiN. <i>Physical Review Applied</i> , <b>2020</b> , 13,	4.3	42
167	Nanomaterial engineering and property studies in a transmission electron microscope. <i>Advanced Materials</i> , <b>2012</b> , 24, 177-94	24	41
166	From Nanoparticles to Nanoplates: Preferential Oriented Connection of Ag Colloids during Electrophoretic Deposition. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 7692-7696	3.8	41
165	Morphology-controlled 2D ordered arrays by heating-induced deformation of 2D colloidal monolayer. <i>Journal of Materials Chemistry</i> , <b>2006</b> , 16, 609-612		41
164	Lead-free, stable, high-efficiency (52%) blue luminescent FABiBr perovskite quantum dots. <i>Nanoscale Horizons</i> , <b>2020</b> , 5, 580-585	10.8	41
163	A class of Pb-free double perovskite halide semiconductors with intrinsic ferromagnetism, large spin splitting and high Curie temperature. <i>Materials Horizons</i> , <b>2018</b> , 5, 961-968	14.4	40
162	High-Efficiency Pure-Color Inorganic Halide Perovskite Emitters for Ultrahigh-Definition Displays: Progress for Backlighting Displays and Electrically Driven Devices. <i>Small Methods</i> , <b>2018</b> , 2, 1700382	12.8	40
161	Structural and electronic properties of atomically thin germanium selenide polymorphs. <i>Science China Materials</i> , <b>2015</b> , 58, 929-935	7.1	38
160	An all-inkjet-printed flexible UV photodetector. <i>Nanoscale</i> , <b>2017</b> , 9, 8580-8585	7.7	37
159	Tailoring natural layered $\epsilon$ -phase antimony into few layer antimonene for Li storage with high rate capabilities. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 3238-3243	13	37
158	Interfacial-Tunneling-Effect-Enhanced CsPbBr <sub>3</sub> Photodetectors Featuring High Detectivity and Stability. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1904461	15.6	37

157	The impact of Mg content on the structural, electrical and optical properties of MgZnO alloys: A first principles study. <i>Current Applied Physics</i> , <b>2015</b> , 15, 423-428	2.6	37
156	Dramatic excitation dependence of strong and stable blue luminescence of ZnO hollow nanoparticles. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 191904	3.4	37
155	General and simple route to micro/nanostructured hollow-sphere arrays based on electrophoresis of colloids induced by laser ablation in liquid. <i>Langmuir</i> , <b>2009</b> , 25, 8287-91	4	37
154	Anisotropic In-Plane Ballistic Transport in Monolayer Black Arsenic-Phosphorus FETs. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 1901281	6.4	36
153	Noncovalent Molecular Doping of Two-Dimensional Materials. <i>ChemNanoMat</i> , <b>2015</b> , 1, 542-557	3.5	35
152	Heterogeneous Nucleation toward Polar-Solvent-Free, Fast, and One-Pot Synthesis of Highly Uniform Perovskite Quantum Dots for Wider Color Gamut Display. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1800010	4.6	35
151	Polar-Field-Induced Double-Layer Nanostructured ZnO and Its Strong Violet Photoluminescence. <i>Crystal Growth and Design</i> , <b>2008</b> , 8, 4367-4371	3.5	35
150	Preparation and application of carbon-nanodot@NaCl composite phosphors with strong green emission. <i>Journal of Colloid and Interface Science</i> , <b>2017</b> , 497, 165-171	9.3	34
149	Surface states engineering carbon dots as multi-band light active sensitizers for ZnO nanowire array photoanode to boost solar water splitting. <i>Carbon</i> , <b>2017</b> , 121, 201-208	10.4	34
148	Flexible quantum dot/PVA composites for white LEDs. <i>Journal of Materials Chemistry C</i> , <b>2015</b> , 3, 257-264	7.1	34
147	Controlling oxygen vacancies and properties of ZnO. <i>Current Applied Physics</i> , <b>2014</b> , 14, 521-527	2.6	34
146	Cation Exchange-Induced Dimensionality Construction: From Monolayered to Multilayered 2D Single Crystal Halide Perovskites. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700441	4.6	34
145	Cu <sup>II</sup> Dopants Boost Electron Transfer and Photooxidation Reactions of Carbon Dots. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 6640-6644	3.6	34
144	Optical Study of Redox Behavior of Silicon Nanoparticles Induced by Laser Ablation in Liquid. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 6480-6484	3.8	34
143	All-Perovskite Integrated X-Ray Detector with Ultrahigh Sensitivity. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 2000273	8.1	33
142	Intercrossed Carbon Nanorings with Pure Surface States as Low-Cost and Environment-Friendly Phosphors for White-Light-Emitting Diodes. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 1779-1784	3.6	33
141	Simple and Fast Patterning Process by Laser Direct Writing for Perovskite Quantum Dots. <i>Advanced Materials Technologies</i> , <b>2017</b> , 2, 1700132	6.8	32
140	High-Performance Low-Voltage-Driven Phototransistors through CsPbBr <sub>3</sub> 2D Crystal van der Waals Heterojunctions. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800152	8.1	30

- 139 Strong room-temperature ferromagnetism of pure ZnO nanostructure arrays via colloidal template. *Journal of Materials Chemistry C*, **2013**, 1, 6807 7.1 30
- 138 Steering Photoelectrons Excited in Carbon Dots into Platinum Cluster Catalyst for Solar-Driven Hydrogen Production. *Advanced Science*, **2017**, 4, 1700273 13.6 30
- 137 A General Strategy for Fabricating Unique Carbide Nanostructures with Excitation Wavelength-Dependent Light Emissions. *Journal of Physical Chemistry C*, **2011**, 115, 7279-7284 3.8 30
- 136 Two-dimensional CsPbBr<sub>3</sub>/PCBM heterojunctions for sensitive, fast and flexible photodetectors boosted by charge transfer. *Nanotechnology*, **2018**, 29, 085201 3.4 29
- 135 Recent Advances in Group III-V Nanowire Infrared Detectors. *Advanced Optical Materials*, **2018**, 6, 1800258 5.1 29
- 134 Perovskite Single Crystals: Synthesis, Optoelectronic Properties, and Application. *Advanced Functional Materials*, **2021**, 31, 2008684 15.6 28
- 133 Fiber-Shaped ZnO/Graphene Schottky Photodetector with Strain Effect. *Advanced Materials Interfaces*, **2018**, 5, 1800136 4.6 27
- 132 A general one-pot strategy for the synthesis of high-performance transparent-conducting-oxide nanocrystal inks for all-solution-processed devices. *Angewandte Chemie - International Edition*, **2015**, 54, 462-6 16.4 27
- 131 Mn induced significant improvement and robust stability of radioluminescence in CsCuI for high-performance nuclear battery. *Nature Communications*, **2021**, 12, 3879 17.4 27
- 130 Mechanistic Understanding of Two-Dimensional Phosphorus, Arsenic, and Antimony High-Capacity Anodes for Fast-Charging Lithium/Sodium Ion Batteries. *Journal of Physical Chemistry C*, **2018**, 122, 29559-29568 3.8 27
- 129 Quantum confinement effect of two-dimensional all-inorganic halide perovskites. *Science China Materials*, **2017**, 60, 811-818 7.1 26
- 128 Ag/white graphene foam for catalytic oxidation of methanol with high efficiency and stability. *Journal of Materials Chemistry A*, **2015**, 3, 6679-6684 13 26
- 127 General synthetic strategy for high-yield and uniform rare-earth oxysulfate (RE<sub>2</sub>O<sub>2</sub>SO<sub>4</sub>, RE = La, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Y, Ho, and Yb) hollow spheres. *RSC Advances*, **2012**, 2, 9362 3.7 26
- 126 Self-assembled ZnS nanowire arrays: synthesis, in situ Cu doping and field emission. *Nanotechnology*, **2010**, 21, 375601 3.4 26
- 125 In situ formation of CsPbBr<sub>3</sub>/ZnO bulk heterojunctions towards photodetectors with ultrahigh responsivity. *Journal of Materials Chemistry C*, **2018**, 6, 12164-12169 7.1 26
- 124 Wearable and visual pressure sensors based on Zn<sub>2</sub>GeO<sub>4</sub>@polypyrrole nanowire aerogels. *Journal of Materials Chemistry C*, **2017**, 5, 11018-11024 7.1 25
- 123 Perovskite-Ion Beam Interactions: Toward Controllable Light Emission and Lasing. *ACS Applied Materials & Interfaces*, **2019**, 11, 15756-15763 9.5 25
- 122 DFT coupled with NEGF study of a promising two-dimensional channel material: black phosphorene-type GaTeCl. *Nanoscale*, **2018**, 10, 3350-3355 7.7 25

121	Smooth and solid WS <sub>2</sub> submicrospheres grown by a new laser fragmentation and reshaping process with enhanced tribological properties. <i>Chemical Communications</i> , <b>2016</b> , 52, 10147-50	5.8	25
120	Improving Wearable Photodetector Textiles via Precise Energy Level Alignment and Plasmonic Effect. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1700281	6.4	25
119	Lead-Free Halide Double Perovskites: Structure, Luminescence, and Applications. <i>Small Structures</i> , <b>2021</b> , 2, 2000071	8.7	25
118	Boosting Fiber-Shaped Photodetectors via "Soft" Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 12092-12099	9.5	24
117	The structural, electrical and optical properties of Mg-doped ZnO with different interstitial Mg concentration. <i>Materials Chemistry and Physics</i> , <b>2016</b> , 182, 15-21	4.4	24
116	Electrodeposition Growth of Vertical ZnO Nanorod/Polyaniline Heterostructured Films and Their Optical Properties. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 15544-15547	3.8	24
115	Nonlinear Optics in Lead Halide Perovskites: Mechanisms and Applications. <i>ACS Photonics</i> , <b>2021</b> , 8, 113-124	10.4	24
114	Broadband and sensitive two-dimensional halide perovskite photodetector for full-spectrum underwater optical communication. <i>Nano Research</i> , <b>2021</b> , 14, 1210-1217	10	24
113	Temperature Dependent Reflectance and Ellipsometry Studies on a CsPbBr <sub>3</sub> Single Crystal. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 10564-10570	3.8	23
112	Tunable electronic structure and enhanced optical properties in quasi-metallic hydrogenated/fluorinated SiC heterobilayer. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 7406-7414	7.1	23
111	A comprehensive investigation on CVD growth thermokinetics of h-BN white graphene. <i>2D Materials</i> , <b>2016</b> , 3, 035007	5.9	23
110	A versatile platform for the highly efficient preparation of graphene quantum dots: photoluminescence emission and hydrophilicity-hydrophobicity regulation and organelle imaging. <i>Nanoscale</i> , <b>2018</b> , 10, 1532-1539	7.7	23
109	A Perovskite Light-Emitting Device Driven by Low-Frequency Alternating Current Voltage. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800206	8.1	23
108	A Facile Approach to Solid-State White Emissive Carbon Dots and Their Application in UV-Excitable and Single-Component-Based White LEDs. <i>Nanomaterials</i> , <b>2019</b> , 9,	5.4	22
107	A promising two-dimensional channel material: monolayer antimonide phosphorus. <i>Science China Materials</i> , <b>2016</b> , 59, 648-656	7.1	22
106	ZrO <sub>2</sub> quantum dots/graphene phototransistors for deep UV detection. <i>Materials Research Bulletin</i> , <b>2017</b> , 96, 458-462	5.1	21
105	Nanocrystals: Quantum Dot Light-Emitting Diodes Based on Inorganic Perovskite Cesium Lead Halides (CsPbX <sub>3</sub> ) (Adv. Mater. 44/2015). <i>Advanced Materials</i> , <b>2015</b> , 27, 7161-7161	24	21
104	Two-Dimensional Pnictogen for Field-Effect Transistors. <i>Research</i> , <b>2019</b> , 2019, 1046329	7.8	21

103	Perovskite photodetectors with both visible-infrared dual-mode response and super-narrowband characteristics towards photo-communication encryption application. <i>Nanoscale</i> , <b>2017</b> , 10, 359-365	7.7	21
102	Two-Dimensional BAs/InTe: A Promising Tandem Solar Cell with High Power Conversion Efficiency. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 6074-6081	9.5	20
101	A Universal ternary-solvent-ink Strategy Towards Efficient inkjet-printed Perovskite Quantum Dot light-emitting Diodes.. <i>Advanced Materials</i> , <b>2022</b> , e2107798	24	20
100	An Ågström-level d-spacing controlling synthetic route for MoS <sub>2</sub> towards stable intercalation of sodium ions. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 22513-22518	13	20
99	Perovskite Nanocrystal Fluorescence-Linked Immunosorbent Assay Methodology for Sensitive Point-of-Care Biological Test. <i>Matter</i> , <b>2020</b> , 3, 273-286	12.7	19
98	Water-Assisted Synthesis of Blue Chip Excitable 2D Halide Perovskite with Green-Red Dual Emissions for White LEDs. <i>Small Methods</i> , <b>2019</b> , 3, 1900365	12.8	19
97	Unipolar resistive switching of ZnO-single-wire memristors. <i>Nanoscale Research Letters</i> , <b>2014</b> , 9, 381	5	18
96	Laser power effect on morphology and photoluminescence of ZnO nanostructures by laser ablation in water. <i>Materials Letters</i> , <b>2009</b> , 63, 191-193	3.3	18
95	Perovskite White Light Emitting Diodes: Progress, Challenges, and Opportunities. <i>ACS Nano</i> , <b>2021</b> ,	16.7	18
94	An insight into defect relaxation in metastable ZnO reflected by a unique luminescence and Raman evolutions. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 19637-42	3.6	17
93	Nickel concentration-dependent opto-electrical performances and stability of Cu@CuNi nanowire transparent conductors. <i>RSC Advances</i> , <b>2016</b> , 6, 91394-91400	3.7	17
92	Metallic oxide nanocrystals with near-infrared plasmon resonance for efficient, stable and biocompatible photothermal cancer therapy. <i>Journal of Materials Chemistry B</i> , <b>2017</b> , 5, 7393-7402	7.3	17
91	Janus particle arrays with multiple structural controlling abilities synthesized by seed-directed deposition. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 11930		17
90	Laser induced ion migration in all-inorganic mixed halide perovskite micro-platelets. <i>Nanoscale Advances</i> , <b>2019</b> , 1, 4459-4465	5.1	17
89	Bubble dimer dynamics induced by dual laser beam ablation in liquid. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 021902	3.4	16
88	Green laser irradiation-stimulated fullerene-like MoS <sub>2</sub> nanospheres for tribological applications. <i>Tribology International</i> , <b>2018</b> , 122, 119-124	4.9	15
87	Influences of Target and Liquid Media on Morphologies and Optical Properties of ZnO Nanoparticles Prepared by Laser Ablation in Solution. <i>Journal of the American Ceramic Society</i> , <b>2011</b> , 94, 4305-4309	3.8	15
86	Stabilizing electroluminescence color of blue perovskite LEDs via amine group doping. <i>Science Bulletin</i> , <b>2021</b> , 66, 2189-2198	10.6	15

85	Two-dimensional SnSe/GeSe van der Waals heterostructure with strain-tunable electronic and optical properties. <i>Journal of Physics and Chemistry of Solids</i> , <b>2019</b> , 131, 223-229	3.9	14
84	Unusual Electronic Transitions in Two-dimensional Layered SnSb <sub>2</sub> Te <sub>4</sub> Driven by Electronic State Rehybridization. <i>Physical Review Applied</i> , <b>2019</b> , 11,	4.3	14
83	Assembling tungsten oxide hydrate nanocrystal colloids formed by laser ablation in liquid into fast-response electrochromic films. <i>Journal of Colloid and Interface Science</i> , <b>2017</b> , 489, 85-91	9.3	14
82	Novel optoelectronic rotors based on orthorhombic CsPb(Br/I) nanorods. <i>Nanoscale</i> , <b>2019</b> , 11, 3117-3122	7.7	13
81	Robust two-dimensional topological insulators in derivatives of group-VA oxides with large band gap: Tunable quantum spin Hall states. <i>Applied Materials Today</i> , <b>2019</b> , 15, 163-170	6.6	13
80	Giant efficiency and color purity enhancement in multicolor inorganic perovskite light-emitting diodes via heating-assisted vacuum deposition. <i>Journal of Semiconductors</i> , <b>2020</b> , 41, 052205	2.3	13
79	Probing mesoscopic process of laser ablation in liquid by integrated method of optical beam deflection and time-resolved shadowgraphy. <i>Journal of Colloid and Interface Science</i> , <b>2017</b> , 489, 38-46	9.3	13
78	Enhancing Optoelectronic Properties of Low-Dimensional Halide Perovskite via Ultrasonic-Assisted Template Refinement. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 39602-39609	9.5	12
77	Rapid and High-Efficiency Laser-Alloying Formation of ZnMgO Nanocrystals. <i>Scientific Reports</i> , <b>2016</b> , 6, 28131	4.9	12
76	Band offsets in new BN/BX (X = P, As, Sb) lateral heterostructures based on bond-orbital theory. <i>Nanoscale</i> , <b>2018</b> , 10, 15918-15925	7.7	12
75	Comment on "Strongly luminescent monolayered MoS <sub>2</sub> prepared by effective ultrasound exfoliation" [Nanoscale, 2013, 5, 3387]. <i>Nanoscale</i> , <b>2015</b> , 7, 4580-3	7.7	12
74	Synthesis of single CsPbBr <sub>3</sub> @SiO <sub>2</sub> core-shell particles via surface activation. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 17403-17409	7.1	12
73	Overcoming the Anisotropic Growth Limitations of Free-Standing Single-Crystal Halide Perovskite Films. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 2629-2636	16.4	12
72	A highly sensitive and selective SnS <sub>2</sub> monolayer sensor in detecting SF <sub>6</sub> decomposition gas. <i>Applied Surface Science</i> , <b>2021</b> , 541, 148494	6.7	12
71	Emissions at Perovskite Quantum Dot/Film Interface with Halide Anion Exchange. <i>ACS Photonics</i> , <b>2018</b> , 5, 4504-4512	6.3	12
70	MgZnO Nanocrystals: Mechanism for Dopant-Stimulated Self-Assembly. <i>Small</i> , <b>2015</b> , 11, 5097-104	11	11
69	Halide perovskite materials as light harvesters for solar energy conversion. <i>EnergyChem</i> , <b>2020</b> , 2, 100026	6.9	11
68	Oriented Perovskite Growth Regulation Enables Sensitive Broadband Detection and Imaging of Polarized Photons Covering 300-1050nm. <i>Advanced Materials</i> , <b>2021</b> , 33, e2003852	24	11

67	Operational and Spectral Stability of Perovskite Light-Emitting Diodes. <i>ACS Energy Letters</i> , <b>2021</b> , 6, 3114-3119	11	11
66	Constructing Mie-Scattering Porous Interface-Fused Perovskite Films to Synergistically Boost Light Harvesting and Carrier Transport. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 5316-5320	3.6	10
65	Lateral cavity enabled Fabry-Perot microlasers from all-inorganic perovskites. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 111103	3.4	10
64	Band engineering realized by chemical combination in 2D group VAV materials. <i>Nanoscale Horizons</i> , <b>2019</b> , 4, 1145-1152	10.8	10
63	High-performance vertical field-effect transistors based on all-inorganic perovskite microplatelets. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 12632-12637	7.1	10
62	Progress and perspective on CsPbX <sub>3</sub> nanocrystals for light emitting diodes and solar cells. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 050903	2.5	10
61	White light-emitting diodes from perovskites. <i>Journal of Semiconductors</i> , <b>2021</b> , 42, 030202	2.3	10
60	Perovskite Anion Exchange: A Microdynamics Model and a Polar Adsorption Strategy for Precise Control of Luminescence Color. <i>Advanced Functional Materials</i> , 2106871	15.6	10
59	In Situ Fabrication of CsCuI: Tl Nanocrystal Films for High-Resolution and Ultrastable X-ray Imaging.. <i>Journal of Physical Chemistry Letters</i> , <b>2022</b> , 2862-2870	6.4	10
58	Enhancement of adjustable localized surface plasmon resonance in ZnO nanocrystals via a dual doping approach. <i>Science Bulletin</i> , <b>2017</b> , 62, 693-699	10.6	9
57	Porous silaphosphorene, silarsenene and silaantimonene: a sweet marriage of Si and P/As/Sb. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 3738-3746	13	9
56	Zinc Stannate Nanocrystal-Based Ultrarapid-Response UV Photodetectors. <i>Advanced Materials Technologies</i> , <b>2018</b> , 3, 1800085	6.8	9
55	Weak morphology dependent valence band structure of boron nitride. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 054306	2.5	9
54	Amplifying Surface Energy Difference toward Anisotropic Growth of All-Inorganic Perovskite Single-Crystal Wires for Highly Sensitive Photodetector. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2101966	15.6	9
53	Anomalous plasmon resonance from confined diffusive charges: high quality and tunability from mid to far infrared wavebands. <i>Optics Express</i> , <b>2016</b> , 24, 29908-29921	3.3	9
52	CsPbBr <sub>3</sub> @Cs <sub>4</sub> PbBr <sub>6</sub> Emitter-in-Host Composite: Fluorescence Origin and Interphase Energy Transfer. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 3-19	3.8	9
51	Efficient Full-Color Boron Nitride Quantum Dots for Thermostable Flexible Displays. <i>ACS Nano</i> , <b>2021</b> , 15, 14610-14617	16.7	9
50	Organic composition tailored perovskite solar cells and light-emitting diodes: Perspectives and advances. <i>Materials Today Energy</i> , <b>2019</b> , 14, 100338	7	8



49	Hemi-Shell Arrays Harvesting Ultra-Broadband Light. <i>Advanced Optical Materials</i> , <b>2015</b> , 3, 931-936	8.1	8
48	Triangle-, tripod-, and tetrapod-branched ITO nanocrystals for anisotropic infrared plasmonics. <i>Nanoscale</i> , <b>2017</b> , 9, 19374-19383	7.7	8
47	Charge Transfer Boosting Moisture Resistance of Seminate Perovskite Nanocrystals via Hierarchical Alumina Modulation. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 3159-3165	6.4	8
46	Engineering Interfaces to Steer Hole Dynamics of BiVO <sub>4</sub> Photoanodes for Solar Water Oxidation. <i>Solar Rrl</i> , <b>2019</b> , 3, 1900115	7.1	7
45	Photon-Induced Reshaping in Perovskite Material Yields of Nanocrystals with Accurate Control of Size and Morphology. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 4149-4156	6.4	7
44	Lattice restraint induced ultra-large bandgap widening of ZnO nanoparticles. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 8969-8974	7.1	7
43	Ultrascaled Double-Gate Monolayer SnS <sub>2</sub> MOSFETs for High-Performance and Low-Power Applications. <i>Physical Review Applied</i> , <b>2020</b> , 14,	4.3	7
42	High-performance monolayer NaSb shrinking transistors: a DFT-NEGF study. <i>Nanoscale</i> , <b>2020</b> , 12, 18931-18937	7.7	7
41	ZnO nanowire lines and bundles: Template-deformation-guided alignment for patterned field-electron emitters. <i>Current Applied Physics</i> , <b>2015</b> , 15, 1296-1302	2.6	6
40	Extending Channel Scaling Limit of p-MOSFETs Through Antimonene With Heavy Effective Mass and High Density of State. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 1-6	2.9	6
39	Laser Irradiation-Induced SiC@Graphene Sub-Microspheres: A Bioinspired Core-Shell Structure for Enhanced Tribology Properties. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1700839	4.6	6
38	Recent advances in Sb-based III-V nanowires. <i>Nanotechnology</i> , <b>2019</b> , 30, 212002	3.4	5
37	In situ electron beam irradiation-driven formation of quantum dots. <i>RSC Advances</i> , <b>2015</b> , 5, 25717-25723	3.7	5
36	Nanomaterials: Laser-Based Processing in Liquid Media <b>2012</b> , 317-494		5
35	Topologically protected states and half-metal behaviors: Defect-strain synergy effects in two-dimensional antimonene. <i>Physical Review Materials</i> , <b>2019</b> , 3,	3.2	5
34	Defect Behaviors in Perovskite Light-Emitting Diodes	1702-1728	5
33	One-pot synthesis of Cs <sub>3</sub> Cu <sub>2</sub> I <sub>5</sub> nanocrystals based on thermodynamic equilibrium. <i>Materials Chemistry Frontiers</i> , <b>2021</b> , 5, 6152-6159	7.8	5
32	Strong Polarized Photoluminescence CsPbBr Nanowire Composite Films for UV Spectral Conversion Polarization Photodetector Enhancement. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 36147-36156	9.5	5

31	Self-template Synthesis of Metal Halide Perovskite Nanotubes as Functional Cavities for Tailored Optoelectronic Devices. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 21100-21108	9.5	4
30	QLED goes to be both bright and efficient. <i>Science Bulletin</i> , <b>2019</b> , 64, 464-465	10.6	4
29	Transparente Elektroden aus Nanokristalltinten für flexible Bauelemente. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 9896-9910	3.6	4
28	Multiexciton Generation in Semiconductor Nanocrystals: A Potential Avenue Toward Efficient Solar Cells. <i>Science of Advanced Materials</i> , <b>2013</b> , 5, 1585-1595	2.3	4
27	Efficient, Stable, and Tunable Cold/Warm White Light from Lead-Free Halide Double Perovskites Cs <sub>2</sub> Zr <sub>1-x</sub> TexCl <sub>6</sub> . <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2100815	8.1	4
26	Single-Solvent, Ligand-Free, Gram-Scale Synthesis of Cs <sub>4</sub> PbBr <sub>6</sub> Perovskite Solids with Robust Green Photoluminescence. <i>ChemNanoMat</i> , <b>2020</b> , 6, 258-266	3.5	4
25	Armor-like passivated CsPbBr <sub>3</sub> quantum dots: boosted stability with hand-in-hand ligands and enhanced performance of nuclear batteries. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 8772-8781	13	4
24	The Synergy of Plasmonic Enhancement and Hot-Electron Effect on CsPbBr <sub>3</sub> Nanosheets Photodetector. <i>Advanced Materials Interfaces</i> , <b>2021</b> , 8, 2002053	4.6	4
23	Charge-carrier dynamics and regulation strategies in perovskite light-emitting diodes: From materials to devices. <i>Applied Physics Reviews</i> , <b>2022</b> , 9, 021308	17.3	4
22	Electronic band structures and optical properties of atomically thin AuSe: first-principle calculations. <i>Journal of Semiconductors</i> , <b>2019</b> , 40, 062004	2.3	3
21	Deep-Ultraviolet Plasmon Resonances in Al-Al <sub>2</sub> O <sub>3</sub> @C Core-Shell Nanoparticles Prepared via Laser Ablation in Liquid. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 802-807	4	3
20	Miniaturized Multispectral Detector Derived from Gradient Response Units on Single MAPbX Microwire.. <i>Advanced Materials</i> , <b>2021</b> , e2108408	24	3
19	Antimonene nanosheets fabricated by laser irradiation technique with outstanding nonlinear absorption responses. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 261903	3.4	3
18	Pressurized Alloying Assisted Synthesis of High Quality Antimonene for Capacitive Deionization. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2102766	15.6	3
17	Halide ion migration in lead-free all-inorganic cesium tin perovskites. <i>Applied Physics Letters</i> , <b>2021</b> , 119, 031902	3.4	3
16	Metal Halide Perovskites for Optical Parametric Modulation. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 3090-3098	6.4	2
15	Electronic structure and transport properties of 2D RhTeCl: a NEGF-DFT study. <i>Nanoscale</i> , <b>2019</b> , 11, 20461-20466	6.7	2
14	Facet-induced coordination competition for highly ordered CsPbBr <sub>3</sub> nanoplatelets with strong polarized emission. <i>Nano Research</i> , <b>2021</b> , 14, 1000-1008	10	2

13	Substantial Improvement of Operating Stability by Strengthening Metal-Halogen Bonds in Halide Perovskites. <i>Advanced Functional Materials</i> , 2112129	15.6	2
12	Research Progress on the Stability of CsPbX <sub>3</sub> Nanocrystals. <i>Wuji Cailiao Xuebao/Journal of Inorganic Materials</i> , 2020, 35, 1088	1	1
11	First-principle study of puckered arsenene MOSFET. <i>Journal of Semiconductors</i> , 2020, 41, 082006	2.3	1
10	Quantum Transport in Monolayer $\text{BCl}_2$ Field-Effect Transistors. <i>Advanced Electronic Materials</i> , 2021, 7, 2001169	6.4	1
9	Overcoming the Anisotropic Growth Limitations of Free-Standing Single-Crystal Halide Perovskite Films. <i>Angewandte Chemie</i> , 2021, 133, 2661-2668	3.6	1
8	High-definition colorful perovskite narrowband photodetector array enabled by laser-direct-writing. <i>Nano Research</i> , 1	10	1
7	Perspective on Metal Halides with Self-Trapped Exciton toward White Light-Emitting Diodes. <i>Advanced Optical Materials</i> , 2101900	8.1	0
6	Micro-patterned photoalignment of CsPbBr nanowires with liquid crystal molecule composite film for polarized emission. <i>Nanoscale</i> , 2021, 13, 14980-14986	7.7	0
5	Photoluminescence/Fluorescence Spectroscopic Technique for Nanomaterials Characterizations 2012, 555-620		
4	P-Type AsP Nanosheet as an Electron Donor for Stable Solar Broad-Spectrum Hydrogen Evolution. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 55102-55111	9.5	
3	Optical-field induced SU(2) pair potential in caesium lead halide perovskites. <i>International Journal of Modern Physics B</i> , 2021, 35, 2150030	1.1	
2	Fluorination suppresses thermal quenching in perovskite QLEDs. <i>Science China Chemistry</i> , 2021, 64, 1113-1114	3.1	14
1	Bismuthene 2022, 173-196		