Xiaoming Wen

List of Publications by Year in descending order

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83 papers	5,996 citations	76294 40 h-index	71651 76 g-index
83 all docs	83 docs citations	83 times ranked	9310 citing authors

#	Article	IF	Citations
1	A room temperature all-optical sensor based on two-dimensional SnS2 for highly sensitive and reversible NO2 sensing. Journal of Hazardous Materials, 2022, 426, 127813.	6.5	25
2	InOOH-mediated intergrown heterojunctions for enhanced photocatalytic Performance: Assembly and interfacial charge carrier transferring. Chemical Engineering Journal, 2022, 442, 136355.	6.6	7
3	Controllable Acceleration and Deceleration of Charge Carrier Transport in Metalâ€Halide Perovskite Singleâ€Crystal by Csâ€Cation Induced Bandgap Engineering. Small, 2022, 18, e2107680.	5.2	3
4	Origin and physical effects of edge states in two-dimensional Ruddlesden-Popper perovskites. IScience, 2022, 25, 104420.	1.9	8
5	Engineering van der Waals Materials for Advanced Metaphotonics. Chemical Reviews, 2022, 122, 15204-15355.	23.0	33
6	Revealing Dynamic Effects of Mobile Ions in Halide Perovskite Solar Cells Using Timeâ€Resolved Microspectroscopy. Small Methods, 2021, 5, e2000731.	4.6	18
7	Photogenerated charge dynamics of CdS nanorods with spatially distributed MoS2 for photocatalytic hydrogen generation. Chemical Engineering Journal, 2021, 420, 127709.	6.6	56
8	A high-performance visible-light-driven all-optical switch enabled by ultra-thin gallium sulfide. Journal of Materials Chemistry C, 2021, 9, 3115-3121.	2.7	12
9	Spectroscopic Insight into Efficient and Stable Hole Transfer at the Perovskite/Spiro-OMeTAD Interface with Alternative Additives. ACS Applied Materials & Interfaces, 2021, 13, 5752-5761.	4.0	17
10	Layer number dependent exciton dissociation and carrier recombination in 2D Ruddlesdenâ€“Popper halide perovskites. Journal of Materials Chemistry C, 2021, 9, 8966-8974.	2.7	18
11	Free-standing ultra-thin Janus indium oxysulfide for ultrasensitive visible-light-driven optoelectronic chemical sensing. Nano Today, 2021, 37, 101096.	6.2	38
12	Intermediate phase-enhanced Ostwald ripening for the elimination of phase segregation in efficient inorganic CsPbIBr2 perovskite solar cells. Science China Materials, 2021, 64, 2655-2666.	3.5	12
13	Enhancing stability and luminescence quantum yield of CsPbBr3 quantum dots by embedded in borosilicate glass. Journal of Alloys and Compounds, 2021, 874, 159962.	2.8	20
14	Photophysics of 2D Organicâ€“Inorganic Hybrid Lead Halide Perovskites: Progress, Debates, and Challenges. Advanced Science, 2021, 8, 2001843.	5.6	59
15	Ni2+ doping induced structural phase transition and photoluminescence enhancement of CsPbBr3. AIP Advances, 2021, 11, .	0.6	3
16	Visualizing the Impact of Light Soaking on Morphological Domains in an Operational Cesium Lead Halide Perovskite Solar Cell. Journal of Physical Chemistry Letters, 2020, 11, 136-143.	2.1	17
17	Revealing the Role of Methylammonium Chloride for Improving the Performance of 2D Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 25980-25990.	4.0	47
18	Determining In-Plane Carrier Diffusion in Two-Dimensional Perovskite Using Local Time-Resolved Photoluminescence. ACS Applied Materials & Interfaces, 2020, 12, 26384-26390.	4.0	20

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19	Light-Induced Formation of MoO_xS_y Clusters on CdS Nanorods as Cocatalyst for Enhanced Hydrogen Evolution. ACS Applied Materials & Interfaces, 2020, 12, 8324-8332.	4.0	67
20	Phase segregation in inorganic mixed-halide perovskites: from phenomena to mechanisms. Photonics Research, 2020, 8, A56.	3.4	45
21	Transient Energy Reservoir in 2D Perovskites. Advanced Optical Materials, 2019, 7, 1900971.	3.6	46
22	The Dependence of Bi₂MoO₆ Photocatalytic Water Oxidation Capability on Crystal Facet Engineering. ChemPhotoChem, 2019, 3, 1246-1253.	1.5	23
23	Spatially Modulating the Fluorescence Color of Mixed-Halide Perovskite Nanoplatelets through Direct Femtosecond Laser Writing. ACS Applied Materials & Interfaces, 2019, 11, 26017-26023.	4.0	44
24	Long-Distance Ionic Diffusion in Cesium Lead Mixed Halide Perovskite Induced by Focused Illumination. Chemistry of Materials, 2019, 31, 9049-9056.	3.2	28
25	Tracking Dynamic Phase Segregation in Mixedâ€Halide Perovskite Single Crystals under Twoâ€Photon Scanning Laser Illumination. Small Methods, 2019, 3, 1900273.	4.6	44
26	The Importance of the Interfacial Contact: Is Reduced Graphene Oxide Always an Enhancer in Photo(Electro)Catalytic Water Oxidation?. ACS Applied Materials & Interfaces, 2019, 11, 23125-23134.	4.0	34
27	Triggering the Passivation Effect of Potassium Doping in Mixedâ€Cation Mixedâ€Halide Perovskite by Light Illumination. Advanced Energy Materials, 2019, 9, 1901016.	10.2	109
28	The Dominant Energy Transport Pathway in Halide Perovskites: Photon Recycling or Carrier Diffusion?. Advanced Energy Materials, 2019, 9, 1900185.	10.2	85
29	Dynamic study of the light soaking effect on perovskite solar cells by in-situ photoluminescence microscopy. Nano Energy, 2018, 46, 356-364.	8.2	67
30	Free chargesversusexcitons: photoluminescence investigation of InGaN/GaN multiple quantum well nanorods and their planar counterparts. Nanoscale, 2018, 10, 5358-5365.	2.8	16
31	Universal passivation strategy to slot-die printed SnO2 for hysteresis-free efficient flexible perovskite solar module. Nature Communications, 2018, 9, 4609.	5.8	596
32	Illuminationâ€Induced Halide Segregation in Gradient Bandgap Mixedâ€Halide Perovskite Nanoplatelets. Advanced Optical Materials, 2018, 6, 1801107.	3.6	30
33	Oxygen-deficient bismuth tungstate and bismuth oxide composite photoanode with improved photostability. Science Bulletin, 2018, 63, 990-996.	4.3	29
34	Construction of a Bi2MoO6:Bi2Mo3O12 heterojunction for efficient photocatalytic oxygen evolution. Chemical Engineering Journal, 2018, 353, 636-644.	6.6	56
35	Role of Surface Recombination in Halide Perovskite Nanoplatelets. ACS Applied Materials & Interfaces, 2018, 10, 31586-31593.	4.0	41
36	Slow Response of Carrier Dynamics in Perovskite Interface upon Illumination. ACS Applied Materials & Interfaces, 2018, 10, 31452-31461.	4.0	47

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37	Acoustic-optical phonon up-conversion and hot-phonon bottleneck in lead-halide perovskites. Nature Communications, 2017, 8, 14120.	5.8	330
38	Spatial Distribution of Lead Iodide and Local Passivation on Organo-Lead Halide Perovskite. ACS Applied Materials & Interfaces, 2017, 9, 6072-6078.	4.0	62
39	Unravelling charge carrier dynamics in protonated g-C3N4 interfaced with carbon nanodots as co-catalysts toward enhanced photocatalytic CO2 reduction: A combined experimental and first-principles DFT study. Nano Research, 2017, 10, 1673-1696.	5.8	376
40	Investigation of anti-solvent induced optical properties change of cesium lead bromide iodide mixed perovskite (CsPbBr3-xIx) quantum dots. Journal of Colloid and Interface Science, 2017, 504, 586-592.	5.0	27
41	Light Illumination Induced Photoluminescence Enhancement and Quenching in Lead Halide Perovskite. Solar Rrl, 2017, 1, 1600001.	3.1	109
42	Significant Improvement in the Performance of PbSe Quantum Dot Solar Cell by Introducing a CsPbBr₃ Perovskite Colloidal Nanocrystal Back Layer. Advanced Energy Materials, 2017, 7, 1601773.	10.2	56
43	Nucleation and Growth Control of HC(NH2)2PbI3 for Planar Perovskite Solar Cell. Journal of Physical Chemistry C, 2016, 120, 11262-11267.	1.5	80
44	Electric field induced reversible and irreversible photoluminescence responses in methylammonium lead iodide perovskite. Journal of Materials Chemistry C, 2016, 4, 9060-9068.	2.7	77
45	Optical Probe Ion and Carrier Dynamics at the CH₃NH₃PbI₃ Interface with Electron and Hole Transport Materials. Advanced Materials Interfaces, 2016, 3, 1600467.	1.9	23
46	Interfacing BiVO 4 with Reduced Graphene Oxide for Enhanced Photoactivity: A Tale of Facet Dependence of Electron Shuttling. Small, 2016, 12, 5295-5302.	5.2	68
47	Nanoscale Characterization of Carrier Dynamic and Surface Passivation in InGaN/GaN Multiple Quantum Wells on GaN Nanorods. ACS Applied Materials & Interfaces, 2016, 8, 31887-31893.	4.0	32
48	Hole Transport Layer Free Inorganic CsPbIBr₂ Perovskite Solar Cell by Dual Source Thermal Evaporation. Advanced Energy Materials, 2016, 6, 1502202.	10.2	373
49	Ultrafast Carrier Dynamics in Methylammonium Lead Bromide Perovskite. Journal of Physical Chemistry C, 2016, 120, 2542-2547.	1.5	54
50	Defect trapping states and charge carrier recombination in organicâ€“inorganic halide perovskites. Journal of Materials Chemistry C, 2016, 4, 793-800.	2.7	171
51	BiVO₄ {010} and {110} Relative Exposure Extent: Governing Factor of Surface Charge Population and Photocatalytic Activity. Journal of Physical Chemistry Letters, 2016, 7, 1400-1405.	2.1	231
52	Time-resolved fluorescence anisotropy study of organic lead halide perovskite. Solar Energy Materials and Solar Cells, 2016, 151, 102-112.	3.0	14
53	Mobile Ion Induced Slow Carrier Dynamics in Organicâ€“Inorganic Perovskite CH₃NH₃PbBr₃. ACS Applied Materials & Interfaces, 2016, 8, 5351-5357.	4.0	100
54	Illumination dependent carrier dynamics of CH₃NH₃PbBr₃perovskite. Proceedings of SPIE, 2015, , .	0.8	1

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55	Ultrafast charge generation and relaxation dynamics in methylammonium lead bromide perovskites. , 2015, , .		0
56	Ultrafast transient absorption study of hot carrier dynamics in hafnium nitride and zirconium nitride. , 2015, , .		0
57	Methylammonium Lead Bromide Perovskite-Based Solar Cells by Vapor-Assisted Deposition. Journal of Physical Chemistry C, 2015, 119, 3545-3549.	1.5	223
58	Mobile Charge-Induced Fluorescence Intermittency in Methylammonium Lead Bromide Perovskite. Nano Letters, 2015, 15, 4644-4649.	4.5	108
59	Fluorescent Metallic Nanoclusters: Electron Dynamics, Structure, and Applications. Particle and Particle Systems Characterization, 2015, 32, 142-163.	1.2	77
60	Dynamic study on the transformation process of gold nanoclusters. Nanotechnology, 2014, 25, 445705.	1.3	8
61	Efficient electron transfer in carbon nanodotâ€“graphene oxide nanocomposites. Journal of Materials Chemistry C, 2014, 2, 2894.	2.7	87
62	Morphology and Carrier Extraction Study of Organicâ€“Inorganic Metal Halide Perovskite by One- and Two-Photon Fluorescence Microscopy. Journal of Physical Chemistry Letters, 2014, 5, 3849-3853.	2.1	84
63	Ultrafast electron transfer in the nanocomposite of the graphene oxideâ€“Au nanocluster with graphene oxide as a donor. Journal of Materials Chemistry C, 2014, 2, 3826-3834.	2.7	82
64	On the upconversion fluorescence in carbon nanodots and graphene quantum dots. Chemical Communications, 2014, 50, 4703-4706.	2.2	140
65	Optical properties of gold particle-cluster coreâ€“satellite nanoassemblies. RSC Advances, 2013, 3, 19609.	1.7	13
66	Singlet and Triplet Carrier Dynamics in Rubrene Single Crystal. Journal of Physical Chemistry C, 2013, 117, 17741-17747.	1.5	22
67	Fluorescence origin and spectral broadening mechanism in atomically precise Au8 nanoclusters. Nanoscale, 2013, 5, 10251.	2.8	22
68	Metallophilic Bondâ€Induced Quenching of Delayed Fluorescence in Au₂₅@BSA Nanoclusters. Particle and Particle Systems Characterization, 2013, 30, 467-472.	1.2	31
69	Optical properties and electron dynamics in carbon nanodots. , 2013, , .		0
70	Confined Auâ€Pd Ensembles in Mesoporous TiO₂ Spheres for the Photocatalytic Oxidation of Acetaldehyde. ChemCatChem, 2013, 5, 3557-3561.	1.8	18
71	The enhancement of electronâ€“phonon coupling in glutathione-protected Au25 clusters. Journal of Colloid and Interface Science, 2013, 402, 86-89.	5.0	12
72	Quantum Confined Stark Effect in Au8 and Au25 Nanoclusters. Journal of Physical Chemistry C, 2013, 117, 3621-3626.	1.5	24

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73	Intrinsic and Extrinsic Fluorescence in Carbon Nanodots: Ultrafast Timeâ€Resolved Fluorescence and Carrier Dynamics. Advanced Optical Materials, 2013, 1, 173-178.	3.6	156
74	Temperature-Dependent Fluorescence in Carbon Dots. Journal of Physical Chemistry C, 2012, 116, 25552-25557.	1.5	407
75	Studies of the photostability of CdSe/CdS dot-in-rod nanoparticles. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	14
76	Temperature dependent spectral properties of type-I and quasi type-II CdSe/CdS dot-in-rod nanocrystals. Physical Chemistry Chemical Physics, 2012, 14, 3505.	1.3	49
77	Structure-Correlated Dual Fluorescent Bands in BSA-Protected Au₂₅ Nanoclusters. Journal of Physical Chemistry C, 2012, 116, 11830-11836.	1.5	97
78	Fluorescence Dynamics in BSA-Protected Au₂₅ Nanoclusters. Journal of Physical Chemistry C, 2012, 116, 19032-19038.	1.5	114
79	Temperature-Dependent Fluorescence in Au₁₀ Nanoclusters. Journal of Physical Chemistry C, 2012, 116, 6567-6571.	1.5	78
80	Near-infrared enhanced carbon nanodots by thermally assisted growth. Applied Physics Letters, 2012, 101, .	1.5	33
81	Temperature dependence of photoluminescence in silicon quantum dots. Journal Physics D: Applied Physics, 2007, 40, 3573-3578.	1.3	67
82	Temperature dependent photoluminescence in oxygen ion implanted and rapid thermally annealed ZnOâˆ•ZnMgO multiple quantum wells. Applied Physics Letters, 2007, 90, 221914.	1.5	25
83	Improving Hole Transport and Extraction by Interface Engineering in Perovskite Solar Cells. Energy Technology, 0, , 2101002.	1.8	1