

# Haotong Wei

## List of Publications by Citations

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68

papers

9,659

citations

34

h-index

71

g-index

71

ext. papers

11,410

ext. citations

15.7

avg, IF

6.44

L-index

#	Paper	IF	Citations
68	Strongly green-photoluminescent graphene quantum dots for bioimaging applications. <i>Chemical Communications</i> , <b>2011</b> , 47, 6858-60	5.8	1295
67	Defect passivation in hybrid perovskite solar cells using quaternary ammonium halide anions and cations. <i>Nature Energy</i> , <b>2017</b> , 2,	62.3	1241
66	Sensitive X-ray detectors made of methylammonium lead tribromide perovskite single crystals. <i>Nature Photonics</i> , <b>2016</b> , 10, 333-339	33.9	894
65	Grain boundary dominated ion migration in polycrystalline organic-inorganic halide perovskite films. <i>Energy and Environmental Science</i> , <b>2016</b> , 9, 1752-1759	35.4	701
64	Conjugated Lewis Base: Efficient Trap-Passivation and Charge-Extraction for Hybrid Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2017</b> , 29, 1604545	24	431
63	Strained hybrid perovskite thin films and their impact on the intrinsic stability of perovskite solar cells. <i>Science Advances</i> , <b>2017</b> , 3, eaao5616	14.3	399
62	Monolithic integration of hybrid perovskite single crystals with heterogenous substrate for highly sensitive X-ray imaging. <i>Nature Photonics</i> , <b>2017</b> , 11, 315-321	33.9	393
61	Dopant compensation in alloyed CH <sub>3</sub> NH <sub>3</sub> PbBrCl perovskite single crystals for gamma-ray spectroscopy. <i>Nature Materials</i> , <b>2017</b> , 16, 826-833	27	343
60	Polymer-Passivated Inorganic Cesium Lead Mixed-Halide Perovskites for Stable and Efficient Solar Cells with High Open-Circuit Voltage over 1.3 V. <i>Advanced Materials</i> , <b>2018</b> , 30, 1705393	24	328
59	Halide lead perovskites for ionizing radiation detection. <i>Nature Communications</i> , <b>2019</b> , 10, 1066	17.4	317
58	Bilateral alkylamine for suppressing charge recombination and improving stability in blade-coated perovskite solar cells. <i>Science Advances</i> , <b>2019</b> , 5, eaav8925	14.3	262
57	Ultrahigh sensitivity of methylammonium lead tribromide perovskite single crystals to environmental gases. <i>Science Advances</i> , <b>2016</b> , 2, e1600534	14.3	251
56	Low-Noise and Large-Linear-Dynamic-Range Photodetectors Based on Hybrid-Perovskite Thin-Single-Crystals. <i>Advanced Materials</i> , <b>2017</b> , 29, 1703209	24	208
55	Dual Functions of Crystallization Control and Defect Passivation Enabled by Sulfonic Zwitterions for Stable and Efficient Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2018</b> , 30, e1803428	24	198
54	Composition Engineering in Doctor-Blading of Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700302	21.8	195
53	Quantification of re-absorption and re-emission processes to determine photon recycling efficiency in perovskite single crystals. <i>Nature Communications</i> , <b>2017</b> , 8, 14417	17.4	154
52	Efficient Flexible Solar Cell based on Composition-Tailored Hybrid Perovskite. <i>Advanced Materials</i> , <b>2017</b> , 29, 1605900	24	153

51	Enhancing electron diffusion length in narrow-bandgap perovskites for efficient monolithic perovskite tandem solar cells. <i>Nature Communications</i> , <b>2019</b> , 10, 4498	17.4	138
50	Deep Red Emissive Carbonized Polymer Dots with Unprecedented Narrow Full Width at Half Maximum. <i>Advanced Materials</i> , <b>2020</b> , 32, e1906641	24	134
49	Reducing Surface Halide Deficiency for Efficient and Stable Iodide-Based Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 3989-3996	16.4	133
48	A Highly Sensitive Narrowband Nanocomposite Photodetector with Gain. <i>Advanced Materials</i> , <b>2016</b> , 28, 2043-8	24	97
47	Spontaneous Passivation of Hybrid Perovskite by Sodium Ions from Glass Substrates: Mysterious Enhancement of Device Efficiency Revealed. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 1400-1406	20.1	93
46	Trap Engineering of CdTe Nanoparticle for High Gain, Fast Response, and Low Noise P3HT:CdTe Nanocomposite Photodetectors. <i>Advanced Materials</i> , <b>2015</b> , 27, 4975-81	24	89
45	Simplified interconnection structure based on C60/SnO <sub>2-x</sub> for all-perovskite tandem solar cells. <i>Nature Energy</i> , <b>2020</b> , 5, 657-665	62.3	85
44	Polypyrrole-enveloped Pd and Fe <sub>3</sub> O <sub>4</sub> nanoparticle binary hollow and bowl-like superstructures as recyclable catalysts for industrial wastewater treatment. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 450-8	9.5	76
43	Sensitive and Stable 2D Perovskite Single-Crystal X-ray Detectors Enabled by a Supramolecular Anchor. <i>Advanced Materials</i> , <b>2020</b> , 32, e2003790	24	72
42	Efficient polymer/nanocrystal hybrid solar cells fabricated from aqueous materials. <i>Energy and Environmental Science</i> , <b>2011</b> , 4, 2831	35.4	55
41	Self-Filtered Narrowband Perovskite Photodetectors with Ultrafast and Tuned Spectral Response. <i>Advanced Optical Materials</i> , <b>2017</b> , 5, 1700672	8.1	54
40	The effects of composition and surface chemistry on the toxicity of quantum dots. <i>Journal of Materials Chemistry B</i> , <b>2013</b> , 1, 6485-6494	7.3	52
39	Inverted Hybrid Solar Cells from Aqueous Materials with a PCE of 3.61%. <i>Advanced Energy Materials</i> , <b>2013</b> , 3, 433-437	21.8	52
38	Detection of charged particles with a methylammonium lead tribromide perovskite single crystal. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2017</b> , 848, 106-108	1.2	49
37	Environmental Surface Stability of the MAPbBr <sub>3</sub> Single Crystal. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 3513-3522	3.8	39
36	Photoluminescence from Radiative Surface States and Excitons in Methylammonium Lead Bromide Perovskites. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 4258-4263	6.4	37
35	Preparation of polymer/nanocrystals hybrid solar cells through aqueous approaches. <i>Nano Today</i> , <b>2012</b> , 7, 316-326	17.9	36
34	Facile Strategy for Facet Competition Management to Improve the Performance of Perovskite Single-Crystal X-ray Detectors. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 3529-3535	6.4	34

33	Unraveling Charge Separation and Transport Mechanisms in Aqueous-Processed Polymer/CdTe Nanocrystal Hybrid Solar Cells. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1301882	21.8	32
32	Synthesis of a water-soluble conjugated polymer based on thiophene for an aqueous-processed hybrid photovoltaic and photodetector device. <i>Advanced Materials</i> , <b>2014</b> , 26, 3655-61	24	32
31	White-light emission nanofibers obtained from assembling aqueous single-colored CdTe NCs into a PPV precursor and PVA matrix. <i>Journal of Materials Chemistry</i> , <b>2009</b> , 19, 6740		32
30	Aqueous-solution-processed hybrid solar cells from poly(1,4-naphthalenevinylene) and CdTe nanocrystals. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2011</b> , 3, 2919-23	9.5	31
29	Self-assembly of CdTe nanoparticles into dendrite structure: a microsensor to Hg <sup>2+</sup> . <i>Langmuir</i> , <b>2011</b> , 27, 1136-42	4	29
28	Valence band dispersion measurements of perovskite single crystals using angle-resolved photoemission spectroscopy. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 5361-5365	3.6	28
27	Coordinatable and High Charge-Carrier-Mobility Water-Soluble Conjugated Copolymers for Effective Aqueous-Processed Polymer/Nanocrystal Hybrid Solar Cells and OFET Applications. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 4035-4042	15.6	24
26	Aqueous-solution-processed hybrid solar cells with good thermal and morphological stability. <i>Solar Energy Materials and Solar Cells</i> , <b>2013</b> , 109, 254-261	6.4	23
25	High-efficiency aqueous-processed hybrid solar cells with an enormous Herschel infrared contribution. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 8606-12	9.5	22
24	Synthesis of Cu <sub>2</sub> Se Nanocrystals by Tuning the Reactivity of Se. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 9909-9916	3.8	22
23	Is Formamidinium Always More Stable than Methylammonium?. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 2501-2507	5.07	21
22	Low defects density CsPbBr <sub>3</sub> single crystals grown by an additive assisted method for gamma-ray detection. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 11360-11368	7.1	20
21	Aqueous-solution-processed PPV/Cd <sub>x</sub> Hg <sub>1-x</sub> Te hybrid solar cells with a significant near-infrared contribution. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 17827		19
20	Enhanced charge separation and photocatalytic hydrogen evolution in carbonized-polymer-dot-coupled lead halide perovskites. <i>Materials Horizons</i> , <b>2020</b> , 7, 2719-2725	14.4	19
19	Surface Ligands Management for Efficient CsPbBr <sub>2</sub> Perovskite Nanocrystal Solar Cells. <i>Solar Rrl</i> , <b>2020</b> , 4, 2000102	7.1	18
18	High quality CdHgTe nanocrystals with strong near-infrared emission: relationship between composition and cytotoxic effects. <i>Langmuir</i> , <b>2013</b> , 29, 4119-27	4	18
17	An effective method to prepare polymer/nanocrystal composites with tunable emission over the whole visible light range. <i>Nano Research</i> , <b>2010</b> , 3, 496-505	10	18
16	Achieving high open-circuit voltage in the PPV-CdHgTe bilayer photovoltaic devices on the basis of the heterojunction interfacial modification. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 9161		16

15	Development of Halide Perovskite Single Crystal for Radiation Detection Applications. <i>Frontiers in Chemistry</i> , <b>2020</b> , 8, 268	5	15
14	3D/2D Perovskite Single Crystals Heterojunction for Suppressed Ions Migration in Hard X-Ray Detection. <i>Advanced Functional Materials</i> , 2104880	15.6	14
13	Aqueous-Processed Polymer/Nanocrystal Hybrid Solar Cells with Efficiency of 5.64%: The Impact of Device Structure, Polymer Content, and Film Thickness. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 2025-2034	3.8	12
12	A totally phosphine-free synthesis of metal telluride nanocrystals by employing alkylamides to replace alkylphosphines for preparing highly reactive tellurium precursors. <i>Nanoscale</i> , <b>2013</b> , 5, 9593-7	7.7	12
11	Creation of Transparent Nanocomposite Films with a Refractive Index of 2.3 Using Polymerizable Silicon Nanoparticles. <i>Particle and Particle Systems Characterization</i> , <b>2013</b> , 30, 653-657	3.1	12
10	Intrinsic Behavior of CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Single Crystals under Light Illumination. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1801206	4.6	11
9	Correlation between Annealing-Induced Growth of Nanocrystals and the Performance of Polymer: Nanocrystals Hybrid Solar Cells. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 1322-1328	3.8	10
8	Metal Halide Perovskite Nanocrystal Solar Cells: Progress and Challenges. <i>Small Methods</i> , <b>2020</b> , 4, 20004128	4.28	10
7	Oriented 2D Perovskite Wafers for Anisotropic X-ray Detection Through Fast Tableting Strategy. <i>Advanced Materials</i> , <b>2021</b> , e2108020	24	9
6	Polyhydroxy Ester Stabilized Perovskite for Low Noise and Large Linear Dynamic Range of Self-Powered Photodetectors. <i>Nano Letters</i> , <b>2021</b> , 21, 1500-1507	11.5	9
5	Fine-control-valve of halide perovskite single crystal quality for high performance X-ray detection. <i>Science Bulletin</i> , <b>2021</b> , 66, 2199-2206	10.6	9
4	Low-Cost and Large-Area Hybrid X-Ray Detectors Combining Direct Perovskite Semiconductor and Indirect Scintillator. <i>Advanced Functional Materials</i> , 2107843	15.6	7
3	Energy Transfer Assisted Fast X-ray Detection in Direct/Indirect Hybrid Perovskite Wafer.. <i>Advanced Science</i> , <b>2022</b> , e2103735	13.6	7
2	Supramolecular Interactions of Flexible 2D Perovskite in Microstrain Releasing and Optoelectronic Properties Recovery. <i>Advanced Functional Materials</i> , 2203329	15.6	3
1	POLYMER-NANOCRYSTALS COMPOSITE MATERIALS AND PERFORMANCE OPTIMIZATION. <i>Acta Polymerica Sinica</i> , <b>2011</b> , 011, 939-949		