

# Yanbing Hou

## List of Publications by Year in descending order

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74  
papers

1,733  
citations

279798

23  
h-index

302126

39  
g-index

74  
all docs

74  
docs citations

74  
times ranked

3219  
citing authors

#	ARTICLE	IF	CITATIONS
1	Photocatalytic Synthesis and Photovoltaic Application of Ag-TiO <sub>2</sub> Nanorod Composites. Nano Letters, 2013, 13, 5698-5702.	9.1	173
2	Ligand-free rutile and anatase TiO <sub>2</sub> nanocrystals as electron extraction layers for high performance inverted polymer solar cells. RSC Advances, 2017, 7, 20084-20092.	3.6	135
3	Fluorine substituted thiophene-quinoxaline copolymer to reduce the HOMO level and increase the dielectric constant for high open-circuit voltage organic solar cells. Journal of Materials Chemistry C, 2013, 1, 630-637.	5.5	101
4	High-Performance Photodiode-Type Photodetectors Based on Polycrystalline Formamidinium Lead Iodide Perovskite Thin Films. Scientific Reports, 2018, 8, 11157.	3.3	90
5	Using Bulk Heterojunctions and Selective Electron Trapping to Enhance the Responsivity of Perovskite-Graphene Photodetectors. Advanced Functional Materials, 2017, 27, 1704173.	14.9	79
6	Synthesis, optical properties, and superlattice structure of Cu(I)-doped CdS nanocrystals. Applied Physics Letters, 2010, 97, .	3.3	56
7	Synthesis and self-assembly of Cu <sub>1.94</sub> S-ZnS heterostructured nanorods. CrystEngComm, 2010, 12, 4124.	2.6	54
8	The Trapped Charges at Grain Boundaries in Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2107125.	14.9	47
9	Optical properties and electrical bistability of CdS nanoparticles synthesized in dodecanethiol. Applied Physics Letters, 2010, 96, .	3.3	46
10	Two-dimensional organic-inorganic hybrid perovskite field-effect transistors with polymers as bottom-gate dielectrics. Journal of Materials Chemistry C, 2019, 7, 4004-4012.	5.5	45
11	Active terahertz device based on optically controlled organometal halide perovskite. Applied Physics Letters, 2015, 107, .	3.3	44
12	Enhanced performance of tin halide perovskite solar cell by addition of lead thiocyanate. RSC Advances, 2018, 8, 14025-14030.	3.6	37
13	Synthesis of ultrathin two-dimensional organic-inorganic hybrid perovskite nanosheets for polymer field-effect transistors. Journal of Materials Chemistry C, 2018, 6, 3945-3950.	5.5	36
14	Upconversion multicolor tuning: Red to green emission from Y <sub>2</sub> O <sub>3</sub> :Er, Yb nanoparticles by calcination. Applied Physics Letters, 2013, 102, .	3.3	33
15	Self-Assembled TiO <sub>2</sub> Nanorods as Electron Extraction Layer for High-Performance Inverted Polymer Solar Cells. Chemistry of Materials, 2015, 27, 44-52.	6.7	33
16	Monolayer graphene based organic optical terahertz modulator. Applied Physics Letters, 2017, 110, .	3.3	32
17	High sensitivity, fast response and low operating voltage organic photodetectors by incorporating a water/alcohol soluble conjugated polymer anode buffer layer. RSC Advances, 2017, 7, 1743-1748.	3.6	31
18	Enhanced efficiency and light stability of planar perovskite solar cells by diethylammonium bromide induced large-grain 2D/3D hybrid film. Organic Electronics, 2019, 67, 101-108.	2.6	28

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19	Effects of alkanethiols chain length on the synthesis of Cu <sub>2</sub> S nanocrystals: phase, morphology, plasmonic properties and electrical conductivity. RSC Advances, 2014, 4, 54547-54553.	3.6	27
20	Charge carriers at organic heterojunction interface: Exciplex emission or electroplex emission?. Journal of Applied Physics, 2007, 101, 096101.	2.5	26
21	Synthesis of Cu <sub>2</sub> S nanocrystals induced by foreign metal ions: phase and morphology transformation and localized surface plasmon resonance. CrystEngComm, 2014, 16, 8684-8690.	2.6	26
22	Two-dimensional additive diethylammonium iodide promoting crystal growth for efficient and stable perovskite solar cells. RSC Advances, 2019, 9, 7984-7991.	3.6	25
23	Efficient Quasi-Two-Dimensional Perovskite Light-Emitting Diodes with Improved Multiple Quantum Well Structure. ACS Applied Materials & Interfaces, 2020, 12, 1721-1727.	8.0	25
24	Enhanced amplified spontaneous emission from morphology-controlled organic-inorganic halide perovskite films. RSC Advances, 2015, 5, 103674-103679.	3.6	23
25	Temperature dependent amplified spontaneous emission of vacuum annealed perovskite films. RSC Advances, 2017, 7, 15911-15916.	3.6	22
26	High-performance light-emitting diode with poly(ethylene oxide) passivated quasi two dimensional perovskite emitting layer. Organic Electronics, 2018, 63, 216-221.	2.6	22
27	Solution-processed organic field-effect transistors with cross-linked poly(4-vinylphenol)/polyvinyl alcohol bilayer dielectrics. Applied Surface Science, 2019, 478, 699-707.	6.1	22
28	Charge Transport in 2D Layered Mixed Sn-Pb Perovskite Thin Films for Field-Effect Transistors. Advanced Electronic Materials, 2021, 7, 2100384.	5.1	22
29	Negative differential resistance and carrier transport of electrically bistable devices based on poly(N-vinylcarbazole)-silver sulfide composites. Nanoscale Research Letters, 2014, 9, 128.	5.7	21
30	Property Modulation of Two-Dimensional Lead-Free Perovskite Thin Films by Aromatic Polymer Additives for Performance Enhancement of Field-Effect Transistors. ACS Applied Materials & Interfaces, 2021, 13, 24272-24284.	8.0	21
31	Enhanced performance of tin halide perovskite solar cells by addition of hydrazine monohydrobromide. Organic Electronics, 2020, 82, 105728.	2.6	20
32	Electrical bistability of copper (I) sulfide nanocrystals blending with a semiconducting polymer. Applied Physics Letters, 2009, 95, 143115.	3.3	19
33	Role of nanoparticle surface defects in the conduction mechanism of polymer-nanoparticle electrical bistable devices. RSC Advances, 2017, 7, 54128-54135.	3.6	15
34	Improvement of amplified spontaneous emission performance of conjugated polymer waveguides with a low loss cladding. Applied Physics Letters, 2012, 101, 153305.	3.3	14
35	Interface studies of well-controlled polymer bilayers and field-effect transistors prepared by a mixed-solvent method. RSC Advances, 2018, 8, 11272-11279.	3.6	14
36	Electrical bistability and negative differential resistance in diodes based on silver nanoparticle-poly(N-vinylcarbazole) composites. Journal of Applied Physics, 2010, 108, 094320.	2.5	13

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37	Discrete SnO <sub>2</sub> Nanoparticle-Modified Poly(3,4-Ethylenedioxythiophene):Poly(Styrenesulfonate) for Efficient Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1900162.	5.8	13
38	Mixed-dimensional self-assembly organic-inorganic perovskite microcrystals for stable and efficient photodetectors. <i>Journal of Materials Chemistry C</i> , 2020, 8, 5399-5408.	5.5	13
39	Active bidirectional electrically-controlled terahertz device based on dimethyl sulfoxide-doped PEDOT:PSS. <i>Optics Express</i> , 2018, 26, 25849.	3.4	12
40	Enhanced performance in inverted polymer solar cells employing microwave-annealed sol-gel ZnO as electron transport layers. <i>Organic Electronics</i> , 2017, 42, 107-114.	2.6	11
41	Sensitive, fast, stable, and broadband polymer photodetector with introducing TiO <sub>2</sub> nanocrystal trap states. <i>Organic Electronics</i> , 2018, 59, 63-68.	2.6	11
42	Scalable Graphene-Organometal Halide Perovskite Heterostructure Fabricated by Dry Transfer. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801419.	3.7	11
43	Ambipolar transport in two-dimensional Sn-based perovskite field-effect transistors using an aliphatic polymer-assisted method. <i>Journal of Materials Chemistry A</i> , 2021, 9, 22842-22853.	10.3	11
44	Photovoltaic properties of MEH-PPV/TiO <sub>2</sub> nanocomposites. <i>Science Bulletin</i> , 2008, 53, 2743-2747.	9.0	10
45	Effects of gate dielectric thickness and semiconductor thickness on device performance of organic field-effect transistors based on pentacene. <i>Science China Technological Sciences</i> , 2014, 57, 1142-1146.	4.0	10
46	High-Performance Polymer Photodetector Using the Non-Thermal-Non-Ultraviolet-Ozone-Treated SnO <sub>2</sub> Interfacial Layer. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 1900531.	2.4	10
47	Grain Growth of MAPbI <sub>3</sub> via Diethylammonium Bromide Induced Grain Mergence. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 16707-16714.	8.0	10
48	An <i>in situ</i> rewritable electrically-erasable photo-memory device for terahertz waves. <i>Nanoscale</i> , 2020, 12, 3343-3350.	5.6	10
49	Investigation on Thermal Degradation Process of Polymer Solar Cells Based on Blend of PBDTTT-C and $PC_{70}BM$ . <i>International Journal of Photoenergy</i> , 2014, 2014, 1-9.	2.5	9
50	Efficient polymer solar cells with polyethylene glycol cathode buffer layer and improved PEDOT:PSS conductivity. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 1800-1804.	1.8	9
51	Effects of photo-induced defects on the performance of PBDTTT-C/ $PC_{70}BM$ solar cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015, 9, 120-124.	2.4	9
52	Photocatalytic synthesis of gold nanoparticles using TiO <sub>2</sub> nanorods: a mechanistic investigation. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 18753-18757.	2.8	9
53	Surface plasmonic effect and scattering effect of Au nanorods on the performance of polymer bulk heterojunction solar cells. <i>Science China Technological Sciences</i> , 2013, 56, 1865-1869.	4.0	8
54	Transient Photocurrent Response of Plasmon-Enhanced Polymer Solar Cells with Gold Nanoparticles. <i>Materials</i> , 2015, 8, 4050-4060.	2.9	8

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55	Effects of solvent additives on trap-assisted recombination in P3HT:ICBA based polymer solar cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 2169-2173.	1.8	7
56	Strong Triplet-Exciton-LO-Phonon Coupling in Two-Dimensional Layered Organic-Inorganic Hybrid Perovskite Single Crystal Microflakes. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2133-2141.	4.6	7
57	Improving ternary blend morphology by adding a conjugated molecule into non-fullerene polymer solar cells. <i>RSC Advances</i> , 2020, 10, 43508-43513.	3.6	6
58	Influence of heterojunction interface on exciplex emission from organic light-emitting diodes under electric fields. <i>Applied Physics A: Materials Science and Processing</i> , 2008, 90, 475-478.	2.3	5
59	Electrical bistability and charge-transport mechanisms in cuprous sulfide nanosphere-poly(N-vinylcarbazole) composite films. <i>Journal of Nanoparticle Research</i> , 2011, 13, 7263-7269.	1.9	5
60	Investigation on the Overshoot of Transient Open-Circuit Voltage in Methylammonium Lead Iodide Perovskite Solar Cells. <i>Materials</i> , 2018, 11, 2407.	2.9	5
61	Stable Terahertz In Situ Photo-Writable Electrically Erasable Memory with a CsPbI <sub>3</sub> :Ag/SnO <sub>2</sub> /PEDOT:PSS Hybrid Structure. <i>ACS Applied Electronic Materials</i> , 2021, 3, 1006-1014.	4.3	5
62	Verification of p-n junctions in polymer light-emitting electrochemical cells via electrical characterization. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	4
63	Discrete SnO <sub>2</sub> Nanoparticle-Modified Poly(3,4-ethylenedioxythiophene):Poly(styrenesulfonate) for Efficient Perovskite Solar Cells. <i>Solar Rrl</i> , 2019, 3, 1970103.	5.8	4
64	Impacts of carrier trapping and ion migration on charge transport of perovskite solar cells with TiO <sub>x</sub> electron transport layer. <i>RSC Advances</i> , 2020, 10, 28083-28089.	3.6	4
65	Ultrafast carrier response of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /MoO <sub>3</sub> /graphene heterostructure for terahertz waves. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 325102.	2.8	4
66	Aspect-ratio controllable growth of rectangular cesium lead bromide crystallites on PTAA modified substrates. <i>Journal of Materials Chemistry C</i> , 2022, 10, 6473-6480.	5.5	3
67	Overall Enhanced Performance of Polymer Photodetectors by Co-modifying ITO with PEIE and ZnO. <i>Physica Status Solidi - Rapid Research Letters</i> , 2022, 16, .	2.4	3
68	Role of Hydroxyl on Conductivity Switching of Poly(ethylene oxide)/TiO <sub>2</sub> Electrical Bistable Devices. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900443.	1.8	2
69	Nanowire Junction Induced High Threshold Voltage in Poly(3-hexylthiophene) Mesoscale Crystalline Thin-Film Transistors with Significantly Enhanced Mobility. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 1900723.	2.4	2
70	High-Performance Polymer Photodetectors using ZnO Nanocrystal Trap States. <i>Physica Status Solidi - Rapid Research Letters</i> , 2021, 15, 2100003.	2.4	2
71	Morphology engineering of a hybrid perovskite for active terahertz memory modulation. <i>Optics Express</i> , 2022, 30, 2626.	3.4	2
72	Oxygen Effects on Performance of Electrically Bistable Devices Based on Hybrid Silver Sulfide Poly(N-vinylcarbazole) Nanocomposites. <i>Nanoscale Research Letters</i> , 2016, 11, 63.	5.7	1

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73	Metal oxide nanoparticle-modified ITO electrode for high-performance solution-processed perovskite photodetectors. RSC Advances, 2022, 12, 5638-5647.	3.6	1
74	Aggregation-induced emission tetraphenylethylene derivative as optical sensor for ammonia detection. Materials Technology, 0, , 1-6.	3.0	0