

# Zhi-Yi Hu

## List of Publications by Year in descending order

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66  
papers

2,864  
citations

126708

33  
h-index

174990

52  
g-index

66  
all docs

66  
docs citations

66  
times ranked

3693  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tailoring CuO nanostructures for enhanced photocatalytic property. <i>Journal of Colloid and Interface Science</i> , 2012, 384, 1-9.	5.0	162
2	Novel 3DOM BiVO <sub>4</sub> /TiO <sub>2</sub> nanocomposites for highly enhanced photocatalytic activity. <i>Journal of Materials Chemistry A</i> , 2015, 3, 21244-21256.	5.2	139
3	Nano-single crystal coalesced PtCu nanospheres as robust bifunctional catalyst for hydrogen evolution and oxygen reduction reactions. <i>Journal of Catalysis</i> , 2019, 375, 164-170.	3.1	133
4	3D Ferroconcrete-Like Aminated Carbon Nanotubes Network Anchoring Sulfur for Advanced Lithium-Sulfur Battery. <i>Advanced Energy Materials</i> , 2018, 8, 1801066.	10.2	115
5	Oxygen-deficient titanium dioxide as a functional host for lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 10346-10353.	5.2	109
6	BiVO <sub>4</sub> /3DOM TiO <sub>2</sub> nanocomposites: Effect of BiVO <sub>4</sub> as highly efficient visible light sensitizer for highly improved visible light photocatalytic activity in the degradation of dye pollutants. <i>Applied Catalysis B: Environmental</i> , 2017, 205, 121-132.	10.8	100
7	2D ZnO mesoporous single-crystal nanosheets with exposed {0001} polar facets for the depollution of cationic dye molecules by highly selective adsorption and photocatalytic decomposition. <i>Applied Catalysis B: Environmental</i> , 2016, 181, 138-145.	10.8	95
8	n-p Heterojunction of TiO <sub>2</sub> -NiO core-shell structure for efficient hydrogen generation and lignin photoreforming. <i>Journal of Colloid and Interface Science</i> , 2021, 585, 694-704.	5.0	91
9	MOF-derived nitrogen-doped core-shell hierarchical porous carbon confining selenium for advanced lithium-selenium batteries. <i>Nanoscale</i> , 2019, 11, 6970-6981.	2.8	83
10	In-Situ Growing Mesoporous CuO/O-Doped g-C <sub>3</sub> N <sub>4</sub> Nanospheres for Highly Enhanced Lithium Storage. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 32957-32968.	4.0	78
11	Spatial Heterojunction in Nanostructured TiO <sub>2</sub> and Its Cascade Effect for Efficient Photocatalysis. <i>Nano Letters</i> , 2020, 20, 3122-3129.	4.5	74
12	One-Step Growth of Amorphous/Crystalline Ga <sub>2</sub> O <sub>3</sub> Phase Junctions for High-Performance Solar-Blind Photodetection. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 45922-45929.	4.0	67
13	One particle@one cell: Highly monodispersed PtPd bimetallic nanoparticles for enhanced oxygen reduction reaction. <i>Nano Energy</i> , 2014, 8, 214-222.	8.2	66
14	Hollow nitrogen-doped carbon/sulfur@MnO <sub>2</sub> nanocomposite with structural and chemical dual-encapsulation for lithium-sulfur battery. <i>Chemical Engineering Journal</i> , 2020, 381, 122746.	6.6	66
15	Hierarchical Zeolite Single-Crystal Reactor for Excellent Catalytic Efficiency. <i>Matter</i> , 2020, 3, 1226-1245.	5.0	66
16	Carbon quantum dots modified TiO <sub>2</sub> composites for hydrogen production and selective glucose photoreforming. <i>Journal of Energy Chemistry</i> , 2022, 64, 201-208.	7.1	63
17	Selenium clusters in Zn-glutamate MOF derived nitrogen-doped hierarchically radial-structured microporous carbon for advanced rechargeable Na-Se batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 22790-22797.	5.2	62
18	Micron-Sized Zeolite Beta Single Crystals Featuring Intracrystal Interconnected Ordered Macro-Meso-Microporosity Displaying Superior Catalytic Performance. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 19582-19591.	7.2	61

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19	Coproduction of hydrogen and lactic acid from glucose photocatalysis on band-engineered Zn <sub>1-x</sub> Cd <sub>x</sub> S homojunction. <i>IScience</i> , 2021, 24, 102109.	1.9	61
20	Phase-junction Ag/TiO <sub>2</sub> nanocomposite as photocathode for H <sub>2</sub> generation. <i>Journal of Materials Science and Technology</i> , 2021, 83, 179-187.	5.6	52
21	Cocatalyzing Pt/PtO Phase-Junction Nanodots on Hierarchically Porous TiO <sub>2</sub> for Highly Enhanced Photocatalytic Hydrogen Production. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 29687-29698.	4.0	51
22	A flexible, hierarchically porous PANI/MnO <sub>2</sub> network with fast channels and an extraordinary chemical process for stable fast-charging lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 2741-2751.	5.2	50
23	Type II heterojunction in hierarchically porous zinc oxide/graphitic carbon nitride microspheres promoting photocatalytic activity. <i>Journal of Colloid and Interface Science</i> , 2019, 538, 99-107.	5.0	49
24	Probing conducting polymers@cadmium sulfide core-shell nanorods for highly improved photocatalytic hydrogen production. <i>Journal of Colloid and Interface Science</i> , 2018, 521, 1-10.	5.0	48
25	Unprecedented and highly stable lithium storage capacity of (001) faceted nanosheet-constructed hierarchically porous TiO <sub>2</sub> /rGO hybrid architecture for high-performance Li-ion batteries. <i>National Science Review</i> , 2020, 7, 1046-1058.	4.6	46
26	Anion-Modulated Platinum for High-Performance Multifunctional Electrocatalysis toward HER, HOR, and ORR. <i>IScience</i> , 2020, 23, 101793.	1.9	45
27	Weaving 3D highly conductive hierarchically interconnected nanoporous web by threading MOF crystals onto multi walled carbon nanotubes for high performance Li-Se battery. <i>Journal of Energy Chemistry</i> , 2021, 59, 396-404.	7.1	43
28	Probing and suppressing voltage fade of Li-rich Li <sub>1.2</sub> Ni <sub>0.13</sub> Co <sub>0.13</sub> Mn <sub>0.54</sub> O <sub>2</sub> cathode material for lithium-ion battery. <i>Electrochimica Acta</i> , 2019, 318, 875-882.	2.6	42
29	Atomic defects, functional groups and properties in MXenes. <i>Chinese Chemical Letters</i> , 2021, 32, 339-344.	4.8	40
30	A Stable, Reusable, and Highly Active Photosynthetic Bioreactor by Bio-Interfacing an Individual Cyanobacterium with a Mesoporous Bilayer Nanoshell. <i>Small</i> , 2015, 11, 2003-2010.	5.2	39
31	Revealing the Origin of Highly Efficient Polysulfide Anchoring and Transformation on Anion-Substituted Vanadium Nitride Host. <i>Advanced Functional Materials</i> , 2021, 31, 2008034.	7.8	39
32	Excellent Excitonic Photovoltaic Effect in 2D CsPbBr <sub>3</sub> /CdS Heterostructures. <i>Advanced Functional Materials</i> , 2020, 30, 2006166.	7.8	38
33	Molybdenum disulfide quantum dots directing zinc indium sulfide heterostructures for enhanced visible light hydrogen production. <i>Journal of Colloid and Interface Science</i> , 2019, 551, 111-118.	5.0	35
34	Melamine-based polymer networks enabled N, O, S Co-doped defect-rich hierarchically porous carbon nanobelts for stable and long-cycle Li-ion and Li-Se batteries. <i>Journal of Colloid and Interface Science</i> , 2021, 582, 60-69.	5.0	34
35	Growing ordered CuO nanorods on 2D Cu/g-C <sub>3</sub> N <sub>4</sub> nanosheets as stable freestanding anode for outstanding lithium storage. <i>Chemical Engineering Journal</i> , 2021, 407, 126941.	6.6	33
36	Synthesis of monodispersed CoMoO <sub>4</sub> nanoclusters on the ordered mesoporous carbons for environment-friendly supercapacitors. <i>Journal of Alloys and Compounds</i> , 2019, 810, 151841.	2.8	28

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37	Nonlayered CdSe Flakes Homojunctions. <i>Advanced Functional Materials</i> , 2020, 30, 1908902.	7.8	28
38	A facile synthesis of Ag@PdAg core-shell architecture for efficient purification of ethene feedstock. <i>Journal of Catalysis</i> , 2019, 369, 440-449.	3.1	26
39	Effects of Nanostructure and Coating on the Mechanics of Carbon Nanotube Arrays. <i>Advanced Functional Materials</i> , 2016, 26, 1233-1242.	7.8	25
40	Interwoven scaffolded porous titanium oxide nanocubes/carbon nanotubes framework for high-performance sodium-ion battery. <i>Journal of Energy Chemistry</i> , 2021, 59, 38-46.	7.1	25
41	Diatom silica-titania photocatalysts for air purification by bio-accumulation of different titanium sources. <i>Environmental Science: Nano</i> , 2016, 3, 1052-1061.	2.2	24
42	Single-cell yolk-shell nanoencapsulation for long-term viability with size-dependent permeability and molecular recognition. <i>National Science Review</i> , 2021, 8, nwaa097.	4.6	23
43	Interface cation migration kinetics induced oxygen release heterogeneity in layered lithium cathodes. <i>Energy Storage Materials</i> , 2021, 36, 115-122.	9.5	23
44	Size effect of bifunctional gold in hierarchical titanium oxide-gold-cadmium sulfide with slow photon effect for unprecedented visible-light hydrogen production. <i>Journal of Colloid and Interface Science</i> , 2021, 604, 131-140.	5.0	23
45	Three-dimensional ordered hierarchically porous carbon materials for high performance Li-Se battery. <i>Journal of Energy Chemistry</i> , 2022, 68, 624-636.	7.1	23
46	Synergistic catalysis of Pd nanoparticles with both Lewis and Bronsted acid sites encapsulated within a sulfonated metal-organic frameworks toward one-pot tandem reactions. <i>Journal of Colloid and Interface Science</i> , 2019, 557, 207-215.	5.0	22
47	Cascade electronic band structured zinc oxide/bismuth vanadate/three-dimensional ordered macroporous titanium dioxide ternary nanocomposites for enhanced visible light photocatalysis. <i>Journal of Colloid and Interface Science</i> , 2019, 539, 585-597.	5.0	20
48	3D interconnected hierarchically macro-mesoporous TiO <sub>2</sub> networks optimized by biomolecular self-assembly for high performance lithium ion batteries. <i>RSC Advances</i> , 2016, 6, 26856-26862.	1.7	19
49	Nickel clusters accelerating hierarchical zinc indium sulfide nanoflowers for unprecedented visible-light hydrogen production. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 504-512.	5.0	17
50	Embedding tin disulfide nanoparticles in two-dimensional porous carbon nanosheet interlayers for fast-charging lithium-sulfur batteries. <i>Science China Materials</i> , 2021, 64, 2697-2709.	3.5	16
51	Hydrothermal and surfactant treatment to enhance the photocatalytic activity of hierarchically meso-macroporous titanias. <i>Catalysis Today</i> , 2013, 212, 89-97.	2.2	14
52	Probing the electrochemical behavior of {111} and {110} faceted hollow Cu <sub>2</sub> O microspheres for lithium storage. <i>RSC Advances</i> , 2016, 6, 97129-97136.	1.7	13
53	Probing the Electron Beam-Induced Structural Evolution of Halide Perovskite Thin Films by Scanning Transmission Electron Microscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 10786-10794.	1.5	13
54	Mesoporous Titanium Dioxide (TiO <sub>2</sub> ) with hierarchically 3D dendrimeric architectures: Formation mechanism and highly enhanced photocatalytic activity. <i>Journal of Colloid and Interface Science</i> , 2013, 394, 252-262.	5.0	12

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55	Tris(trimethylsilyl) borate as electrolyte additive alleviating cathode electrolyte interphase for enhanced lithium-selenium battery. <i>Electrochimica Acta</i> , 2021, 393, 139042.	2.6	12
56	Realizing both n- and p-types of high thermoelectric performance in $\text{Fe}_{1-x}\text{Ni}_x\text{TiSb}$ half-Heusler compounds. <i>Journal of Materials Chemistry C</i> , 2020, 8, 3156-3164.	2.7	11
57	The chain-mail $\text{Co}@C$ electrocatalyst accelerating one-step solid-phase redox for advanced $\text{Li}@\text{Se}$ batteries. <i>Journal of Materials Chemistry A</i> , 2022, 10, 8059-8067.	5.2	11
58	Tuning the structure of a hierarchically porous $\text{ZrO}_2$ for dye molecule depollution. <i>Microporous and Mesoporous Materials</i> , 2012, 152, 110-121.	2.2	10
59	One-Step Microheterogeneous Formation of Rutile@Anatase Core-Shell Nanostructured Microspheres Discovered by Precise Phase Mapping. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4443-4450.	1.5	9
60	Highly biocompatible $\text{Co}@Silica@meso-Silica$ magnetic nanocarriers. <i>Chemical Physics Letters</i> , 2019, 717, 29-33.	1.2	9
61	Near-equiatomic high-entropy decagonal quasicrystal in $\text{Al}_{20}\text{Si}_{20}\text{Mn}_{20}\text{Fe}_{20}\text{Ga}_{20}$ . <i>Science China Materials</i> , 2021, 64, 440-447.	3.5	9
62	Hierarchical $\text{TiO}_2$ microsphere assembled from nanosheets with high photocatalytic activity and stability. <i>Chemical Physics Letters</i> , 2020, 739, 136989.	1.2	8
63	The free-standing N-doped Murray carbon framework with the engineered quasi-optimal $\text{Se}/C$ interface for high $\text{Se}$ -loading $\text{Li}/\text{Na}@\text{Se}$ batteries at elevated temperature. <i>Materials Today Energy</i> , 2021, 21, 100808.	2.5	8
64	Gradient selenium-doping regulating interfacial charge transfer in zinc sulfide/carbon anode for stable lithium storage. <i>Journal of Colloid and Interface Science</i> , 2022, 619, 42-50.	5.0	5
65	$\pi$ - $\pi$ stacking for capturing-releasing Au clusters in meso-structured system. <i>Chemical Physics Letters</i> , 2018, 712, 134-138.	1.2	2
66	Atomic-resolution fine structure and chemical reaction mechanism of $\text{Gd}/\text{YbAl}_3$ thermoelectric-magnetocaloric heterointerface. <i>Journal of Alloys and Compounds</i> , 2020, 831, 154722.	2.8	1