

Jin-Wen Shi

List of Publications by Year in descending order

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97
papers

3,675
citations

109321

35
h-index

144013

57
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99
all docs

99
docs citations

99
times ranked

3983
citing authors

#	ARTICLE	IF	CITATIONS
1	Photocatalytic hydrogen production using twinned nanocrystals and an unanchored NiS _x co-catalyst. <i>Nature Energy</i> , 2016, 1, .	39.5	313
2	ABO ₃ -based photocatalysts for water splitting. <i>Progress in Natural Science: Materials International</i> , 2012, 22, 592-615.	4.4	243
3	Facile preparation of nanosized MoP as cocatalyst coupled with g-C ₃ N ₄ by surface bonding state for enhanced photocatalytic hydrogen production. <i>Applied Catalysis B: Environmental</i> , 2020, 265, 118620.	20.2	153
4	Synchronous construction of CoS ₂ in-situ loading and S doping for g-C ₃ N ₄ : Enhanced photocatalytic H ₂ -evolution activity and mechanism insight. <i>Chemical Engineering Journal</i> , 2020, 401, 126135.	12.7	134
5	Multiple carrier-transfer pathways in a flower-like In ₂ S ₃ /CdIn ₂ S ₄ /In ₂ O ₃ ternary heterostructure for enhanced photocatalytic hydrogen production. <i>Nanoscale</i> , 2018, 10, 7860-7870.	5.6	98
6	Photocatalytic reforming of glucose under visible light over morphology controlled Cu ₂ O: efficient charge separation by crystal facet engineering. <i>Chemical Communications</i> , 2014, 50, 192-194.	4.1	92
7	Eosin Y bidentately bridged on UiO-66-NH ₂ by solvothermal treatment towards enhanced visible-light-driven photocatalytic H ₂ production. <i>Applied Catalysis B: Environmental</i> , 2021, 280, 119385.	20.2	92
8	NiCo ₂ O ₄ nanosheets as a novel oxygen-evolution-reaction cocatalyst <i>in situ</i> bonded on the g-C ₃ N ₄ photocatalyst for excellent overall water splitting. <i>Journal of Materials Chemistry A</i> , 2021, 9, 12299-12306.	10.3	92
9	Co ₃ O ₄ quantum dots: reverse micelle synthesis and visible-light-driven photocatalytic overall water splitting. <i>Chemical Communications</i> , 2014, 50, 2002.	4.1	89
10	Site-Selected Doping of Upconversion Luminescent Er ³⁺ into SrTiO ₃ for Visible-Light-Driven Photocatalytic H ₂ or O ₂ Evolution. <i>Chemistry - A European Journal</i> , 2012, 18, 7543-7551.	3.3	87
11	Visible-light-driven photocatalytic water splitting on nanostructured semiconducting materials. <i>International Journal of Nanotechnology</i> , 2011, 8, 523.	0.2	82
12	Disordered nitrogen-defect-rich porous carbon nitride photocatalyst for highly efficient H ₂ evolution under visible-light irradiation. <i>Carbon</i> , 2021, 181, 193-203.	10.3	81
13	Rapid high-temperature treatment on graphitic carbon nitride for excellent photocatalytic H ₂ -evolution performance. <i>Applied Catalysis B: Environmental</i> , 2018, 233, 80-87.	20.2	79
14	WO ₃ /g-C ₃ N ₄ composites: one-pot preparation and enhanced photocatalytic H ₂ production under visible-light irradiation. <i>Nanotechnology</i> , 2017, 28, 164002.	2.6	78
15	Synergistic effect of nitrogen vacancy on ultrathin graphitic carbon nitride porous nanosheets for highly efficient photocatalytic H ₂ evolution. <i>Chemical Engineering Journal</i> , 2022, 431, 134101.	12.7	74
16	Layered perovskite oxides and their derivative nanosheets adopting different modification strategies towards better photocatalytic performance of water splitting. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 119, 109527.	16.4	64
17	CdS/CdSe Core-Shell Nanorod Arrays: Energy Level Alignment and Enhanced Photoelectrochemical Performance. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 4021-4025.	8.0	60
18	MoO ₃ /g-C ₃ N ₄ Z-scheme (S-scheme) system derived from MoS ₂ /melamine dual precursors for enhanced photocatalytic H ₂ evolution driven by visible light. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 2927-2935.	7.1	59

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19	Ag ₃ PO ₄ photocatalyst: Hydrothermal preparation and enhanced O ₂ evolution under visible-light irradiation. International Journal of Hydrogen Energy, 2013, 38, 11870-11877.	7.1	57
20	A molecular dynamics simulation study on solubility behaviors of polycyclic aromatic hydrocarbons in supercritical water/hydrogen environment. International Journal of Hydrogen Energy, 2021, 46, 2899-2904.	7.1	55
21	Rapid high-temperature hydrothermal post treatment on graphitic carbon nitride for enhanced photocatalytic H ₂ evolution. Catalysis Today, 2023, 409, 94-102.	4.4	54
22	Significantly enhanced photothermal catalytic hydrogen evolution over Cu ₂ O-rGO/TiO ₂ composite with full spectrum solar light. Journal of Colloid and Interface Science, 2022, 608, 2058-2065.	9.4	53
23	Single-Crystal Nanosheet-Based Hierarchical AgSbO ₃ with Exposed {001} Facets: Topotactic Synthesis and Enhanced Photocatalytic Activity. Chemistry - A European Journal, 2012, 18, 3157-3162.	3.3	51
24	One-pot annealing preparation of Na-doped graphitic carbon nitride from melamine and organometallic sodium salt for enhanced photocatalytic H ₂ evolution. International Journal of Hydrogen Energy, 2018, 43, 13953-13961.	7.1	49
25	Localized NiS ₂ Quantum Dots on g-C ₃ N ₄ Nanosheets for Efficient Photocatalytic Hydrogen Production from Water. ChemCatChem, 2018, 10, 5441-5448.	3.7	46
26	One-pot preparation of porous Cr ₂ O ₃ /g-C ₃ N ₄ composites towards enhanced photocatalytic H ₂ evolution under visible-light irradiation. International Journal of Hydrogen Energy, 2017, 42, 4651-4659.	7.1	45
27	Recent progress on sorption/desorption-based atmospheric water harvesting powered by solar energy. Solar Energy Materials and Solar Cells, 2021, 230, 111233.	6.2	45
28	Regulation on polymerization degree and surface feature in graphitic carbon nitride towards efficient photocatalytic H ₂ evolution under visible-light irradiation. Journal of Materials Science and Technology, 2022, 98, 160-168.	10.7	45
29	Hydrogen production from supercritical water gasification of soda black liquor with various metal oxides. Renewable Energy, 2020, 157, 24-32.	8.9	44
30	Hydrothermal Synthesis of Na _{0.5} La _{0.5} TiO ₃ –LaCrO ₃ Solid-Solution Single-Crystal Nanocubes for Visible-Light-Driven Photocatalytic H ₂ Evolution. Chemistry - A European Journal, 2011, 17, 7858-7867.	3.3	43
31	A cocatalyst-free Eosin Y-sensitized p-type of Co ₃ O ₄ quantum dot for highly efficient and stable visible-light-driven water reduction and hydrogen production. Physical Chemistry Chemical Physics, 2015, 17, 21397-21400.	2.8	42
32	Hydrothermal Liquefaction of Polycarbonate (PC) Plastics in Sub-/Supercritical Water and Reaction Pathway Exploration. ACS Sustainable Chemistry and Engineering, 2020, 8, 7039-7050.	6.7	41
33	An In _{0.42} Ga _{0.58} N tunnel junction nanowire photocathode monolithically integrated on a nonplanar Si wafer. Nano Energy, 2019, 57, 405-413.	16.0	38
34	Rational construction of multiple interfaces in ternary heterostructure for efficient spatial separation and transfer of photogenerated carriers in the application of photocatalytic hydrogen evolution. Journal of Power Sources, 2018, 379, 249-260.	7.8	37
35	Maleic hydrazide-based molecule doping in three-dimensional lettuce-like graphite carbon nitride towards highly efficient photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2020, 272, 119009.	20.2	37
36	CaTaO ₂ N–CaZrO ₃ solid solution: Band-structure engineering and visible-light-driven photocatalytic hydrogen production. International Journal of Hydrogen Energy, 2012, 37, 13704-13710.	7.1	36

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37	NH ₃ -treated MoS ₂ nanosheets as photocatalysts for enhanced H ₂ evolution under visible-light irradiation. Journal of Alloys and Compounds, 2016, 688, 368-375.	5.5	35
38	Hydrogen production under visible light by photocatalytic reforming of glucose over an oxide solid solution photocatalyst. Catalysis Communications, 2010, 12, 264-267.	3.3	34
39	Photoelectrochemical stability improvement of cuprous oxide (Cu ₂ O) thin films in aqueous solution. International Journal of Energy Research, 2016, 40, 112-123.	4.5	33
40	Surface treatment effect on the photocatalytic hydrogen generation of CdS/ZnS core-shell microstructures. Chinese Journal of Catalysis, 2017, 38, 489-497.	14.0	31
41	Promotion effect of PANI on Fe-PANI/Zeolite as an active and recyclable Fenton-like catalyst under near-neutral condition. Applied Surface Science, 2020, 508, 145298.	6.1	31
42	Hydrothermal growth of Co ₃ (OH) ₂ (HPO ₄) ₂ nano-needles on LaTiO ₂ N for enhanced water oxidation under visible-light irradiation. Applied Catalysis B: Environmental, 2018, 232, 268-274.	20.2	30
43	Biochar production by coconut shell gasification in supercritical water and evolution of its porous structure. Journal of Analytical and Applied Pyrolysis, 2021, 156, 105151.	5.5	30
44	Recent progress of energy harvesting and conversion coupled with atmospheric water gathering. Energy Conversion and Management, 2021, 246, 114668.	9.2	29
45	Co ₃ (OH) ₂ (HPO ₄) ₂ as a novel photocatalyst for O ₂ evolution under visible-light irradiation. Catalysis Science and Technology, 2016, 6, 8080-8088.	4.1	27
46	Photocatalytic overall water splitting without noble-metal: Decorating CoP on Al-doped SrTiO ₃ . Journal of Colloid and Interface Science, 2022, 606, 491-499.	9.4	27
47	Surface Recombination Passivation of the BiVO ₄ Photoanode by the Synergistic Effect of the Cobalt/Nickel Sulfide Cocatalyst. ACS Applied Energy Materials, 2020, 3, 9089-9097.	5.1	26
48	Controllable synthesis of double layered tubular CdSe/ZnO arrays and their photoelectrochemical performance for hydrogen production. Applied Catalysis B: Environmental, 2013, 138-139, 304-310.	20.2	24
49	Unconventional High-Index Facet of Iridium Boosts Oxygen Evolution Reaction: How the Facet Matters. ACS Catalysis, 2021, 11, 8239-8246.	11.2	23
50	Accelerating Molecular Design of Cage Energetic Materials with Zero Oxygen Balance through Large-Scale Database Search. Journal of Physical Chemistry Letters, 2021, 12, 11591-11597.	4.6	23
51	A novel Sn ₂ Sb ₂ O ₇ nanophotocatalyst for visible-light-driven H ₂ evolution. Nano Research, 2012, 5, 576-583.	10.4	22
52	Functionalized nanostructures for enhanced photocatalytic performance under solar light. Beilstein Journal of Nanotechnology, 2014, 5, 994-1004.	2.8	22
53	Self-assembled nanohybrid of cadmium sulfide and calcium niobate: Photocatalyst with enhanced charge separation for efficient visible light induced hydrogen generation. Catalysis Today, 2018, 315, 117-125.	4.4	21
54	Numerical simulation on natural convection and temperature distribution of supercritical water in a side-wall heated cavity. Journal of Supercritical Fluids, 2022, 181, 105465.	3.2	21

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55	Bridging regulation in graphitic carbon nitride for band-structure modulation and directional charge transfer towards efficient H ₂ evolution under visible-light irradiation. Journal of Colloid and Interface Science, 2021, 601, 220-228.	9.4	19
56	Simply blending Ni nanoparticles with typical photocatalysts for efficient photocatalytic H ₂ production. Catalysis Science and Technology, 2019, 9, 7016-7022.	4.1	18
57	Hydrogen Production from Supercritical Water Gasification of Lignin and Cellulose with Coprecipitated CuO-ZnO and Fe ₂ O ₃ -Cr ₂ O ₃ . Industrial & Engineering Chemistry Research, 2021, 60, 7033-7042.	3.7	17
58	Visible light-driven photocatalysis of doped SrTiO ₃ tubular structure. Optics Express, 2012, 20, A351.	3.4	16
59	A comparative study on structural and electronic properties and formation energy of bulk Fe ₂ O ₃ using first-principles calculations with different density functionals. Computational Materials Science, 2016, 113, 117-122.	3.0	15
60	Enhanced adsorption capacity of polypyrrole/TiO ₂ composite modified by carboxylic acid with hydroxyl group. RSC Advances, 2016, 6, 42572-42580.	3.6	15
61	A self-doping strategy to improve the photoelectrochemical performance of Cu ₂ ZnSnS ₄ nanocrystal films for water splitting. Chemical Communications, 2019, 55, 12396-12399.	4.1	15
62	One-pot fabrication of 2D/2D HCa ₂ Nb ₃ O ₁₀ /g-C ₃ N ₄ type II heterojunctions towards enhanced photocatalytic H ₂ evolution under visible-light irradiation. Catalysis Science and Technology, 2020, 10, 5896-5902.	4.1	15
63	Accelerating the search of CHONF-containing highly energetic materials by combinatorial library design and high-throughput screening. Fuel, 2022, 310, 122241.	6.4	15
64	EDTA-dominated hollow tube-like porous graphitic carbon nitride towards enhanced photocatalytic hydrogen evolution. Journal of Colloid and Interface Science, 2022, 619, 289-297.	9.4	14
65	Transferring the available fused cyclic scaffolds for high-throughput combinatorial design of highly energetic materials via database mining. Fuel, 2022, 324, 124591.	6.4	14
66	Tin(II) Antimonates with Adjustable Compositions: Effects of Band Gaps and Nanostructures on Visible-Light-Driven Photocatalytic H ₂ Evolution. ChemCatChem, 2012, 4, 1389-1396.	3.7	13
67	Enhanced photocatalytic hydrogen production activity of chromium doped lead niobate under visible-light irradiation. Applied Catalysis A: General, 2013, 468, 403-409.	4.3	13
68	Nanosized BaSnO ₃ as Electron Transport Promoter Coupled with g-C ₃ N ₄ toward Enhanced Photocatalytic H ₂ Production. Advanced Sustainable Systems, 2021, 5, 2100138.	5.3	13
69	(Oxy)nitride heterojunction-strengthened separation of photogenerated carriers in g-C ₃ N ₄ towards enhanced photocatalytic H ₂ evolution. Applied Catalysis A: General, 2022, 643, 118746.	4.3	13
70	PbO-sensitized ZnO nanorod arrays for enhanced visible-light-driven photoelectrochemical performance. Journal of Materials Research, 2016, 31, 1622-1630.	2.6	11
71	Light-driven removal of rhodamine B over SrTiO ₃ modified Bi ₂ WO ₆ composites. RSC Advances, 2016, 6, 83471-83481.	3.6	11
72	Facile layer-by-layer self-assembly of 2D perovskite niobate and layered double hydroxide nanosheets for enhanced photocatalytic oxygen generation. International Journal of Hydrogen Energy, 2021, 46, 34276-34286.	7.1	10

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73	Study on supercritical water gasification reaction and kinetic of coal model compounds. Fuel Processing Technology, 2022, 230, 107210.	7.2	10
74	First-principles study on absolute band edge positions for II–VI semiconductors at (110) surface. Chemical Physics Letters, 2011, 513, 72-76.	2.6	9
75	First-principles calculations of Cd _{1-x} Zn _x S doped with alkaline earth metals for photocatalytic hydrogen generation. International Journal of Hydrogen Energy, 2012, 37, 13074-13081.	7.1	9
76	Continuous solid solutions of Na _{0.5} La _{0.5} TiO ₃ –LaCrO ₃ for photocatalytic H ₂ evolution under visible-light irradiation. RSC Advances, 2016, 6, 51801-51806.	3.6	9
77	Morphologies dependence of hydrogen evolution over CeO ₂ via ultrasonic triggering. International Journal of Hydrogen Energy, 2022, 47, 15149-15159.	7.1	9
78	Eosin Y-sensitized nanosheet-stacked hollow-sphere TiO ₂ for efficient photocatalytic H ₂ production under visible-light irradiation. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	8
79	Molten Ag ₂ SO ₄ -based Ion-Exchange Preparation of Ag _{0.5} La _{0.5} TiO ₃ for Photocatalytic O ₂ Evolution. Chemistry - an Asian Journal, 2017, 12, 882-889.	3.3	8
80	A multichannel system for rapid determination of the activity for photocatalytic H ₂ production. AIChE Journal, 2012, 58, 3593-3596.	3.6	7
81	A First-Principles Investigation on Microscopic Atom Distribution and Configuration-Averaged Properties in Cd _{1-x} Zn _x S Solid Solutions. ChemPhysChem, 2014, 15, 3125-3132.	2.1	6
82	LaTiO ₂ N–LaCrO ₃ : continuous solid solutions towards enhanced photocatalytic H ₂ evolution under visible-light irradiation. Dalton Transactions, 2017, 46, 10685-10693.	3.3	6
83	High AC and DC Electroconductivity of Scalable and Economic Graphite–Diamond Polylactide Nanocomposites. Materials, 2021, 14, 2835.	2.9	6
84	Intra-Ring Bridging: A Strategy for Molecular Design of Highly Energetic Nitramines. Chinese Journal of Chemistry, 2021, 39, 2857-2864.	4.9	6
85	Study on Carbon Fixation and Gasification of Polypropylene and Polycarbonate in a CO ₂ Environment. Industrial & Engineering Chemistry Research, 2022, 61, 10436-10445.	3.7	6
86	Configuration dependence of the properties of Cd _{1-x} Zn _x S solid solutions by first-principles calculations. Physica Status Solidi (B): Basic Research, 2014, 251, 655-660.	1.5	5
87	Novel cubic-phase pyrochlore Sb(III)2Sn(IV)2O ₇ transformed from Sn(II)2Sb(V)2O ₇ : First-principles calculation-based prediction and experimental evidence. Materials and Design, 2016, 110, 207-213.	7.0	5
88	Strain effect on oxygen evolution reaction of the SrTiO ₃ (0 0 1) surface. Applied Physics Letters, 2021, 119, .	3.3	4
89	Efficient Photocatalytic Hydrogen Evolution Under Visible Light Over a Mesoporous Titania Crystallized by Thermal Treatment in Hydrogen. Science of Advanced Materials, 2013, 5, 982-986.	0.7	4
90	Architecture lattice-matched cauliflower-like CuO/ZnO p–n heterojunction toward efficient water splitting. Journal of Chemical Technology and Biotechnology, 2022, 97, 914-923.	3.2	4

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91	Experimental investigation on the production of hydrogen from discarded circuit boards in supercritical water. International Journal of Hydrogen Energy, 2022, 47, 31773-31785.	7.1	4
92	Photo-inactive ZIF-8 is applied to significantly enhance the photocatalytic water reduction by forming a built-in electric field with g-C ₃ N ₄ and the mechanism analysis. Journal of Environmental Chemical Engineering, 2022, 10, 107998.	6.7	4
93	Semiconductor-Based Photocatalytic, Photoelectrochemical, and Photovoltaic Solar-Energy Conversion. Scientific World Journal, The, 2014, 2014, 1-1.	2.1	2
94	Effects of mixed sacrificial reagents on hydrogen evolution over typical photocatalysts. Journal of Photonics for Energy, 2019, 10, 1.	1.3	2
95	Photoelectrochemical oxygen evolution with interdigitated array electrodes: the example of TiO ₂ . Nanotechnology, 2022, 33, 325701.	2.6	2
96	Shear-Induced Aggregation and Distribution in Photocatalysis Suspension System for Hydrogen Production. Industrial & Engineering Chemistry Research, 2022, 61, 6722-6732.	3.7	2
97	Facile one-pot pyrolysis preparation of $\text{SnO}_2/\text{g-C}_3\text{N}_4$ composites for improved photocatalytic H_2 production. Journal of Chemical Technology and Biotechnology, 2022, 97, 2921-2931.	3.2	2