

Mimicking Natural Photosynthesis: Solar to Renewable Z-Scheme Water Splitting Systems

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Efficient visible light-driven water oxidation and proton reduction by an ordered covalent triazine-based framework. <i>Energy and Environmental Science</i> , 2018, 11, 1617-1624.	15.6	212
2	Direct Z-scheme Cs ₂ O@Bi ₂ O ₃ @ZnO heterostructures for photocatalytic overall water splitting. <i>Journal of Materials Chemistry A</i> , 2018, 6, 21379-21388.	5.2	96
3	Titanate-based perovskites for photochemical and photoelectrochemical water splitting applications: A review. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 23209-23220.	3.8	72
4	A Step toward Economically Viable Solar Fuel Production. <i>CheM</i> , 2018, 4, 2490-2492.	5.8	1
5	Highly selective oxidation of methane to methanol at ambient conditions by titanium dioxide-supported iron species. <i>Nature Catalysis</i> , 2018, 1, 889-896.	16.1	391
6	All-in-one photosynthetic assemblies for solar fuels. <i>Materials Today Energy</i> , 2018, 10, 368-379.	2.5	2
7	Graphitic carbon nitride (g-C ₃ N ₄) electrodes for energy conversion and storage: a review on photoelectrochemical water splitting, solar cells and supercapacitors. <i>Journal of Materials Chemistry A</i> , 2018, 6, 22346-22380.	5.2	244
8	A Metal-Organic Framework-Derived g-C ₃ N ₄ /Fe ₂ O ₃ Hybrid for Enhanced Visible-Light-Driven Photocatalytic Hydrogen Evolution. <i>Chemistry - A European Journal</i> , 2019, 25, 2330-2336.	1.7	38
9	A Copper-Peptoid as a Highly Stable, Efficient, and Reusable Homogeneous Water Oxidation Electrocatalyst. <i>ACS Catalysis</i> , 2018, 8, 10631-10640.	5.5	49
10	Printable Photocatalyst Sheets Incorporating a Transparent Conductive Mediator for Z-Scheme Water Splitting. <i>Joule</i> , 2018, 2, 2667-2680.	11.7	74
11	Surface Strategies for Particulate Photocatalysts toward Artificial Photosynthesis. <i>Joule</i> , 2018, 2, 2260-2288.	11.7	146
12	Photochemical Water Oxidation in a Buffered Tris(2,2'-bipyridyl)ruthenium@Persulfate System Using Iron(III)-Modified Potassium Manganese Oxides as Catalysts. <i>ACS Omega</i> , 2018, 3, 11972-11981.	1.6	5
13	Single Pt Atom with Highly Vacant d-Orbital for Accelerating Photocatalytic H ₂ Evolution. <i>ACS Applied Energy Materials</i> , 2018, 1, 6082-6088.	2.5	93
14	Efficient Photochemical Reduction of Quinone into Hydroquinone Promoted by Imidazolyl <i>N</i> -H Proton. <i>Chemistry Letters</i> , 2018, 47, 1343-1345.	0.7	1
15	Enhanced H ₂ Evolution on ZnIn ₂ S ₄ Photocatalyst under Visible Light by Surface Modification with Metal Cyanoferrates. <i>Chemistry Letters</i> , 2018, 47, 941-944.	0.7	15
16	Current perspectives in engineering of viable hybrid photocathodes for solar hydrogen generation. <i>Advances in Natural Sciences: Nanoscience and Nanotechnology</i> , 2018, 9, 023001.	0.7	5
17	Bandgap Engineering of Organic Semiconductors for Highly Efficient Photocatalytic Water Splitting. <i>Advanced Energy Materials</i> , 2018, 8, 1801084.	10.2	127
18	Thermal O-H Bond Activation of Water As Mediated by Heteronuclear [Al ₂ Mg ₂ O ₅] ⁺ : Evidence for Oxygen-Atom Scrambling. <i>Journal of the American Chemical Society</i> , 2018, 140, 9275-9281.	6.6	13

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19	Particulate photocatalyst sheets based on non-oxide semiconductor materials for water splitting under visible light irradiation. <i>Catalysis Science and Technology</i> , 2018, 8, 3918-3925.	2.1	27
20	Improved Activity of Hydrothermally-prepared WO_3 Photocatalysts by Sodium Salt Additives. <i>Chemistry Letters</i> , 2018, 47, 985-988.	0.7	5
21	Seeing the Light: Advancing Materials Chemistry through Photopolymerization. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 5170-5189.	7.2	444
22	Seeing the Light: Advancing Materials Chemistry through Photopolymerization. <i>Angewandte Chemie</i> , 2019, 131, 5224-5243.	1.6	108
23	Effects of Se Incorporation in $\text{La}_5\text{Ti}_2\text{Cu}_5\text{O}_7$ by Annealing on Physical Properties and Photocatalytic H_2 Evolution Activity. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 5595-5601.	4.0	17
24	Photocatalytic Water Splitting for Solar Hydrogen Production Using the Carbonate Effect and the Z-Scheme Reaction. <i>Advanced Energy Materials</i> , 2019, 9, 1801294.	10.2	136
25	$\text{Bi}_{20}\text{TiO}_{32}$ Nanoparticles Doped with Yb^{3+} and Er^{3+} as UV, Visible, and Near-Infrared Responsive Photocatalysts. <i>ACS Applied Nano Materials</i> , 2019, 2, 5381-5388.	2.4	14
26	UV-vis-IR irradiation driven CO_2 reduction with high light-to-fuel efficiency on a unique nanocomposite of Ni nanoparticles loaded on Ni doped Al_2O_3 nanosheets. <i>Journal of Materials Chemistry A</i> , 2019, 7, 19800-19810.	5.2	18
27	Tuning the N-bonded cerium(III) fraction/ $\text{g-C}_3\text{N}_4$ interface in hollow structures using an <i>in situ</i> reduction treatment for superior photochemical hydrogen evolution. <i>Catalysis Science and Technology</i> , 2019, 9, 5322-5332.	2.1	16
28	Research advances towards large-scale solar hydrogen production from water. <i>EnergyChem</i> , 2019, 1, 100014.	10.1	130
29	Photoinduced Depolymerisation: Recent Advances and Future Challenges. <i>ChemPhotoChem</i> , 2019, 3, 1059-1076.	1.5	22
30	Utility of Squaraine Dyes for Dye-Sensitized Photocatalysis on Water or Carbon Dioxide Reduction. <i>ACS Omega</i> , 2019, 4, 14272-14283.	1.6	25
31	Tunable Covalent Triazine-Based Frameworks (CTF-0) for Visible-Light-Driven Hydrogen and Oxygen Generation from Water Splitting. <i>ACS Catalysis</i> , 2019, 9, 7697-7707.	5.5	131
32	Fundamentals and applications of photocatalytic CO_2 methanation. <i>Nature Communications</i> , 2019, 10, 3169.	5.8	304
33	Enhanced water splitting through two-step photoexcitation by sunlight using tantalum/nitrogen-codoped rutile titania as a water oxidation photocatalyst. <i>Sustainable Energy and Fuels</i> , 2019, 3, 2337-2346.	2.5	14
34	Nanocatalytic Medicine. <i>Advanced Materials</i> , 2019, 31, e1901778.	11.1	396
35	Dye-sensitized photocatalytic and photoelectrochemical hydrogen production through water splitting. <i>Rendiconti Lincei</i> , 2019, 30, 469-483.	1.0	8
36	Construction of $\text{Ag}_2\text{S}/\text{WO}_3$ Direct Z-Scheme Photocatalyst for Enhanced Charge Separation Efficiency and H_2 Generation Activity. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 14802-14813.	1.8	23

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37	Construction of direct all-solid-state Z-scheme p-n copper indium disulfide/tungsten oxide heterojunction photocatalysts: Function of interfacial electric field. <i>Journal of Colloid and Interface Science</i> , 2019, 555, 72-81.	5.0	29
38	Direct Deposition of Amorphous Cobalt-Vanadium Mixed Oxide Films for Electrocatalytic Water Oxidation. <i>ACS Omega</i> , 2019, 4, 12671-12679.	1.6	25
39	Alkali-assisted synthesis of direct Z-scheme based Bi ₂ O ₃ /Bi ₂ MoO ₆ photocatalyst for highly efficient photocatalytic degradation of phenol and hydrogen evolution reaction. <i>Journal of Catalysis</i> , 2019, 375, 399-409.	3.1	108
40	Deliberate construction of direct Z-scheme photocatalysts through photodeposition. <i>Journal of Materials Chemistry A</i> , 2019, 7, 18348-18356.	5.2	85
41	Recent Advances in Cu-Based Cocatalysts toward Solar Hydrogen Evolution: Categories and Roles. <i>Solar Rrl</i> , 2019, 3, 1900256.	3.1	41
42	Interface engineering of Ni ₅ P ₂ nanoparticles and a mesoporous PtRu film heterostructure on Ni foam for enhanced hydrogen evolution. <i>Nanotechnology</i> , 2019, 30, 485403.	1.3	1
43	Water Oxidation Catalysts for Artificial Photosynthesis. <i>Advanced Materials</i> , 2019, 31, e1902069.	11.1	215
44	Photoelectrochemical properties of copper oxide (CuO) influenced by work functions of conductive electrodes. <i>Research on Chemical Intermediates</i> , 2019, 45, 5947-5958.	1.3	15
45	Hybrid density functional theory description of non-metal doping in perovskite BaTiO ₃ for visible-light photocatalysis. <i>Journal of Solid State Chemistry</i> , 2019, 280, 121018.	1.4	21
46	Metal selenides for photocatalytic Z-scheme pure water splitting mediated by reduced graphene oxide. <i>Chinese Journal of Catalysis</i> , 2019, 40, 1668-1672.	6.9	21
47	Crystal Engineering of Bi ₂ WO ₆ to Polar Aurivillius-Phase Oxyhalides. <i>Journal of Physical Chemistry C</i> , 2019, 123, 29155-29161.	1.5	12
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52	Solar Hydrogen Production from Cost Effective Stannic Oxide Under Visible Light Irradiation. <i>Nanoscale Research Letters</i> , 2019, 14, 302.	3.1	3
53	Enhanced photoelectrocatalytic activity of direct Z-scheme porous amorphous carbon nitride/manganese dioxide nanorod arrays. <i>Journal of Colloid and Interface Science</i> , 2019, 557, 644-654.	5.0	39
54	Highly effective microwave catalytic direct decomposition of H ₂ S over carbon encapsulated Mo ₂ C-Co ₂ C/SiC composite. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 25680-25694.	3.8	16

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58	Disordered layers on WO ₃ nanoparticles enable photochemical generation of hydrogen from water. Journal of Materials Chemistry A, 2019, 7, 221-227.	5.2	54
59	Recent developments in heterogeneous photocatalysts for solar-driven overall water splitting. Chemical Society Reviews, 2019, 48, 2109-2125.	18.7	1,639
60	Z-scheme photocatalyst systems employing Rh- and Ir-doped metal oxide materials for water splitting under visible light irradiation. Faraday Discussions, 2019, 215, 313-328.	1.6	33
61	Electrocatalytic Water Oxidation by Mononuclear Cu(II) Aliphatic Tetraamine Complexes. ChemCatChem, 2019, 11, 5306-5312.	1.8	6
62	A New Strategy for Solar-Hydrogen Energy Conversion: Photothermal-Promoted Electrocatalytic Water Splitting. ChemElectroChem, 2019, 6, 2762-2765.	1.7	15
63	Optimal construction of WO ₃ -H ₂ O/Pd/CdS ternary Z-scheme photocatalyst with remarkably enhanced performance for oxidative coupling of benzylamines. Journal of Catalysis, 2019, 374, 378-390.	3.1	106
64	Probing supramolecular assembly and charge carrier dynamics toward enhanced photocatalytic hydrogen evolution in 2D graphitic carbon nitride nanosheets. Applied Catalysis B: Environmental, 2019, 256, 117867.	10.8	137
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71	A Theoretical Perspective on Charge Separation and Transfer in Metal Oxide Photocatalysts for Water Splitting. ChemCatChem, 2019, 11, 3688-3715.	1.8	27
72	Solar Water Splitting under Neutral Conditions Using Z-Scheme Systems with Mo-Doped BiVO ₄ as an O ₂ -Evolving Photocatalyst. Energy Technology, 2019, 7, 1900358.	1.8	13

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73	Boosting ORR/OER Activity of Graphdiyne by Simple Heteroatom Doping. <i>Small Methods</i> , 2019, 3, 1800550.	4.6	149
74	Ultrafast spectroscopic study of plasmon-induced hot electron transfer under NIR excitation in Au triangular nanoprism/g-C ₃ N ₄ for photocatalytic H ₂ production. <i>Chemical Communications</i> , 2019, 55, 6014-6017.	2.2	45
75	Separation of hot electrons and holes in Au/LaFeO ₃ to boost the photocatalytic activities both for water reduction and oxidation. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 13242-13252.	3.8	36
76	Z-scheme water splitting by microspherical Rh-doped SrTiO ₃ photocatalysts prepared by a spray drying method. <i>Applied Catalysis B: Environmental</i> , 2019, 252, 222-229.	10.8	31
77	Recent progress of tungsten- and molybdenum-based semiconductor materials for solar-hydrogen production. <i>Tungsten</i> , 2019, 1, 19-45.	2.0	27
78	Semiconductor polymeric graphitic carbon nitride photocatalysts: the "holy grail" for the photocatalytic hydrogen evolution reaction under visible light. <i>Energy and Environmental Science</i> , 2019, 12, 2080-2147.	15.6	803
79	Photocatalytic water splitting employing a [Fe(CN) ₆] ^{3-/4-} redox mediator under visible light. <i>Catalysis Science and Technology</i> , 2019, 9, 2019-2024.	2.1	22
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81	Synthesis of silver-loaded ZnO nanorods and their enhanced photocatalytic activity and photoconductivity study. <i>Photochemical and Photobiological Sciences</i> , 2019, 18, 1503-1511.	1.6	48
82	Oriented Transformation of Co-LDH into 2D/3D ZIF-67 to Achieve Co-N-C Hybrids for Efficient Overall Water Splitting. <i>Advanced Energy Materials</i> , 2019, 9, 1803918.	10.2	260
83	Z-scheme Ag ₂ O/Ag/amorphous TiO ₂ shells for enhanced plasmonic photoelectrochemical assay of nitrogen dioxide. <i>Sensors and Actuators B: Chemical</i> , 2019, 289, 138-143.	4.0	17
84	All-solid-state metal-mediated Z-scheme photoelectrochemical immunoassay with enhanced photoexcited charge-separation for monitoring of prostate-specific antigen. <i>Biosensors and Bioelectronics</i> , 2019, 134, 1-7.	5.3	62
85	Trifluoromethylation for affecting the structural, electronic and redox properties of cobalt corroles. <i>Dalton Transactions</i> , 2019, 48, 4798-4810.	1.6	28
86	Reaction systems for solar hydrogen production via water splitting with particulate semiconductor photocatalysts. <i>Nature Catalysis</i> , 2019, 2, 387-399.	16.1	985
87	Metal selenide photocatalysts for visible-light-driven Z-scheme pure water splitting. <i>Journal of Materials Chemistry A</i> , 2019, 7, 7415-7422.	5.2	67
88	Preparation of Z-scheme WO ₃ (H ₂ O) _{0.333} /Ag ₃ PO ₄ composites with enhanced photocatalytic activity and durability. <i>Chinese Journal of Catalysis</i> , 2019, 40, 326-334.	6.9	55
89	Molecular Catalysts Immobilized on Semiconductor Photosensitizers for Proton Reduction toward Visible-Light-Driven Overall Water Splitting. <i>ChemSusChem</i> , 2019, 12, 1807-1824.	3.6	25
90	Complex Photoconductivity Reveals How the Nonstoichiometric Sr/Ti Affects the Charge Dynamics of a SrTiO ₃ Photocatalyst. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1986-1991.	2.1	16

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102	A steady composite molecular anode Ru1/MWCNTsCOOH/GC for robust catalytic water oxidation. Journal of Energy Chemistry, 2019, 35, 49-54.	7.1	6
103	Hydrogen from wet air and sunlight in a tandem photoelectrochemical cell. International Journal of Hydrogen Energy, 2019, 44, 587-593.	3.8	22
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105	Fabrication of flexible MIL-100(Fe) supported SiO ₂ nanofibrous membrane for visible light photocatalysis. Journal of Materials Science: Materials in Electronics, 2019, 30, 1009-1016.	1.1	23
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110	In situ synthesis of Z-scheme BiPO ₄ /BiOClO ₉ 10.1 heterostructure with multiple vacancies and valence for efficient photocatalytic degradation of organic pollutant. <i>Separation and Purification Technology</i> , 2019, 213, 34-44.	3.9	45
111	Efficient Light Harvesting Systems with Tunable Emission through Controlled Precipitation in Confined Nanospace. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 1643-1647.	7.2	76
112	Efficient Light Harvesting Systems with Tunable Emission through Controlled Precipitation in Confined Nanospace. <i>Angewandte Chemie</i> , 2019, 131, 1657-1661.	1.6	23
113	Photocatalytic hydrogen production using metal doped TiO ₂ : A review of recent advances. <i>Applied Catalysis B: Environmental</i> , 2019, 244, 1021-1064.	10.8	676
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115	Enhanced photocatalytic hydrogen production over conjugated polymer/black TiO ₂ hybrid: The impact of constructing active defect states. <i>Applied Surface Science</i> , 2019, 465, 288-296.	3.1	26
116	The role of bandgap and interface in enhancing photocatalytic H ₂ generation activity of 2D-2D black phosphorus/MoS ₂ photocatalyst. <i>Applied Catalysis B: Environmental</i> , 2019, 242, 1-8.	10.8	149
117	Perovskitoxid Elektroden zur leistungsstarken photoelektrochemischen Wasserspaltung. <i>Angewandte Chemie</i> , 2020, 132, 140-158.	1.6	8
118	Perovskite Oxide Based Electrodes for High Performance Photoelectrochemical Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 136-152.	7.2	253
119	Emerging surface strategies on graphitic carbon nitride for solar driven water splitting. <i>Chemical Engineering Journal</i> , 2020, 382, 122812.	6.6	155
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125	Construction of two-dimensionally relative p-n heterojunction for efficient photocatalytic redox reactions under visible light. <i>Applied Surface Science</i> , 2020, 505, 144638.	3.1	37
126	In Situ Construction of Ag/TiO ₂ /g-C ₃ N ₄ Heterojunction Nanocomposite Based on Hierarchical Co-Assembly with Sustainable Hydrogen Evolution. <i>Nanomaterials</i> , 2020, 10, 1.	1.9	340

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128	Porphyrin-based photocatalysts for hydrogen production. <i>MRS Bulletin</i> , 2020, 45, 49-56.	1.7	40
129	Investigating Proteinâ€Nanocrystal Interactions for Photodriven Activity. <i>ACS Applied Bio Materials</i> , 2020, 3, 1026-1035.	2.3	8
130	Carboxyl functionalized graphite carbon nitride for remarkably enhanced photocatalytic hydrogen evolution. <i>Applied Catalysis B: Environmental</i> , 2020, 266, 118590.	10.8	60
131	Conjugated polymers for visible-light-driven photocatalysis. <i>Energy and Environmental Science</i> , 2020, 13, 24-52.	15.6	452
132	Layer-by-layer assembly for immobilizing enzymes in enzymatic biofuel cells. <i>Sustainable Energy and Fuels</i> , 2020, 4, 68-79.	2.5	36
133	Defect Engineering of Photocatalysts for Solar Energy Conversion. <i>Solar Rrl</i> , 2020, 4, 1900487.	3.1	85
134	Sunlight-Mediated Thiolâ€Nene/One Click Reaction: Synthesis and DNA Transfection Efficiency of New Cationic Lipids. <i>ACS Omega</i> , 2020, 5, 735-750.	1.6	8
135	Redoxâ€Active Ligand Assisted Catalytic Water Oxidation by a Ru IV =O Intermediate. <i>Angewandte Chemie</i> , 2020, 132, 4029-4037.	1.6	11
136	Redoxâ€Active Ligand Assisted Catalytic Water Oxidation by a Ru^{IV}=O Intermediate. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 4000-4008.	7.2	40
137	Ultrathin Prussian blue analogue nanosheet arrays with open bimetal centers for efficient overall water splitting. <i>Nano Energy</i> , 2020, 68, 104371.	8.2	123
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