

Redox shuttle mechanism enhances photocatalytic H₂ generation from CdS nanorods

Nature Materials

13, 1013-1018

DOI: [10.1038/nmat4049](https://doi.org/10.1038/nmat4049)

Citation Report

#	ARTICLE	IF	CITATIONS
4	Enhanced hydrogen evolution rates at high pH with a colloidal cadmium sulphideâ€“platinum hybrid system. <i>APL Materials</i> , 2014, 2, 126102.	2.2	9
6	Photocatalytic Formic Acid Conversion on CdS Nanocrystals with Controllable Selectivity for H ₂ or CO. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 9627-9631.	7.2	96
8	A Unique Ternary Semiconductorâ€“(Semiconductor/Metal) Nanoâ€“Architecture for Efficient Photocatalytic Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 11495-11500.	7.2	118
9	Natureâ€“Inspired Environmental â€“Phosphorylationâ€“Boosts Photocatalytic H ₂ Production over Carbon Nitride Nanosheets under Visibleâ€“Light Irradiation. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 13561-13565.	7.2	287
10	Integrating a Photocatalyst into a Hybrid Lithiumâ€“Sulfur Battery for Direct Storage of Solar Energy. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 9271-9274.	7.2	104
13	Highly-efficient cocatalyst-free H ₂ -evolution over silica-supported CdS nanoparticle photocatalysts under visible light. <i>Chemical Communications</i> , 2015, 51, 10676-10679.	2.2	40
14	Exceptional enhancement of H ₂ production in alkaline environment over plasmonic Au/TiO ₂ photocatalyst under visible light. <i>APL Materials</i> , 2015, 3, .	2.2	16
15	Surface Ti ³⁺ /Ti ⁴⁺ Redox Shuttle Enhancing Photocatalytic H ₂ Production in Ultrathin TiO ₂ Nanosheets/CdSe Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2015, 119, 27053-27059.	1.5	49
16	Sub-10nm rutile titanium dioxide nanoparticles for efficient visible-light-driven photocatalytic hydrogen production. <i>Nature Communications</i> , 2015, 6, 5881.	5.8	653
17	Twoâ€“Dimensional Architecture at Nanojunctions for Photocatalytic Hydrogen Generation. <i>ChemCatChem</i> , 2015, 7, 904-906.	1.8	12
18	Znâ€“CdS/Graphene oxide heterostructures prepared by a light irradiation-assisted method for effective photocatalytic hydrogen generation. <i>Journal of Colloid and Interface Science</i> , 2015, 446, 150-154.	5.0	33
19	Prospects of Nanoscience with Nanocrystals. <i>ACS Nano</i> , 2015, 9, 1012-1057.	7.3	1,005
20	Novel-CdS-nanorod with stacking fault structures: Preparation and properties of visible-light-driven photocatalytic hydrogen production from water. <i>Chemical Engineering Journal</i> , 2015, 279, 747-756.	6.6	45
21	Light-induced water splitting by titanium-tetrahydroxide: a computational study. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 20308-20321.	1.3	16
22	Efficient Extraction of Trapped Holes from Colloidal CdS Nanorods. <i>Journal of the American Chemical Society</i> , 2015, 137, 10224-10230.	6.6	177
23	Emerging strategies for the synthesis of monodisperse colloidal semiconductor quantum rods. <i>Journal of Materials Chemistry C</i> , 2015, 3, 8284-8293.	2.7	25
24	Nickel-based cocatalysts for photocatalytic hydrogen production. <i>Applied Surface Science</i> , 2015, 351, 779-793.	3.1	213
25	MoP is a novel, noble-metal-free cocatalyst for enhanced photocatalytic hydrogen production from water under visible light. <i>Journal of Materials Chemistry A</i> , 2015, 3, 16941-16947.	5.2	211

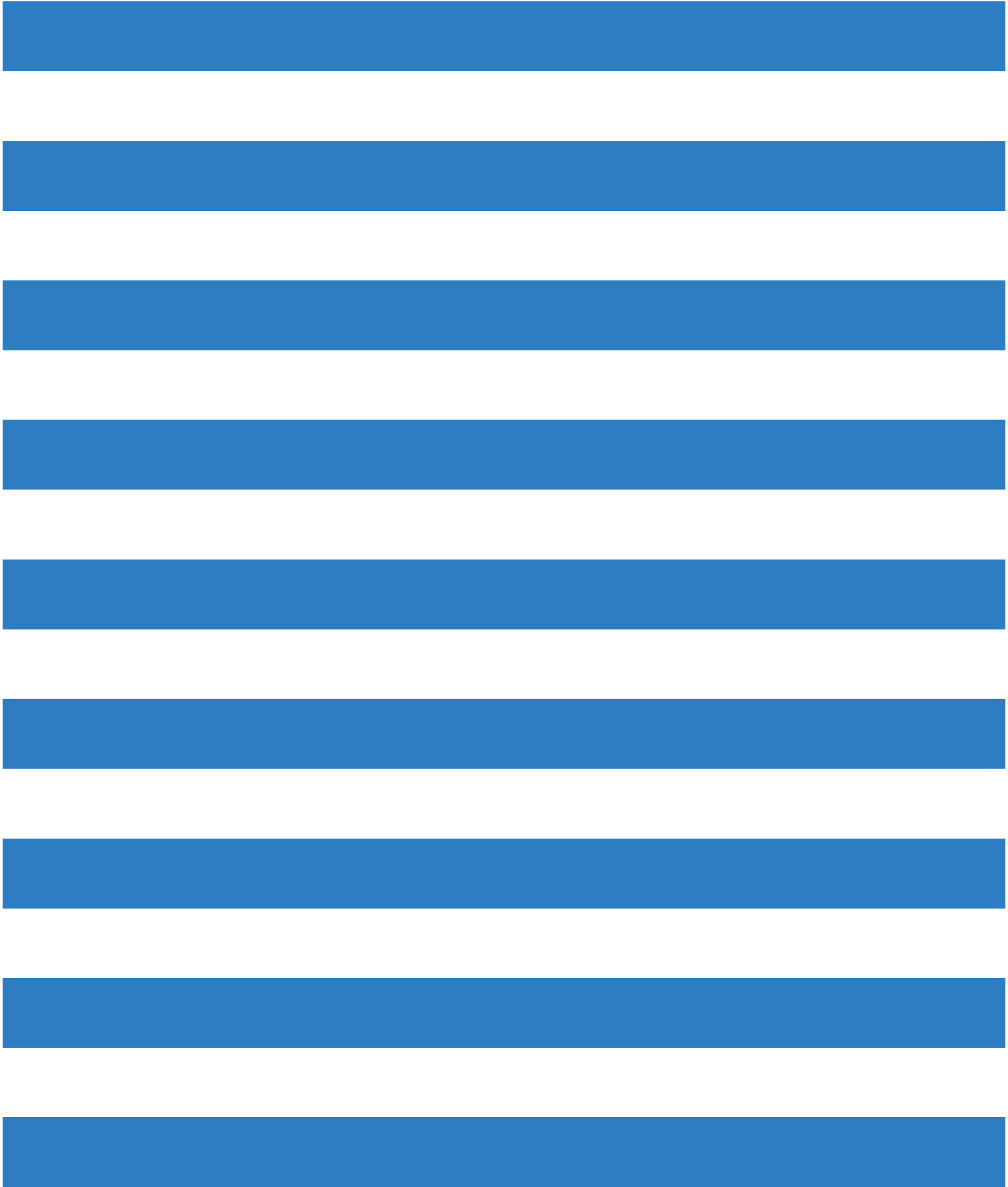
#	ARTICLE	IF	CITATIONS
26	Urchin-like Au@CdS/WO ₃ micro/nano heterostructure as a visible-light driven photocatalyst for efficient hydrogen generation. <i>Chemical Communications</i> , 2015, 51, 13842-13845.	2.2	82
27	Tertiary amine mediated aerobic oxidation of sulfides into sulfoxides by visible-light photoredox catalysis on TiO ₂ . <i>Chemical Science</i> , 2015, 6, 5000-5005.	3.7	89
28	Facile preparation of semimetallic MoP ₂ as a novel visible light driven photocatalyst with high photocatalytic activity. <i>Journal of Materials Chemistry A</i> , 2015, 3, 10360-10367.	5.2	42
29	Organic polymers form fuel from water. <i>Nature</i> , 2015, 521, 41-42.	13.7	76
30	Nanocrystal engineering of noble metals and metal chalcogenides: controlling the morphology, composition and crystallinity. <i>CrystEngComm</i> , 2015, 17, 3727-3762.	1.3	113
31	Colloidal dual-band gap cell for photocatalytic hydrogen generation. <i>Nanoscale</i> , 2015, 7, 16606-16610.	2.8	12
32	A tunable azine covalent organic framework platform for visible light-induced hydrogen generation. <i>Nature Communications</i> , 2015, 6, 8508.	5.8	940
33	An aqueous one-pot route to gold/quantum rod heterostructured nanoparticles functionalized with DNA. <i>Chemical Communications</i> , 2015, 51, 16119-16122.	2.2	3
34	Molecular co-catalyst accelerating hole transfer for enhanced photocatalytic H ₂ evolution. <i>Nature Communications</i> , 2015, 6, 8647.	5.8	172
35	Ultra-low content of Pt modified CdS nanorods: one-pot synthesis and high photocatalytic activity for H ₂ production under visible light. <i>Journal of Materials Chemistry A</i> , 2015, 3, 23732-23742.	5.2	137
36	Single-Pot Synthesis of {100}-Faceted N-Doped Nb ₂ O ₅ /Reduced Graphene Oxide Nanocomposite for Efficient Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 17954-17962.	4.0	56
37	Light-Induced Cation Exchange for Copper Sulfide Based CO ₂ Reduction. <i>Journal of the American Chemical Society</i> , 2015, 137, 14007-14010.	6.6	132
38	Photocatalytic Applications of Colloidal Heterostructured Nanocrystals: What's Next?. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4352-4359.	2.1	47
39	Efficient Photocatalytic Hydrogen Generation from Ni Nanoparticle Decorated CdS Nanosheets. <i>ACS Catalysis</i> , 2015, 5, 6615-6623.	5.5	144
40	Multi-functional CNT/ZnO/TiO ₂ nanocomposite membrane for concurrent filtration and photocatalytic degradation. <i>Separation and Purification Technology</i> , 2015, 156, 922-930.	3.9	63
41	Metal Ni-loaded g-C ₃ N ₄ for enhanced photocatalytic H ₂ evolution activity: the change in surface band bending. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 29899-29905.	1.3	162
42	Uniform decoration of Pt nanoparticles on well-defined CdSe tetrapods and the effect of their Pt cluster size on photocatalytic H ₂ generation. <i>CrystEngComm</i> , 2015, 17, 8423-8427.	1.3	18
43	Toward Facet Engineering of CdS Nanocrystals and Their Shape-Dependent Photocatalytic Activities. <i>Journal of Physical Chemistry C</i> , 2015, 119, 20555-20560.	1.5	78

#	ARTICLE	IF	CITATIONS
44	Ag-Decorated ATaO ₃ (A = K, Na) Nanocube Plasmonic Photocatalysts with Enhanced Photocatalytic Water-Splitting Properties. <i>Langmuir</i> , 2015, 31, 9694-9699.	1.6	71
45	Designing Bimetallic Co-Catalysts: A Party of Two. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3760-3764.	2.1	44
46	Near-Infrared Plasmonic-Enhanced Solar Energy Harvest for Highly Efficient Photocatalytic Reactions. <i>Nano Letters</i> , 2015, 15, 6295-6301.	4.5	246
47	Synthesis of AgInS ₂ -xAg ₂ S-yZnS-zIn ₆ S ₇ (x, y, z = 0, or 1) Nanocomposites with Composition-Dependent Activity towards Solar Hydrogen Evolution. <i>Materials</i> , 2016, 9, 329.	1.3	3
48	Observation of trapped-hole diffusion on the surfaces of CdS nanorods. <i>Nature Chemistry</i> , 2016, 8, 1061-1066.	6.6	108
49	Molecular Engineering of Conjugated Polybenzothiadiazoles for Enhanced Hydrogen Production by Photosynthesis. <i>Angewandte Chemie</i> , 2016, 128, 9348-9352.	1.6	70
50	The potential of imogolite nanotubes as (co-)photocatalysts: a linear-scaling density functional theory study. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 074003.	0.7	28
51	Intermetallic Ni _x M _y (M = Ga and Sn) Nanocrystals: A Non-precious Metal Catalyst for Semi-Hydrogenation of Alkynes. <i>Advanced Materials</i> , 2016, 28, 4747-4754.	11.1	145
52	Transition Metal Disulfides as Noble-Metal Alternative Co-Catalysts for Solar Hydrogen Production. <i>Advanced Energy Materials</i> , 2016, 6, 1502555.	10.2	279
53	Nanoplasmonic Photoluminescence Spectroscopy at Single-Particle Level: Sensing for Ethanol Oxidation. <i>Angewandte Chemie</i> , 2016, 128, 2929-2933.	1.6	9
54	Synthesis of Semiconductor Nanocrystals, Focusing on Nontoxic and Earth-Abundant Materials. <i>Chemical Reviews</i> , 2016, 116, 10731-10819.	23.0	469
55	A Floating Sheet for Efficient Photocatalytic Water Splitting. <i>Advanced Energy Materials</i> , 2016, 6, 1600510.	10.2	74
56	Molecular Engineering of Conjugated Polybenzothiadiazoles for Enhanced Hydrogen Production by Photosynthesis. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 9202-9206.	7.2	326
57	A highly active cocatalyst-free semiconductor photocatalyst for visible-light-driven hydrogen evolution: synergistic effect of surface defects and spatial bandgap engineering. <i>Journal of Materials Chemistry A</i> , 2016, 4, 13803-13808.	5.2	26
58	Strongly Coupled Nafion Molecules and Ordered Porous CdS Networks for Enhanced Visible-Light Photoelectrochemical Hydrogen Evolution. <i>Advanced Materials</i> , 2016, 28, 4935-4942.	11.1	95
59	Probing the ultrafast dynamics in nanomaterial complex systems by femtosecond transient absorption spectroscopy. <i>High Power Laser Science and Engineering</i> , 2016, 4, .	2.0	26
60	Quantum confined colloidal nanorod heterostructures for solar-to-fuel conversion. <i>Chemical Society Reviews</i> , 2016, 45, 3781-3810.	18.7	246
61	Enhanced Air Stability in REPb ₃ (RE = Rare Earths) by Dimensional Reduction Mediated Valence Transition. <i>Inorganic Chemistry</i> , 2016, 55, 5603-5611.	1.9	3

#	ARTICLE	IF	CITATIONS
62	Facile fabrication and enhanced visible-light photocatalytic activity of $\text{In}_2\text{O}_3/\text{Ag}_2\text{CrO}_4$ composites. RSC Advances, 2016, 6, 52627-52635.	1.7	23
63	MoS_2/CdS Nanosheets-on-Nanorod Heterostructure for Highly Efficient Photocatalytic H_2 Generation under Visible Light Irradiation. ACS Applied Materials & Interfaces, 2016, 8, 15258-15266.	4.0	426
64	Effect of RGO/ $\text{ZnxCd}1-x\text{S}$ crystalline phase on solar photoactivation processes. RSC Advances, 2016, 6, 46282-46290.	1.7	8
65	Size Effects of Platinum Nanoparticles in the Photocatalytic Hydrogen Production Over 3D Mesoporous Networks of CdS and Pt Nanojunctions. Advanced Functional Materials, 2016, 26, 8062-8071.	7.8	98
66	Controlling Shape Anisotropy of $\text{ZnS}/\text{AgInS}_2$ Solid Solution Nanoparticles for Improving Photocatalytic Activity. ACS Applied Materials & Interfaces, 2016, 8, 27151-27161.	4.0	53
67	Simultaneous Optimization of Colloidal Stability and Interfacial Charge Transfer Efficiency in Photocatalytic Pt/CdS Nanocrystals. ACS Applied Materials & Interfaces, 2016, 8, 29434-29441.	4.0	20
68	Synergistic Effect of a Molecular Cocatalyst and a Heterojunction in a ZnO Semiconductor Photocatalyst for Robust and Highly Efficient Solar Hydrogen Production. ChemSusChem, 2016, 9, 3084-3092.	3.6	32
69	Enzymatic photosynthesis of formate from carbon dioxide coupled with highly efficient photoelectrochemical regeneration of nicotinamide cofactors. Green Chemistry, 2016, 18, 5989-5993.	4.6	69
70	Electrostatic Control of Excitonic Energies and Dynamics in a CdS Quantum Dot through Reversible Protonation of Its Ligands. Journal of Physical Chemistry Letters, 2016, 7, 3954-3960.	2.1	17
71	Ultrafast Dynamics of Photogenerated Holes at a $\text{CH}_3\text{OH}/\text{TiO}_2$ Rutile Interface. Journal of the American Chemical Society, 2016, 138, 13740-13749.	6.6	126
72	Hybrid Semiconductor-Metal Nanorods as Photocatalysts. Topics in Current Chemistry, 2016, 374, 54.	3.0	55
73	Metallic 1T phase MoS_2 nanosheets as a highly efficient co-catalyst for the photocatalytic hydrogen evolution of CdS nanorods. RSC Advances, 2016, 6, 74394-74399.	1.7	48
74	Metal-semiconductor double shell hollow nanocubes for highly stable hydrogen generation photocatalysts. Journal of Materials Chemistry A, 2016, 4, 13414-13418.	5.2	30
75	Electronic Processes within Quantum Dot-Molecule Complexes. Chemical Reviews, 2016, 116, 12865-12919.	23.0	276
76	Enhanced photocatalytic H_2 production on CdS nanorod using cobalt-phosphate as oxidation cocatalyst. Applied Surface Science, 2016, 389, 775-782.	3.1	212
77	Enhanced photocatalytic H_2 production on cadmium sulfide photocatalysts using nickel nitride as a novel cocatalyst. Journal of Materials Chemistry A, 2016, 4, 13289-13295.	5.2	116
78	Hole-Accepting-Ligand-Modified CdSe QDs for Dramatic Enhancement of Photocatalytic and Photoelectrochemical Hydrogen Evolution by Solar Energy. Advanced Science, 2016, 3, 1500282.	5.6	60
79	Efficient Visible Light-Driven Splitting of Alcohols into Hydrogen and Corresponding Carbonyl Compounds over a Ni-Modified CdS Photocatalyst. Journal of the American Chemical Society, 2016, 138, 10128-10131.	6.6	303

#	ARTICLE	IF	CITATIONS
---	---------	----	-----------

80



#	ARTICLE	IF	CITATIONS
98	Nanometals for Solar-Driven Chemical Energy Conversion: From Semiconductor-Based Photocatalysis to Plasmon-Mediated Photocatalysis and Photo-Thermocatalysis. <i>Advanced Materials</i> , 2016, 28, 6781-6803.	11.1	471
99	Integration of Semiconducting Sulfides for Full-Spectrum Solar Energy Absorption and Efficient Charge Separation. <i>Angewandte Chemie</i> , 2016, 128, 6506-6510.	1.6	21
100	Blue-photodecomposition of hydrazine in aqueous solution for H ₂ production by using CdS photocatalyst. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 2179-2184.	1.6	9
101	Surface and interface design in cocatalysts for photocatalytic water splitting and CO ₂ reduction. <i>RSC Advances</i> , 2016, 6, 57446-57463.	1.7	178
102	MXene: a promising photocatalyst for water splitting. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11446-11452.	5.2	569
103	Selective Growth of Ni Tips on Nanorod Photocatalysts. <i>Chemistry of Materials</i> , 2016, 28, 4524-4527.	3.2	30
104	Hot spots growth on single nanowire controlled by electric charge. <i>Nanoscale</i> , 2016, 8, 12029-12034.	2.8	6
105	Delayed electron relaxation in CdTe nanorods studied by spectral analysis of the ultrafast transient absorption. <i>Chemical Physics</i> , 2016, 471, 39-45.	0.9	8
106	Understanding divergent behaviors in the photocatalytic hydrogen evolution reaction on CdS and ZnS: a DFT based study. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 16862-16869.	1.3	36
107	Enhanced Photocatalytic H ₂ Production in Core-Shell Engineered Rutile TiO ₂ . <i>Advanced Materials</i> , 2016, 28, 5850-5856.	11.1	183
108	Nanoplasmonic Photoluminescence Spectroscopy at Single-Particle Level: Sensing for Ethanol Oxidation. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 2879-2883.	7.2	23
109	Integration of Semiconducting Sulfides for Full-Spectrum Solar Energy Absorption and Efficient Charge Separation. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 6396-6400.	7.2	119
110	Synthesis and characterization of BiPO ₄ /g-C ₃ N ₄ nanocomposites with significantly enhanced visible-light photocatalytic activity for benzene degradation. <i>RSC Advances</i> , 2016, 6, 20664-20670.	1.7	51
111	Mesoporous silicon carbide nanofibers with in situ embedded carbon for co-catalyst free photocatalytic hydrogen production. <i>Nano Research</i> , 2016, 9, 886-898.	5.8	85
112	Perfect Photon-to-Hydrogen Conversion Efficiency. <i>Nano Letters</i> , 2016, 16, 1776-1781.	4.5	242
113	In situ synthesis of porous ZnO-embedded Zn _{1-x} Cd _x S/CdS heterostructures for enhanced photocatalytic activity. <i>CrystEngComm</i> , 2016, 18, 1446-1452.	1.3	9
114	Plasmonic Au nanoparticles embedding enhances the activity and stability of CdS for photocatalytic hydrogen evolution. <i>Chemical Communications</i> , 2016, 52, 2394-2397.	2.2	82
115	Stability of Seeded Rod Photocatalysts: Atomic Scale View. <i>Chemistry of Materials</i> , 2016, 28, 1546-1552.	3.2	25

#	ARTICLE	IF	CITATIONS
116	Facile preparation of semimetallic WP ₂ as a novel photocatalyst with high photoactivity. RSC Advances, 2016, 6, 15724-15730.	1.7	23
117	Rational design of semiconductor-based photocatalysts for advanced photocatalytic hydrogen production: the case of cadmium chalcogenides. Inorganic Chemistry Frontiers, 2016, 3, 591-615.	3.0	151
118	Photocatalytic production of hydrogen from biomass-derived feedstocks. Coordination Chemistry Reviews, 2016, 315, 1-66.	9.5	334
119	Water Splitting By Photocatalytic Reduction. Green Chemistry and Sustainable Technology, 2016, , 175-210.	0.4	2
120	Depositing CdS nanoclusters on carbon-modified NaYF ₄ :Yb,Tm upconversion nanocrystals for NIR-light enhanced photocatalysis. Nanoscale, 2016, 8, 553-562.	2.8	86
121	Photodriven formation of FeNi bimetallic nano-mixture accompanied with efficient hydrogen evolution under atmospheric oxygen. Applied Catalysis B: Environmental, 2016, 182, 59-67.	10.8	13
122	Nickel as a co-catalyst for photocatalytic hydrogen evolution on graphitic-carbon nitride (sg-CN): what is the nature of the active species?. Chemical Communications, 2016, 52, 104-107.	2.2	147
123	Ligand removal from CdS quantum dots for enhanced photocatalytic H ₂ generation in pH neutral water. Journal of Materials Chemistry A, 2016, 4, 2856-2862.	5.2	103
124	Graphitic carbon nitride nanosheet for photocatalytic hydrogen production: The impact of morphology and element composition. Applied Surface Science, 2017, 391, 369-375.	3.1	88
125	Synthesis of rhodium phosphide cocatalyst and remarkably enhanced photocatalytic hydrogen evolution over CdS under visible light radiation. Chemical Engineering Journal, 2017, 314, 498-507.	6.6	36
126	Effects of sacrificial reagents on photocatalytic hydrogen evolution over different photocatalysts. Journal of Materials Science, 2017, 52, 5155-5164.	1.7	177
127	Materials aspects of semiconductor nanocrystals for optoelectronic applications. Materials Horizons, 2017, 4, 155-205.	6.4	78
128	Enhanced visible-light-driven photocatalytic performance of Ag/AgGaO ₂ metal semiconductor heterostructures. Journal of Alloys and Compounds, 2017, 701, 16-22.	2.8	29
129	Synthesis of Ternary and Quaternary Au and Pt Decorated CdSe/CdS Heteronanoplatelets with Controllable Morphology. Advanced Functional Materials, 2017, 27, 1604685.	7.8	44
130	Selectivity Enhancement in Heterogeneous Photocatalytic Transformations. Chemical Reviews, 2017, 117, 1445-1514.	23.0	658
131	Hierarchical yolk-shell layered potassium niobate for tuned pH-dependent photocatalytic H ₂ evolution. Catalysis Science and Technology, 2017, 7, 1000-1005.	2.1	27
132	Colloidal nanocrystals for photoelectrochemical and photocatalytic water splitting. Journal Physics D: Applied Physics, 2017, 50, 074006.	1.3	25
133	Urea-Modified Carbon Nitrides: Enhancing Photocatalytic Hydrogen Evolution by Rational Defect Engineering. Advanced Energy Materials, 2017, 7, 1602251.	10.2	238

#	ARTICLE	IF	CITATIONS
134	A Redox Shuttle Accelerates O_2 Evolution of Photocatalysts Formed In Situ under Visible Light. <i>Advanced Materials</i> , 2017, 29, 1606009.	11.1	48
135	Ultrafast carrier dynamics unravel role of surface ligands and metal domain size on the photocatalytic hydrogen evolution efficiency of Au-tipped CdS nanorods: an ultrafast transient absorption spectroscopy study. <i>Proceedings of SPIE</i> , 2017, , .	0.8	1
136	Multi-node CdS hetero-nanowires grown with defect-rich oxygen-doped MoS ₂ ultrathin nanosheets for efficient visible-light photocatalytic H ₂ evolution. <i>Nano Research</i> , 2017, 10, 1377-1392.	5.8	104
137	Self-Assembled Framework Enhances Electronic Communication of Ultrasmall-Sized Nanoparticles for Exceptional Solar Hydrogen Evolution. <i>Journal of the American Chemical Society</i> , 2017, 139, 4789-4796.	6.6	146
138	Fullerene (C ₆₀)/CdS nanocomposite with enhanced photocatalytic activity and stability. <i>Applied Surface Science</i> , 2017, 403, 151-158.	3.1	80
139	Modifying photocatalysts for solar hydrogen evolution based on the electron behavior. <i>Journal of Materials Chemistry A</i> , 2017, 5, 5235-5259.	5.2	36
140	Noble metal-free Cd _{1-x} Zn _x S-Zn _{1-y} Cd _y S heterostructures for stable and highly effective photocatalytic hydrogen evolution. <i>Journal of Alloys and Compounds</i> , 2017, 705, 683-690.	2.8	7
142	Plasmonic doped semiconductor nanocrystals: Properties, fabrication, applications and perspectives. <i>Physics Reports</i> , 2017, 674, 1-52.	10.3	252
143	OD 2D Quantum Dot: Metal Dichalcogenide Nanocomposite Photocatalyst Achieves Efficient Hydrogen Generation. <i>Advanced Materials</i> , 2017, 29, 1605646.	11.1	89
144	Compound Copper Chalcogenide Nanocrystals. <i>Chemical Reviews</i> , 2017, 117, 5865-6109.	23.0	670
145	Unraveling electron and hole relaxation dynamics in colloidal CdTe nanorods: a two-dimensional electronic spectroscopy study. <i>Proceedings of SPIE</i> , 2017, , .	0.8	0
146	Direct synthesis of all-inorganic heterostructured CdSe/CdS QDs in aqueous solution for improved photocatalytic hydrogen generation. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10365-10373.	5.2	89
147	Electron transfer dynamics in fuel producing photosystems. <i>Current Opinion in Electrochemistry</i> , 2017, 2, 136-143.	2.5	40
148	Positive Ni(HCO ₃) ₂ as a Novel Cocatalyst for Boosting the Photocatalytic Hydrogen Evolution Capability of Mesoporous TiO ₂ Nanocrystals. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 5027-5038.	3.2	98
149	Direct Plasmon-Accelerated Electrochemical Reaction on Gold Nanoparticles. <i>ACS Nano</i> , 2017, 11, 5897-5905.	7.3	208
150	Selective Photocatalytic CO ₂ Reduction in Water through Anchoring of a Molecular Ni Catalyst on CdS Nanocrystals. <i>Journal of the American Chemical Society</i> , 2017, 139, 7217-7223.	6.6	446
151	Enhanced photocatalytic hydrogen evolution from in situ formation of few-layered MoS ₂ /CdS nanosheet-based van der Waals heterostructures. <i>Nanoscale</i> , 2017, 9, 6638-6642.	2.8	176
152	A novel architecture of dandelion-like Mo ₂ C/TiO ₂ heterojunction photocatalysts towards high-performance photocatalytic hydrogen production from water splitting. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10591-10598.	5.2	113

#	ARTICLE	IF	CITATIONS
153	NiS nanoparticle decorated MoS ₂ nanosheets as efficient promoters for enhanced solar H ₂ evolution over Zn _x Cd _{1-x} S nanorods. <i>Inorganic Chemistry Frontiers</i> , 2017, 4, 1042-1047.	3.0	41
154	Noble-metal-free NiO@Ni-ZnO/reduced graphene oxide/CdS heterostructure for efficient photocatalytic hydrogen generation. <i>Applied Surface Science</i> , 2017, 422, 962-969.	3.1	40
155	Rapid Three-Dimensional Printing in Water Using Semiconductor-Metal Hybrid Nanoparticles as Photoinitiators. <i>Nano Letters</i> , 2017, 17, 4497-4501.	4.5	83
156	Highly efficient visible light-driven hydrogen production of precious metal-free hybrid photocatalyst: CdS@NiMoS core-shell nanorods. <i>Catalysis Science and Technology</i> , 2017, 7, 2798-2804.	2.1	47
157	Ternary CdS/Au/3DOM-SrTiO ₃ composites with synergistic enhancement for hydrogen production from visible-light photocatalytic water splitting. <i>Applied Catalysis B: Environmental</i> , 2017, 215, 74-84.	10.8	93
158	Soft-Sphere Continuum Solvation in Electronic-Structure Calculations. <i>Journal of Chemical Theory and Computation</i> , 2017, 13, 3829-3845.	2.3	76
159	Hydrophilic, Hole-Delocalizing Ligand Shell to Promote Charge Transfer from Colloidal CdSe Quantum Dots in Water. <i>Journal of Physical Chemistry C</i> , 2017, 121, 15160-15168.	1.5	16
160	Self-Assembled Zinc/Cystine-Based Chloroplast Mimics Capable of Photoenzymatic Reactions for Sustainable Fuel Synthesis. <i>Angewandte Chemie</i> , 2017, 129, 7984-7988.	1.6	36
161	Self-Assembled Zinc/Cystine-Based Chloroplast Mimics Capable of Photoenzymatic Reactions for Sustainable Fuel Synthesis. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 7876-7880.	7.2	176
162	Ag ⁺ and Cu ²⁺ doped CdS nanorods with tunable band structure and superior photocatalytic activity under sunlight. <i>Materials Research Bulletin</i> , 2017, 94, 279-286.	2.7	13
164	Hot-injection synthesis of Ni-ZnO hybrid nanocrystals with tunable magnetic properties and enhanced photocatalytic activity. <i>Journal of Nanoparticle Research</i> , 2017, 19, 1.	0.8	5
165	Synthesis of layer-like Ni(OH) ₂ decorated ZnIn ₂ S ₄ sub-microspheres with enhanced visible-light photocatalytic hydrogen production activity. <i>Dalton Transactions</i> , 2017, 46, 10620-10629.	1.6	63
166	Glucose-assisted synthesize 1D/2D nearly vertical CdS/MoS ₂ heterostructures for efficient photocatalytic hydrogen evolution. <i>Chemical Engineering Journal</i> , 2017, 321, 366-374.	6.6	135
167	Solar-driven reforming of lignocellulose to H ₂ with a CdS/CdOx photocatalyst. <i>Nature Energy</i> , 2017, 2, .	19.8	451
168	Hydrazine-assisted formation of ultrathin MoS ₂ nanosheets for enhancing their co-catalytic activity in photocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2017, 5, 6981-6991.	5.2	120
169	Making co-condensed amorphous carbon/g-C ₃ N ₄ composites with improved visible-light photocatalytic H ₂ -production performance using Pt as cocatalyst. <i>Carbon</i> , 2017, 118, 241-249.	5.4	356
170	Highly efficient visible-light-driven catalytic hydrogen evolution from ammonia borane using non-precious metal nanoparticles supported by graphitic carbon nitride. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2288-2296.	5.2	66
171	Manipulating the hydrogen evolution pathway on composition-tunable CuNi nanoalloys. <i>Journal of Materials Chemistry A</i> , 2017, 5, 773-781.	5.2	68

#	ARTICLE	IF	CITATIONS
172	Arrays of Ultrathin CdS Nanoflakes with High-Energy Surface for Efficient Gas Detection. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 602-609.	4.0	38
173	One dimensional CdS based materials for artificial photoredox reactions. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2387-2410.	5.2	190
174	Multicatalytic, Light-Driven Upgrading of Butanol to 2-Ethylhexenal and Hydrogen under Mild Aqueous Conditions. <i>ACS Catalysis</i> , 2017, 7, 568-572.	5.5	27
175	Grain boundary engineering in organic-inorganic hybrid semiconductor ZnS(en) _{0.5} for visible-light photocatalytic hydrogen production. <i>Journal of Materials Chemistry A</i> , 2017, 5, 1387-1393.	5.2	55
176	A robust and efficient catalyst of Cd _x Zn _{1-x} Se motivated by CoP for photocatalytic hydrogen evolution under sunlight irradiation. <i>Chemical Communications</i> , 2017, 53, 897-900.	2.2	103
177	Using ATTO Dyes To Probe the Photocatalytic Activity of Au-CdS Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2017, 121, 676-683.	1.5	11
178	Enhanced photocatalytic hydrogen production of noble-metal free Ni-doped Zn(O,S) in ethanol solution. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 25891-25902.	3.8	38
179	Conversion of Ethanol to 2-Ethylhexenal at Ambient Conditions Using Tandem, Biphasic Catalysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 10483-10489.	3.2	6
180	Dependences of the Optical Absorption, Ground State Energy Level, and Interfacial Electron Transfer Dynamics on the Size of CdSe Quantum Dots Adsorbed on the (001), (110), and (111) Surfaces of Single Crystal Rutile TiO ₂ . <i>Journal of Physical Chemistry C</i> , 2017, 121, 25390-25401.	1.5	6
181	Recent Progress in Semiconductor-Based Nanocomposite Photocatalysts for Solar-to-Chemical Energy Conversion. <i>Advanced Energy Materials</i> , 2017, 7, 1700529.	10.2	189
182	Biomembrane-Compatible Sol-Gel-Derived Photocatalytic Titanium Dioxide. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 35664-35672.	4.0	16
183	Improved catalytic activity of Mo _{1-x} W _x Se ₂ alloy nanoflowers promotes efficient hydrogen evolution reaction in both acidic and alkaline aqueous solutions. <i>Nanoscale</i> , 2017, 9, 13998-14005.	2.8	59
184	Engineering Reaction Kinetics by Tailoring the Metal Tips of Metal-Semiconductor Nanodumbbells. <i>Nano Letters</i> , 2017, 17, 5688-5694.	4.5	31
185	Non-Noble Metal Nanoparticles Supported by Postmodified Porous Organic Semiconductors: Highly Efficient Catalysts for Visible-Light-Driven On-Demand H ₂ Evolution from Ammonia Borane. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 32767-32774.	4.0	30
186	Cadmium Chalcogenide Nano-Heteroplatelets: Creating Advanced Nanostructured Materials by Shell Growth, Substitution, and Attachment. <i>Small</i> , 2017, 13, 1702300.	5.2	35
187	Efficient Photocatalytic Hydrogen Evolution via Band Alignment Tailoring: Controllable Transition from Type-I to Type-II. <i>Small</i> , 2017, 13, 1702163.	5.2	47
188	Versatile H ₂ O ₂ -driven mixed aerogel synthesis from CdTe and bimetallic noble metal nanoparticles. <i>Journal of Materials Chemistry C</i> , 2017, 5, 10251-10259.	2.7	6
189	Visible-light-driven photocatalytic system based on a nickel complex over CdS materials for hydrogen production from water. <i>Applied Catalysis B: Environmental</i> , 2017, 219, 353-361.	10.8	63

#	ARTICLE	IF	CITATIONS
190	Cadmium sulfide with tunable morphologies: Preparation and visible-light driven photocatalytic performance. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 93, 116-123.	1.3	45
191	Charge-Transfer Dynamics Promoted by Hole Trap States in CdSe Quantum Dots ²⁺ Photocatalytic System. <i>Journal of Physical Chemistry C</i> , 2017, 121, 17112-17120.	1.5	25
192	Atomically dispersed Pt on specific TiO ₂ facets for photocatalytic H ₂ evolution. <i>Journal of Catalysis</i> , 2017, 353, 250-255.	3.1	105
193	Controllable synthesis of inorganic ^{organic} Zn _{1-x} Cd _x S-DETA solid solution nanoflowers and their enhanced visible-light photocatalytic hydrogen-production performance. <i>Dalton Transactions</i> , 2017, 46, 11335-11343.	1.6	43
194	Hierarchical ZnIn ₂ S ₄ /MoSe ₂ Nanoarchitectures for Efficient Noble ^{Metal} -Free Photocatalytic Hydrogen Evolution under Visible Light. <i>ChemSusChem</i> , 2017, 10, 4624-4631.	3.6	140
195	Ultrafast Electron Dynamics in Solar Energy Conversion. <i>Chemical Reviews</i> , 2017, 117, 10940-11024.	23.0	266
196	Computational design of enhanced photocatalytic activity of two-dimensional cadmium iodide. <i>RSC Advances</i> , 2017, 7, 53653-53657.	1.7	12
197	Effect of nitrogen atom ^{positioning} on the trade-off between emissive and photocatalytic properties of carbon dots. <i>Nature Communications</i> , 2017, 8, 1401.	5.8	208
198	Facile synthesis of Ni-doped WO ₃ nanoplate arrays for effective photoelectrochemical water splitting. <i>Journal of Solid State Electrochemistry</i> , 2017, 21, 3355-3364.	1.2	27
199	In situ photodeposition of MoS _x on CdS nanorods as a highly efficient cocatalyst for photocatalytic hydrogen production. <i>Journal of Materials Chemistry A</i> , 2017, 5, 15287-15293.	5.2	93
200	Graphene oxide coupled carbon nitride homo-heterojunction photocatalyst for enhanced hydrogen production. <i>Materials Chemistry Frontiers</i> , 2017, 1, 562-571.	3.2	38
201	Constructing 2D layered hybrid CdS nanosheets/MoS ₂ heterojunctions for enhanced visible-light photocatalytic H ₂ generation. <i>Applied Surface Science</i> , 2017, 391, 580-591.	3.1	284
202	Ternary nanoarray electrode with corn-inspired hierarchical design for synergistic lithium storage. <i>Nano Research</i> , 2017, 10, 172-186.	5.8	13
203	Novel NiS cocatalyst decorating ultrathin 2D TiO ₂ nanosheets with enhanced photocatalytic hydrogen evolution activity. <i>Materials Research Bulletin</i> , 2017, 87, 123-129.	2.7	37
204	Synthesis of Er ³⁺ /Zn ²⁺ co-doped Bi ₂ WO ₆ with highly efficient photocatalytic performance under natural indoor weak light illumination. <i>Ceramics International</i> , 2017, 43, 2598-2605.	2.3	39
205	Integrating noble-metal-free NiS cocatalyst with a semiconductor heterojunction composite for efficient photocatalytic H ₂ production in water under visible light. <i>Chinese Journal of Catalysis</i> , 2017, 38, 2102-2109.	6.9	61
206	Hydrogen Generation through Solar Photocatalytic Processes: A Review of the Configuration and the Properties of Effective Metal-Based Semiconductor Nanomaterials. <i>Energies</i> , 2017, 10, 1624.	1.6	56
207	A nickel complex, an efficient cocatalyst for both electrochemical and photochemical driven hydrogen production from water. <i>Molecular Catalysis</i> , 2018, 448, 10-17.	1.0	26

#	ARTICLE	IF	CITATIONS
208	Challenges and Prospects in Solar Water Splitting and CO ₂ Reduction with Inorganic and Hybrid Nanostructures. ACS Catalysis, 2018, 8, 3602-3635.	5.5	365
209	Surface stoichiometry manipulation enhances solar hydrogen evolution of CdSe quantum dots. Journal of Materials Chemistry A, 2018, 6, 6015-6021.	5.2	57
210	Metal-Free Dehydrogenation of N-Heterocycles by Ternary h-BCN Nanosheets with Visible Light. Angewandte Chemie - International Edition, 2018, 57, 5487-5491.	7.2	146
211	Exciton dissociation dynamics and light-driven H ₂ generation in colloidal 2D cadmium chalcogenide nanoplatelet heterostructures. Nano Research, 2018, 11, 3031-3049.	5.8	35
212	Metal-Free Dehydrogenation of N-Heterocycles by Ternary h-BCN Nanosheets with Visible Light. Angewandte Chemie, 2018, 130, 5585-5589.	1.6	40
213	Nanostructured semiconducting materials for efficient hydrogen generation. Environmental Chemistry Letters, 2018, 16, 765-796.	8.3	97
214	Construction of CdS/CoO _x core-shell nanorods for efficient photocatalytic H ₂ evolution. Applied Catalysis B: Environmental, 2018, 234, 109-116.	10.8	117
216	A Unique Ternary Semiconductor-(Semiconductor/Metal) Nano-Architecture for Efficient Photocatalytic Hydrogen Evolution. Springer Theses, 2018, , 53-75.	0.0	0
217	TEOA-induced <i>in situ</i> formation of wurtzite and zinc-blende CdS heterostructures as a highly active and long-lasting photocatalyst for converting CO ₂ into solar fuel. Catalysis Science and Technology, 2018, 8, 2697-2706.	2.1	32
218	Self-assembled inorganic clusters of semiconducting quantum dots for effective solar hydrogen evolution. Chemical Communications, 2018, 54, 4858-4861.	2.2	14
219	Self-template synthesis of double-layered porous nanotubes with spatially separated photoredox surfaces for efficient photocatalytic hydrogen production. Science Bulletin, 2018, 63, 601-608.	4.3	65
220	Fabricating a Au@TiO ₂ Plasmonic System To Elucidate Alkali-Induced Enhancement of Photocatalytic H ₂ Evolution: Surface Potential Shift or Methanol Oxidation Acceleration?. ACS Catalysis, 2018, 8, 4266-4277.	5.5	46
221	Porous carbon nitride with defect mediated interfacial oxidation for improving visible light photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2018, 232, 384-390.	10.8	62
222	Oxygen-incorporation in Co ₂ P as a non-noble metal cocatalyst to enhance photocatalysis for reducing water to H ₂ under visible light. Chemical Engineering Journal, 2018, 346, 281-288.	6.6	66
224	Effect of Surface Trap States on Photocatalytic Activity of Semiconductor Quantum Dots. Journal of Physical Chemistry C, 2018, 122, 9312-9319.	1.5	22
225	Durian-Shaped CdS@ZnSe Core@Mesoporous-Shell Nanoparticles for Enhanced and Sustainable Photocatalytic Hydrogen Evolution. Journal of Physical Chemistry Letters, 2018, 9, 2212-2217.	2.1	31
226	Photocatalytic Hybrid Semiconductor-Metal Nanoparticles; from Synergistic Properties to Emerging Applications. Advanced Materials, 2018, 30, e1706697.	11.1	111
227	Secondary battery inspired δ -nickel hydroxide as an efficient Ni-based heterogeneous catalyst for sulfate radical activation. Science Bulletin, 2018, 63, 278-281.	4.3	25

#	ARTICLE	IF	CITATIONS
228	Noble-metal-free Ni ₃ C cocatalysts decorated CdS nanosheets for high-efficiency visible-light-driven photocatalytic H ₂ evolution. <i>Applied Catalysis B: Environmental</i> , 2018, 227, 218-228.	10.8	248
229	Enhanced Photocatalytic Activity of Zn ²⁺ -Ag ⁺ -In ³⁺ S Semiconductor Nanocrystals with a Dumbbell-Shaped Heterostructure. <i>Journal of Physical Chemistry C</i> , 2018, 122, 13705-13715.	1.5	23
230	Photocatalytic Reforming of Biomass Derived Crude Glycerol in Water: A Sustainable Approach for Improved Hydrogen Generation Using Ni(OH) ₂ Decorated TiO ₂ Nanotubes under Solar Light Irradiation. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 3754-3764.	3.2	67
231	Conformal deposition of atomic TiO ₂ layer on chalcogenide nanorod with excellent activity and durability towards solar H ₂ generation. <i>Chemical Engineering Journal</i> , 2018, 341, 335-343.	6.6	26
232	Chemically Bonded Ni Cocatalyst onto the S Doped g-C ₃ N ₄ Nanosheets and Their Synergistic Enhancement in H ₂ Production under Sunlight Irradiation. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 4194-4203.	3.2	133
233	Photoreduction of 4-Nitrophenol in the presence of carboxylic acid using CdS nanofibers. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 7345-7355.	1.1	13
234	Defect-rich O-incorporated 1T-MoS ₂ nanosheets for remarkably enhanced visible-light photocatalytic H ₂ evolution over CdS: The impact of enriched defects. <i>Applied Catalysis B: Environmental</i> , 2018, 229, 227-236.	10.8	176
235	Metal-Free 2D/2D Heterojunction of Graphitic Carbon Nitride/Graphdiyne for Improving the Hole Mobility of Graphitic Carbon Nitride. <i>Advanced Energy Materials</i> , 2018, 8, 1702992.	10.2	200
236	Z-Scheme in a Co ₃ (PO ₄) ₂ /±Fe ₂ O ₃ photocatalysis system for overall water splitting under visible light. <i>Catalysis Science and Technology</i> , 2018, 8, 840-846.	2.1	39
237	Enhanced Charge Separation Efficiency Accelerates Hydrogen Evolution from Water of Carbon Nitride and 3,4,9,10-Perylene-tetracarboxylic Dianhydride Composite Photocatalyst. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 3515-3521.	4.0	35
238	Facet-dependent photocatalysis of nanosize semiconductive metal oxides and progress of their characterization. <i>Nano Today</i> , 2018, 18, 15-34.	6.2	99
239	Recent Advances in Sensitized Photocathodes: From Molecular Dyes to Semiconducting Quantum Dots. <i>Advanced Science</i> , 2018, 5, 1700684.	5.6	65
240	Electrocatalytic and photocatalytic hydrogen evolution integrated with organic oxidation. <i>Chemical Communications</i> , 2018, 54, 5943-5955.	2.2	142
241	Ni ₂ P ₂ O ₇ Nanoarrays with Decorated C ₃ N ₄ Nanosheets as Efficient Electrode for Supercapacitors. <i>ACS Applied Energy Materials</i> , 2018, 1, 2016-2023.	2.5	50
242	Electron transfer dynamics of quaternary sulfur semiconductor/mos ₂ layer-on-layer for efficient visible-light h ₂ evolution. <i>Applied Catalysis B: Environmental</i> , 2018, 235, 9-16.	10.8	9
243	Killing two birds with one stone: To eliminate the toxicity and enhance the photocatalytic property of CdS nanobelts by assembling ultrafine TiO ₂ nanowires on them. <i>Solar Energy Materials and Solar Cells</i> , 2018, 183, 41-47.	3.0	50
244	2D/2D FeOCl/graphite oxide heterojunction with enhanced catalytic performance as a photo-Fenton catalyst. <i>New Journal of Chemistry</i> , 2018, 42, 6896-6902.	1.4	28
245	A 2D/1D TiO ₂ nanosheet/CdS nanorods heterostructure with enhanced photocatalytic water splitting performance for H ₂ evolution. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 7388-7396.	3.8	79

#	ARTICLE	IF	CITATIONS
246	Effectively enhanced photocatalytic hydrogen production performance of one-pot synthesized MoS ₂ clusters/CdS nanorod heterojunction material under visible light. <i>Chemical Engineering Journal</i> , 2018, 345, 404-413.	6.6	128
247	Simple Cadmium Sulfide Compound with Stable 95% Selectivity for Carbon Dioxide Electroreduction in Aqueous Medium. <i>ChemSusChem</i> , 2018, 11, 1421-1425.	3.6	30
248	Viewpoint: Challenges in Colloidal Photocatalysis and Some Strategies for Addressing Them. <i>Inorganic Chemistry</i> , 2018, 57, 3659-3670.	1.9	69
249	Intermediate Band Material of Titanium-Doped Tin Disulfide for Wide Spectrum Solar Absorption. <i>Inorganic Chemistry</i> , 2018, 57, 3956-3962.	1.9	35
250	Optimizing the precursor of sulfur source for hydrothermal synthesis of high performance CdS for photocatalytic hydrogen production. <i>RSC Advances</i> , 2018, 8, 11489-11497.	1.7	29
251	Copper-surface-mediated synthesis of acetylenic carbon-rich nanofibers for active metal-free photocathodes. <i>Nature Communications</i> , 2018, 9, 1140.	5.8	115
252	Wrinkle-free atomically thin CdS nanosheets for photocatalytic hydrogen evolution. <i>Nanotechnology</i> , 2018, 29, 215402.	1.3	26
253	An overview of the reaction conditions for an efficient photoconversion of CO ₂ . <i>Reviews in Chemical Engineering</i> , 2018, 34, 409-425.	2.3	21
254	Facile synthesis of Z-scheme BiVO ₄ /porous graphite carbon nitride heterojunction for enhanced visible-light-driven photocatalyst. <i>Applied Surface Science</i> , 2018, 430, 595-602.	3.1	161
255	Spectroelectrochemical Investigation of the Charge Carrier Kinetics of Gold-Decorated Cadmium Chalcogenide Nanorods. <i>ChemElectroChem</i> , 2018, 5, 175-186.	1.7	21
256	Fe ₂ P nanoparticles as highly efficient freestanding co-catalyst for photocatalytic hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 5337-5345.	3.8	42
257	Local coulomb attraction for enhanced H ₂ evolution stability of metal sulfide photocatalysts. <i>Applied Catalysis B: Environmental</i> , 2018, 221, 152-157.	10.8	18
258	In situ construction of hierarchical WO ₃ /g-C ₃ N ₄ composite hollow microspheres as a Z-scheme photocatalyst for the degradation of antibiotics. <i>Applied Catalysis B: Environmental</i> , 2018, 220, 417-428.	10.8	379
259	Efficient defect-controlled photocatalytic hydrogen generation based on near-infrared Cu-In-Zn-S quantum dots. <i>Nano Research</i> , 2018, 11, 1379-1388.	5.8	41
260	Applications of Phosphorene and Black Phosphorus in Energy Conversion and Storage Devices. <i>Advanced Energy Materials</i> , 2018, 8, 1702093.	10.2	385
261	Role of Surface-Capping Ligands in Photoexcited Electron Transfer between CdS Nanorods and [FeFe] Hydrogenase and the Subsequent H ₂ Generation. <i>Journal of Physical Chemistry C</i> , 2018, 122, 741-750.	1.5	53
262	Î ² -NiS modified CdS nanowires for photocatalytic H ₂ evolution with exceptionally high efficiency. <i>Chemical Science</i> , 2018, 9, 1574-1585.	3.7	112
263	Size Matters: Cocatalyst Size Effect on Charge Transfer and Photocatalytic Activity. <i>Nano Letters</i> , 2018, 18, 357-364.	4.5	91

#	ARTICLE	IF	CITATIONS
264	Formal Kinetic Description of Photocatalytic Hydrogen Evolution from Ethanol Aqueous Solutions in the Presence of Sodium Hydroxide. <i>Kinetics and Catalysis</i> , 2018, 59, 727-734.	0.3	3
265	Photocatalysis: From Fundamental Principles to Materials and Applications. <i>ACS Applied Energy Materials</i> , 2018, 1, 6657-6693.	2.5	370
266	Facile Synthesis of Superstructured MoS ₂ and Graphitic Nanocarbon Hybrid for Efficient Hydrogen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 14441-14449.	3.2	41
267	Non-noble metals applied to solar water splitting. <i>Energy and Environmental Science</i> , 2018, 11, 3128-3156.	15.6	134
268	The Metal Type Governs Photocatalytic Reactive Oxygen Species Formation by Semiconductor@Metal Hybrid Nanoparticles. <i>ChemCatChem</i> , 2018, 10, 5119-5123.	1.8	15
269	A hybrid solution. <i>Nature Energy</i> , 2018, 3, 824-825.	19.8	5
270	Solar energy-driven lignin-first approach to full utilization of lignocellulosic biomass under mild conditions. <i>Nature Catalysis</i> , 2018, 1, 772-780.	16.1	442
271	Solar Fuels by Heterogeneous Photocatalysis: From Understanding Chemical Bases to Process Development. <i>ChemEngineering</i> , 2018, 2, 42.	1.0	13
272	Enabling Visible-Light-Driven Selective CO ₂ Reduction by Doping Quantum Dots: Trapping Electrons and Suppressing H ₂ Evolution. <i>Angewandte Chemie</i> , 2018, 130, 16685-16689.	1.6	28
273	Enabling Visible-Light-Driven Selective CO ₂ Reduction by Doping Quantum Dots: Trapping Electrons and Suppressing H ₂ Evolution. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 16447-16451.	7.2	262
274	All-in-one visible-light-driven water splitting by combining nanoparticulate and molecular co-catalysts on CdS nanorods. <i>Nature Energy</i> , 2018, 3, 862-869.	19.8	356
275	Photocatalytic system with water soluble nickel complex of S,S'-bis(2-pyridylmethyl)-1,2-thioethane over CdS nanorods for hydrogen evolution from water under visible light. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 19047-19056.	3.8	17
276	Novel polymer supported graphene and molybdenum sulfide as highly efficient cocatalyst for photocatalytic hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18105-18114.	3.8	12
277	Visible Light-Driven Hydrogen Production by Carbon based Polymeric Materials. , 2018, , .		1
278	Ti ₃ C ₂ T _x MXene as a Janus cocatalyst for concurrent promoted photoactivity and inhibited photocorrosion. <i>Applied Catalysis B: Environmental</i> , 2018, 237, 43-49.	10.8	174
279	Metal@CdSe Double Shell Hollow Nanocubes via Sequential Nanoscale Reactions and Their Photocatalytic Hydrogen Evolution. <i>Topics in Catalysis</i> , 2018, 61, 965-976.	1.3	1
280	An Iron Oxychloride/Reduced Graphene Oxide Heterojunction with Enhanced Catalytic Performance as a Photo-Fenton Catalyst. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 3080-3087.	1.0	17
281	Photocatalytic Dehydrogenation of Formic Acid on CdS Nanorods through Ni and Co Redox Mediation under Mild Conditions. <i>ChemSusChem</i> , 2018, 11, 2587-2592.	3.6	44

#	ARTICLE	IF	CITATIONS
282	Highly Efficient Visible-Light-Driven Photocatalytic Hydrogen Production on CdS/Cu ₇ S ₄ /g-C ₃ N ₄ Ternary Heterostructures. ACS Applied Materials & Interfaces, 2018, 10, 20404-20411.	4.0	153
283	Surface Chemistry and Nano-/Microstructure Engineering on Photocatalytic In ₂ S ₃ Nanocrystals. Langmuir, 2018, 34, 6470-6479.	1.6	17
284	Cadmium sulfide-based nanomaterials for photocatalytic hydrogen production. Journal of Materials Chemistry A, 2018, 6, 11606-11630.	5.2	379
285	Design of a CdS/CdSe Heterostructure for Efficient H ₂ Generation and Photovoltaic Applications. Journal of Physical Chemistry C, 2018, 122, 12158-12167.	1.5	42
286	Manipulation structure of carbon nitride via trace level iron with improved interfacial redox activity and charge separation for synthetic enhancing photocatalytic hydrogen evolution. Applied Surface Science, 2018, 456, 609-614.	3.1	13
287	RuP ₂ /CdS photocatalysts for enhanced hydrogen evolution in water splitting and mechanism of enhancement. Powder Technology, 2018, 339, 479-486.	2.1	11
288	Photocatalytic Reduction of CO ₂ to CH ₃ OH Coupling with the Oxidation of Amine to Imine. Catalysis Letters, 2018, 148, 2382-2390.	1.4	21
289	Redox shuttle enhances nonthermal femtosecond two-photon self-doping of rGO@TiO ₂ x photocatalysts under visible light. Journal of Materials Chemistry A, 2018, 6, 16430-16438.	5.2	27
290	Energy transfer-enhanced photocatalytic reduction of protons within quantum dot light-harvesting catalyst assemblies. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8290-8295.	3.3	60
291	Semiconductor/Metal (Oxide) Hybrid Materials for Applications in Photocatalysis. , 2018, , 573-580.		2
292	Metal-based semiconductor nanomaterials for photocatalysis. , 2018, , 187-213.		3
293	Ultrafast Hole Transfer from CdS Quantum Dots to a Water Oxidation Catalyst. Journal of Physical Chemistry C, 2018, 122, 17559-17565.	1.5	21
294	A water soluble cocatalyst based on a cobalt(II) complex of S,S'-bis(2-pyridylmethyl)-1,2-thioethane for photochemical driven hydrogen evolution from water under visible light. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 364, 650-656.	2.0	8
295	Charge Carrier Dynamics in Photocatalytic Hybrid Semiconductor@Metal Nanorods: Crossover from Auger Recombination to Charge Transfer. Nano Letters, 2018, 18, 5211-5216.	4.5	49
296	Assembly of thiacalix[4]arene-supported high-nuclearity Cd ₂₄ cluster with enhanced photocatalytic activity. Nanoscale, 2018, 10, 14448-14454.	2.8	30
297	New photocatalysts based on Cd _{0.3} Zn _{0.7} S and Ni(OH) ₂ for hydrogen production from ethanol aqueous solutions under visible light. Applied Catalysis A: General, 2018, 563, 170-176.	2.2	19
298	Highly Efficient Visible-Light-Induced Photocatalytic Production of Hydrogen for Magnetically Retrievable Fe ₃ O ₄ @SiO ₂ @MoS ₂ /g-C ₃ N ₄ Hierarchical Microspheres. ACS Sustainable Chemistry and Engineering, 2018, 6, 9903-9911.	3.2	28
299	Mutual effect of extrinsic defects and electronic carbon traps of M-TiO ₂ (M=V, Co, Ni) nanorod arrays on photoexcited charge extraction of CdS for superior photoelectrochemical activity of hydrogen production. International Journal of Hydrogen Energy, 2018, 43, 14388-14405.	3.8	13

#	ARTICLE	IF	CITATIONS
300	Design and Synthesis of Cycloplatinated Polymer Dots as Photocatalysts for Visible-Light-Driven Hydrogen Evolution. <i>ACS Catalysis</i> , 2018, 8, 7766-7772.	5.5	108
301	CdS nanoparticles decorated K ₂ Ca ₂ Nb ₃ O ₁₀ nanosheets with enhanced photocatalytic activity. <i>Materials Letters</i> , 2018, 229, 236-239.	1.3	7
302	Hierarchical CdS Nanorod@SnO ₂ Nanobowl Arrays for Efficient and Stable Photoelectrochemical Hydrogen Generation. <i>Small</i> , 2018, 14, e1801352.	5.2	42
303	Synthesis of nitrogen and sulfur co-doped reduced graphene oxide as efficient metal-free cocatalyst for the photo-activity enhancement of CdS. <i>Applied Catalysis B: Environmental</i> , 2018, 236, 212-221.	10.8	68
304	Harvesting multiple electron-hole pairs generated through plasmonic excitation of Au nanoparticles. <i>Nature Chemistry</i> , 2018, 10, 763-769.	6.6	278
305	Aerobic Conditions Enhance the Photocatalytic Stability of CdS/CdOxQuantum Dots. <i>Chemistry - A European Journal</i> , 2018, 24, 18385-18388.	1.7	11
306	CdCl ₂ -assisting heat-treatment: Enhanced photoelectrocatalytic hydrogen generation and stability of CdS/ZnO nanoheterojunction arrays. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 9969-9977.	3.8	15
307	Noble metal-free Ni ₂ S ₃ /CdS nanocomposites toward highly efficient photocatalytic contamination removal and hydrogen evolution under visible light. <i>Dalton Transactions</i> , 2018, 47, 12671-12683.	1.6	53
308	Achieving photocatalytic hydrogen production from alkaline solution upon a designed mesoporous TiO ₂ @Ni hybrid employing commonly used paper as a sacrificial electron donor. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 2709-2717.	3.0	27
309	Challenges and Prospects of Photocatalytic Applications Utilizing Semiconductor Nanocrystals. <i>Frontiers in Chemistry</i> , 2018, 6, 353.	1.8	42
310	Two-Dimensional Morphology Enhances Light-Driven H ₂ Generation Efficiency in CdS Nanoplatelet-Pt Heterostructures. <i>Journal of the American Chemical Society</i> , 2018, 140, 11726-11734.	6.6	106
311	Microwave assisted synthesis of Ce-doped SnS ₂ nano-flowers with enhanced vitamin-B sensing and photocatalytic activity. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 17670-17680.	1.1	17
312	Enhanced visible light photocatalytic non-oxygen coupling of amines to imines integrated with hydrogen production over Ni/CdS nanoparticles. <i>Catalysis Science and Technology</i> , 2018, 8, 5148-5154.	2.1	40
313	Visible-Light Photocatalytic H ₂ Production Activity of Ni(OH) ₂ -Modified CdS Mesoporous Nanoheterojunction Networks. <i>ACS Catalysis</i> , 2018, 8, 8726-8738.	5.5	102
314	Driving Surface Redox Reactions in Heterogeneous Photocatalysis: The Active State of Illuminated Semiconductor-Supported Nanoparticles during Overall Water-Splitting. <i>ACS Catalysis</i> , 2018, 8, 9154-9164.	5.5	68
315	Excellent photocatalytic degradation and disinfection performance of a novel bifunctional Ag@AgSCN nanostructure with exposed {112} facets. <i>New Journal of Chemistry</i> , 2018, 42, 11811-11818.	1.4	7
316	Integration of Sulfides Enables Enhanced Full-Spectrum Solar Energy Absorption and Efficient Charge Separation. <i>Springer Theses</i> , 2018, , 95-111.	0.0	0
317	Quaternary two dimensional ZnAgInS nanosheets for highly efficient photocatalytic hydrogen generation. <i>Journal of Materials Chemistry A</i> , 2018, 6, 11670-11675.	5.2	17

#	ARTICLE	IF	CITATIONS
318	Visible light-driven methanol dehydrogenation and conversion into 1,1-dimethoxymethane over a non-noble metal photocatalyst under acidic conditions. <i>Catalysis Science and Technology</i> , 2018, 8, 3372-3378.	2.1	35
319	Synergistic impact of cocatalysts and hole scavenger for promoted photocatalytic H ₂ evolution in mesoporous TiO ₂ NiS hybrid. <i>Journal of Energy Chemistry</i> , 2019, 32, 45-56.	7.1	61
320	Hierarchical Nickel Clusters Encapsulated in Ultrathin N-doped Graphitic Nanocarbon Hybrids for Effective Hydrogen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 15127-15136.	3.2	20
321	Bandgap-tunable phosphorus-doped monolayer graphene with enhanced visible-light photocatalytic H ₂ -production activity. <i>Journal of Materials Chemistry C</i> , 2019, 7, 10613-10622.	2.7	37
323	Carbon dots decorated ultrathin CdS nanosheets enabling in-situ anchored Pt single atoms: A highly efficient solar-driven photocatalyst for hydrogen evolution. <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118036.	10.8	77
324	Unique CdS@MoS ₂ Core Shell Heterostructure for Efficient Hydrogen Generation Under Natural Sunlight. <i>Scientific Reports</i> , 2019, 9, 12036.	1.6	38
325	Sustainable hydrogen production for the greener environment by quantum dots-based efficient photocatalysts: A review. <i>Journal of Environmental Management</i> , 2019, 248, 109246.	3.8	122
326	Properties of monoclinic wolframite structure InWO ₄ for efficient and sustainable photocatalytic hydrogen evolution. <i>New Journal of Chemistry</i> , 2019, 43, 12668-12677.	1.4	5
327	Fabrication of highly efficient heterostructured Ag-CeO ₂ /g-C ₃ N ₄ hybrid photocatalyst with enhanced visible-light photocatalytic activity. <i>Journal of Rare Earths</i> , 2019, 37, 1269-1278.	2.5	30
328	Salt-enhanced photocatalytic hydrogen production from water with carbon nitride nanorod photocatalysts: cation and pH dependence. <i>Journal of Materials Chemistry A</i> , 2019, 7, 18987-18995.	5.2	21
329	Surface charge-induced activation of Ni-loaded CdS for efficient and robust photocatalytic dehydrogenation of methanol. <i>Applied Catalysis B: Environmental</i> , 2019, 257, 117869.	10.8	41
330	H ₂ -Generation from Alcohols by the MOF-Based Noble Metal-Free Photocatalyst Ni/CdS/TiO ₂ @MIL-101. <i>Australian Journal of Chemistry</i> , 2019, 72, 842.	0.5	14
331	Structure and Band Alignment Engineering of CdS/TiO ₂ /Bi ₂ WO ₆ Trilayer Nanoflake Array for Efficient Photoelectrochemical Water Splitting. <i>ChemElectroChem</i> , 2019, 6, 5248-5254.	1.7	15
332	Green and in-situ synthesis of noble-metal-free Ni ₂ P/CdS nanoheterostructure for enhanced photocatalytic H ₂ generation activity. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019, 103, 110-117.	2.7	16
333	2D-2D heterostructured CdS@CoP photocatalysts for efficient H ₂ evolution under visible light irradiation. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 27412-27420.	3.8	30
334	The 2D nickel-molybdenum bimetal sulfide synergistic modified hollow cubic CdS towards enhanced photocatalytic water splitting hydrogen production. <i>Applied Surface Science</i> , 2019, 497, 143769.	3.1	25
335	Enabling highly efficient photocatalytic hydrogen generation and organics degradation via a perovskite solar cell-assisted semiconducting nanocomposite photoanode. <i>Journal of Materials Chemistry A</i> , 2019, 7, 165-171.	5.2	33
336	Shell Stabilization of Photocatalytic ZnSe Nanorods. <i>ChemCatChem</i> , 2019, 11, 6208-6212.	1.8	11

#	ARTICLE	IF	CITATIONS
338	Self-Unfolding Flexible Microelectrode Arrays Based on Shape Memory Polymers. <i>Advanced Materials Technologies</i> , 2019, 4, 1900566.	3.0	46
339	Plasmon-Enhanced Electrochemical Biosensing of Hydrogen Peroxide from Cancer Cells by Gold Nanorods. <i>ACS Applied Nano Materials</i> , 2019, 2, 7162-7169.	2.4	23
340	Nanostructured heterogeneous photo-catalysts for hydrogen production and water splitting: A comprehensive insight. <i>Applied Materials Today</i> , 2019, 17, 159-182.	2.3	41
341	A two-step strategy for high-efficiency fluorescent dye removal from wastewater. <i>Npj Clean Water</i> , 2019, 2, .	3.1	10
342	A simple and generalized heat-up method for the synthesis of metal sulfide nanocrystals. <i>New Journal of Chemistry</i> , 2019, 43, 16007-16011.	1.4	5
343	Ternary catalysts based on amino-functionalized carbon quantum dots, graphitic carbon nitride nanosheets and cobalt complex for efficient H ₂ evolution under visible light irradiation. <i>Carbon</i> , 2019, 145, 488-500.	5.4	51
344	A robust CdS/In ₂ O ₃ hierarchical heterostructure derived from a metal-organic framework for efficient visible-light photocatalytic hydrogen production. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 366-375.	3.0	66
345	A flexible CdS nanorods-carbon nanotubes/stainless steel mesh photoanode for boosted photoelectrocatalytic hydrogen evolution. <i>Chemical Communications</i> , 2019, 55, 2741-2744.	2.2	48
346	Ultrathin Ni(OH) ₂ nanosheets: a new strategy for cocatalyst design on CdS surfaces for photocatalytic hydrogen generation. <i>RSC Advances</i> , 2019, 9, 1260-1269.	1.7	31
347	A green approach to the synthesis of 2,3-diaminophenazine using a photocatalytic system of CdFe ₂ O ₄ /TiO ₂ nanoparticles. <i>Journal of the Chinese Chemical Society</i> , 2019, 66, 719-724.	0.8	5
348	NiSe as an effective co-catalyst coupled with TiO ₂ for enhanced photocatalytic hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 4821-4831.	3.8	66
349	Semihydrogenation of phenylacetylene over nonprecious Ni-based catalysts supported on AISBA-15. <i>Journal of Catalysis</i> , 2019, 370, 310-320.	3.1	25
350	Recent Progress on Metal Sulfide Composite Nanomaterials for Photocatalytic Hydrogen Production. <i>Catalysts</i> , 2019, 9, 457.	1.6	62
351	Photosynthesis-Inspired Acceleration of Carrier Separation: Co ²⁺ and CH ₃ COO ⁻ Ions Synergistically Enhanced Photocatalytic Hydrogen Evolution of Graphitic Carbon Nitride. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, .	3.2	0
352	Noble metal-free NiSe ₂ nanosheets decorated MIL-53(Fe) microrods with highly efficient visible-light driven photocatalytic H ₂ generation. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 16400-16410.	3.8	26
353	Visible light-driven the splitting of ethanol into hydrogen and acetaldehyde catalyzed by fibrous AgNPs/CdS hybrids at room temperature. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019, 102, 182-189.	2.7	17
354	Recent advances in metal sulfides: from controlled fabrication to electrocatalytic, photocatalytic and photoelectrochemical water splitting and beyond. <i>Chemical Society Reviews</i> , 2019, 48, 4178-4280.	18.7	810
355	Low-dimensional II-VI semiconductors for photocatalytic hydrogen generation. <i>Research on Chemical Intermediates</i> , 2019, 45, 4249-4260.	1.3	6

#	ARTICLE	IF	CITATIONS
356	Distorted 1T-ReS ₂ Nanosheets Anchored on Porous TiO ₂ Nanofibers for Highly Enhanced Photocatalytic Hydrogen Production. ACS Applied Materials & Interfaces, 2019, 11, 23144-23151.	4.0	57
357	2D Nanomaterials for Photocatalytic Hydrogen Production. ACS Energy Letters, 2019, 4, 1687-1709.	8.8	375
358	Noble-metal-free CdS@MoS ₂ core-shell nanoheterostructures for efficient and stabilized visible-light-driven H ₂ generation. International Journal of Hydrogen Energy, 2019, 44, 16657-16666.	3.8	27
359	Dual Cocatalysts in TiO ₂ Photocatalysis. Advanced Materials, 2019, 31, e1807660.	11.1	796
360	An amorphous MoS _x modified g-C ₃ N ₄ composite for efficient photocatalytic hydrogen evolution under visible light. RSC Advances, 2019, 9, 15900-15909.	1.7	20
361	Towards the prominent cocatalytic effect of ultra-small CoP particles anchored on g-C ₃ N ₄ nanosheets for visible light driven photocatalytic H ₂ production. Applied Catalysis B: Environmental, 2019, 256, 117819.	10.8	112
362	Broadband Light Harvesting and Unidirectional Electron Flow for Efficient Electron Accumulation for Hydrogen Generation. Angewandte Chemie, 2019, 131, 10108-10112.	1.6	17
363	Revealing important role of graphitic carbon nitride surface catalytic activity in photocatalytic hydrogen evolution by using different carbon co-catalysts. Applied Surface Science, 2019, 491, 236-244.	3.1	14
364	CdS Photocorrosion Protection by MoSe ₂ Modification for Photocatalytic Hydrogen Production. Catalysis Surveys From Asia, 2019, 23, 231-244.	1.0	18
365	Interchange of L-, Z-, and Bound-Ion-Pair X-Type Ligation on Cadmium Selenide Quantum Belts. Chemistry of Materials, 2019, 31, 4299-4312.	3.2	18
366	Quantum Dots Based Photocatalytic Hydrogen Evolution. Israel Journal of Chemistry, 2019, 59, 762-773.	1.0	27
367	One-step vulcanization of Cd(OH)Cl nanorods to synthesize CdS/ZnS/PdS nanotubes for highly efficient photocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 15278-15287.	5.2	73
368	Broadband Light Harvesting and Unidirectional Electron Flow for Efficient Electron Accumulation for Hydrogen Generation. Angewandte Chemie - International Edition, 2019, 58, 10003-10007.	7.2	86
369	Heavy-Metal-Free Colloidal Semiconductor Nanorods: Recent Advances and Future Perspectives. Advanced Materials, 2019, 31, e1900781.	11.1	64
370	Colloidal quasi-one-dimensional dual semiconductor core/shell nanorod couple heterostructures with blue fluorescence. Nanoscale, 2019, 11, 10190-10197.	2.8	12
371	Awakening Solar Hydrogen Evolution of MoS ₂ in Alkaescent Electrolyte through Doping with Co. ChemSusChem, 2019, 12, 3336-3342.	3.6	27
372	Boosting photocatalytic hydrogen generation of cadmium telluride colloidal quantum dots by nickel ion doping. Journal of Colloid and Interface Science, 2019, 549, 63-71.	5.0	17
373	Detecting spatial rearrangement of individual gold nanoparticle heterodimers. Physical Chemistry Chemical Physics, 2019, 21, 10146-10151.	1.3	2

#	ARTICLE	IF	CITATIONS
374	Photocatalytic Oxidation of C-H Bonds in Unsaturated Hydrocarbons through a Radical Pathway Induced by a Molecular Cocatalyst. <i>ChemSusChem</i> , 2019, 12, 2795-2801.	3.6	37
375	Carrier-Selective Blocking Layer Synergistically Improves the Plasmonic Enhancement Effect. <i>Journal of the American Chemical Society</i> , 2019, 141, 8402-8406.	6.6	25
376	Three-Dimensional Structure of PANI/CdS NRs-SiO ₂ Hydrogel for Photocatalytic Hydrogen Evolution with High Activity and Stability. <i>Nanomaterials</i> , 2019, 9, 427.	1.9	14
377	Optimized band gap and fast interlayer charge transfer in two-dimensional perovskite oxynitride Ba ₂ NbO ₃ N and Sr ₂ NbO ₃ /Ba ₂ NbO ₃ N bonded heterostructure visible-light photocatalysts for overall water splitting. <i>Journal of Colloid and Interface Science</i> , 2019, 546, 20-31.	5.0	26
381	Ni-based photocatalytic H ₂ -production cocatalysts ² . <i>Chinese Journal of Catalysis</i> , 2019, 40, 240-288.	6.9	239
382	Co-sensitized TiO ₂ electrodes with different quantum dots for enhanced hydrogen evolution in photoelectrochemical cells. <i>Journal of Applied Electrochemistry</i> , 2019, 49, 475-484.	1.5	4
383	Visible-Light-Induced Nanoparticle Assembly for Effective Hydrogen Photogeneration. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 7286-7293.	3.2	12
384	MoS _x /CdS nano-heterostructures accurately constructed on the defects of CdS for efficient photocatalytic H ₂ evolution under visible light irradiation. <i>Chemical Engineering Journal</i> , 2019, 370, 305-313.	6.6	115
385	One-pot hydrothermal synthesis of willow branch-shaped MoS ₂ /CdS heterojunctions for photocatalytic H ₂ production under visible light irradiation. <i>Chinese Journal of Catalysis</i> , 2019, 40, 371-379.	6.9	136
386	Carbon quantum dots/TiO ₂ nanosheets with dominant (001) facets for enhanced photocatalytic hydrogen evolution. <i>Applied Surface Science</i> , 2019, 480, 810-816.	3.1	73
387	pH-Dependent structure of water-exposed surfaces of CdSe quantum dots. <i>Chemical Communications</i> , 2019, 55, 5435-5438.	2.2	11
388	Noble-Metal-Free Visible Light Driven Hetero-structural Ni/Zn _x Cd _{1-x} S Photocatalyst for Efficient Hydrogen Production. <i>Catalysis Letters</i> , 2019, 149, 1788-1799.	1.4	27
389	Hematite nanostructures: An old material for a new story. Simultaneous photoelectrochemical oxidation of benzylamine and hydrogen production through Ti doping. <i>Nano Energy</i> , 2019, 61, 36-46.	8.2	46
390	Photocorrosion Inhibition of Semiconductor-Based Photocatalysts: Basic Principle, Current Development, and Future Perspective. <i>ACS Catalysis</i> , 2019, 9, 4642-4687.	5.5	432
391	Z-Scheme Photocatalysts for the Reduction of Carbon Dioxide: Recent Advances and Perspectives. <i>Environmental Chemistry for A Sustainable World</i> , 2019, , 67-102.	0.3	3
392	A chloroplast structured photocatalyst enabled by microwave synthesis. <i>Nature Communications</i> , 2019, 10, 1570.	5.8	88
393	Acetic acid-assisted supramolecular assembly synthesis of porous g-C ₃ N ₄ hexagonal prism with excellent photocatalytic activity. <i>Applied Surface Science</i> , 2019, 479, 757-764.	3.1	53
394	Photoelectron directional transfer over a g-C ₃ N ₄ /CdS heterojunction modulated with WP for efficient photocatalytic hydrogen evolution. <i>Dalton Transactions</i> , 2019, 48, 4341-4352.	1.6	58

#	ARTICLE	IF	CITATIONS
395	Water-Soluble Conjugated Molecule for Solar-Driven Hydrogen Evolution from Salt Water. <i>Advanced Functional Materials</i> , 2019, 29, 1808156.	7.8	66
396	ZnSe Nanorods as Visible-Light Absorbers for Photocatalytic and Photoelectrochemical H ₂ Evolution in Water. <i>Angewandte Chemie</i> , 2019, 131, 5113-5117.	1.6	18
397	Ce ³⁺ -self-doped CeO _x /FeOCl: an efficient Fenton catalyst for phenol degradation under mild conditions. <i>Dalton Transactions</i> , 2019, 48, 3476-3485.	1.6	31
398	Metal Chalcogenides on Silicon Photocathodes for Efficient Water Splitting: A Mini Overview. <i>Catalysts</i> , 2019, 9, 149.	1.6	56
399	Promising visible-light driven hydrogen production from water on a highly efficient CuCo ₂ S ₄ nanosheet photocatalyst. <i>Journal of Materials Chemistry A</i> , 2019, 7, 6985-6994.	5.2	84
400	Regulation of electron-hole recombination kinetics on uniform metal-semiconductor nanostructures for photocatalytic hydrogen evolution. <i>APL Materials</i> , 2019, 7, 100702.	2.2	11
401	Composition-Controlled CdS/ZnS Heterostructure Nanocomposites for Efficient Visible Light Photocatalytic Hydrogen Generation. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 22709-22717.	1.8	35
402	Exploring Energy Transfer in a Metal/Perovskite Nanocrystal Antenna to Drive Photocatalysis. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 7797-7803.	2.1	17
403	The photogenerated charge characteristics in Ni@NiO/CdS hybrids for increased photocatalytic H ₂ generation. <i>RSC Advances</i> , 2019, 9, 39604-39610.	1.7	8
404	Z-scheme Fe ₂ O ₃ -doped Cu ₂ O as an efficient photo-Fenton-like catalyst for degradation of phenol. <i>Materials Letters</i> , 2019, 234, 13-16.	1.3	24
405	MoS ₂ decorated CdS hybrid heterojunction for enhanced photoelectrocatalytic performance under visible light irradiation. <i>Journal of Colloid and Interface Science</i> , 2019, 533, 561-568.	5.0	35
406	Metal Sulfide Photocatalysis: Visible-Light-Induced Organic Transformations. <i>ChemCatChem</i> , 2019, 11, 1378-1393.	1.8	115
407	Enhanced Photoelectrocatalytic H ₂ Evolution over Two-Dimensional MoS ₂ Nanosheets Loaded on Cu-Doped CdS Nanorods. <i>ChemElectroChem</i> , 2019, 6, 714-723.	1.7	9
408	Metal-Organic Frameworks for Photocatalysis and Photothermal Catalysis. <i>Accounts of Chemical Research</i> , 2019, 52, 356-366.	7.6	880
409	Highly Crystalline K-Intercalated Polymeric Carbon Nitride for Visible-Light Photocatalytic Alkenes and Alkynes Deuterations. <i>Advanced Science</i> , 2019, 6, 1801403.	5.6	67
410	Excellent visible light photocatalytic H ₂ evolution activity of novel noble-metal-free Ni ₁₂ P ₅ /CdS composite. <i>Catalysis Communications</i> , 2019, 119, 176-179.	1.6	13
411	Tailored indium sulfide-based materials for solar-energy conversion and utilization. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2019, 38, 1-26.	5.6	127
412	Unique 1D Cd _{1-x} Zn _x S@O-MoS ₂ /NiO _x Nanohybrids: Highly Efficient Visible-Light-Driven Photocatalytic Hydrogen Evolution via Integrated Structural Regulation. <i>Small</i> , 2019, 15, e1804115.	5.2	64

#	ARTICLE	IF	CITATIONS
413	Chiral semiconductor nanorod heterostructures with high photocatalysis activity. Applied Catalysis B: Environmental, 2019, 245, 691-697.	10.8	32
414	Photocatalytic Gas Phase Reactions. Chemistry of Materials, 2019, 31, 597-618.	3.2	74
415	Visible-Light Direct Conversion of Ethanol to 1,1-Diethoxyethane and Hydrogen over a Non-Precious Metal Photocatalyst. Chemistry - A European Journal, 2019, 25, 189-194.	1.7	29
416	CdS nanorods decorated with inexpensive NiCd bimetallic nanoparticles as efficient photocatalysts for visible-light-driven photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2019, 243, 229-235.	10.8	89
417	Rational synthesis of $Mn_xCd_{1-x}S$ for enhanced photocatalytic H_2 evolution: Effects of S precursors and the feed ratio of Mn/Cd on its structure and performance. Journal of Colloid and Interface Science, 2019, 535, 469-480.	5.0	80
418	FeOCl/POM Heterojunctions with Excellent Fenton Catalytic Performance via Different Mechanisms. Inorganic Chemistry, 2019, 58, 250-258.	1.9	28
419	Quantum Efficiency of Charge Transfer Competing against Nonexponential Processes: The Case of Electron Transfer from CdS Nanorods to Hydrogenase. Journal of Physical Chemistry C, 2019, 123, 886-896.	1.5	24
420	Chemical Requirement for Extracting Energetic Charge Carriers from Plasmonic Metal Nanoparticles to Perform Electron-Transfer Reactions. Journal of the American Chemical Society, 2019, 141, 643-647.	6.6	116
421	2D inorganic nanosheet-based hybrid photocatalysts: Design, applications, and perspectives. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2019, 40, 150-190.	5.6	89
422	Highly efficient and selective photocatalytic dehydrogenation of benzyl alcohol for simultaneous hydrogen and benzaldehyde production over Ni-decorated $Zn_{0.5}Cd_{0.5}S$ solid solution. Journal of Energy Chemistry, 2019, 30, 71-77.	7.1	60
423	Nanoscale Kirkendall Effect Driven Au Decorated CdS/CdO Colloidal Nanocomposites for Efficient Hydrogen Evolution, Photocatalytic Dye Degradation and Cr (VI) Reduction. Catalysis Today, 2020, 340, 253-267.	2.2	27
424	Semiconductor Nanocrystals for Environmental Catalysis. , 2020, , 119-163.		1
425	Construction of CdS@Ti ₃ C ₂ @CoO hierarchical tandem p-n heterojunction for boosting photocatalytic hydrogen production in pure water. Chemical Engineering Journal, 2020, 383, 123130.	6.6	67
426	Few-layer WSe ₂ nanosheets as an efficient cocatalyst for improved photocatalytic hydrogen evolution over Zn _{0.1} Cd _{0.9} S nanorods. Chemical Engineering Journal, 2020, 383, 123183.	6.6	39
427	A noticeable effect of Pr doping on key optoelectrical properties of CdS thin films prepared using spray pyrolysis technique for high-performance photodetector applications. Ceramics International, 2020, 46, 4652-4663.	2.3	86
428	Unique Cd _{1-x} Zn _x S@WO _{3-x} and Cd _{1-x} Zn _x S@WO _{3-x} /CoO _x /NiO _x Z-scheme photocatalysts for efficient visible-light-induced H_2 evolution. Science China Materials, 2020, 63, 75-90.	3.5	16
429	Flexible tuning of hole-based localized surface plasmon resonance in roxbyite Cu _{1.8} S nanodisks via particle size, carrier density and plasmon coupling. Journal of Materials Science, 2020, 55, 116-124.	1.7	6
430	Integrating 2D/2D CdS/ \pm -Fe ₂ O ₃ ultrathin bilayer Z-scheme heterojunction with metallic \hat{I}^2 -NiS nanosheet-based ohmic-junction for efficient photocatalytic H_2 evolution. Applied Catalysis B: Environmental, 2020, 266, 118619.	10.8	199

#	ARTICLE	IF	CITATIONS
431	Impacts on carbon dioxide electroreduction of cadmium sulfides via continuous surface sulfur vacancy engineering. <i>Chemical Communications</i> , 2020, 56, 563-566.	2.2	26
432	High-Curvature Transition-Metal Chalcogenide Nanostructures with a Pronounced Proximity Effect Enable Fast and Selective CO ₂ Electroreduction. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 8706-8712.	7.2	145
433	Insight into the solar utilization of a novel Z-scheme Cs _{0.33} WO ₃ /CdS heterostructure for UV-Vis-NIR driven photocatalytic hydrogen evolution. <i>Applied Surface Science</i> , 2020, 508, 145200.	3.1	27
434	Visible-light-mediated high-efficiency catalytic oxidation of sulfides using wrinkled C ₃ N ₄ nanosheets. <i>Journal of Catalysis</i> , 2020, 381, 579-589.	3.1	42
435	Methods for Electrocatalysis. , 2020, , .		2
436	CoP nanoparticles as cocatalyst modified the CdS/NiWO ₄ heterojunction to produce hydrogen efficiently. <i>New Journal of Chemistry</i> , 2020, 44, 1426-1438.	1.4	40
437	Effective removal of chlorinated organic pollutants by bimetallic iron-nickel sulfide activation of peroxydisulfate. <i>Chinese Chemical Letters</i> , 2020, 31, 1535-1539.	4.8	34
438	Nonepitaxial Gold-Tipped ZnSe Hybrid Nanorods for Efficient Photocatalytic Hydrogen Production. <i>Small</i> , 2020, 16, e1902231.	5.2	37
439	Simultaneous visible-light-induced hydrogen production enhancement and antibiotic wastewater degradation using MoS ₂ @Zn Cd ₁ -S: Solid-solution-assisted photocatalysis. <i>Chinese Journal of Catalysis</i> , 2020, 41, 103-113.	6.9	83
440	Simultaneous Ni nanoparticles decoration and Ni doping of CdS nanorods for synergistically promoting photocatalytic H ₂ evolution. <i>Applied Surface Science</i> , 2020, 508, 144869.	3.1	29
441	Recent Advances in Visible-Light-Driven Hydrogen Evolution from Water using Polymer Photocatalysts. <i>ChemCatChem</i> , 2020, 12, 689-704.	1.8	100
442	High-Curvature Transition-Metal Chalcogenide Nanostructures with a Pronounced Proximity Effect Enable Fast and Selective CO ₂ Electroreduction. <i>Angewandte Chemie</i> , 2020, 132, 8784-8790.	1.6	37
443	Recent Advancements and Future Prospects in Ultrathin 2D Semiconductor-Based Photocatalysts for Water Splitting. <i>Catalysts</i> , 2020, 10, 1111.	1.6	35
444	CdS/CdSO ₄ Nanoflower-Based Photodetector with Enhanced Photoelectric Performances. <i>ACS Applied Nano Materials</i> , 2020, 3, 10190-10199.	2.4	37
445	Enhanced tribocatalytic degradation using piezoelectric CdS nanowires for efficient water remediation. <i>Journal of Materials Chemistry C</i> , 2020, 8, 14845-14854.	2.7	54
446	Single-Metal Atoms Supported on MBenes for Robust Electrochemical Hydrogen Evolution. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 9261-9267.	4.0	70
447	Long-Living Holes in Grey Anatase TiO ₂ Enable Noble-Metal-Free and Sacrificial-Agent-Free Water Splitting. <i>ChemSusChem</i> , 2020, 13, 4937-4944.	3.6	18
448	Coulomb Barrier for Sequential Two-Electron Transfer in a Nanoengineered Photocatalyst. <i>Journal of the American Chemical Society</i> , 2020, 142, 13934-13940.	6.6	19

#	ARTICLE	IF	CITATIONS
449	Photoelectrochemical Performance Enhancement of ZnSe Nanorods versus Dots: Combined Experimental and Computational Insights. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 10414-10420.	2.1	5
450	Well-defined FeP/CdS heterostructure construction with the assistance of amine for the efficient H ₂ evolution under visible light irradiation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 32039-32049.	3.8	15
451	A Ti-MOF Decorated With a Pt Nanoparticle Cocatalyst for Efficient Photocatalytic H ₂ Evolution: A Theoretical Study. <i>Frontiers in Chemistry</i> , 2020, 8, 660.	1.8	8
452	Unique ternary Cd _{0.85} Zn _{0.15} S@WO ₃ /WS ₂ core-shell nanorods for highly-efficient photocatalytic H ₂ evolution under visible-light irradiation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 27160-27170.	3.8	18
453	Efficient visible-light induced H ₂ evolution from T-Cd _x Zn _{1-x} S/defective MoS ₂ nano-hybrid with both bulk twinning homojunctions and interfacial heterostructures. <i>Applied Catalysis B: Environmental</i> , 2020, 267, 118702.	10.8	55
454	Recent developments and perspectives in CdS-based photocatalysts for water splitting. <i>Journal of Materials Chemistry A</i> , 2020, 8, 20752-20780.	5.2	203
455	Atomically dispersed Ni in cadmium-zinc sulfide quantum dots for high-performance visible-light photocatalytic hydrogen production. <i>Science Advances</i> , 2020, 6, eaaz8447.	4.7	83
456	Mesoporous black TiO ₂ phase junction@Ni nanosheets: A highly integrated photocatalyst system. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2020, 114, 284-290.	2.7	8
457	Design and synthesis of cyclometalated iridium-based polymer dots as photocatalysts for visible light-driven hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 32072-32081.	3.8	34
458	Activating Co nanoparticles on P-doped carbon nitride via enhancing Mott-Schottky effect by constructing interfacial chemical bonding for the efficient dehydrogenation of ammonia-borane. <i>Applied Surface Science</i> , 2020, 533, 146999.	3.1	16
459	Carbon-based nanomaterials: in the quest of alternative metal-free photocatalysts for solar water splitting. <i>Nanoscale Advances</i> , 2020, 2, 5130-5151.	2.2	50
460	Enhancing Charge Separation through Oxygen Vacancy-Mediated Reverse Regulation Strategy Using Porphyrins as Model Molecules. <i>Small</i> , 2020, 16, e2001752.	5.2	10
461	Enhanced Light-Driven Charge Separation and H ₂ Generation Efficiency in WSe ₂ Nanosheet-Semiconductor Nanocrystal Heterostructures. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 44769-44776.	4.0	13
462	Visible-Light-Driven Photocatalytic Hydrogen Production on Cd _{0.5} Zn _{0.5} S Nanorods with an Apparent Quantum Efficiency Exceeding 80%. <i>Advanced Functional Materials</i> , 2020, 30, 2003731.	7.8	76
463	Recent Advances in the Design and Photocatalytic Enhanced Performance of Gold Plasmonic Nanostructures Decorated with Non-Titania Based Semiconductor Hetero-Nanoarchitectures. <i>Catalysts</i> , 2020, 10, 1459.	1.6	15
464	Regioselective Growth Mechanism of Single Semiconductor Tips on CdS Nanorods. <i>Chemistry of Materials</i> , 2020, 32, 10566-10574.	3.2	4
465	Interplay of Multiexciton Relaxation and Carrier Trapping in Photoluminescent CdS Quantum Dots Prepared in Aqueous Medium. <i>Journal of Physical Chemistry C</i> , 2020, 124, 28313-28322.	1.5	20
466	Investigation on the Mechanism and Inner Impetus of Photogenerated Charge Transfer in WO ₃ /ZnO Heterojunction Photocatalysts. <i>Journal of Physical Chemistry C</i> , 2020, 124, 27916-27929.	1.5	38

#	ARTICLE	IF	CITATIONS
467	New insights into the mechanism of photocatalytic hydrogen evolution from aqueous solutions of saccharides over CdS-based photocatalysts under visible light. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 30165-30177.	3.8	25
468	Influence of Surface Ligands on Charge-Carrier Trapping and Relaxation in Water-Soluble CdSe@CdS Nanorods. <i>Catalysts</i> , 2020, 10, 1143.	1.6	14
469	Spatial Charge Separation and Transfer in L-Cysteine Capped NiCoP/CdS Nano-Heterojunction Activated with Intimate Covalent Bonding for High-Quantum-Yield Photocatalytic Hydrogen Evolution. <i>Applied Catalysis B: Environmental</i> , 2020, 274, 119097.	10.8	118
470	A new Ni ^{II} -diaminoglyoxime ^{g-C₃N₄} complex towards efficient photocatalytic ethanol splitting via a ligand-to-metal charge transfer (LMCT) mechanism. <i>Chemical Communications</i> , 2020, 56, 7171-7174.	2.2	20
471	CdS nanosheets decorated with Ni@graphene core-shell cocatalyst for superior photocatalytic H ₂ production. <i>Journal of Materials Science and Technology</i> , 2020, 56, 170-178.	5.6	92
472	Highly efficient photocatalytic hydrogen evolution driven by adjustable bimetal CuNi derived hexagonal Ni(OH) ₂ . <i>Applied Surface Science</i> , 2020, 524, 146154.	3.1	14
473	Unique hole-accepting carbon-dots promoting selective carbon dioxide reduction nearly 100% to methanol by pure water. <i>Nature Communications</i> , 2020, 11, 2531.	5.8	168
474	Synthesis of Ag and N doped potassium tantalate perovskite nanocubes for enhanced photocatalytic hydrogen evolution. <i>Materials Letters</i> , 2020, 275, 128166.	1.3	10
475	Visible Light-Driven Dehydrogenation of Benzylamine under Liberation of H ₂ . <i>ChemCatChem</i> , 2020, 12, 4593-4599.	1.8	10
476	Advances in carbon dots: from the perspective of traditional quantum dots. <i>Materials Chemistry Frontiers</i> , 2020, 4, 1586-1613.	3.2	208
477	The Evolution from a Typical Type-I CdS/ZnS to Type-II and Z-Scheme Hybrid Structure for Efficient and Stable Hydrogen Production under Visible Light. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 4537-4546.	3.2	65
478	Photocatalytic H ₂ evolution on CdS modified with partially crystallized MoS ₂ under visible light irradiation. <i>Chemical Physics Letters</i> , 2020, 746, 137305.	1.2	21
479	Stabilizing CuGaS ₂ by crystalline CdS through an interfacial Z-scheme charge transfer for enhanced photocatalytic CO ₂ reduction under visible light. <i>Nanoscale</i> , 2020, 12, 8693-8700.	2.8	39
480	Assembling Sn ₃ O ₄ nanostructures on a hydrophobic PVDF film through metal-F coordination to construct a piezotronic effect-enhanced Sn ₃ O ₄ /PVDF hybrid photocatalyst. <i>Nano Energy</i> , 2020, 72, 104688.	8.2	51
481	Transforming energy using quantum dots. <i>Energy and Environmental Science</i> , 2020, 13, 1347-1376.	15.6	76
482	A Highly Crystalline Perylene Imide Polymer with the Robust Built-in Electric Field for Efficient Photocatalytic Water Oxidation. <i>Advanced Materials</i> , 2020, 32, e1907746.	11.1	160
483	Co, Ni-based nanoparticles supported on graphitic carbon nitride nanosheets as catalysts for hydrogen generation from the hydrolysis of ammonia borane under broad-spectrum light irradiation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 21273-21286.	3.8	18
484	Recent Progress on Fullerene-Based Materials: Synthesis, Properties, Modifications, and Photocatalytic Applications. <i>Materials</i> , 2020, 13, 2924.	1.3	29

#	ARTICLE	IF	CITATIONS
485	Efficient Photoelectron Capture by Ni Decoration in Methanosarcina barkeri-CdS Biohybrids for Enhanced Photocatalytic CO ₂ -to-CH ₄ Conversion. <i>IScience</i> , 2020, 23, 101287.	1.9	34
486	Oriented facet heterojunctions on CdS nanowires with high photoactivity and photostability for water splitting. <i>Applied Catalysis B: Environmental</i> , 2020, 268, 118744.	10.8	52
487	Photoimmobilized Ni Clusters Boost Photodehydrogenative Coupling of Amines to Imines via Enhanced Hydrogen Evolution Kinetics. <i>ACS Catalysis</i> , 2020, 10, 3904-3910.	5.5	60
488	Controllable photodeposition of nickel phosphide cocatalysts on cadmium sulfide nanosheets for enhanced photocatalytic hydrogen evolution performance. <i>New Journal of Chemistry</i> , 2020, 44, 4332-4339.	1.4	16
489	Metal/semiconductor interfaces in nanoscale objects: synthesis, emerging properties and applications of hybrid nanostructures. <i>Nanoscale Advances</i> , 2020, 2, 930-961.	2.2	42
490	Unveiling Catalytic Sites in a Typical Hydrogen Photogeneration System Consisting of Semiconductor Quantum Dots and 3d-Metal Ions. <i>Journal of the American Chemical Society</i> , 2020, 142, 4680-4689.	6.6	51
491	Electrochemically-stable ligands bridge the photoluminescence-electroluminescence gap of quantum dots. <i>Nature Communications</i> , 2020, 11, 937.	5.8	184
492	Integrating Suitable Linkage of Covalent Organic Frameworks into Covalently Bridged Inorganic/Organic Hybrids toward Efficient Photocatalysis. <i>Journal of the American Chemical Society</i> , 2020, 142, 4862-4871.	6.6	304
493	Effect of photodeposition conditions on Ni@CdS photocatalysts and its role in the photoactivity for H ₂ production from ethanolic solutions. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 20536-20548.	3.8	15
494	Noble metal-free bimetallic NiCo decorated Zn _{0.5} Cd _{0.5} S solid solution for enhanced photocatalytic H ₂ evolution under visible light. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 8300-8309.	3.8	27
495	Cobalt Phosphate Cocatalyst Loaded-CdS Nanorod Photoanode with Well-Defined Junctions for Highly Efficient Photoelectrochemical Water Splitting. <i>Catalysis Letters</i> , 2020, 150, 1878-1889.	1.4	13
496	Accelerating the Hole Mobility of Graphitic Carbon Nitride for Photocatalytic Hydrogen Evolution via 2D/2D Heterojunction Structural Advantages and Ni(OH) ₂ Characteristic. <i>Solar Rrl</i> , 2020, 4, 1900538.	3.1	28
497	Photoreforming of food waste into value-added products over visible-light-absorbing catalysts. <i>Green Chemistry</i> , 2020, 22, 3262-3271.	4.6	30
498	P-type γ -Ni(OH) ₂ nanoparticles sensitize CdS nanorod array photoanode to prolong charge carrier lifetime and highly improve bias-free visible-light-driven H ₂ evolution. <i>Applied Catalysis B: Environmental</i> , 2020, 271, 118945.	10.8	40
499	Unraveling and Manipulating of NADH Oxidation by Photogenerated Holes. <i>ACS Catalysis</i> , 2020, 10, 4967-4972.	5.5	48
500	The experimental study on temperature-regulated hydrogen production photocatalytic activity of Zn _{0.5} Cd _{0.5} S in absence of cocatalyst. <i>Applied Catalysis A: General</i> , 2020, 599, 117587.	2.2	1
501	Ni-nanoparticle-bound boron nitride nanosheets prepared by a radiation-induced reduction-exfoliation method and their catalytic performance. <i>Journal of Materials Chemistry A</i> , 2020, 8, 9109-9120.	5.2	19
502	Pyroelectric effect in CdS nanorods decorated with a molecular Co-catalyst for hydrogen evolution. <i>Nano Energy</i> , 2020, 73, 104810.	8.2	138

#	ARTICLE	IF	CITATIONS
503	Accelerated charge transfer of Cd _{0.5} Zn _{0.5} S@ZnS core-shell nano-spheres via decoration of Ni ₂ P and g-C ₃ N ₄ toward efficient visible-light-driven H ₂ production. Dalton Transactions, 2020, 49, 6259-6269.	1.6	11
504	Intimately Contacted Ni ₂ P on CdS Nanorods for Highly Efficient Photocatalytic H ₂ Evolution: New Phosphidation Route and the Interfacial Separation Mechanism of Charge Carriers. Applied Catalysis B: Environmental, 2021, 281, 119443.	10.8	90
505	CdS@Ni ₃ S ₂ for efficient and stable photo-assisted electrochemical (P-EC) overall water splitting. Chemical Engineering Journal, 2021, 405, 126231.	6.6	41
506	Operating redox couple transport mechanism for enhancing photocatalytic H ₂ generation of Pt and CrOx-decorated ZnCdS nanocrystals. Applied Catalysis B: Environmental, 2021, 283, 119601.	10.8	44
507	Realizing high hydrogen evolution activity under visible light using narrow band gap organic photocatalysts. Chemical Science, 2021, 12, 1796-1802.	3.7	77
508	Efficient spatial charge separation in unique 2D tandem heterojunction Cd _x Zn _{1-x} In ₂ S ₄ rendering highly-promoted visible-light-induced H ₂ generation. Journal of Materials Chemistry A, 2021, 9, 482-491.	5.2	28
509	Efficient visible-light-driven H ₂ evolution induced by P-doped Cd _{1-x} Zn _x S porous nano-spheres decorated with Ni ₂ P and reduced graphene oxide. Applied Surface Science, 2021, 542, 148542.	3.1	12
510	Co and Ni assisted CdS@g-C ₃ N ₄ nanohybrid: A photocatalytic system for efficient hydrogen evolution reaction. Materials Chemistry and Physics, 2021, 259, 124140.	2.0	14
511	Quantum Photoinitiators: Toward Emerging Photocuring Applications. Journal of the American Chemical Society, 2021, 143, 577-587.	6.6	28
512	Hollow CdS-based photocatalysts. Journal of Materiomics, 2021, 7, 419-439.	2.8	72
513	Tailoring cadmium sulfide-based photocatalytic nanomaterials for water decontamination: a review. Environmental Chemistry Letters, 2021, 19, 271-306.	8.3	124
514	Advances in 2D/2D Z-scheme Heterojunctions for Photocatalytic Applications. Solar Rrl, 2021, 5, 2000397.	3.1	82
515	Asymmetric Acceptor-Donor-Acceptor Polymers with Fast Charge Carrier Transfer for Solar Hydrogen Production. Chemistry - A European Journal, 2021, 27, 939-943.	1.7	31
516	Evidencing Interfacial Charge Transfer in 2D CdS/2D MXene Schottky Heterojunctions toward High-Efficiency Photocatalytic Hydrogen Production. Solar Rrl, 2021, 5, 2000414.	3.1	83
517	Trace Amounts of Co ₃ O ₄ Nano-Particles Modified TiO ₂ Nanorod Arrays for Boosted Photoelectrocatalytic Removal of Organic Pollutants in Water. Nanomaterials, 2021, 11, 214.	1.9	8
518	Long-distance transfer of plasmonic hot electrons across the Au-Pt porous interface for the hydrogen evolution reaction. Journal of Materials Chemistry C, 2021, 9, 3108-3114.	2.7	8
519	Band gap engineered chalcogenide nanomaterials for visible light-induced photocatalysis. , 2021, , 135-172.		1
520	Visualizing Ultrafast Electron Transfer Processes in Semiconductor-Metal Hybrid Nanoparticles: Toward Excitonic Plasmonic Light Harvesting. Nano Letters, 2021, 21, 1461-1468.	4.5	33

#	ARTICLE	IF	CITATIONS
521	Advancing photoreforming of organics: highlights on photocatalyst and system designs for selective oxidation reactions. <i>Energy and Environmental Science</i> , 2021, 14, 1140-1175.	15.6	128
522	Single-step solvothermal synthesis of highly uniform Cd _x Zn _{1-x} S nanospheres for improved visible light photocatalytic hydrogen generation. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 3055-3065.	3.0	11
523	Light-driven hydrogen production with CdSe quantum dots and a cobalt glutathione catalyst. <i>Chemical Communications</i> , 2021, 57, 2053-2056.	2.2	12
524	Fabrication of 1D/2D CdS/CoS _x direct Z-scheme photocatalyst with enhanced photocatalytic hydrogen evolution performance. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 9351-9359.	3.8	24
525	Light-Driven Alcohol Splitting by Heterogeneous Photocatalysis: Recent Advances, Mechanism and Prospects. <i>Chemistry - an Asian Journal</i> , 2021, 16, 460-473.	1.7	16
526	Hollow Co ₉ S ₈ /CdS Nanocages as Efficient Photocatalysts for Hydrogen Evolution. <i>ACS Applied Nano Materials</i> , 2021, 4, 2743-2751.	2.4	35
527	Impact of the gas dynamics on the cluster flux in a magnetron cluster-source: Influence of the chamber shape and gas-inlet position. <i>Review of Scientific Instruments</i> , 2021, 92, 033901.	0.6	7
528	Fundamental Insights into Surface Modification of Silicon Material toward Improved Activity and Durability in Photocatalytic Hydrogen Production: A Case Study of Pre-Lithiation. <i>Journal of Physical Chemistry C</i> , 2021, 125, 5542-5548.	1.5	7
529	Photochemical synthesis of Ni-Ni(OH) ₂ synergistic cocatalysts hybridized with CdS nanorods for efficient photocatalytic hydrogen evolution. <i>FlatChem</i> , 2021, 26, 100232.	2.8	14
530	One-Dimensional Superlattice Heterostructure Library. <i>Journal of the American Chemical Society</i> , 2021, 143, 7013-7020.	6.6	16
531	Metal-Semiconductor Heterostructures for Photoredox Catalysis: Where Are We Now and Where Do We Go?. <i>Advanced Functional Materials</i> , 2021, 31, 2101103.	7.8	41
532	Metal-Catalyzed Hydrogen Evolution Reactions Involving Strong C-H Bonds Activation via Hydrogen Atom Transfer. <i>ChemCatChem</i> , 2021, 13, 3370-3380.	1.8	5
533	Photochemical Construction of Ni/CdS Double-Walled Magnetic Hollow Microspheres with Simultaneously Enhanced Visible-Light Photocatalytic Activity and Recyclability. <i>ChemPhotoChem</i> , 2021, 5, 735-747.	1.5	6
534	Black TiO ₂ Nanoparticles Decorated with Ni Nanoparticles and Trace Amounts of Pt Nanoparticles for Photocatalytic Hydrogen Generation. <i>ACS Applied Nano Materials</i> , 2021, 4, 4441-4451.	2.4	12
535	Zn _{0.8} Cd _{0.2} S Hollow Spheres with a Highly Dispersed Ni Dopant for Boosting Photocatalytic Hydrogen Generation. <i>ACS Omega</i> , 2021, 6, 13544-13553.	1.6	14
536	Z-Scheme Overall Water Splitting Using Zn _x Cd _{1-x} Se Particles Coated with Metal Cyanoferrates as Hydrogen Evolution Photocatalysts. <i>ACS Catalysis</i> , 2021, 11, 8004-8014.	5.5	21
537	Progress and Perspectives in Photo- and Electrochemical Oxidation of Biomass for Sustainable Chemicals and Hydrogen Production. <i>Advanced Energy Materials</i> , 2021, 11, 2101180.	10.2	200
538	Metal Sulfide Photocatalysts for Lignocellulose Valorization. <i>Advanced Materials</i> , 2021, 33, e2007129.	11.1	106

#	ARTICLE	IF	CITATIONS
539	Mechanistic Insights into Selective Sensing of Pb ²⁺ in Water by Photoluminescent CdS Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2021, 125, 15396-15404.	1.5	17
540	Two-dimensional Hf ₂ CO ₂ /GaN van der Waals heterostructure for overall water splitting: a density functional theory study. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 19368-19379.	1.1	4
541	Controllable Synthesis and Performance Modulation of 2D Covalent Organic Frameworks. <i>Small</i> , 2021, 17, e2100918.	5.2	27
542	Z-scheme g-C ₃ N ₄ -AQ-MoO ₃ photocatalyst with unique electron transfer channel and large reduction area for enhanced sunlight photocatalytic hydrogen production. <i>Applied Catalysis B: Environmental</i> , 2021, 288, 120025.	10.8	86
543	CdS nanorods supported copper-nickel hydroxide for hydrogen production under direct sunlight irradiation. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105670.	3.3	9
544	A host-guest semibiological photosynthesis system coupling artificial and natural enzymes for solar alcohol splitting. <i>Nature Communications</i> , 2021, 12, 5092.	5.8	20
545	Construction of Single-Atom Platinum Catalysts Enabled by CsPbBr ₃ Nanocrystals. <i>ACS Nano</i> , 2021, 15, 13129-13139.	7.3	44
546	Two-dimensional nickel nanosheets coupled with Zn _{0.5} Cd _{0.5} S nanocrystals for highly improved visible-light photocatalytic H ₂ production. <i>Journal of Alloys and Compounds</i> , 2021, 871, 159460.	2.8	20
547	Plasma-assisted doping of nitrogen into cobalt sulfide for loading cadmium sulfide: A direct Z-scheme heterojunction for efficiently photocatalytic Cr(VI) reduction under visible light. <i>Chemical Engineering Journal</i> , 2021, 417, 129222.	6.6	31
548	Tactfully Assembled CuMOF/CdS S-Scheme Heterojunction for High-Performance Photocatalytic H ₂ Evolution under Visible Light. <i>ACS Applied Energy Materials</i> , 2021, 4, 8550-8562.	2.5	21
549	Recent decoupling and coupling strategies for water splitting. <i>Nano Futures</i> , 2021, 5, 042001.	1.0	8
550	Cocatalyst-Free Reduction of 4,4'-Dinitrodiphenyl Ether to 4,4'-Diaminodiphenyl Ether Over Twin-Crystal Zn _x Cd _{1-x} S under Visible Light. <i>ChemCatChem</i> , 2021, 13, 4591-4601.	1.8	5
551	Computational Study of Novel Semiconducting Sc ₂ CT ₂ (T = F, Cl, Br) MXenes for Visible-Light Photocatalytic Water Splitting. <i>Materials</i> , 2021, 14, 4739.	1.3	15
552	Dynamically Monitoring the Photodeposition of Single Cocatalyst Nanoparticles on Semiconductors via Fluorescence Imaging. <i>Analytical Chemistry</i> , 2021, 93, 11915-11919.	3.2	5
553	Visible-Light-Driven Catalytic Deracemization of Secondary Alcohols. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 22833-22838.	7.2	24
554	The Role of Common Alcoholic Sacrificial Agents in Photocatalysis: Is It Always Trivial?. <i>Chemistry - A European Journal</i> , 2021, 27, 15936-15943.	1.7	10
555	Temperature-controlled ultra-high hydrogen evolution photocatalytic activity of cadmium sulfide without cocatalysts. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 366-377.	5.0	5
556	Type-II AsP/Sc ₂ CO ₂ van der Waals heterostructure: an excellent photocatalyst for overall water splitting. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 32882-32892.	3.8	23

#	ARTICLE	IF	CITATIONS
557	Oxygen-vacancy-assisted construction of FeOOH/CdS heterostructure as an efficient bifunctional photocatalyst for CO ₂ conversion and water oxidation. Applied Catalysis B: Environmental, 2021, 293, 120203.	10.8	71
558	Visible-Light-Driven Catalytic Deracemization of Secondary Alcohols. Angewandte Chemie, 2021, 133, 23015.	1.6	5
559	Type-II vdW heterojunction SeGa ₂ Te/SeIn ₂ Se as a high-efficiency visible-light-driven water-splitting photocatalyst. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 413, 127594.	0.9	9
560	In-situ growth of Cu@CuFe Prussian blue based core-shell nanowires for non-enzymatic electrochemical determination of ascorbic acid with high sensitivity and reusability. Journal of Electroanalytical Chemistry, 2021, 900, 115718.	1.9	8
561	Chemo-phototronic effect induced electricity for enhanced self-powered photodetector system based on ZnO nanowires. Nano Energy, 2021, 89, 106449.	8.2	21
562	Building Cu ₂ S and TiO ₂ nanowires and TiO ₂ /Cu ₂ S nanowires for photocatalytic hydrogen evolution. Chemical Engineering Journal, 2021, 426, 132607.	6.6	20
563	Enhanced photocatalytic H ₂ evolution on ultrathin Cd _{0.5} Zn _{0.5} S nanosheets without a hole scavenger: Combined analysis of surface reaction kinetics and energy-level alignment. Chemical Engineering Journal, 2022, 428, 132608.	6.6	49
564	Ordered mesoporous ZnGa ₂ O ₄ for photocatalytic hydrogen evolution. Materials Chemistry Frontiers, 2021, 5, 5790-5797.	3.2	6
565	Semiconductor nanocrystal photocatalysis for the production of solar fuels. Journal of Chemical Physics, 2021, 154, 030901.	1.2	32
567	Constructing CuNi dual active sites on ZnIn ₂ S ₄ for highly photocatalytic hydrogen evolution. Catalysis Science and Technology, 2021, 11, 2753-2761.	2.1	36
568	Promoted Interfacial Charge Transport and Separation of Size-Uniform Zn, Ni-Doped CdS-1T/2H O-MoS ₂ Nanoassemblies for Efficient Visible-Light Photocatalytic Water Splitting. Crystal Growth and Design, 2021, 21, 1278-1289.	1.4	9
569	Quantum Dots-Based Photoelectrochemical Hydrogen Evolution from Water Splitting. Advanced Energy Materials, 2021, 11, 2003233.	10.2	51
570	ZnSe Nanorods as Visible-Light Absorbers for Photocatalytic and Photoelectrochemical H ₂ Evolution in Water. Angewandte Chemie - International Edition, 2019, 58, 5059-5063.	7.2	96
571	Electrocatalysts for Photochemical Water-Splitting. , 2020, , 171-199.		4
572	Direct Z-scheme photocatalyst of hollow CoS _x @CdS polyhedron constructed by ZIF-67-templated one-pot solvothermal route: A signal-on photoelectrochemical sensor for mercury (II). Chemical Engineering Journal, 2020, 395, 125072.	6.6	81
573	Controllable fabrication of visible-light-driven CoS _x /CdS photocatalysts with direct Z-scheme heterojunctions for photocatalytic Cr(VI) reduction with high efficiency. Chemical Engineering Journal, 2020, 397, 125464.	6.6	80
574	Effective promotion of spacial charge separation in direct Z-scheme WO ₃ /CdS/WS ₂ tandem heterojunction with enhanced visible-light-driven photocatalytic H ₂ evolution. Chemical Engineering Journal, 2020, 398, 125602.	6.6	73
575	Nanoparticles and Nanocomposites Design in Photocatalysis. RSC Catalysis Series, 2019, , 236-279.	0.1	1

#	ARTICLE	IF	CITATIONS
576	Nanotechnology for catalysis and solar energy conversion. <i>Nanotechnology</i> , 2021, 32, 042003.	1.3	44
577	Synthesis of Zn _{0.4} (CuGa) _{0.3} Ga ₂ S ₄ /CdS Photocatalyst for CO ₂ Reduction. Wuji Cailiao Xuebao/ <i>Journal of Inorganic Materials</i> , 2021, , 480.	0.6	2
578	Ultrasensitive Sensing of Volatile Organic Compounds Using a Cu-Doped SnO ₂ -NiO p-n Heterostructure That Shows Significant Raman Enhancement**. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 26260-26267.	7.2	41
579	A Multi-Layer Device for Light-Triggered Hydrogen Production from Alkaline Methanol. <i>Angewandte Chemie</i> , 2021, 133, 26898-26905.	1.6	1
580	Ni(OH) ₂ Nanosheets Modified Hexagonal Pyramid CdS Formed Type II Heterojunction Photocatalyst with High-Visible-Light H ₂ Evolution. <i>ACS Applied Energy Materials</i> , 0, , .	2.5	12
581	Activating Carbon Nitride by BP@Ni for the Enhanced Photocatalytic Hydrogen Evolution and Selective Benzyl Alcohol Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 50988-50995.	4.0	14
582	Photocatalytic Mechanism Control and Study of Carrier Dynamics in CdS@C ₃ N ₅ Core-Shell Nanowires. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 47418-47439.	4.0	48
583	Photocharging of Colloidal CdS Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2021, 125, 22650-22659.	1.5	13
584	Fabrication and application of arrays related to two-dimensional materials. <i>Rare Metals</i> , 2022, 41, 262-286.	3.6	17
585	Phase-Controllable Growth Ni _x P _y Modified CdS@Ni ₃ S ₂ Electrodes for Efficient Electrocatalytic and Enhanced Photoassisted Electrocatalytic Overall Water Splitting. <i>Small Methods</i> , 2021, 5, e2100878.	4.6	37
586	Ultrasensitive Sensing of Volatile Organic Compounds Using a Cu-Doped SnO ₂ -NiO p-n Heterostructure That Shows Significant Raman Enhancement**. <i>Angewandte Chemie</i> , 2021, 133, 26464-26471.	1.6	8
587	A Multi-Layer Device for Light-Triggered Hydrogen Production from Alkaline Methanol. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 26694-26701.	7.2	8
588	Chapter 6 Metallization. , 2016, , 61-78.		0
590	Water Effects on Colloidal Semiconductor Nanocrystals: Correlation of Photophysics and Photochemistry. <i>Journal of the American Chemical Society</i> , 2021, 143, 18721-18732.	6.6	14
592	Intrinsic Electric Field and Excellent Photocatalytic Solar-to-Hydrogen Efficiency in 2D Janus Transition Metal Dichalcogenide. <i>Physica Status Solidi - Rapid Research Letters</i> , 2022, 16, 2100417.	1.2	2
593	General In Situ Photoactivation Route with IPCE over 80% toward CdS Photoanodes for Photoelectrochemical Applications. <i>Small</i> , 2021, 17, e2104307.	5.2	7
595	Pomegranate-like ZnxCd1-xS@MoS ₂ nano-heterostructure as a stable and efficient photocatalyst for H ₂ evolution. <i>Materials Science in Semiconductor Processing</i> , 2022, 138, 106287.	1.9	3
596	Uniform H-CdS@NiCoP core-shell nanosphere for highly efficient visible-light-driven photocatalytic H ₂ evolution. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 2730-2739.	5.0	26

#	ARTICLE	IF	CITATIONS
597	Surface Modification of CdSe Quantum Dots/Titanium Dioxide Heterostructures by Conjugated Organic Ligands. <i>Journal of Nano Research</i> , 0, 64, 93-104.	0.8	1
598	Visible light-driven carbon-carbon reductive coupling of aromatic ketones activated by Ni-doped CdS quantum dots: An insight into the mechanism. <i>Applied Catalysis B: Environmental</i> , 2022, 304, 120946.	10.8	15
599	Slow Auger Recombination of Trapped Excitons Enables Efficient Multiple Electron Transfer in CdS@Pt Nanorod Heterostructures. <i>Journal of the American Chemical Society</i> , 2021, 143, 20264-20273.	6.6	16
600	Interfacing g-C ₃ N ₄ Nanosheets with CdS Nanorods for Enhanced Photocatalytic Hydrogen Evolution: An Ultrafast Investigation. <i>Journal of Physical Chemistry B</i> , 2022, 126, 572-580.	1.2	16
601	Porous direct Z-scheme heterostructures of S-deficient CoS/CdS hexagonal nanoplates for robust photocatalytic H ₂ generation. <i>CrystEngComm</i> , 2022, 24, 404-416.	1.3	8
602	Ultrafast synthesis of near-zero-cost S-doped Ni(OH) ₂ on C ₃ N ₅ under ambient conditions with enhanced photocatalytic activity. <i>RSC Advances</i> , 2021, 11, 36166-36173.	1.7	2
603	Well-defined 2D nanoheterostructure based on MoS ₂ in-situ grown on CdS nanosheet at room temperature for efficient visible-light-driven H ₂ generation. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 5990-5998.	3.8	4
604	Flow synthesis of photocatalytic semiconductor-metal hybrid nanocrystals. <i>Nanoscale</i> , 2022, 14, 1944-1953.	2.8	1
605	Pt Particle Size Affects Both the Charge Separation and Water Reduction Efficiencies of CdS@Pt Nanorod Photocatalysts for Light Driven H ₂ Generation. <i>Journal of the American Chemical Society</i> , 2022, 144, 2705-2715.	6.6	80
606	Interface matters: Design of an efficient Ag ₂ WO ₄ /Ag ₃ PO ₄ photocatalyst. <i>Materials Chemistry and Physics</i> , 2022, 280, 125710.	2.0	7
608	Single-atom catalysts for high-efficiency photocatalytic and photoelectrochemical water splitting: distinctive roles, unique fabrication methods and specific design strategies. <i>Journal of Materials Chemistry A</i> , 2022, 10, 6835-6871.	5.2	63
609	Donor-acceptor covalent organic framework hollow microspheres with a hierarchical pore structure for visible-light-driven H ₂ evolution. <i>Journal of Materials Chemistry A</i> , 2022, 10, 11010-11018.	5.2	28
610	High-efficiency visible-light photocatalytic H ₂ O ₂ production using CdSe-based core/shell quantum dots. <i>Catalysis Science and Technology</i> , 2022, 12, 2865-2871.	2.1	2
611	Preparation of Ni-loaded oxygen-enriched vacancy TiO ₂ hierarchical micro-nanospheres and the study of their photocatalytic hydrogen evolution performance. <i>New Journal of Chemistry</i> , 2022, 46, 7118-7127.	1.4	6
612	Lignin as a multifunctional photocatalyst for solar-powered biocatalytic oxyfunctionalization of C-H bonds. <i>ChemSusChem</i> , 2022, 1, 217-226.		40
613	Electrostatic Asymmetry of Wurtzite Nanocrystals and Resulting Photocatalytic Properties. <i>Journal of Physical Chemistry C</i> , 2022, 126, 4751-4761.	1.5	0
614	A novel all-solid-state S-scheme in CdS/ZnTHPP binary nanosystem for hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 13044-13053.	3.8	11
615	Self-Supported Three-Dimensional Quantum Dot Aerogels as a Promising Photocatalyst for CO ₂ Reduction. <i>Chemistry of Materials</i> , 2022, 34, 2687-2695.	3.2	12

#	ARTICLE	IF	CITATIONS
616	Transitionâ€Metalâ€Based Cocatalysts for Photocatalytic Water Splitting. <i>Small Structures</i> , 2022, 3, .	6.9	53
617	Sulfide Ligands in Hybrid Semiconductorâ€Metal Nanocrystal Photocatalysts: Improved Hole Extraction and Altered Catalysis. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 647-653.	4.0	5
618	Sustainable photocatalytic cascaded reaction for H ₂ evolution over Co decorated ultrathin Cd _{0.5} Zn _{0.5} S nanosheets: Surface kinetics in aqueous NaOH and methanol. <i>Chemical Engineering Journal</i> , 2022, 443, 136427.	6.6	17
619	An overview of heterogeneous photocatalysis for the degradation of organic compounds: A special emphasis on photocorrosion and reusability. <i>Journal of the Indian Chemical Society</i> , 2022, 99, 100480.	1.3	25
622	An efficient photocatalytic system under visible light: In-situ growth cocatalyst Ni ₂ P on the surface of CdS. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107822.	3.3	16
623	Promoting body carriers migration of CdS nanocatalyst by N-doping for improved hydrogen production under simulated sunlight irradiation. <i>Applied Catalysis B: Environmental</i> , 2022, 313, 121470.	10.8	44
624	Enhanced Photocatalytic Activity of Nonuniformly Nitrogen-Doped Nb ₂ O ₅ by Prolonging the Lifetime of Photogenerated Holes. <i>Nanomaterials</i> , 2022, 12, 1690.	1.9	1
625	Photocatalysis coupling hydrogen peroxide synthesis and in-situ radical transform for tetracycline degradation. <i>Chemical Engineering Journal</i> , 2022, 446, 137009.	6.6	12
626	â€d Electron-Coupled PBDIT/CdS Heterostructure Enables Hole Extraction for Efficient Photocatalytic Hydrogen Production. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 25278-25287.	4.0	8
627	Synthesis and characterisation of transition metal sulphide-loaded fly ashâ€based mesoporous EU-12 photocatalysts for degradation of rhodamine B. <i>Environmental Science and Pollution Research</i> , 2022, 29, 74365-74376.	2.7	3
628	Accelerating CO ₂ reduction on novel double perovskite oxide with sulfur, carbon incorporation: Synergistic electronic and chemical engineering. <i>Chemical Engineering Journal</i> , 2022, 446, 137161.	6.6	34
629	Exciton Transport and Interfacial Charge Transfer in Semiconductor Nanocrystals and Heterostructures. <i>Springer Handbooks</i> , 2022, , 985-1012.	0.3	1
630	High Photoreactivity on a Reconstructed Anatase TiO ₂ (001) Surface Predicted by <i>Ab Initio</i> Nonadiabatic Molecular Dynamics. <i>Journal of Physical Chemistry Letters</i> , 0, , 5766-5775.	2.1	2
631	CdS/CuCo ₂ S ₄ dots-on-rods boosting charge separation and hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 23632-23643.	3.8	4
632	Construction of Hydrazone-Linked Macrocyclic-Enriched Covalent Organic Frameworks for Highly Efficient Photocatalysis. <i>Chemistry of Materials</i> , 2022, 34, 5726-5739.	3.2	33
633	Carbonate-Ion-Mediated Photogenerated Hole Transfer to Boost Hydrogen Production. <i>Journal of Physical Chemistry C</i> , 2022, 126, 10367-10377.	1.5	4
634	Exploring the Polarization Photocatalysis of ZnIn ₂ S ₄ Material toward Hydrogen Evolution by Integrating Cascade Electric Fields with Hole Transfer Vehicle. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	59
635	Artificial photosynthesis systems for solar energy conversion and storage: platforms and their realities. <i>Chemical Society Reviews</i> , 2022, 51, 6704-6737.	18.7	52

#	ARTICLE	IF	CITATIONS
636	Cadmium Chalcogenide (CdS, CdSe, CdTe) Quantum Dots for Solar Fuel Conversion. <i>Advanced Photonics Research</i> , 2022, 3, .	1.7	25
637	Molecular Metalloporphyrin Nanorod Photocatalytic System for Sustainable Hydrogen Production. <i>ChemSusChem</i> , 0, , .	3.6	4
638	Photonics and Optoelectronics of Nanosystems. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	0
639	Activating photocatalytic hydrogen generation on inorganic lead-free Cs ₂ AgBiBr ₆ perovskite via reversible Cu ²⁺ /Cu ⁺ redox couple. <i>Journal of Catalysis</i> , 2022, 413, 509-516.	3.1	9
640	Constructing dual-functional porphyrin-based thorium metal-organic framework toward photocatalytic uranium(VI) reduction integrated with organic oxidation. <i>Science China Chemistry</i> , 2022, 65, 1544-1551.	4.2	11
641	Ultra-Low Content Bismuth-Anchored Gold Aerogels with Plasmon Property for Enhanced Nonenzymatic Electrochemical Glucose Sensing. <i>Analytical Chemistry</i> , 2022, 94, 11030-11037.	3.2	10
642	Enhanced degradation of carbamazepine in water over SC-modified NiFe ₂ S ₄ nanocomposites by peroxydisulfate activation. <i>Chemical Engineering Journal</i> , 2022, 450, 138190.	6.6	14
643	Enhanced Charge Separation for Efficient Photocatalytic H ₂ Production by Long-Lived Trap-State-Induced Interfacial Charge Transfer. <i>Nano Letters</i> , 2022, 22, 6664-6670.	4.5	6
644	Plasmon-Enhanced Electrocatalysis of Conductive Polymer-Based Nano-Heterojunction for Small Molecule Metabolites Diagnostics. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 39799-39807.	4.0	4
645	Efficient, Selective CO ₂ Photoreduction Enabled by Facet-Resolved Redox-Active Sites on Colloidal CdS Nanosheets. <i>Journal of the American Chemical Society</i> , 2022, 144, 16974-16983.	6.6	34
646	Snowflake-like CdS@ZnIn ₂ S ₄ heterojunction-based photocatalyst-electrolyte effect: An innovative mode for photoelectrochemical immunoassay. <i>Biosensors and Bioelectronics</i> , 2022, 216, 114679.	5.3	13
647	Precisely controlled CdS/NiO nanomaterials by atomic layer deposition for excellent photoelectrochemical biosensor. <i>Journal of Alloys and Compounds</i> , 2022, 928, 167052.	2.8	3
648	Advancement in photocatalytic acceptorless dehydrogenation reactions: Opportunity and challenges for sustainable catalysis. <i>Coordination Chemistry Reviews</i> , 2022, 472, 214805.	9.5	15
649	Photoreforming lignocellulosic biomass for hydrogen production: Optimized design of photocatalyst and photocatalytic system. <i>Chemical Engineering Journal</i> , 2023, 452, 138980.	6.6	39
650	Efficient Photocatalytic Hydrogen and Oxygen Evolution by Side-Group Engineered Benzodiazole Oligomers with Strong Built-in Electric Fields and Short-Range Crystallinity. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	3
651	Perspective: Mechanistic investigations of photocatalytic processes with time-resolved optical spectroscopy. <i>Journal of Chemical Physics</i> , 2022, 157, .	1.2	4
652	Efficient Photocatalytic Hydrogen and Oxygen Evolution by Side-Group Engineered Benzodiazole Oligomers with Strong Built-in Electric Fields and Short-Range Crystallinity. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	31
653	The Other Dimension Tuning Hole Extraction via Nanorod Width. <i>Nanomaterials</i> , 2022, 12, 3343.	1.9	4

#	ARTICLE	IF	CITATIONS
654	Recent advances in covalent organic framework (COF) nanotextures with band engineering for stimulating solar hydrogen production: A comprehensive review. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 34323-34375.	3.8	13
655	Directing Quasiparticle Movement in Graphitic Carbon Nitride through Spatial Engineering for Enhanced Photocatalytic Hydrogen Evolution. <i>ACS Applied Energy Materials</i> , 2022, 5, 13200-13211.	2.5	0
656	Two-dimensional C3N/WS2 vdW heterojunction for direct Z-scheme photocatalytic overall water splitting. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 2186-2199.	3.8	21
657	Microinjection titration synthesis of CdS nano-particles with S-type interface-phase junctions for efficient photocatalytic degradation of rhodamine B. <i>Applied Surface Science</i> , 2023, 609, 155320.	3.1	8
658	Computational screening of transition metal-doped CdS for photocatalytic hydrogen production. <i>Npj Computational Materials</i> , 2022, 8, .	3.5	8
659	Electro-(Photo)catalysis for Concurrent Evolution of Hydrogen and High Value-Added Chemicals. , 0, 1, .		0
660	A review of recent progress in 2D MXenes: Synthesis, properties, and applications. <i>Diamond and Related Materials</i> , 2023, 132, 109634.	1.8	8
661	NiS@CdS interfacial Schottky junction boosting spatial charge separation for highly efficient photocatalytic reduction of U(VI). <i>Separation and Purification Technology</i> , 2023, 307, 122816.	3.9	7
662	Highly Crystalline Wurtzite CdS Prepared by a Flux Method and Application to Photocatalysis. <i>ACS Applied Energy Materials</i> , 2022, 5, 14652-14657.	2.5	2
663	A comparative overview of MXenes and metal oxides as cocatalysts in clean energy production through photocatalysis. <i>Journal of Materials Chemistry A</i> , 2023, 11, 12559-12592.	5.2	6
664	The role of scavengers in the CdS film corrosion. <i>Journal of Solid State Electrochemistry</i> , 0, , .	1.2	0
665	ReS ₂ Cocatalyst Improves the Hydrogen Production Performance of the CdS/ZnS Photocatalyst. <i>ACS Omega</i> , 2023, 8, 6059-6066.	1.6	3
666	Anisotropic Heavy-Metal-Free Semiconductor Nanocrystals: Synthesis, Properties, and Applications. <i>Chemical Reviews</i> , 2023, 123, 3625-3692.	23.0	9
667	Enhanced photocatalytic H ₂ evolution and anti-photocorrosion of sulfide photocatalyst by improving surface reaction: A review. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 24264-24284.	3.8	13
668	CoS ₂ nanoparticles grown on Mo ₂ TiC ₂ T _x as an efficient electrocatalyst for hydrogen evolution reaction. <i>Diamond and Related Materials</i> , 2023, 135, 109877.	1.8	4
669	CdS based heterojunction for water splitting: A review. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2023, 292, 116413.	1.7	10
670	Unique porous ZnS-CdS-CoS _x Reuleaux triangle nanosheets: Highly promoted visible-light photocatalytic H ₂ evolution via synergistic effect of Z-scheme heterojunction and vacancy defects. <i>Fuel</i> , 2023, 342, 127847.	3.4	5
671	Rich Landscape of Colloidal Semiconductor–Metal Hybrid Nanostructures: Synthesis, Synergetic Characteristics, and Emerging Applications. <i>Chemical Reviews</i> , 2023, 123, 3790-3851.	23.0	15

#	ARTICLE	IF	CITATIONS
674	Noble-Metal-Free Ultrathin CdSâ€“NiFeS 2Dâ€“2D Heterojunction Nanosheets for Significantly Enhanced Photocatalytic Hydrogen Evolution. ACS Sustainable Chemistry and Engineering, 2023, 11, 4009-4019.	3.2	7
675	Synergistic Electric Metal (Ni SAs)â€“Semiconductor (CdS NPs) Interaction for Improved H ₂ â€“Oâ€“H ₂ Conversion Performance under Simulated Sunlight. Solar Rrl, 2023, 7, .	3.1	5
676	Electronic Structure and Excited State Dynamics of Cadmium Chalcogenide Nanorods. Chemical Reviews, 2023, 123, 3852-3903.	23.0	2
677	The versatile characteristics of Ars/SGalnS van der Waals heterostructures. Physical Chemistry Chemical Physics, 0, , .	1.3	0
678	Constructing Spatially Separated Cageâ€“Like Zâ€“Scheme Heterojunction Photocatalyst for Enhancing Photocatalytic H ₂ Evolution. Small, 2023, 19, .	5.2	15
679	Pyroelectric effects in CdS phase junctions for dual-enhanced photocatalytic hydrogen production. Catalysis Science and Technology, 2023, 13, 2559-2565.	2.1	6
719	Emerging transition metal nitrides in solar energy conversion: design strategies and future perspectives for efficient photocatalysis. Catalysis Science and Technology, 2023, 13, 6864-6877.	2.1	1