Steering charge kinetics in photocatalysis: intersection characterization techniques and theoretical simulations

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Citation Report

#	Article	IF	CITATIONS
3	Boosting Photocatalytic Water Splitting: Interfacial Charge Polarization in Atomically Controlled Core–Shell Cocatalysts. Angewandte Chemie - International Edition, 2015, 54, 14810-14814.	13.8	131
4	Daylight-driven photocatalytic degradation of ionic dyes with negatively surface-charged In2S3 nanoflowers: dye charge-dependent roles of reactive species. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	9
5	Facile synthesis of CdS nanorods with enhanced photocatalytic activity. Ceramics International, 2015, 41, 14604-14609.	4.8	31
6	Recent advances in the development of sunlight-driven hollow structure photocatalysts and their applications. Journal of Materials Chemistry A, 2015, 3, 18345-18359.	10.3	200
7	Some recent developments in surface and interface design for photocatalytic and electrocatalytic hybrid structures. Chemical Communications, 2015, 51, 10261-10271.	4.1	96
8	Towards full-spectrum photocatalysis: Achieving a Z-scheme between Ag2S and TiO2 by engineering energy band alignment with interfacial Ag. Nano Research, 2015, 8, 3621-3629.	10.4	65
9	A novel visible light-driven silver isocyanate photocatalyst: superior stability enhanced by intrinsic resonance effect. RSC Advances, 2015, 5, 96265-96271.	3.6	5
10	Cu _{2â^x} S/graphene oxide nanocomposites for efficient photocatalysis driven by real sunlight. RSC Advances, 2015, 5, 94375-94379.	3.6	10
11	A three-dimensional interconnected hierarchical FeOOH/TiO ₂ /ZnO nanostructural photoanode for enhancing the performance of photoelectrochemical water oxidation. Nanoscale, 2015, 7, 19178-19183.	5.6	50
12	Surface and Interface Engineering in Photocatalysis. ChemNanoMat, 2015, 1, 223-239.	2.8	135
13	Quantum-sized BiVO ₄ modified TiO ₂ microflower composite heterostructures: efficient production of hydroxyl radicals towards visible light-driven degradation of gaseous toluene. Journal of Materials Chemistry A, 2015, 3, 21655-21663.	10.3	79
14	Near-Infrared Plasmonic-Enhanced Solar Energy Harvest for Highly Efficient Photocatalytic Reactions. Nano Letters, 2015, 15, 6295-6301.	9.1	246
15	Designed Synthesis of In ₂ O ₃ Beads@TiO ₂ –In ₂ O ₃ Composite Nanofibers for High Performance NO ₂ Sensor at Room Temperature. ACS Applied Materials & Interfaces, 2015, 7, 27152-27159.	8.0	87
16	Tailored synthesis of macroporous Pt/WO ₃ photocatalyst with nanoaggregates via flame assisted spray pyrolysis. AICHE Journal, 2016, 62, 3864-3873.	3.6	28
17	Oxyhydroxide Nanosheets with Highly Efficient Electron–Hole Pair Separation for Hydrogen Evolution. Angewandte Chemie, 2016, 128, 2177-2181.	2.0	26
18	Integration of Multiple Plasmonic and Co-Catalyst Nanostructures on TiO ₂ Nanosheets for Visible-Near-Infrared Photocatalytic Hydrogen Evolution. Small, 2016, 12, 1640-1648.	10.0	136
19	Silver nanoparticles-sensitized cobalt complex for highly-efficient photocatalytic activity. Applied Catalysis B: Environmental, 2016, 199, 342-349.	20.2	19
20	Oxide Defect Engineering Enables to Couple Solar Energy into Oxygen Activation. Journal of the American Chemical Society, 2016, 138, 8928-8935.	13.7	840

#	Article	IF	CITATIONS
21	Incorporation of Pd into Pt Coâ€Catalysts toward Enhanced Photocatalytic Water Splitting. Particle and Particle Systems Characterization, 2016, 33, 506-511.	2.3	26
22	Oxyhydroxide Nanosheets with Highly Efficient Electron–Hole Pair Separation for Hydrogen Evolution. Angewandte Chemie - International Edition, 2016, 55, 2137-2141.	13.8	99
23	Photocatalytic Reduction of CO ₂ over Heterostructure Semiconductors into Valueâ€Added Chemicals. Chemical Record, 2016, 16, 1918-1933.	5.8	58
24	Interface engineering in inorganic hybrid structures towards improved photocatalysis (Conference) Tj ETQq1 1 C).784314 r	gBT /Overlo
25	Probing the ultrafast dynamics in nanomaterial complex systems by femtosecond transient absorption spectroscopy. High Power Laser Science and Engineering, 2016, 4, .	4.6	26
26	Photocatalytic and photoelectrochemical performance of Ta3N5 microcolumn films fabricated using facile reactive sputtering. Journal of Applied Physics, 2016, 120, .	2.5	9
27	Plasmonic Solar Cells: From Rational Design to Mechanism Overview. Chemical Reviews, 2016, 116, 14982-15034.	47.7	333
28	Elucidating the Sole Contribution from Electromagnetic Nearâ€Fields in Plasmonâ€Enhanced Cu ₂ O Photocathodes. Advanced Energy Materials, 2016, 6, 1501250.	19.5	31
29	Direct Z-scheme composite of CdS and oxygen-defected CdWO 4 : An efficient visible-light-driven photocatalyst for hydrogen evolution. Applied Catalysis B: Environmental, 2016, 198, 154-161.	20.2	196
30	Enhancement of g-C 3 N 4 nanosheets photocatalysis by synergistic interaction of ZnS microsphere and RGO inducing multistep charge transfer. Applied Catalysis B: Environmental, 2016, 198, 200-210.	20.2	165
31	Graphitic Carbon Nitride (g-C ₃ N ₄)-Based Photocatalysts for Artificial Photosynthesis and Environmental Remediation: Are We a Step Closer To Achieving Sustainability?. Chemical Reviews, 2016, 116, 7159-7329.	47.7	5,505
32	Synthesis, Properties, and Applications of Hollow Micro-/Nanostructures. Chemical Reviews, 2016, 116, 10983-11060.	47.7	1,215
33	Noble metal nanoclusters and their in situ calcination to nanocrystals: Precise control of their size and interface with TiO2 nanosheets and their versatile catalysis applications. Nano Research, 2016, 9, 1763-1774.	10.4	57
34	Fabrication of p-type BiOCl/n-type La ₂ Ti ₂ O ₇ facet-coupling heterostructure with enhanced photocatalytic performance. RSC Advances, 2016, 6, 48599-48609.	3.6	31
35	Cu/Ag/Ag3PO4 ternary composite: A hybrid alloy-semiconductor heterojunction structure with visible light photocatalytic properties. Journal of Alloys and Compounds, 2016, 682, 778-784.	5.5	27
36	Visible light driven efficient N and Cu co-doped ZnO for photoinactivation of Escherichia coli. RSC Advances, 2016, 6, 85675-85687.	3.6	43
37	Coating a N-doped TiO ₂ shell on dually sensitized upconversion nanocrystals to provide NIR-enhanced photocatalysts for efficient utilization of upconverted emissions. Inorganic Chemistry Frontiers, 2016, 3, 1190-1197.	6.0	10
38	Novel TiO ₂ /C ₃ N ₄ Photocatalysts for Photocatalytic Reduction of CO ₂ and for Photocatalytic Decomposition of N ₂ O. Journal of Physical Chemistry A, 2016, 120, 8564-8573.	2.5	158

		CITATION REPORT	
#	Article	IF	CITATIONS
39	Plasmonic Photocatalysts. World Scientific Series in Nanoscience and Nanotechnology, 2016, , 117-153.	0.1	0
40	Substitution Boosts Charge Separation for High Solar-Driven Photocatalytic Performance. ACS Applied Materials & Interfaces, 2016, 8, 26783-26793.	8.0	39
41	Constructing TiO2 p-n homojunction for photoelectrochemical and photocatalytic hydrogen generation. Nano Energy, 2016, 28, 296-303.	16.0	231
42	Mechanism of photocatalytic activity improvement of AgNPs/TiO ₂ by oxygen plasma irradiation. Nanoscale, 2016, 8, 17004-17011.	5.6	17
43	Carbon dot and BiVO ₄ quantum dot composites for overall water splitting via a two-electron pathway. Nanoscale, 2016, 8, 17314-17321.	5.6	121
44	Embedding Metal in the Interface of a p-n Heterojunction with a Stack Design for Superior Z-Scheme Photocatalytic Hydrogen Evolution. ACS Applied Materials & Interfaces, 2016, 8, 23133-23142.	8.0	250
45	A computational study of the competing reaction mechanisms of the photo-catalytic reduction of CO ₂ on anatase(101). Physical Chemistry Chemical Physics, 2016, 18, 25010-25021.	2.8	18
46	Transition-Metal-Complex Cationic Dyes Photosensitive to Two Types of 2D Layered Silver Bromides with Visible-Light-Driven Photocatalytic Properties. Inorganic Chemistry, 2016, 55, 12193-12203.	4.0	64
47	Charge Transport in Twoâ€Photon Semiconducting Structures for Solar Fuels. ChemSusChem, 2016, 9, 2878-2904.	6.8	39
48	Ultrathin nanosheets of palladium in boosting its cocatalyst role and plasmonic effect towards enhanced photocatalytic hydrogen evolution. RSC Advances, 2016, 6, 56800-56806.	3.6	20
49	Highly Efficient Photocatalysts and Continuousâ€Flow Photocatalytic Reactors for Degradation of Organic Pollutants in Wastewater. Chemistry - an Asian Journal, 2016, 11, 2352-2371.	3.3	37
50	Facet engineered interface design of NaYF ₄ :Yb,Tm upconversion nanocrystals on BiOCl nanoplates for enhanced near-infrared photocatalysis. Nanoscale, 2016, 8, 19014-19024.	5.6	51
51	A silver on 2D white-C3N4support photocatalyst for mechanistic insights: synergetic utilization of plasmonic effect for solar hydrogen evolution. RSC Advances, 2016, 6, 112420-112428.	3.6	30
52	Controllable synthesis of Bi ₂ S ₃ /CuS heterostructures by an in situ ion-exchange solvothermal process and their enhanced photocatalytic performance. RSC Advances, 2016, 6, 103215-103223.	3.6	19
53	TiO ₂ –WO ₃ nanostructured systems for photoelectrochemical applications. RSC Advances, 2016, 6, 101671-101682.	3.6	36
54	Enhancement in Rate of Photocatalysis Upon Catalyst Recycling. Scientific Reports, 2016, 6, 35075.	3.3	41
55	Superior visible light hydrogen evolution of Janus bilayer junctions via atomic-level charge flow steering. Nature Communications, 2016, 7, 11480.	12.8	403
56	Antimony sulphoiodide (SbSI), a narrow band-gap non-oxide ternary semiconductor with efficient photocatalytic activity. RSC Advances, 2016, 6, 105980-105987.	3.6	35

		REPORT	
#	Article	IF	CITATIONS
57	Implementing Metalâ€toâ€Ligand Charge Transfer in Organic Semiconductor for Improved Visibleâ€Nearâ€Infrared Photocatalysis. Advanced Materials, 2016, 28, 6959-6965.	21.0	268
58	Giant Enhancement of Internal Electric Field Boosting Bulk Charge Separation for Photocatalysis. Advanced Materials, 2016, 28, 4059-4064.	21.0	538
59	Surface and interface design in cocatalysts for photocatalytic water splitting and CO ₂ reduction. RSC Advances, 2016, 6, 57446-57463.	3.6	178
60	Computational Model of Domain-Specific Reactivity on Coated Ferroelectric Photocatalysts. Journal of Physical Chemistry C, 2016, 120, 12673-12684.	3.1	15
61	Enhanced full-spectrum water splitting by confining plasmonic Au nanoparticles in N-doped TiO2 bowl nanoarrays. Nano Energy, 2016, 24, 87-93.	16.0	118
62	A novel etching and reconstruction route to ultrathin porous TiO2 hollow spheres for enhanced photocatalytic hydrogen evolution. International Journal of Hydrogen Energy, 2016, 41, 1627-1634.	7.1	16
63	Artificial photosynthesis using metal/nonmetal-nitride semiconductors: current status, prospects, and challenges. Journal of Materials Chemistry A, 2016, 4, 2801-2820.	10.3	127
64	New trends in the development of heterogeneous catalysts for electrochemical CO 2 reduction. Catalysis Today, 2016, 270, 19-30.	4.4	259
65	Hybrids of Two-Dimensional Ti ₃ C ₂ and TiO ₂ Exposing {001} Facets toward Enhanced Photocatalytic Activity. ACS Applied Materials & Interfaces, 2016, 8, 6051-6060.	8.0	653
66	Ultrafast and nonlinear surface-enhanced Raman spectroscopy. Chemical Society Reviews, 2016, 45, 2263-2290.	38.1	143
67	Boosting up the Low Catalytic Activity of Silver for H ₂ Production on Ag/TiO ₂ Photocatalyst: Thiocyanate as a Selective Modifier. ACS Catalysis, 2016, 6, 821-828.	11.2	153
68	Efficient hollow double-shell photocatalysts for the degradation of organic pollutants under visible light and in darkness. Journal of Materials Chemistry A, 2016, 4, 4413-4419.	10.3	41
69	Depositing CdS nanoclusters on carbon-modified NaYF ₄ :Yb,Tm upconversion nanocrystals for NIR-light enhanced photocatalysis. Nanoscale, 2016, 8, 553-562.	5.6	86
70	Polydopamine nanofilms as visible light-harvesting interfaces for palladium nanocrystal catalyzed coupling reactions. Catalysis Science and Technology, 2016, 6, 1764-1771.	4.1	75
71	In situ controllable synthesis of novel surface plasmon resonance-enhanced Ag 2 WO 4 /Ag/Bi 2 MoO 6 composite for enhanced and stable visible light photocatalyst. Applied Surface Science, 2017, 391, 507-515.	6.1	123
72	A review on photocatalysis for air treatment: From catalyst development to reactor design. Chemical Engineering Journal, 2017, 310, 537-559.	12.7	449
73	Control Strategy on Two-/Four-Electron Pathway of Water Splitting by Multidoped Carbon Based Catalysts. ACS Catalysis, 2017, 7, 1637-1645.	11.2	66
74	Grain boundary engineered metal nanowire cocatalysts for enhanced photocatalytic reduction of carbon dioxide. Applied Catalysis B: Environmental, 2017, 206, 282-292.	20.2	77

#	Article	IF	CITATIONS
75	Plasmonic photocatalytic reactor design: Use of multilayered films for improved organic degradation rates in a recirculating flow reactor. Chemical Engineering Journal, 2017, 314, 11-18.	12.7	10
76	Synthesis, characterization and photocatalytic properties of V-doped Mn 3 O 4 nanoparticles as a visible light-activated photocatalyst. Journal of Molecular Liquids, 2017, 231, 64-71.	4.9	24
77	Progressive Design of Plasmonic Metal–Semiconductor Ensemble toward Regulated Charge Flow and Improved Vis–NIRâ€Đriven Solarâ€ŧoâ€Chemical Conversion. Small, 2017, 13, 1602947.	10.0	88
78	Hollow Sr/Rh-codoped TiO ₂ photocatalyst for efficient sunlight-driven organic compound degradation. RSC Advances, 2017, 7, 3480-3487.	3.6	20
79	g-C 3 N 4 /(Cu/TiO 2) nanocomposite for enhanced photoreduction of CO 2 to CH 3 OH and HCOOH under UV/visible light. Journal of CO2 Utilization, 2017, 18, 261-274.	6.8	152
80	Ultrathin Ag nanoparticles anchored on urchin-like WO3·0.33H2O for enhanced photocatalytic performance. RSC Advances, 2017, 7, 12085-12088.	3.6	14
81	High-index facet engineering of PtCu cocatalysts for superior photocatalytic reduction of CO ₂ to CH ₄ . Journal of Materials Chemistry A, 2017, 5, 6686-6694.	10.3	93
82	Heterogeneous Semiconductor Shells Sequentially Coated on Upconversion Nanoplates for NIR-Light Enhanced Photocatalysis. Inorganic Chemistry, 2017, 56, 2328-2336.	4.0	24
83	Improving the plasmonic efficiency of the Au nanorod-semiconductor photocatalysis toward water reduction by constructing a unique hot-dog nanostructure. Nano Energy, 2017, 33, 469-475.	16.0	55
84	Plasmon-Sensitized Graphene/TiO ₂ Inverse Opal Nanostructures with Enhanced Charge Collection Efficiency for Water Splitting. ACS Applied Materials & Interfaces, 2017, 9, 7075-7083.	8.0	121
85	pH-regulated antimony oxychloride nanoparticle formation on titanium oxide nanostructures: a photocatalytically active heterojunction. CrystEngComm, 2017, 19, 1408-1416.	2.6	3
86	An Allâ€Solidâ€State Zâ€Scheme gâ€C ₃ N ₄ /Ag/Ag ₃ VO ₄ Photocatalyst with Enhanced Visibleâ€Light Photocatalytic Performance. European Journal of Inorganic Chemistry, 2017, 2017, 2845-2853.	2.0	56
87	Determining the Chargeâ€Transfer Direction in a p–n Heterojunction BiOCl/gâ€C ₃ N ₄ Photocatalyst by Ultrafast Spectroscopy. ChemPhotoChem, 2017, 1, 350-354.	3.0	18
88	Role of C <i>_x</i> N <i>_y</i> â€Triazine in Photocatalysis for Efficient Hydrogen Generation and Organic Pollutant Degradation Under Solar Light Irradiation. Solar Rrl, 2017, 1, 1700012.	5.8	16
89	Photocatalytic water-splitting solar-to-hydrogen energy conversion: Novel LiMoO 3 (IO 3) molybdenyl iodate based on WO 3 -type sheets. Journal of Catalysis, 2017, 351, 1-9.	6.2	10
90	Freestanding nano-photoelectrode as a highly efficient and visible-light-driven photocatalyst for water-splitting. Journal of Materials Chemistry A, 2017, 5, 10651-10657.	10.3	15
91	Enhanced photocatalytic activity in Ag-nanoparticle-dispersed BaTiO3 composite thin films: Role of charge transfer. Journal of Advanced Ceramics, 2017, 6, 1-10.	17.4	50
92	Hydriding Pd cocatalysts: An approach to giant enhancement on photocatalytic CO2 reduction into CH4. Nano Research, 2017, 10, 3396-3406.	10.4	95

#	Article	IF	CITATIONS
93	A Z-scheme magnetic recyclable Ag/AgBr@CoFe ₂ O ₄ photocatalyst with enhanced photocatalytic performance for pollutant and bacterial elimination. RSC Advances, 2017, 7, 30845-30854.	3.6	40
94	Preparation of Ag/AgBr–Bi2MoO6 Plasmonic Photocatalyst Films with Highly Enhanced Photocatalytic Activity. Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 1365-1375.	3.7	14
95	Efficient photocatalytic dye degradation over Er-doped BiOBr hollow microspheres wrapped with graphene nanosheets: enhanced solar energyÂharvesting and charge separation. RSC Advances, 2017, 7, 22415-22423.	3.6	39
96	Enhanced performance of doped BiOCl nanoplates for photocatalysis: understanding from doping insight into improved spatial carrier separation. Journal of Materials Chemistry A, 2017, 5, 12542-12549.	10.3	138
97	In-situ photocalorimetry-fluorescence spectroscopy studies of RhB photocatalysis over Z-scheme g-C3N4@Ag@Ag3PO4 nanocomposites: A pseudo-zero-order rather than a first-order process. Applied Catalysis B: Environmental, 2017, 217, 591-602.	20.2	120
98	Photocatalytic performance of different exposed crystal facets of BiOCl. Current Opinion in Green and Sustainable Chemistry, 2017, 6, 48-56.	5.9	55
99	Graphene/BiVO4/TiO2 nanocomposite: tuning band gap energies for superior photocatalytic activity under visible light. Journal of Materials Science, 2017, 52, 7997-8006.	3.7	67
100	Coordination chemistry in the design of heterogeneous photocatalysts. Chemical Society Reviews, 2017, 46, 2799-2823.	38.1	449
101	Nobleâ€Metalâ€Free Janusâ€like Structures by Cation Exchange for Zâ€Scheme Photocatalytic Water Splitting under Broadband Light Irradiation. Angewandte Chemie - International Edition, 2017, 56, 4206-4210.	13.8	166
102	Nobleâ€Metalâ€Free Janusâ€like Structures by Cation Exchange for Zâ€5cheme Photocatalytic Water Splitting under Broadband Light Irradiation. Angewandte Chemie, 2017, 129, 4270-4274.	2.0	62
103	Titania nanotube stabilized BiOCl nanoparticles in visible-light photocatalysis. RSC Advances, 2017, 7, 16410-16422.	3.6	15
104	Engineering the surface charge states of nanostructures for enhanced catalytic performance. Materials Chemistry Frontiers, 2017, 1, 1951-1964.	5.9	63
105	Plasmonic nanostructures in solar energy conversion. Journal of Materials Chemistry C, 2017, 5, 1008-1021.	5.5	138
106	Novel ternary heterojunction photcocatalyst of Ag nanoparticles and g-C3N4 nanosheets co-modified BiVO4 for wider spectrum visible-light photocatalytic degradation of refractory pollutant. Applied Catalysis B: Environmental, 2017, 205, 133-147.	20.2	343
107	Engineering on the edge of Pd nanosheet cocatalysts for enhanced photocatalytic reduction of CO ₂ to fuels. Journal of Materials Chemistry A, 2017, 5, 2619-2628.	10.3	68
108	A Metalâ€Organic Framework Approach toward Highly Nitrogenâ€Doped Graphitic Carbon as a Metalâ€Free Photocatalyst for Hydrogen Evolution. Small, 2017, 13, 1603279.	10.0	78
109	Twin defects engineered Pd cocatalyst on C ₃ N ₄ nanosheets for enhanced photocatalytic performance in CO ₂ reduction reaction. Nanotechnology, 2017, 28, 484003.	2.6	63
110	Light-driven micro/nanomotors: from fundamentals to applications. Chemical Society Reviews, 2017, 46, 6905-6926.	38.1	465

#	Article	IF	CITATIONS
111	Insights into the structure-induced catalysis dependence of simply engineered one-dimensional zinc oxide nanocrystals towards photocatalytic water purification. Inorganic Chemistry Frontiers, 2017, 4, 2075-2087.	6.0	14
112	Trapping Behaviors of Photogenerated Electrons on the (110), (101), and (221) Facets of SnO ₂ : Experimental and DFT Investigations. ACS Applied Materials & Interfaces, 2017, 9, 38984-38991.	8.0	10
113	Boosting the Visible-Light Photoactivity of BiOCl/BiVO ₄ /N-GQD Ternary Heterojunctions Based on Internal Z-Scheme Charge Transfer of N-GQDs: Simultaneous Band Gap Narrowing and Carrier Lifetime Prolonging. ACS Applied Materials & Interfaces, 2017, 9, 38832-38841.	8.0	119
114	Z-scheme BCN-TiO2 nanocomposites with oxygen vacancy for high efficiency visible light driven hydrogen production. International Journal of Hydrogen Energy, 2017, 42, 28434-28444.	7.1	37
115	Switching charge transfer of C3N4/W18O49 from type-II to Z-scheme by interfacial band bending for highly efficient photocatalytic hydrogen evolution. Nano Energy, 2017, 40, 308-316.	16.0	346
116	Dominance of Plasmonic Resonant Energy Transfer over Direct Electron Transfer in Substantially Enhanced Water Oxidation Activity of BiVO ₄ by Shapeâ€Controlled Au Nanoparticles. Small, 2017, 13, 1701644.	10.0	52
117	Enhanced Photoactivity from Singleâ€Crystalline SrTaO ₂ N Nanoplates Synthesized by Topotactic Nitridation. Angewandte Chemie - International Edition, 2017, 56, 14169-14173.	13.8	31
118	Catalytic growth of vertically aligned SnS/SnS ₂ p–n heterojunctions. Materials Research Express, 2017, 4, 094002.	1.6	23
119	Photovoltaic enhancement by Au surface-plasmon effect for La doped BiFeO ₃ films. Journal of Materials Chemistry C, 2017, 5, 10615-10623.	5.5	41
120	Chemical etching of graphene-supported PdPt alloy nanocubes into concave nanostructures for enhanced catalytic hydrogen production from alkaline formaldehyde aqueous solution. Inorganic Chemistry Frontiers, 2017, 4, 1704-1713.	6.0	7
121	Well-organized migration of electrons for enhanced hydrogen evolution: Integration of 2D MoS2 nanosheets with plasmonic photocatalyst by a facile ultrasonic chemical method. Journal of Colloid and Interface Science, 2017, 508, 559-566.	9.4	27
122	A metal–semiconductor nanocomposite as an efficient oxygen-independent photosensitizer for photodynamic tumor therapy. Nanoscale Horizons, 2017, 2, 349-355.	8.0	34
123	Platinum nanoparticles supported on defective tungsten bronze-type KSr ₂ Nb ₅ O ₁₅ as a novel photocatalyst for efficient ethylene oxidation. Journal of Materials Chemistry A, 2017, 5, 18998-19006.	10.3	25
124	Diversified copper sulfide (Cu _{2â^'x} S) micro-/nanostructures: a comprehensive review on synthesis, modifications and applications. Nanoscale, 2017, 9, 11357-11404.	5.6	154
125	Construction of p-n heterojunction β-Bi2O3/BiVO4 nanocomposite with improved photoinduced charge transfer property and enhanced activity in degradation of ortho-dichlorobenzene. Applied Catalysis B: Environmental, 2017, 219, 259-268.	20.2	97
126	Photoreduction preparation of Cu 2 O@polydopamine nanospheres with enhanced photocatalytic activity under visible light irradiation. Journal of Solid State Chemistry, 2017, 254, 55-61.	2.9	42
127	Enhancing Charge Separation and Photocatalytic Activity of Cubic SrTiO ₃ withÂPerovskiteâ€Type Materials MTaO ₃ (M=Na, K) for Environmental Remediation: A Firstâ€Principles Study. ChemistrySelect, 2017, 2, 6304-6316.	1.5	29
128	Defective Y ₂ O _{3â^'<i>x</i>} –driven anomalous photocatalytic enhancement using Y ₂ O _{3â'`<i>x</i>} –TiO _{2â''<i>x</i>} nanorod composite composition spreads. Journal of the American Ceramic Society, 2017, 100, 5548-5560.	3.8	3

# 129	ARTICLE Novel 3D Semiconducting Openâ€Frameworks based on Cuprous Bromides with Visible Light Driven Photocatalytic Properties. Chemistry - A European Journal, 2017, 23, 14547-14553.	IF 3.3	CITATIONS
130	Facet Engineered Interface Design of Plasmonic Metal and Cocatalyst on BiOCl Nanoplates for Enhanced Visible Photocatalytic Oxygen Evolution. Small, 2017, 13, 1701607.	10.0	47
131	Stable Heteropolyoxotitanate Nanocluster for Full Solar Spectrum Photocatalytic Hydrogen Evolution. Journal of Physical Chemistry C, 2017, 121, 18326-18332.	3.1	20
132	Ultrafast Electron Dynamics in Solar Energy Conversion. Chemical Reviews, 2017, 117, 10940-11024.	47.7	266
133	Enhanced Photoactivity from Single rystalline SrTaO ₂ N Nanoplates Synthesized by Topotactic Nitridation. Angewandte Chemie, 2017, 129, 14357-14361.	2.0	10
134	Impact of Element Doping on Photoexcited Electron Dynamics in CdS Nanocrystals. Journal of Physical Chemistry Letters, 2017, 8, 5680-5686.	4.6	20
135	Silicon nanostructures for solar-driven catalytic applications. Nano Today, 2017, 17, 96-116.	11.9	63
136	Facet-selective interface design of a BiOl ₍₁₁₀₎ /Br-Bi ₂ O ₂ CO ₃₍₁₁₀₎ p–n heterojunction photocatalyst. CrystEngComm, 2017, 19, 6837-6844.	2.6	14
137	Galvanic Replacement of Semiconducting CuTCNQF ₄ with Ag ⁺ lons to Enhance Electron Transfer Reaction. ChemistrySelect, 2017, 2, 9962-9969.	1.5	9
138	Recent advances in functional mesoporous graphitic carbon nitride (mpg-C ₃ N ₄) polymers. Nanoscale, 2017, 9, 10544-10578.	5.6	189
139	Enhanced Photocarrier Separation in Hierarchical Graphitic-C ₃ N ₄ -Supported CuInS ₂ for Noble-Metal-Free Z-Scheme Photocatalytic Water Splitting. ACS Applied Materials & Interfaces, 2017, 9, 24577-24583.	8.0	99
140	Efficient visible-light-driven hydrogen generation from water splitting catalyzed by highly stable CdS@Mo ₂ C–C core–shell nanorods. Journal of Materials Chemistry A, 2017, 5, 15862-15868.	10.3	67
141	Insight into catalytic reduction of CO 2 : Catalysis and reactor design. Journal of Cleaner Production, 2017, 140, 1298-1312.	9.3	36
142	Facetâ€Engineered Surface and Interface Design of Photocatalytic Materials. Advanced Science, 2017, 4, 1600216.	11.2	307
143	Highly Crystalline Mesoporous Silicon Spheres for Efficient Visible Photocatalytic Hydrogen Evolution. ChemNanoMat, 2017, 3, 22-26.	2.8	27
144	Fabrication of a direct Z-scheme type WO3/Ag3PO4 composite photocatalyst with enhanced visible-light photocatalytic performances. Applied Surface Science, 2017, 393, 180-190.	6.1	133
145	Enhancing charge density and steering charge unidirectional flow in 2D non-metallic semiconductor-CNTs-metal coupled photocatalyst for solar energy conversion. Applied Catalysis B: Environmental, 2017, 202, 112-117.	20.2	71
146	Fundamental Studies on Photocatalytic Structures With Well-Defined Crystal Facets. Studies in Surface Science and Catalysis, 2017, , 409-438.	1.5	2

#	Article	IF	CITATIONS
147	Pt-Co Alloys-Loaded Cubic SiC Electrode with Improved Photoelectrocatalysis Property. Materials, 2017, 10, 955.	2.9	8
148	An Easy-Made, Economical and Efficient Carbon-Doped Amorphous TiO2 Photocatalyst Obtained by Microwave Assisted Synthesis for the Degradation of Rhodamine B. Materials, 2017, 10, 1447.	2.9	14
149	Crystalline phase engineering on cocatalysts: A promising approach to enhancement on photocatalytic conversion of carbon dioxide to fuels. Applied Catalysis B: Environmental, 2018, 230, 145-153.	20.2	29
150	Well-controlled SrTiO3@Mo2C core-shell nanofiber photocatalyst: Boosted photo-generated charge carriers transportation and enhanced catalytic performance for water reduction. Nano Energy, 2018, 47, 463-473.	16.0	189
151	A porous rhodium(III)-porphyrin metal-organic framework as an efficient and selective photocatalyst for CO2 reduction. Applied Catalysis B: Environmental, 2018, 231, 173-181.	20.2	126
152	Optical manipulation of work function contrasts on metal thin films. Science Advances, 2018, 4, eaao6050.	10.3	34
153	Graphene Grown on Anatase–TiO ₂ Nanosheets: Enhanced Photocatalytic Activity on Basis of a Well-Controlled Interface. Journal of Physical Chemistry C, 2018, 122, 6388-6396.	3.1	28
154	Photocatalytic activity of silver oxide capped Ag nanoparticles constructed by air plasma irradiation. Applied Physics Letters, 2018, 112, .	3.3	12
155	Promising Three-Dimensional Flowerlike CuWO ₄ Photoanode Modified with CdS and FeOOH for Efficient Photoelectrochemical Water Splitting. Industrial & Engineering Chemistry Research, 2018, 57, 6210-6217.	3.7	42
156	Novel nanomagnetic Ag/β-Ag ₂ WO ₄ /CoFe ₂ O ₄ as a highly efficient photocatalyst under visible light irradiation. New Journal of Chemistry, 2018, 42, 9530-9542.	2.8	34
157	MoS ₂ Quantum Dots@TiO ₂ Nanotube Arrays: An Extended-Spectrum-Driven Photocatalyst for Solar Hydrogen Evolution. ChemSusChem, 2018, 11, 1708-1721.	6.8	77
158	In-situ synthesis of Ni2P co-catalyst decorated Zn0.5Cd0.5S nanorods for high-quantum-yield photocatalytic hydrogen production under visible light irradiation. Applied Catalysis B: Environmental, 2018, 233, 194-201.	20.2	165
159	Pt/TiO2 photocatalysts deposited on commercial support for photocatalytic reduction of CO2. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 366, 72-80.	3.9	59
160	Recent progress on advanced design for photoelectrochemical reduction of CO2 to fuels. Science China Materials, 2018, 61, 771-805.	6.3	172
161	Selective photocatalytic carbon dioxide conversion with Pt@Ag-TiO2 nanoparticles. Catalysis Communications, 2018, 108, 98-102.	3.3	20
162	Regionalized and vectorial charges transferring of Cd1â [~] xZnxS twin nanocrystal homojunctions for visible-light driven photocatalytic applications. Journal of Colloid and Interface Science, 2018, 518, 156-164.	9.4	42
163	Improved visible-light activities of nanocrystalline CdS by coupling with ultrafine NbN with lattice matching for hydrogen evolution. Sustainable Energy and Fuels, 2018, 2, 549-552.	4.9	35
164	Fabrication and Photocatalytic Application of Aromatic Ring Functionalized Melem Oligomers. Journal of Physical Chemistry C, 2018, 122, 3506-3512.	3.1	16

#	Article	IF	CITATIONS
165	Surface and Interface Engineering in Ag ₂ S@MoS ₂ Core–Shell Nanowire Heterojunctions for Enhanced Visible Photocatalytic Hydrogen Production. ChemCatChem, 2018, 10, 2107-2114.	3.7	47
166	Facile "Spotâ€Heating―Synthesis of Carbon Dots/Carbon Nitride for Solar Hydrogen Evolution Synchronously with Contaminant Decomposition. Advanced Functional Materials, 2018, 28, 1706462.	14.9	121
167	Modification of heterogeneous photocatalysts for selective organic synthesis. Catalysis Science and Technology, 2018, 8, 1229-1250.	4.1	56
168	Facile Integration between Si and Catalyst for High-Performance Photoanodes by a Multifunctional Bridging Layer. Nano Letters, 2018, 18, 1516-1521.	9.1	93
169	Selective fluorescent sensing and photocatalytic properties of three MOFs based on naphthalene-1,4-dicarboxylic acid and 2,4,5-tri(4-pyridyl)-imidazole. New Journal of Chemistry, 2018, 42, 3551-3559.	2.8	8
170	Facet-dependent interfacial charge separation and transfer in plasmonic photocatalysts. Applied Catalysis B: Environmental, 2018, 226, 269-277.	20.2	166
171	Surface step decoration of isolated atom as electron pumping: Atomic-level insights into visible-light hydrogen evolution. Nano Energy, 2018, 45, 109-117.	16.0	118
172	Strategies for Plasmonic Hotâ€Electronâ€Driven Photoelectrochemical Water Splitting. ChemPhotoChem, 2018, 2, 161-182.	3.0	51
173	IRâ€Driven Ultrafast Transfer of Plasmonic Hot Electrons in Nonmetallic Branched Heterostructures for Enhanced H ₂ Generation. Advanced Materials, 2018, 30, 1705221.	21.0	119
174	Facet-dependent photocatalysis of nanosize semiconductive metal oxides and progress of their characterization. Nano Today, 2018, 18, 15-34.	11.9	99
175	Syntheses, structures and efficient visible light-driven photocatalytic properties of layered cuprous halides based on two types of building units. Dalton Transactions, 2018, 47, 6965-6972.	3.3	32
176	Mechanistic investigation on tuning the conductivity type of cuprous oxide (Cu2O) thin films via deposition potential. International Journal of Hydrogen Energy, 2018, 43, 13764-13777.	7.1	47
177	Steering plasmonic hot electrons to realize enhanced full-spectrum photocatalytic hydrogen evolution. Chinese Journal of Catalysis, 2018, 39, 453-462.	14.0	18
178	1D metallic MoO2-C as co-catalyst on 2D g-C3N4 semiconductor to promote photocatlaytic hydrogen production. Applied Surface Science, 2018, 447, 732-739.	6.1	69
179	Augmented Quantum Yield of a 2D Monolayer Photodetector by Surface Plasmon Coupling. Nano Letters, 2018, 18, 2316-2323.	9.1	82
180	Interfacial synergism of Pd-decorated BiOCl ultrathin nanosheets for the selective oxidation of aromatic alcohols. Journal of Materials Chemistry A, 2018, 6, 6344-6355.	10.3	127
181	Durch Sauerstoffâ€Leerstellen vermittelte Photokatalyse mit BiOCl: Reaktivitä Selektivitäund Ausblick. Angewandte Chemie, 2018, 130, 128-145.	2.0	59
182	Oxygen Vacancyâ€Mediated Photocatalysis of BiOCl: Reactivity, Selectivity, and Perspectives. Angewandte Chemie - International Edition, 2018, 57, 122-138.	13.8	871

ARTICLE IF CITATIONS Unconventionally prepared TiO2/g-C3N4 photocatalysts for photocatalytic decomposition of nitrous 183 6.1 83 oxide. Applied Surface Science, 2018, 430, 335-347. Effective separation and transfer of carriers into the redox sites on Ta3N5/Bi photocatalyst for 184 20.2 58 promoting conversion of CO2 into CH4. Applied Catalysis B: Environmental, 2018, 224, 10-16. Synergistic effect based NixCo1-x architected Zn0.75Cd0.25S nanocrystals: An ultrahigh and stable 185 photocatalysts for hydrogen evolution from water splitting. Applied Catalysis B: Environmental, 2018, 20.2 59 224, 17-26. Graphene-based heterojunction photocatalysts. Applied Surface Science, 2018, 430, 53-107. 186 6.1 386 Graphene "bridge―in transferring hot electrons from plasmonic Ag nanocubes to TiO2 nanosheets for enhanced visible light photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 187 20.2 105 2018, 220, 182-190. Katalyse der Kohlenstoffdioxidâ€Photoreduktion an Nanoschichten: Grundlagen und 188 Herausforderungen. Angewandte Chemie, 2018, 130, 7734-7752. Catalysis of Carbon Dioxide Photoreduction on Nanosheets: Fundamentals and Challenges. 189 13.8 361 Angewandte Chemie - International Edition, 2018, 57, 7610-7627. Constructing magnetic catalysts with in-situ solid-liquid interfacial photo-Fenton-like reaction over 20.2 Ag3PO4@NiFe2O4 composites. Applied Catalysis B: Environmental, 2018, 225, 40-50. Photocatalytic properties of attached BiOCl-(0â€0â€1) nanosheets onto AgBr colloidal spheres toward 191 2.6 18 MO and RhB degradation under an LED irradiation. Materials Letters, 2018, 212, 182-185. Plasmonic molybdenum oxide nanosheets supported silver nanocubes for enhanced near-infrared antibacterial activity: Synergism of photothermal effect, silver release and photocatalytic reactions. 20.2 109 Applied Catalysis B: Environmental, 2018, 224, 671-680. 2D heterostructure comprised of metallic 1T-MoS2/Monolayer O-g-C3N4 towards efficient 193 20.2 231 photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2018, 220, 379-385. TiO₂-based heterojunction photocatalysts for photocatalytic reduction of 194 10.3 195 CO₂into solar fuels. Journal of Materials Chemistry A, 2018, 6, 22411-22436. Steering Charge Kinetics of Tin Niobate Photocatalysts: Key Roles of Phase Structure and Electronic 195 5.7 9 Structure. Nanoscale Research Letters, 2018, 13, 161. Location effect in a photocatalytic hybrid system of metal-organic framework interfaced with 1.3 semiconductor nanoparticles. Chinese Journal of Chemical Physics, 2018, 31, 613-618. Photocatalysis: From Fundamental Principles to Materials and Applications. ACS Applied Energy 197 370 5.1Materials, 2018, 1, 6657-6693. Turning Au Nanoclusters Catalytically Active for Visible-Light-Driven CO₂ Reduction 208 through Bridging Ligands. Journal of the American Chemical Society, 2018, 140, 16514-16520. Crystal structures, selective fluorescent sensing and photocatalytic properties of cobalt(II) and 199 copper(II) coordination architectures with 2,4,5-tri(4-pyridyl)-imidazole. Journal of Coordination 2.20 Chemistry, 2018, 71, 4007-4021. Non-noble metals applied to solar water splitting. Energy and Environmental Science, 2018, 11, 30.8 134 3128-3156.

#	Article	IF	CITATIONS
201	Surface Strategies for Particulate Photocatalysts toward Artificial Photosynthesis. Joule, 2018, 2, 2260-2288.	24.0	146
202	Interfacial and Dimensional Effects of Pd Co-Catalyst for Efficient Photocatalytic Hydrogen Generation. Journal of Physical Chemistry C, 2018, 122, 25165-25173.	3.1	26
203	Enhanced visible-light-driven photocatalytic activity of Bi12O15Cl6/Bi2WO6 Z-scheme heterojunction photocatalysts for tetracycline degradation. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2018, 231, 86-92.	3.5	29
204	AgInS ₂ -Coated Upconversion Nanoparticle as a Photocatalyst for Near-Infrared Light-Activated Photodynamic Therapy of Cancer Cells. ACS Applied Bio Materials, 2018, 1, 1628-1638.	4.6	15
205	Synthesis of novel p-n heterojunction m-Bi2O4/BiOCl nanocomposite with excellent photocatalytic activity through ion-etching method. Chinese Journal of Catalysis, 2018, 39, 1792-1803.	14.0	53
206	Cluster-Based Anionic Template Assisted in the Formation of 3D Cobalt Cationic Framework: A Bridge Connecting MOFs and Halometallates?. Inorganic Chemistry, 2018, 57, 11318-11321.	4.0	18
207	Enhanced Charge Separation of TiO ₂ Nanotubes Photoelectrode for Efficient Conversion of CO ₂ . ACS Sustainable Chemistry and Engineering, 2018, 6, 12953-12960.	6.7	8
208	Energy Materials Design for Steering Charge Kinetics. Advanced Materials, 2018, 30, e1801988.	21.0	10
209	Efficient gas phase VOC removal and electricity generation in an integrated bio-photo-electro-catalytic reactor with bio-anode and TiO2 photo-electro-catalytic air cathode. Bioresource Technology, 2018, 270, 554-561.	9.6	32
210	Defect engineering in photocatalytic materials. Nano Energy, 2018, 53, 296-336.	16.0	732
211	Three new Zn-based metal–organic frameworks exhibiting selective fluorescence sensing and photocatalytic activity. CrystEngComm, 2018, 20, 3877-3890.	2.6	14
212	Effect of Configuration on the Photocatalytic Activity of AgNPs-TiO2 System. Plasmonics, 2018, 13, 2345-2351.	3.4	0
213	Metal@I ₂ –II–IV–VI ₄ core–shell nanocrystals: controlled synthesis by aqueous cation exchange for efficient photoelectrochemical hydrogen generation. Journal of Materials Chemistry A, 2018, 6, 11898-11908.	10.3	20
214	Solvent free synthesis of Ta2O5 nanoparticles and their photocatalytic properties. AIP Advances, 2018, 8, .	1.3	30
215	Plasmonic Au Nanoparticles/KCa2Nb3O10 nanosheets 0D/2D heterojunctions with enhanced photocatalytic activity towards the degradation of tetracycline hydrochloride. Journal of Alloys and Compounds, 2018, 762, 38-45.	5.5	17
216	Plasmonic gold nanoparticle-decorated BiVO ₄ /ZnO nanowire heterostructure photoanodes for efficient water oxidation. Catalysis Science and Technology, 2018, 8, 3759-3766.	4.1	34
217	Direct Z-scheme photocatalysts: Principles, synthesis, and applications. Materials Today, 2018, 21, 1042-1063.	14.2	1,134
218	Continuous UV irradiation synthesis of ultra-small Au nanoparticles decorated Cu2O with enhanced photocatalytic activity. Composites Communications, 2018, 9, 27-32.	6.3	6

#	Article	IF	CITATIONS
219	Selective fluorescent sensing and photocatalytic properties of Zinc(II) and Cadmium(II) coordination architectures with naphthalene-1,5-disulfonate and 2,4,5-tri(4-pyridyl)-imidazole. Inorganica Chimica Acta, 2018, 482, 447-453.	2.4	11
220	Refining Defect States in W ₁₈ O ₄₉ by Mo Doping: A Strategy for Tuning N ₂ Activation towards Solar-Driven Nitrogen Fixation. Journal of the American Chemical Society, 2018, 140, 9434-9443.	13.7	722
221	Interfacial oxygen vacancy layer of a Z-scheme BCN–TiO ₂ heterostructure accelerating charge carrier transfer for visible light photocatalytic H ₂ evolution. Catalysis Science and Technology, 2018, 8, 3629-3637.	4.1	27
222	NiO/Ni/TiO2 nanocables with Schottky/p-n heterojunctions and the improved photocatalytic performance in water splitting under visible light. Journal of Colloid and Interface Science, 2018, 530, 1-8.	9.4	71
223	The property of surface heterojunction performed by crystal facets for photogenerated charge separation. Computational Materials Science, 2018, 153, 28-35.	3.0	13
224	Light-tuned switching of charge transfer channel for simultaneously boosted photoactivity and stability. Applied Catalysis B: Environmental, 2018, 238, 19-26.	20.2	48
225	Amorphous FeCoPOx nanowires coupled to g-C3N4 nanosheets with enhanced interfacial electronic transfer for boosting photocatalytic hydrogen production. Applied Catalysis B: Environmental, 2018, 238, 161-167.	20.2	49
226	In Situ Synthesis of Strongly Coupled Co ₂ P-CdS Nanohybrids: An Effective Strategy To Regulate Photocatalytic Hydrogen Evolution Activity. ACS Sustainable Chemistry and Engineering, 2018, 6, 9940-9950.	6.7	61
227	Application of Exfoliated Inorganic Nanosheets for Strongly oupled Hybrid Photocatalysts. Solar Rrl, 2018, 2, 1800092.	5.8	22
228	Imaging photogenerated charge carriers on surfaces and interfaces of photocatalysts with surface photovoltage microscopy. Chemical Society Reviews, 2018, 47, 8238-8262.	38.1	343
229	Selective prepared carbon nanomaterials for advanced photocatalytic application in environmental pollutant treatment and hydrogen production. Applied Catalysis B: Environmental, 2018, 239, 408-424.	20.2	386
230	Surface and interface design for photocatalytic water splitting. Dalton Transactions, 2018, 47, 12035-12040.	3.3	16
231	Fabrication of selective interface of ZnO/CdS heterostructures for more efficient photocatalytic hydrogen evolution. Dalton Transactions, 2018, 47, 12162-12171.	3.3	15
232	New opportunities for efficient N ₂ fixation by nanosheet photocatalysts. Nanoscale, 2018, 10, 15429-15435.	5.6	111
233	Advances in materials engineering of CdS coupled with dual cocatalysts of graphene and MoS ₂ for photocatalytic hydrogen evolution. Pure and Applied Chemistry, 2018, 90, 1379-1392.	1.9	4
234	Surface Engineering of CdS Quantum Dots for Photocatalytic Applications under Direct Sunlight. ChemistrySelect, 2018, 3, 8491-8500.	1.5	6
235	Lattice Engineering on Metal Cocatalysts for Enhanced Photocatalytic Reduction of CO ₂ into CH ₄ . ChemSusChem, 2018, 11, 3524-3533.	6.8	54
236	Nd/TiO2 Anatase-Brookite Photocatalysts for Photocatalytic Decomposition of Methanol. Frontiers in Chemistry, 2018, 6, 44.	3.6	19

#	Article	IF	CITATIONS
237	Hydrothermal fabrication and analysis of piezotronic-related properties of BiFeO3 nanorods. Ceramics International, 2018, 44, 14158-14162.	4.8	11
238	Material descriptors for photocatalyst/catalyst design. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2018, 8, e1369.	14.6	34
239	Order engineering on the lattice of intermetallic PdCu co-catalysts for boosting the photocatalytic conversion of CO ₂ into CH ₄ . Journal of Materials Chemistry A, 2018, 6, 17444-17456.	10.3	54
240	Designing Visibleâ€Lightâ€Driven Zâ€scheme Catalyst 2D g ₃ N ₄ /Bi ₂ MoO ₆ : Enhanced Photodegradation Activity of Organic Pollutants. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800520.	1.8	19
241	Yb(III)-based MOFs with different bulky backbone ligands for optical detection and degradation of organic molecules in wastewater. Polyhedron, 2018, 154, 411-419.	2.2	7
242	Optimizing Pd and Au-Pd decorated Bi2WO6 ultrathin nanosheets for photocatalytic selective oxidation of aromatic alcohols. Journal of Catalysis, 2018, 364, 154-165.	6.2	100
243	Efficient photocatalytic hydrogen production by doped ZnS grown on Ni foam as porous immobilized photocatalysts. International Journal of Hydrogen Energy, 2019, 44, 20805-20814.	7.1	37
244	Ultrafine Ag@AgI nanoparticles on cube single-crystal Ag3PO4 (1 0 0): An all-day-active Z-Scheme photocatalyst for environmental purification. Journal of Colloid and Interface Science, 2019, 533, 95-105.	9.4	44
245	CuS ZnS decorated Fe3O4 nanoparticles as magnetically separable composite photocatalysts with excellent hydrogen production activity. International Journal of Hydrogen Energy, 2019, 44, 20872-20880.	7.1	17
246	<i>In situ</i> epitaxial growth of Ag ₃ PO ₄ quantum dots on hematite nanotubes for high photocatalytic activities. Inorganic Chemistry Frontiers, 2019, 6, 2747-2755.	6.0	6
247	The Facet Structure and Photochemical Reactivity of Arbitrarily Oriented Strontium Titanate Surfaces. Advanced Materials Interfaces, 2019, 6, 1900731.	3.7	8
248	Constructing Schottky junction between 2D semiconductor and metallic nickel phosphide for highly efficient catalytic hydrogen evolution. Applied Surface Science, 2019, 495, 143528.	6.1	35
249	Energy-Dependent Z-Scheme via Metal-Interfacing Two-Dimensional p-Type and n-Type Semiconductor Layers for Efficient Optoelectronic Conversion. Journal of Physical Chemistry Letters, 2019, 10, 4317-4322.	4.6	2
250	Tuning Interfacial Cuâ€O Atomic Structures for Enhanced Catalytic Applications. Chemistry - an Asian Journal, 2019, 14, 2912-2924.	3.3	14
251	Integration of Plasmonic Metal and Cocatalyst: An Efficient Strategy for Boosting the Visible and Broad‣pectrum Photocatalytic H 2 Evolution. Advanced Materials Interfaces, 2019, 6, 1900775.	3.7	18
252	Direct Z-Scheme 2D/2D Photocatalyst Based on Ultrathin g-C3N4 and WO3 Nanosheets for Efficient Visible-Light-Driven H2 Generation. ACS Applied Materials & Interfaces, 2019, 11, 27913-27923.	8.0	161
253	Nanowire Photoelectrochemistry. Chemical Reviews, 2019, 119, 9221-9259.	47.7	158
254	Highly efficient visible photocatalytic degradation of MB organic dye by heteromorphic ZnO/AZO/ZnO nanocatalysts: effect of AZO thickness. Journal of Sol-Gel Science and Technology, 2019, 92, 25-39.	2.4	14

#	Article	IF	CITATIONS
255	Construction of Ag ₂ S/WO ₃ Direct Z-Scheme Photocatalyst for Enhanced Charge Separation Efficiency and H ₂ Generation Activity. Industrial & Engineering Chemistry Research, 2019, 58, 14802-14813.	3.7	23
256	Boosting Photocatalytic Performance in Mixed-Valence MIL-53(Fe) by Changing Fe ^{II} /Fe ^{III} Ratio. ACS Applied Materials & Interfaces, 2019, 11, 28791-28800.	8.0	121
257	Capturing the Long-Lived Photogenerated Electrons in Au/TiO ₂ upon UV or Visible Irradiation by Time-Resolved Infrared Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 20325-20332.	3.1	17
258	A Critical Review on Energy Conversion and Environmental Remediation of Photocatalysts with Remodeling Crystal Lattice, Surface, and Interface. ACS Nano, 2019, 13, 9811-9840.	14.6	331
259	Bimetallic phosphide NiCoP anchored g-C3N4 nanosheets for efficient photocatalytic H2 evolution. Journal of Alloys and Compounds, 2019, 803, 205-215.	5.5	63
260	Room-temperature hydrolysis fabrication of BiOBr/Bi12O17Br2 Z-Scheme photocatalyst with enhanced resorcinol degradation and NO removal activity. Chemosphere, 2019, 235, 767-775.	8.2	34
261	KSCN-induced Interfacial Dipole in Black TiO ₂ for Enhanced Photocatalytic CO ₂ Reduction. ACS Applied Materials & Interfaces, 2019, 11, 25186-25194.	8.0	54
262	Photocatalytic Decomposition of N2O by Using Nanostructured Graphitic Carbon Nitride/Zinc Oxide Photocatalysts Immobilized on Foam. Catalysts, 2019, 9, 735.	3.5	15
263	Facile Synthesis of NaYF 4 :Yb,Tm@TiO 2 Core‣hell Structured Composite with Enhanced Photocatalytic Activity for Degradation of RhB Dye. ChemistrySelect, 2019, 4, 11346-11353.	1.5	3
264	Hybridization of Defective Tin Disulfide Nanosheets and Silver Nanowires Enables Efficient Electrochemical Reduction of CO ₂ into Formate and Syngas. Small, 2019, 15, e1904882.	10.0	39
265	Electrochemical Fabrication of rGO-embedded Ag-TiO2 Nanoring/Nanotube Arrays for Plasmonic Solar Water Splitting. Nano-Micro Letters, 2019, 11, 97.	27.0	24
266	Review on DFT calculation of <i>s</i> â€triazineâ€based carbon nitride. , 2019, 1, 32-56.		193
267	CdS/Ag2S nanocomposites photocatalyst with enhanced visible light photocatalysis activity. Solid State Sciences, 2019, 98, 106020.	3.2	29
268	In Situ Grown Monolayer Nâ€Doped Graphene on CdS Hollow Spheres with Seamless Contact for Photocatalytic CO ₂ Reduction. Advanced Materials, 2019, 31, e1902868.	21.0	515
269	Narrowing the Band Gap of BiOCl for the Hydroxyl Radical Generation of Photocatalysis under Visible Light. ACS Sustainable Chemistry and Engineering, 2019, 7, 16569-16576.	6.7	81
270	Characterization of Photo-catalysts: From Traditional to Advanced Approaches. Topics in Current Chemistry, 2019, 377, 24.	5.8	12
271	Janus MoSSe/WSeTe heterostructures: a direct Z-scheme photocatalyst for hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 21835-21842.	10.3	119
272	Tailoring of crystalline structure of carbon nitride for superior photocatalytic hydrogen evolution. Journal of Colloid and Interface Science, 2019, 556, 324-334.	9.4	20

#	Article	IF	CITATIONS
273	Construction of ternary annular 2Z-scheme+1Heterojunction CuO/WO3/CdS/ photocatalytic system for methylene blue degradation with simultaneous hydrogen production. Applied Surface Science, 2019, 498, 143843.	6.1	55
274	Rapid disinfection of <i>E. coli</i> by a ternary BiVO ₄ /Ag/g-C ₃ N ₄ composite under visible light: photocatalytic mechanism and performance investigation in authentic sewage. Environmental Science: Nano, 2019, 6, 610-623.	4.3	59
275	Synthesis of BiVO4 nanoflakes decorated with AuPd nanoparticles as selective oxidation photocatalysts. Journal of Colloid and Interface Science, 2019, 541, 300-311.	9.4	37
276	La(III)-based MOFs with 5-aminoisophthalic acid for optical detection and degradation of organic molecules in water. Polyhedron, 2019, 162, 255-262.	2.2	15
277	Highly Efficient Photoelectrochemical Water Splitting: Surface Modification of Cobaltâ€Phosphateâ€Loaded Co ₃ O ₄ /Fe ₂ O ₃ p–n Heterojunction Nanorod Arrays. Advanced Functional Materials, 2019, 29, 1801902.	14.9	220
278	TiO2 nanotube arrays modified with nanoparticles of platinum group metals (Pt, Pd, Ru): enhancement on photoelectrochemical performance. Journal of Nanoparticle Research, 2019, 21, 1.	1.9	24
279	Lateral heterojunctions within ultrathin FeS–FeSe ₂ nanosheet semiconductors for photocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 3828-3841.	10.3	67
280	Braiding kinetics and spectroscopy in photo-catalysis: the spectro-kinetic approach. Chemical Society Reviews, 2019, 48, 637-682.	38.1	79
281	Two-dimensional materials in semiconductor photoelectrocatalytic systems for water splitting. Energy and Environmental Science, 2019, 12, 59-95.	30.8	373
282	Gold nanorods-based hybrids with tailored structures for photoredox catalysis: fundamental science, materials design and applications. Nano Today, 2019, 27, 48-72.	11.9	104
283	Solution-Processed in Situ Growth of CuInS ₂ Nanoparticle Films for Efficient Planar Heterojunction Solar Cells with a Dual Nature of Charge Generation. ACS Applied Energy Materials, 2019, 2, 5231-5242.	5.1	29
284	Energy-Band Structure as Basis for Semiconductor n-Bi ₂ S ₃ /n-Bi ₂ O ₃ Photocatalyst Design. Journal of the Electrochemical Society, 2019, 166, H433-H437.	2.9	24
285	Recent advances in enhanced photocatalytic activity of bismuth oxyhalides for efficient photocatalysis of organic pollutants in water: A review. Journal of Industrial and Engineering Chemistry, 2019, 78, 1-20.	5.8	294
286	Ag plasmon resonance promoted 2D AgBr-δ-Bi2O3 nanosheets with enhanced photocatalytic ability. Journal of Alloys and Compounds, 2019, 803, 565-575.	5.5	28
287	TiO2 @ MoSe2 line-to-face heterostructure: An advanced photocatalyst for highly efficient reduction of Cr (VI). Ceramics International, 2019, 45, 18065-18072.	4.8	19
288	Monitoring Transport Behavior of Charge Carriers in a Single CdS@CuS Nanowire via In Situ Single-Particle Photoluminescence Spectroscopy. Journal of Physical Chemistry Letters, 2019, 10, 4017-4024.	4.6	37
289	Electron-transfer cascade from CdSe@ZnSe core-shell quantum dot accelerates photoelectrochemical H2 evolution on TiO2 nanotube arrays. Journal of Catalysis, 2019, 375, 81-94.	6.2	49
290	Advances towards the utilization of Vis-NIR light energy by coating YF ₃ :Yb ³⁺ ,Er ³⁺ over ZnS microspheres triggering hydrogen production and pollutants disposal Journal of Materials Chemistry C 2019, 7, 8053-8062	5.5	44

		CITATION REPORT		
#	ARTICLE	IF		CITATIONS
291	Dual Cocatalysts in 110 ₂ Photocatalysis. Advanced Materials, 2019, 31, e180766	30. 21	1.0	796
292	Synergistic effect of dual electron-cocatalyst modified photocatalyst and methodical strategy better charge separation. Applied Surface Science, 2019, 489, 930-942.	for 6.	.1	15
293	3D/2D Ln3+-doped BiOBr/rGO heterostructure with enhanced photocatalytic performance. Jo Nanoparticle Research, 2019, 21, 1.	urnal of 1.	9	7
294	Spatially separated CdS hollow spheres with interfacial charge transfer and cocatalyst for enhancing photocatalytic hydrogen evolution. Molecular Catalysis, 2019, 474, 110418.	2.	.0	9
295	Studies on growth of Au cube-ZnO core-shell nanoparticles for photocatalytic degradation of methylene blue and methyl orange dyes in aqueous media and in presence of different scaven Journal of Environmental Chemical Engineering, 2019, 7, 103209.	gers. 6.	.7	56
296	Latest progress in constructing solid-state Z scheme photocatalysts for water splitting. Nanos 2019, 11, 11071-11082.	scale, 5.	.6	84
297	A Theoretical Perspective on Charge Separation and Transfer in Metal Oxide Photocatalysts fo Splitting. ChemCatChem, 2019, 11, 3688-3715.	r Water 3.	.7	27
298	Steering charge kinetics in W2C@C/TiO2 heterojunction architecture: Efficient solar-light-driv hydrogen generation. Applied Catalysis B: Environmental, 2019, 255, 117760.	en 20	0.2	25
299	Hydrothermally synthesized Cd-doped ZnO nanostructures with efficient sunlight-driven photocatalytic and antibacterial activity. Journal of Materials Science: Materials in Electronics, 30, 11208-11219.	2019, 2.	.2	22
300	Degradation of bisphenol a using peroxymonosulfate activated by WO3@MoS2/Ag hollow na photocatalyst. Chemosphere, 2019, 227, 589-597.	notubes 8.	.2	43
301	Influence of ZnO Surface Modification on the Photocatalytic Performance of ZnO/NiO Thin Fil Catalysis Letters, 2019, 149, 1813-1824.	ms. 2.	.6	16
302	Mechanochemical Syntheses of Oxygen-Rich Bismuth Oxychlorides BixOyClz to Enhance Cipr Degradation Under Visible Light Irradiation. Catalysis Letters, 2019, 149, 2247-2255.	ofloxacin 2.	.6	17
303	Effective steering of charge flow through synergistic inducing oxygen vacancy defects and p-r heterojunctions in 2D/2D surface-engineered Bi2WO6/BiOI cascade: Towards superior photoc CO2 reduction activity. Chemical Engineering Journal, 2019, 372, 1183-1193.	ı atalytic 12	2.7	210
304	Fabrication of a magnetically separable and dual Z-scheme PANI/Ag3PO4/NiFe2O4 composite enhanced visible-light photocatalytic activity for organic pollutant elimination. Applied Surface Science, 2019, 486, 198-211.	with 2 6.	.1	135
305	Water stable tetranuclear copper(I) iodide cluster for visible-light driven photocatalytic applic Inorganic Chemistry Communication, 2019, 105, 135-139.	ation. 3.	.9	20
306	Ni-based photocatalytic H2-production cocatalysts2. Chinese Journal of Catalysis, 2019, 40, 2	40-288. 14	4.0	239
307	Synergistic effects in simultaneous photocatalytic removal of Cr(VI) and tetracycline hydrochl by Z-scheme Co3O4/Ag/Bi2WO6 heterojunction. Applied Surface Science, 2019, 483, 677-68	oride 7. 6.	.1	109
308	Recent advances in round-the-clock photocatalytic system: Mechanisms, characterization tec and applications. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 20 58-75.	nniques 19, 39, 11	1.6	39

#	Article	IF	CITATIONS
309	Photocatalytic activity of Ni _{0.5} Zn _{0.5} Fe ₂ O ₄ @polyaniline decorated BiOCl for azo dye degradation under visible light – integrated role and degradation kinetics interpretation. RSC Advances, 2019, 9, 8977-8993.	3.6	43
310	Plasmon and Upconversion Mediated Broadband Spectral Response in TiO ₂ Inverse Opal Photocatalysts for Enhanced Photoelectrochemical Water Splitting. ACS Applied Energy Materials, 2019, 2, 3780-3790.	5.1	28
311	Artificial Photosynthesis with Polymeric Carbon Nitride: When Meeting Metal Nanoparticles, Single Atoms, and Molecular Complexes. Small, 2019, 15, e1900772.	10.0	84
312	Mott–Schottky Effect Leads to Alkyne Semihydrogenation over Pd-Nanocube@N-Doped Carbon. ACS Catalysis, 2019, 9, 4632-4641.	11.2	93
313	Photocorrosion Inhibition of Semiconductor-Based Photocatalysts: Basic Principle, Current Development, and Future Perspective. ACS Catalysis, 2019, 9, 4642-4687.	11.2	432
314	The construction of type II heterojunction of Bi2WO6/BiOBr photocatalyst with improved photocatalytic performance. Journal of Alloys and Compounds, 2019, 788, 102-109.	5.5	97
315	Design and construction of Z-scheme Bi2S3/nitrogen-doped graphene quantum dots: Boosted photoelectric conversion efficiency for high-performance photoelectrochemical aptasensing of sulfadimethoxine. Biosensors and Bioelectronics, 2019, 130, 230-235.	10.1	67
316	Accelerating Photogenerated Charge Kinetics via the Synergetic Utilization of 2D Semiconducting Structural Advantages and Nobleâ€Metalâ€Free Schottky Junction Effect. Small, 2019, 15, e1804613.	10.0	56
317	Interface engineering on Janus Pd–Au heterojunction co-catalysts for selective photocatalytic reduction of CO ₂ to CH ₄ . Journal of Materials Chemistry A, 2019, 7, 5266-5276.	10.3	61
318	Efficient photoredox conversion of alcohol to aldehyde and H ₂ by heterointerface engineering of bimetal–semiconductor hybrids. Chemical Science, 2019, 10, 3514-3522.	7.4	90
319	Chemisorption-enhanced photocatalytic nitrogen fixation via 2D ultrathin p–n heterojunction AgCl/Ĩ-Bi2O3 nanosheets. Journal of Catalysis, 2019, 371, 71-80.	6.2	129
320	Visible-light triggered selective reduction of nitroarenes to azo compounds catalysed by Ag@organic molecular cages. Chemical Communications, 2019, 55, 3586-3589.	4.1	46
321	More efficiently enhancing photocatalytic activity by embedding Pt within anatase–rutile TiO2 heterophase junction than exposing Pt on the outside surface. Journal of Catalysis, 2019, 372, 8-18.	6.2	37
322	Simultaneous removal of heavy metal ions and organic pollutant by BiOBr/Ti3C2 nanocomposite. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 375, 201-208.	3.9	70
323	Titanium Dioxide: From Engineering to Applications. Catalysts, 2019, 9, 191.	3.5	277
324	Synergistically enhanced charge separation in BiFeO3/Sn:TiO2 nanorod photoanode via bulk and surface dual modifications. Nano Energy, 2019, 59, 33-40.	16.0	53
325	Application of silver phosphate-based photocatalysts: Barriers and solutions. Chemical Engineering Journal, 2019, 366, 339-357.	12.7	96
326	Cocatalysts for Selective Photoreduction of CO ₂ into Solar Fuels. Chemical Reviews, 2019, 119, 3962-4179.	47.7	1,591

#	Article	IF	CITATIONS
327	Atomic palladium on graphitic carbon nitride as a hydrogen evolution catalyst under visible light irradiation. Communications Chemistry, 2019, 2, .	4.5	57
328	Plasmonic nanoparticle-film-assisted photoelectrochemical catalysis across the entire visible-NIR region. Nanoscale, 2019, 11, 23058-23064.	5.6	10
329	Hole dynamic acceleration over CdSO nanoparticles for high-efficiency solar hydrogen production with urea photolysis. Journal of Materials Chemistry A, 2019, 7, 25650-25656.	10.3	6
330	Boosting the visible-light photoactivities of BiVO ₄ nanoplates by Eu doping and coupling CeO _x nanoparticles for CO ₂ reduction and organic oxidation. Sustainable Energy and Fuels, 2019, 3, 3363-3369.	4.9	52
331	Vacancy engineering of AuCu cocatalysts for improving the photocatalytic conversion of CO ₂ to CH ₄ . Journal of Materials Chemistry A, 2019, 7, 27007-27015.	10.3	39
332	CoNi Bimetal Cocatalyst Modifying a Hierarchical ZnIn ₂ S ₄ Nanosheet-Based Microsphere Noble-Metal-Free Photocatalyst for Efficient Visible-Light-Driven Photocatalytic Hydrogen Production. ACS Sustainable Chemistry and Engineering, 2019, 7, 20190-20201.	6.7	98
333	Dawson-type polyoxometalate-based vacancies <i>g</i> -C ₃ N ₄ composite-nanomaterials for efficient photocatalytic nitrogen fixation. Inorganic Chemistry Frontiers, 2019, 6, 3315-3326.	6.0	32
334	Electronic doping-enabled transition from n- to p-type conductivity over Au@CdS core–shell nanocrystals toward unassisted photoelectrochemical water splitting. Journal of Materials Chemistry A, 2019, 7, 23038-23045.	10.3	42
335	The high-speed channel made of metal for interfacial charge transfer in Z-scheme g–C ₃ N ₄ /MoS ₂ water-splitting photocatalyst. Materials Research Express, 2019, 6, 115545.	1.6	13
336	Mesocrystals for photocatalysis: a comprehensive review on synthesis engineering and functional modifications. Nanoscale Advances, 2019, 1, 34-63.	4.6	75
337	Facet engineering on the interface of BiOCI-PbS heterostructures for enhanced broad-spectrum photocatalytic H2 production. Chemical Engineering Journal, 2019, 362, 1-11.	12.7	42
338	Crystal phase engineering on photocatalytic materials for energy and environmental applications. Nano Research, 2019, 12, 2031-2054.	10.4	95
339	Interfacial Construction of Zero-Dimensional/One-Dimensional g-C ₃ N ₄ Nanoparticles/TiO ₂ Nanotube Arrays with Z-Scheme Heterostructure for Improved Photoelectrochemical Water Splitting. ACS Sustainable Chemistry and Engineering, 2019, 7, 2483-2491.	6.7	114
340	Mechanochemical syntheses of bismuth oxybromides BixOyBrz as visible-light responsive photocatalyts for the degradation of bisphenol A. Journal of Solid State Chemistry, 2019, 270, 458-462.	2.9	15
341	Semiconductor Photocatalysis for Water Purification. , 2019, , 689-705.		12
342	In situ synthesis of a cadmium sulfide/reduced graphene oxide/bismuth Z-scheme oxyiodide system for enhanced photocatalytic performance in chlorinated paraben degradation. Chemical Engineering Journal, 2019, 359, 530-541.	12.7	48
343	Controllable fabrication of homogeneous ZnO p-n junction with enhanced charge separation for efficient photocatalysis. Catalysis Today, 2019, 335, 151-159.	4.4	51
344	Physical, photochemical, and extended piezoelectric studies of orthorhombic ZnSnN2 nanocolumn arrays. Applied Surface Science, 2019, 470, 19-26.	6.1	7

#	Article	IF	CITATIONS
345	Unique 1D Cd _{1â^'} <i>_x</i> Zn <i>_x</i> S@Oâ€MoS ₂ /NiO <i>_x Nanohybrids: Highly Efficient Visibleâ€Lightâ€Driven Photocatalytic Hydrogen Evolution via Integrated Structural Regulation. Small, 2019, 15, e1804115.</i>	<td>64</td>	64
346	In-situ approach to fabricate BiOI photocathode with oxygen vacancies: Understanding the N2 reduced behavior in photoelectrochemical system. Chemical Engineering Journal, 2019, 362, 349-356.	12.7	121
347	Noble-metal-free Fe2P–Co2P co-catalyst boosting visible-light-driven photocatalytic hydrogen production over graphitic carbon nitride: The synergistic effects between the metal phosphides. International Journal of Hydrogen Energy, 2019, 44, 4133-4142.	7.1	66
348	Boosting Visible-Light-Driven Photo-oxidation of BiOCl by Promoted Charge Separation via Vacancy Engineering. ACS Sustainable Chemistry and Engineering, 2019, 7, 3010-3017.	6.7	101
349	Phase and interlayer effect of transition metal dichalcogenide cocatalyst toward photocatalytic hydrogen evolution: The case of MoSe2. Applied Catalysis B: Environmental, 2019, 243, 330-336.	20.2	105
350	Hierarchically CdS–Ag2S nanocomposites for efficient photocatalytic H2 production. Applied Surface Science, 2019, 470, 196-204.	6.1	189
351	Integrating CoOx cocatalyst on hexagonal α-Fe2O3 for effective photocatalytic oxygen evolution. Applied Surface Science, 2019, 469, 933-940.	6.1	48
352	Construction of 2D SnS2/g-C3N4 Z-scheme composite with superior visible-light photocatalytic performance. Applied Surface Science, 2019, 467-468, 56-64.	6.1	79
353	KOH-modified Ni/LaTiO2N Schottky junction efficiently reducing CO2 to CH4 under visible light irradiation. Applied Catalysis B: Environmental, 2019, 244, 786-794.	20.2	16
354	Steering charge transfer for boosting photocatalytic H2 evolution: Integration of two-dimensional semiconductor superiorities and noble-metal-free Schottky junction effect. Applied Catalysis B: Environmental, 2019, 245, 477-485.	20.2	64
355	Tripyridineâ€Derivativeâ€Derived Semiconducting Iodoâ€Argentate/Cuprate Hybrids with Excellent Visibleâ€Lightâ€Induced Photocatalytic Performance. Chemistry - an Asian Journal, 2019, 14, 269-277.	3.3	22
356	Engineering hierarchical porous oxygen-deficient TiO2 fibers decorated with BiOCI nanosheets for efficient photocatalysis. Applied Surface Science, 2019, 471, 96-107.	6.1	39
357	Ultrathin Visibleâ€Lightâ€Driven Mo Incorporating In ₂ O ₃ –ZnIn ₂ Se ₄ Zâ€6cheme Nanosheet Photocatalysts. Advanced Materials, 2019, 31, e1807226.	21.0	165
358	Au decorated hollow ZnO@ZnS heterostructure for enhanced photocatalytic hydrogen evolution: The insight into the roles of hollow channel and Au nanoparticles. Applied Catalysis B: Environmental, 2019, 244, 748-757.	20.2	144
359	Influence of defects in porous ZnO nanoplates on CO2 photoreduction. Catalysis Today, 2019, 335, 300-305.	4.4	38
360	Selective fluorescent sensing and photodegradation properties of Tb(III)-based MOFs with different bulky backbone ligands. Polyhedron, 2019, 157, 63-70.	2.2	12
361	Foundations of Photocatalytic. Energy and Environment Research in China, 2019, , 1-11.	1.1	0
362	Synthesis of carbon doped Bi2MoO6 for enhanced photocatalytic performance and tumor photodynamic therapy efficiency. Applied Surface Science, 2019, 465, 369-382.	6.1	48

#	Article	IF	CITATIONS
363	Defect engineering: A versatile tool for tuning the activation of key molecules in photocatalytic reactions. Journal of Energy Chemistry, 2019, 37, 43-57.	12.9	143
364	2D inorganic nanosheet-based hybrid photocatalysts: Design, applications, and perspectives. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2019, 40, 150-190.	11.6	89
365	Convenient fabrication of carbon doped WO3â´'x ultrathin nanosheets for photocatalytic aerobic oxidation of amines. Catalysis Today, 2020, 340, 311-317.	4.4	19
366	Synergistic improvement of Cr(VI) reduction and RhB degradation using RP/g-C3N4 photocatalyst under visible light irradiation. Arabian Journal of Chemistry, 2020, 13, 3836-3848.	4.9	36
367	Novel two-dimensional MOF as a promising single-atom electrocatalyst for CO2 reduction: A theoretical study. Applied Surface Science, 2020, 500, 143993.	6.1	74
368	A ternary nanostructured α-Fe2O3/Au/TiO2 photoanode with reconstructed interfaces for efficient photoelectrocatalytic water splitting. Applied Catalysis B: Environmental, 2020, 260, 118206.	20.2	72
369	Emerging surface strategies on graphitic carbon nitride for solar driven water splitting. Chemical Engineering Journal, 2020, 382, 122812.	12.7	155
370	Construction of CdS@Ti3C2@CoO hierarchical tandem p-n heterojunction for boosting photocatalytic hydrogen production in pure water. Chemical Engineering Journal, 2020, 383, 123130.	12.7	67
371	Promoting LED light driven photocatalytic inactivation of bacteria by novel β-Bi2O3@BiOBr core/shell photocatalyst. Journal of Alloys and Compounds, 2020, 816, 152665.	5.5	47
372	Effective charge kinetics steering in surface plasmons coupled two-dimensional chemical Au/Bi2WO6-MoS2 heterojunction for superior photocatalytic detoxification performance. Journal of Hazardous Materials, 2020, 384, 121484.	12.4	31
373	Inter-plane heterojunctions within 2D/2D FeSe2/g-C3N4 nanosheet semiconductors for photocatalytic hydrogen generation. Applied Catalysis B: Environmental, 2020, 261, 118249.	20.2	192
374	Nanomaterials Developed for Removing Air Pollutants. , 2020, , 203-247.		1
375	3D porous Cu-NPs/g-C3N4 foam with excellent CO2 adsorption and Schottky junction effect for photocatalytic CO2 reduction. Applied Surface Science, 2020, 504, 144347.	6.1	76
376	State-of-the-art advancements of crystal facet-exposed photocatalysts beyond TiO2: Design and dependent performance for solar energy conversion and environment applications. Materials Today, 2020, 33, 75-86.	14.2	97
377	Efficient visible-light-driven photocatalytic H2 evolution over MoO2-C/CdS ternary heterojunction with unique interfacial microstructures. Applied Catalysis B: Environmental, 2020, 260, 118153.	20.2	91
378	Highly durable isotypic heterojunction generated by covalent cross-linking with organic linkers for improving visible-light-driven photocatalytic performance. Applied Catalysis B: Environmental, 2020, 260, 118182.	20.2	20
379	Green Photocatalysts for Energy and Environmental Process. Environmental Chemistry for A Sustainable World, 2020, , .	0.5	8
380	MOF-derived bimetallic Fe-Ni-P nanotubes with tunable compositions for dye-sensitized photocatalytic H2 and O2 production. Chemical Engineering Journal, 2020, 384, 123354.	12.7	57

#	Article	IF	CITATIONS
381	Surface amorphous carbon doping of carbon nitride for efficient acceleration of electron transfer to boost photocatalytic activities. Applied Surface Science, 2020, 507, 145145.	6.1	19
382	A novel bicomponent Co ₃ S ₄ /Co@C cocatalyst on CdS, accelerating charge separation for highly efficient photocatalytic hydrogen evolution. Green Chemistry, 2020, 22, 238-247.	9.0	61
383	Optical and dielectric properties of electrochemically deposited p-Cu ₂ O films. Materials Research Express, 2020, 7, 016424.	1.6	36
384	Direct Z-scheme hierarchical WO3/BiOBr with enhanced photocatalytic degradation performance under visible light. Applied Surface Science, 2020, 509, 145201.	6.1	85
385	Photocatalytic inactivation of harmful algae and degradation of cyanotoxins microcystin-LR using GO-based Z-scheme nanocatalysts under visible light. Chemical Engineering Journal, 2020, 392, 123767.	12.7	45
386	Design of twin junction with solid solution interface for efficient photocatalytic H2 production. Nano Energy, 2020, 69, 104410.	16.0	62
387	Direct Z-scheme charge separation mechanism and photocatalytic properties of (BiO)2CO3-BiOCl composites prepared in-situ. Chemical Physics, 2020, 530, 110597.	1.9	9
388	Fabrication of Ag quantum dot/SnIn ₄ S ₈ Schottky junction with enhanced photocatalytic inactivation of <i>E. coli</i> under visible light excitation. Journal Physics D: Applied Physics, 2020, 53, 085103.	2.8	4
389	Operando NMR study on the effect of photon flux and wavelength on photocatalytic reforming of methanol. Journal of Catalysis, 2020, 382, 173-180.	6.2	7
390	Edge functionalization of terminal amino group in carbon nitride by in-situ C–N coupling for photoreforming of biomass into H2. Chemical Engineering Journal, 2020, 383, 123792.	12.7	58
391	Band-matching transformation between CdS and BCNNTs with tunable p-n homojunction for enhanced photocatalytic pure water splitting. Nano Energy, 2020, 69, 104408.	16.0	52
392	Nitriding Nickel-Based Cocatalyst: A Strategy To Maneuver Hydrogen Evolution Capacity for Enhanced Photocatalysis. ACS Sustainable Chemistry and Engineering, 2020, 8, 884-892.	6.7	30
393	Unravelling the Synergy between Oxygen Vacancies and Oxygen Substitution in BiO _{2â^<i>x</i>} for Efficient Molecularâ€Oxygen Activation. Angewandte Chemie, 2020, 132, 3714-3719.	2.0	19
394	Unravelling the Synergy between Oxygen Vacancies and Oxygen Substitution in BiO _{2â^'<i>x</i>} for Efficient Molecularâ€Oxygen Activation. Angewandte Chemie - International Edition, 2020, 59, 3685-3690.	13.8	147
395	P123-assisted preparation of Ag/Ag2O with significantly enhanced photocatalytic performance. Solid State Sciences, 2020, 99, 106062.	3.2	10
396	Composite AgBr Colloidal Spheres/g-C3N4 Nanosheets: An Effective Light-Emitting Diode (LED) Irradiation Photocatalyst. Journal of Nanoscience and Nanotechnology, 2020, 20, 1936-1940.	0.9	1
397	Photocatalytic Oxidation of Methyl Tert-Butyl Ether in Presence of Various Phase Compositions of TiO2. Catalysts, 2020, 10, 35.	3.5	6
398	A Triazineâ€Based Analogue of Graphyne: Scalable Synthesis and Applications in Photocatalytic Dye Degradation and Bacterial Inactivation. Chemistry - A European Journal, 2020, 26, 2269-2275.	3.3	16

#	Article	IF	CITATIONS
399	Semiconducting and photoelectrochemical properties of the ilmenite CoTiO3 prepared by wet method and its application for O2 evolution under visible light. Journal of Solid State Electrochemistry, 2020, 24, 357-364.	2.5	11
400	Review of synergistic photo-thermo-catalysis: Mechanisms, materials and applications. International Journal of Hydrogen Energy, 2020, 45, 30288-30324.	7.1	118
401	Host–Guest Thin Films by Confining Ultrafine Pt/C QDs into Metalâ€Organic Frameworks for Highly Efficient Hydrogen Evolution. Small, 2020, 16, e2005111.	10.0	39
402	Surface structure-dependent photocatalytic O ₂ activation for pollutant removal with bismuth oxyhalides. Chemical Communications, 2020, 56, 15282-15296.	4.1	35
403	Rutile-Coated B-Phase TiO ₂ Heterojunction Nanobelts for Photocatalytic H ₂ Evolution. ACS Applied Nano Materials, 2020, 3, 10349-10359.	5.0	18
404	Integrating Z-scheme heterojunction of Co ₁ -C ₃ N ₄ @î±-Fe ₂ O ₃ for efficient visible-light-driven photocatalytic CO ₂ reduction. Green Chemistry, 2020, 22, 7552-7559.	9.0	38
405	What is the better choice for Pd cocatalysts for photocatalytic reduction of CO ₂ to renewable fuels: high-crystallinity or amorphous?. Journal of Materials Chemistry A, 2020, 8, 21208-21218.	10.3	23
406	Robust route to highly porous graphitic carbon nitride microtubes with preferred adsorption ability via rational design of one-dimension supramolecular precursors for efficient photocatalytic CO2 conversion. Nano Energy, 2020, 77, 105104.	16.0	71
407	Direct utilization of air and water as feedstocks in the photo-driven nitrogen reduction reaction over a ternary Z-scheme SiW ₉ Co ₃ /PDA/BWO hetero-junction. Journal of Materials Chemistry A, 2020, 8, 16590-16598.	10.3	38
408	Hybrid cocatalysts in semiconductor-based photocatalysis and photoelectrocatalysis. Journal of Materials Chemistry A, 2020, 8, 14863-14894.	10.3	115
409	Pt nanoparticles-modified WO3@TiO2 core–shell ternary nanocomposites as stable and efficient photocatalysts in tetracycline degradation. Journal of Materials Science, 2020, 55, 14415-14430.	3.7	11
410	A Mini Review on Bismuth-Based Z-Scheme Photocatalysts. Materials, 2020, 13, 5057.	2.9	28
411	Enhancing Solar Water Splitting of Textured BiVO4 by Dual Effect of a Plasmonic Silver Nanoshell: Plasmon-Induced Light Absorption and Enhanced Hole Transport. ACS Applied Energy Materials, 2020, 3, 11886-11892.	5.1	6
412	Effect of Pt cocatalyst on visible light driven hydrogen evolution of anthracene-based zirconium metal-organic framework. Applied Surface Science, 2020, 532, 147000.	6.1	17
413	Photocatalytic CO ₂ conversion: What can we learn from conventional CO _x hydrogenation?. Chemical Society Reviews, 2020, 49, 6579-6591.	38.1	268
414	Perovskite Microcrystals with Intercalated Monolayer MoS2 Nanosheets as Advanced Photocatalyst for Solar-Powered Hydrogen Generation. Matter, 2020, 3, 935-949.	10.0	81
415	Mixed-dimensional assembled superhydrophilic graphene-based aerogel with enhanced mass/charge transportation for efficient photoredox catalysis. Separation and Purification Technology, 2020, 252, 117454.	7.9	7
416	Efficient visible-light induced H2 evolution from T-CdxZn1-xS/defective MoS2 nano-hybrid with both bulk twinning homojunctions and interfacial heterostructures. Applied Catalysis B: Environmental, 2020, 267, 118702.	20.2	55

#	Article	IF	CITATIONS
417	Efficient photoreforming of lignocellulose into H2 and photocatalytic CO2 reduction via in-plane surface dyadic heterostructure of porous polymeric carbon nitride. Carbon, 2020, 170, 199-212.	10.3	36
418	Layered Double Hydroxide (LDH) Based Photocatalysts: An Outstanding Strategy for Efficient Photocatalytic CO2 Conversion. Catalysts, 2020, 10, 1185.	3.5	52
419	Role of Vacancies in Photocatalysis: A Review of Recent Progress. Chemistry - an Asian Journal, 2020, 15, 3599-3619.	3.3	67
420	Visible-light-driven photocatalytic selective organic oxidation reactions. Journal of Materials Chemistry A, 2020, 8, 20897-20924.	10.3	60
421	Synthesis of Al 2 O 3 ZrO 2 Nanocomposite and the Study of Its effects on Photocatalytic Degradation of Reactive Blue 222 and Reactive Yellow 145 Dyes. ChemistrySelect, 2020, 5, 9966-9973.	1.5	11
422	The effect of the photochemical environment on photoanodes for photoelectrochemical water splitting. Dalton Transactions, 2020, 49, 12338-12344.	3.3	13
423	Unraveling the relationship between exposed surfaces and the photocatalytic activity of Ag ₃ PO ₄ : an in-depth theoretical investigation. RSC Advances, 2020, 10, 30640-30649.	3.6	12
424	Bi ₂ O ₃ -Sensitized TiO ₂ Hollow Photocatalyst Drives the Efficient Removal of Tetracyclines under Visible Light. Inorganic Chemistry, 2020, 59, 18131-18140.	4.0	84
425	Design and in-situ construct BiOI/Bi/TiO2 photocatalysts with metal-mediated heterostructures employing oxygen vacancies in TiO2 nanosheets. Green Energy and Environment, 2022, 7, 680-690.	8.7	14
426	Solar driven high efficiency hydrogen evolution catalyzed by surface engineered ultrathin carbon nitride. New Journal of Chemistry, 2020, 44, 19314-19322.	2.8	3
427	High-Index-Facet- and High-Surface-Energy Nanocrystals of Metals and Metal Oxides as Highly Efficient Catalysts. Joule, 2020, 4, 2562-2598.	24.0	136
428	An efficiently heterogeneous photocatalyst for degradation of cation and neutral dyes under UV light based on size-dependent effects of tetracarboxyate complex. Journal of Solid State Chemistry, 2020, 292, 121681.	2.9	3
429	In situ reorganization of Bi3O4Br nanosheet on the Bi24O31Br10 ribbon structure for superior visible-light photocatalytic capability. Separation and Purification Technology, 2020, 247, 117007.	7.9	35
430	Recent advances in engineering active sites for photocatalytic CO ₂ reduction. Nanoscale, 2020, 12, 12196-12209.	5.6	93
431	Surface passivation enabled-structural engineering of I-III-VI ₂ nanocrystal photocatalysts. Journal of Materials Chemistry A, 2020, 8, 9951-9962.	10.3	12
432	Construction of Au/TiO2 Heterojunction with high photocatalytic performances under UVA illumination. Ceramics International, 2020, 46, 20155-20162.	4.8	26
433	Topotactic Transformation of Bismuth Oxybromide into Bismuth Tungstate: Bandgap Modulation of Single-Crystalline {001}-Faceted Nanosheets for Enhanced Photocatalytic CO ₂ Reduction. ACS Applied Materials & Interfaces, 2020, 12, 26991-27000.	8.0	53
434	A Novel CuBi ₂ O ₄ /BiOBr Direct Zâ€scheme Photocatalyst For Efficient Antibiotics Removal: Synergy of Adsorption and Photocatalysis on Degradation Kinetics and Mechanism Insight. ChemCatChem, 2020, 12, 4431-4445.	3.7	46

#	Article	IF	CITATIONS
435	Elemental red phosphorus-based materials for photocatalytic water purification and hydrogen production. Nanoscale, 2020, 12, 13297-13310.	5.6	86
436	Defect engineering of zeolite imidazole framework derived ZnS nanosheets towards enhanced visible light driven photocatalytic hydrogen production. Applied Catalysis B: Environmental, 2020, 278, 119265.	20.2	69
437	Self-integrated effects of 2D ZnIn2S4 and amorphous Mo2C nanoparticles composite for promoting solar hydrogen generation. Nano Energy, 2020, 76, 105031.	16.0	106
438	Galvanic Replacement-Enabled Synthesis of In(OH) ₃ /Ag/C Nanocomposite as an Effective Photocatalyst for Ultraviolet C Degradation of Methylene Blue. ACS Omega, 2020, 5, 13719-13728.	3.5	4
439	Engineered zinc oxide nanoaggregates for photocatalytic removal of ciprofloxacin with structure dependence. Journal of Nanoparticle Research, 2020, 22, 1.	1.9	13
440	g-C3N4/CoAl-LDH 2D/2D hybrid heterojunction for boosting photocatalytic hydrogen evolution. International Journal of Hydrogen Energy, 2020, 45, 21331-21340.	7.1	70
441	Rational Design of Carbonâ€Based 2D Nanostructures for Enhanced Photocatalytic CO ₂ Reduction: A Dimensionality Perspective. Chemistry - A European Journal, 2020, 26, 9710-9748.	3.3	125
442	Z-scheme photocatalytic dye degradation on AgBr/Zn(Co)Fe2O4 photocatalysts supported on nitrogen-doped graphene. Materials Today Sustainability, 2020, 9, 100043.	4.1	16
443	Ru Species Supported on MOFâ€Derived Nâ€Doped TiO ₂ /C Hybrids as Efficient Electrocatalytic/Photocatalytic Hydrogen Evolution Reaction Catalysts. Advanced Functional Materials, 2020, 30, 2003007.	14.9	126
444	Bi2O2Se as a novel co-catalyst for photocatalytic hydrogen evolution reaction. Chemical Engineering Journal, 2020, 400, 125931.	12.7	45
445	Heterogeneous Single-Atom Photocatalysts: Fundamentals and Applications. Chemical Reviews, 2020, 120, 12175-12216.	47.7	620
446	Boosting the photocatalytic CO ₂ reduction of metal–organic frameworks by encapsulating carbon dots. Nanoscale, 2020, 12, 9533-9540.	5.6	64
447	Smart Assembly of Sulfide Heterojunction Photocatalysts with Wellâ€Defined Interfaces for Direct Zâ€Scheme Water Splitting under Visible Light. ChemSusChem, 2020, 13, 2996-3004.	6.8	60
448	Catalyst: How Material Chemistry Enables Solar-Driven CO2 Conversion. CheM, 2020, 6, 1035-1038.	11.7	37
449	Visible-light-driven selective alcohol dehydrogenation and hydrogenolysis <i>via</i> the Mott Schottky effect. Journal of Materials Chemistry A, 2020, 8, 6854-6862.	10.3	17
450	Thin‣ayered Photocatalysts. Advanced Functional Materials, 2020, 30, 1910005.	14.9	117
451	Synergism of surface strain and interfacial polarization on Pd@Au core–shell cocatalysts for highly efficient photocatalytic CO ₂ reduction over TiO ₂ . Journal of Materials Chemistry A, 2020, 8, 7350-7359.	10.3	47
452	Boosting Photocatalytic Activity in Cross oupling Reactions by Constructing Pdâ€Oxide Heterostructures. ChemNanoMat, 2020, 6, 920-924.	2.8	5

#	Article	IF	CITATIONS
453	Designed synthesis of unique ZnS@CdS@Cd0.5Zn0.5S-MoS2 hollow nanospheres for efficient visible-light-driven H2 evolution. CrystEngComm, 2020, 22, 2743-2755.	2.6	8
454	Surface/Interface Engineering of Carbonâ€Based Materials for Constructing Multidimensional Functional Hybrids. Solar Rrl, 2020, 4, 1900577.	5.8	52
455	S-Scheme Heterojunction Photocatalyst. CheM, 2020, 6, 1543-1559.	11.7	1,993
456	Layered WS2/WO3 Z-scheme photocatalyst constructed via an in situ sulfurization of hydrous WO3 nanoplates for efficient H2 generation. Applied Surface Science, 2020, 529, 147013.	6.1	37
457	Visible-Light-Driven Selective Oxidation of Biomass-Derived HMF to DFF Coupled with H ₂ Generation by Noble Metal-Free Zn _{0.5} Cd _{0.5} S/MnO ₂ Heterostructures. ACS Applied Energy Materials, 2020, 3, 7138-7148.	5.1	60
458	Recent advances in homojunction-based photocatalysis for sustainable environmental remediation and clean energy generation. Applied Materials Today, 2020, 20, 100741.	4.3	28
459	Few-layer graphitic carbon nitride nanosheet with controllable functionalization as an effective metal-free activator for peroxymonosulfate photocatalytic activation: Role of the energy band bending. Chemical Engineering Journal, 2020, 401, 126072.	12.7	99
460	<i>In situ</i> synthesis of Cl-doped Bi ₂ O ₂ CO ₃ and its enhancement of photocatalytic activity by inducing generation of oxygen vacancies. Inorganic Chemistry Frontiers, 2020, 7, 2969-2978.	6.0	23
461	Defect and Interface Engineering on Twoâ€Dimensional Nanosheets for the Photocatalytic Nitrogen Reduction Reaction. ChemPhotoChem, 2020, 4, 5322-5336.	3.0	12
462	Crystal phase engineering Zn0.8Cd0.2S nanocrystals with twin-induced homojunctions for photocatalytic nitrogen fixation under visible light. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 401, 112766.	3.9	18
463	A direct Z-scheme PtS ₂ /arsenene van der Waals heterostructure with high photocatalytic water splitting efficiency. Nanoscale, 2020, 12, 17281-17289.	5.6	108
464	Heterogeneous Photocatalysis. Topics in Current Chemistry Collections, 2020, , .	0.5	2
465	Defect engineering of the protection layer for photoelectrochemical devices. EnergyChem, 2020, 2, 100039.	19.1	15
466	One-pot synthesis of Bi2O3/Bi2O4 p-n heterojunction for highly efficient photocatalytic removal of organic pollutants under visible light irradiation. Journal of Physics and Chemistry of Solids, 2020, 140, 109376.	4.0	33
467	Porous honeycomb-like NiSe ₂ /red phosphorus heteroarchitectures for photocatalytic hydrogen production. Nanoscale, 2020, 12, 5636-5651.	5.6	39
468	Electrodeposition of Zn-doped Cu ₂ O for the Photodegradation of Methylene Blue. Journal of Physics: Conference Series, 2020, 1428, 012064.	0.4	6
469	Steering the Charge Kinetics in Dual-Functional Photocatalysis by Surface Dipole Moments and Band Edge Modulation: A Defect Study in TiO ₂ -ZnS-rGO Composites. ACS Applied Materials & Interfaces, 2020, 12, 11679-11692.	8.0	34
470	Bridge engineering in photocatalysis and photoelectrocatalysis. Nanoscale, 2020, 12, 5764-5791.	5.6	77

#	Article	IF	CITATIONS
471	Porous Singleâ€Crystalâ€Based Inorganic Semiconductor Photocatalysts for Energy Production and Environmental Remediation: Preparation, Modification, and Applications. Advanced Functional Materials, 2020, 30, 1908984.	14.9	47
472	Visibleâ€lightâ€stimulated Alkalisâ€triggered Platinum Cocatalyst with Electron Deficient Interface for Hydrogen Evolution. ChemCatChem, 2020, 12, 2189-2193.	3.7	4
473	Noble metal-free bimetallic NiCo decorated Zn0.5Cd0.5S solid solution for enhanced photocatalytic H2 evolution under visible light. International Journal of Hydrogen Energy, 2020, 45, 8300-8309.	7.1	27
474	Controlling Pt co-catalyst loading in a WO ₃ quantum dot and MoS ₂ nanosheet composite Z-scheme system for enhanced photocatalytic H ₂ evolution. Nanotechnology, 2020, 31, 185701.	2.6	8
475	Nanointerface Chemistry: Lattice-Mismatch-Directed Synthesis and Application of Hybrid Nanocrystals. Chemical Reviews, 2020, 120, 2123-2170.	47.7	206
476	Impact of oxygen vacancies on TiO ₂ charge carrier transfer for photoelectrochemical water splitting. Dalton Transactions, 2020, 49, 2184-2189.	3.3	29
477	Silver-based semiconductor Z-scheme photocatalytic systems for environmental purification. Journal of Hazardous Materials, 2020, 390, 122128.	12.4	122
478	High-quality Cu2O thin films via electrochemical synthesis under a variable applied potential. Journal of Materials Science: Materials in Electronics, 2020, 31, 4237-4244.	2.2	7
479	Engineering crystal phase of polytypic CuInS2 nanosheets for enhanced photocatalytic and photoelectrochemical performance. Nano Research, 2020, 13, 583-590.	10.4	21
480	Fabrication of Ag ₂ 0/WO ₃ p–n heterojunction composite thin films by magnetron sputtering for visible light photocatalysis. RSC Advances, 2020, 10, 16187-16195.	3.6	12
481	Z-scheme heterojunction Ag3PO4/BiVO4 with exposing high-active facets and stretching spatial charge separation ability for photocatalytic organic pollutants degradation. Applied Surface Science, 2020, 524, 146506.	6.1	37
482	Charge carrier transfer in photocatalysis. Interface Science and Technology, 2020, , 103-159.	3.3	2
483	Sustainable hydrogen production by molybdenum carbide-based efficient photocatalysts: From properties to mechanism. Advances in Colloid and Interface Science, 2020, 279, 102144.	14.7	55
484	Embedding Ag nanoparticles to construct BiOI/Ag/PANI with enhanced photoelectrocatalytic activity: A demonstration of the switch from type-II to Z-scheme. Electrochimica Acta, 2020, 344, 136144.	5.2	22
485	Embedding few-layer Ti3C2Tx into alkalized g-C3N4 nanosheets for efficient photocatalytic degradation. Journal of Colloid and Interface Science, 2020, 571, 297-306.	9.4	71
486	Historical development and prospects of photocatalysts for pollutant removal in water. Journal of Hazardous Materials, 2020, 395, 122599.	12.4	245
487	Fabrication of visible light active BiFeO3/CuS/SiO2 Z-scheme photocatalyst for efficient dye degradation. Materials Letters, 2020, 270, 127693.	2.6	46
488	Visible light-driven photocatalytic degradation of organic pollutants by a novel Ag3VO4/Ag2CO3 p–n heterojunction photocatalyst: Mechanistic insight and degradation pathways. Journal of Alloys and Compounds, 2020, 834, 155211.	5.5	78

#	Article	IF	CITATIONS
489	Electrodeposition of oriented ZnO nanorods by two-steps potentiostatic electrolysis: Effect of seed layer time. Solid State Sciences, 2020, 104, 106207.	3.2	13
490	From core-shell to yolk-shell: Keeping the intimately contacted interface for plasmonic metal@semiconductor nanorods toward enhanced near-infrared photoelectrochemical performance. Nano Research, 2020, 13, 1162-1170.	10.4	25
491	Enabling Efficient Charge Separation for Optoelectronic Conversion via an Energy-Dependent Z-Scheme n-Semiconductor–Metal–p-Semiconductor Schottky Heterojunction. Journal of Physical Chemistry Letters, 2020, 11, 3313-3319.	4.6	9
492	Butterfly wing architectures inspire sensor and energy applications. National Science Review, 2021, 8, nwaa107.	9.5	32
493	Construction of 2D/2D Z-scheme MnO2-x/g-C3N4 photocatalyst for efficient nitrogen fixation to ammonia. Green Energy and Environment, 2021, 6, 538-545.	8.7	38
494	Synthesis of carbon nitride in moist environments: A defect engineering strategy toward superior photocatalytic hydrogen evolution reaction. Journal of Energy Chemistry, 2021, 54, 403-413.	12.9	21
495	Construction of β-Bi2O3/Bi2O2CO3 heterojunction photocatalyst for deep understanding the importance of separation efficiency and valence band position. Journal of Hazardous Materials, 2021, 401, 123262.	12.4	47
496	Nickel and indium core-shell co-catalysts loaded silicon nanowire arrays for efficient photoelectrocatalytic reduction of CO2 to formate. Journal of Energy Chemistry, 2021, 54, 422-428.	12.9	38
497	Fabrication of direct Z-scheme FeIn2S4/Bi2WO6 hierarchical heterostructures with enhanced photocatalytic activity for tetracycline hydrochloride photodagradation. Ceramics International, 2021, 47, 6318-6328.	4.8	69
498	Facile synthesis of CDs@ZIF-8 nanocomposites as excellent peroxidase mimics for colorimetric detection of H2O2 and glutathione. Sensors and Actuators B: Chemical, 2021, 329, 129115.	7.8	58
499	Rational Synthesis of 1D Hyperbranched Heterostructures with Enhanced Optoelectronic Performance. Angewandte Chemie - International Edition, 2021, 60, 3475-3480.	13.8	12
500	Three-in-one to enhance visible-light driven photocatalytic activity of BiOCl: Synergistic effect of mesocrystalline stacking superstructure, porous nanosheet and oxygen vacancy. Journal of Materiomics, 2021, 7, 328-338.	5.7	16
501	Facile strategy to construction Co2P/g-C3N4 heterojunction with excellent photocatalytic water splitting activity. Materials Letters, 2021, 284, 128964.	2.6	13
502	Photocatalysis Enhanced by External Fields. Angewandte Chemie - International Edition, 2021, 60, 16309-16328.	13.8	218
503	Photocatalysis Enhanced by External Fields. Angewandte Chemie, 2021, 133, 16445-16464.	2.0	20
504	Ultrathin bismuth oxyiodide nanosheets for photocatalytic ammonia generation from nitrogen and water under visible to near-infrared light. Materials Today Physics, 2021, 16, 100293.	6.0	18
505	Photocatalytic conversion of biomass-based monosaccharides to lactic acid by ultrathin porous oxygen doped carbon nitride. Applied Catalysis B: Environmental, 2021, 283, 119520.	20.2	108
506	Recent advances in photocatalytic removal of organic and inorganic pollutants in air. Journal of Cleaner Production, 2021, 278, 123895.	9.3	103

#	Article	IF	CITATIONS
507	Large-scale production of ultrathin carbon nitride-based photocatalysts for high-yield hydrogen evolution. Applied Catalysis B: Environmental, 2021, 281, 119475.	20.2	84
508	Interfacial facet engineering on the Schottky barrier between plasmonic Au and TiO2 in boosting the photocatalytic CO2 reduction under ultraviolet and visible light irradiation. Chemical Engineering Journal, 2021, 404, 127145.	12.7	127
509	Inter-embedded Au-Cu2O heterostructure for the enhanced hydrogen production from water splitting under the visible light. Chemical Engineering Journal, 2021, 405, 126709.	12.7	27
510	Sustainable wood-based nanotechnologies for photocatalytic degradation of organic contaminants in aquatic environment. Frontiers of Environmental Science and Engineering, 2021, 15, 1.	6.0	12
511	Hierarchical Ag3PO4@ZnIn2S4 nanoscoparium: An innovative Z-scheme photocatalyst for highly efficient and predictable tetracycline degradation. Journal of Colloid and Interface Science, 2021, 586, 708-718.	9.4	105
512	C-, N-Vacancy defect engineered polymeric carbon nitride towards photocatalysis: viewpoints and challenges. Journal of Materials Chemistry A, 2021, 9, 111-153.	10.3	320
513	Fine-tuning internal electric field of BiOBr for suppressed charge recombination. Journal of Environmental Chemical Engineering, 2021, 9, 104766.	6.7	19
514	Rationally constructing of a novel 2D/2D WO3/Pt/g-C3N4 Schottky-Ohmic junction towards efficient visible-light-driven photocatalytic hydrogen evolution and mechanism insight. Journal of Colloid and Interface Science, 2021, 586, 576-587.	9.4	46
515	Novel p-n heterojunction Bi2O3/Ti3+-TiO2 photocatalyst enables the complete removal of tetracyclines under visible light. Chemical Engineering Journal, 2021, 417, 128058.	12.7	88
516	Constructing Z-scheme heterojunction with a special electron transfer path and more active sites over MnS/D-PCN for photocatalytic H2 evolution. Applied Surface Science, 2021, 542, 148707.	6.1	18
517	Surface and interface engineering of two-dimensional bismuth-based photocatalysts for ambient molecule activation. Journal of Materials Chemistry A, 2021, 9, 196-233.	10.3	50
518	Stacking design in photocatalysis: synergizing cocatalyst roles and anti-corrosion functions of metallic MoS2 and graphene for remarkable hydrogen evolution over CdS. Journal of Materials Chemistry A, 2021, 9, 1552-1562.	10.3	36
519	Tunable charge transfer efficiency in HxMoO3@ZnIn2S4 hierarchical direct Z-scheme heterojunction toward efficient visible-light-driven hydrogen evolution. Applied Catalysis B: Environmental, 2021, 285, 119818.	20.2	86
520	Rational Synthesis of 1D Hyperbranched Heterostructures with Enhanced Optoelectronic Performance. Angewandte Chemie, 2021, 133, 3517-3522.	2.0	1
521	Exploring the mechanism of Ta3N5/KTaO3 photocatalyst for overall water splitting by first-principles calculations. Journal of Energy Chemistry, 2021, 56, 353-364.	12.9	4
522	Pentacene/non-fullerene acceptor heterojunction type phototransistors for broadened spectral photoresponsivity and ultralow level light detection. Journal of Materials Chemistry C, 2021, 9, 322-329.	5.5	8
523	Two-dimensional Janus van der Waals heterojunctions: A review of recent research progresses. Frontiers of Physics, 2021, 16, 1.	5.0	37
524	One-step hydrothermal synthesis of S-defect-controlled ZnIn2S4 microflowers with improved kinetics process of charge-carriers for photocatalytic H2 evolution. Journal of Energy Chemistry, 2021 58 397-407	12.9	100

#	Article	IF	Citations
525	Advances in 2D/2D Z‧cheme Heterojunctions for Photocatalytic Applications. Solar Rrl, 2021, 5, 2000397.	5.8	82
526	Challenges and implication of full solar spectrum-driven photocatalyst. Reviews in Chemical Engineering, 2021, 37, 533-560.	4.4	18
527	Cocatalyst-integrated photocatalysts for solar-driven hydrogen and oxygen production. , 2021, , 217-247.		0
528	<i>In situ</i> generating Cu ₂ O/Cu heterointerfaces on the Cu ₂ O cube surface to enhance interface charge transfer for the Rochow reaction. Catalysis Science and Technology, 2021, 11, 2202-2213.	4.1	5
529	Development of graphitic carbon nitride-based Z-scheme photocatalysts. , 2021, , 327-358.		0
530	Atomic‣evel Charge Separation Strategies in Semiconductorâ€Based Photocatalysts. Advanced Materials, 2021, 33, e2005256.	21.0	215
531	Steering the behavior of photogenerated carriers in semiconductor photocatalysts: a new insight and perspective. Journal of Materials Chemistry A, 2021, 9, 23765-23782.	10.3	92
532	Facet-selective charge separation in two-dimensional bismuth-based photocatalysts. Catalysis Science and Technology, 2021, 11, 3659-3675.	4.1	17
533	Spatial charge separation and high-index facet dependence in polyhedral Cu ₂ O type-II surface heterojunctions for photocatalytic activity enhancement. Inorganic Chemistry Frontiers, 2021, 8, 2603-2610.	6.0	12
534	Plasmonic gold nanocrystals simulated efficient photocatalytic nitrogen fixation over Mo doped W ₁₈ O ₄₉ nanowires. Journal of Materials Chemistry A, 2021, 9, 14459-14465.	10.3	37
535	High carrier separation efficiency for a defective g-C ₃ N ₄ with polarization effect and defect engineering: mechanism, properties and prospects. Catalysis Science and Technology, 2021, 11, 5432-5447.	4.1	19
536	Surface engraving engineering of polyhedral photocatalysts. Catalysis Science and Technology, 2021, 11, 6001-6017.	4.1	2
537	Chalcogenides as well as chalcogenides-based nanomaterials and its importance in photocatalysis. , 2021, , 33-76.		3
538	Bi3O4Br nanoplates as an efficient piezo-photocatalyst for organic dye degradation. Modern Physics Letters B, 2021, 35, 2150119.	1.9	3
539	Double-Nozzle Flame Spray Pyrolysis as a Potent Technology to Engineer Noble Metal-TiO2 Nanophotocatalysts for Efficient H2 Production. Energies, 2021, 14, 817.	3.1	12
540	Hollow cobalt sulfide nanocapsules for electrocatalytic selective transfer hydrogenation of cinnamaldehyde with water. Cell Reports Physical Science, 2021, 2, 100337.	5.6	24
541	3D shape of BiVO4-GO nanocomposite for excellent photocatalytic performance on standard and industrial dyes under visible light. Journal of the Korean Ceramic Society, 0, , 1.	2.3	6
542	Graphitic Carbon Nitride-based New Advanced Materials for Photocatalytic Applications. Current Analytical Chemistry, 2021, 17, 150-165.	1.2	6

#	Article	IF	CITATIONS
543	Cocatalyst Engineering in Piezocatalysis: A Promising Strategy for Boosting Hydrogen Evolution. ACS Applied Materials & Interfaces, 2021, 13, 15305-15314.	8.0	68
544	Advances in nanomaterials for heterogeneous photocatalysis. Nano Express, 2021, 2, 012005.	2.4	25
545	Promotion effect of metal phosphides towards electrocatalytic and photocatalytic water splitting. EcoMat, 2021, 3, e12097.	11.9	46
546	Fundamental Insights into Surface Modification of Silicon Material toward Improved Activity and Durability in Photocatalytic Hydrogen Production: A Case Study of Pre-Lithiation. Journal of Physical Chemistry C, 2021, 125, 5542-5548.	3.1	7
547	Recent advancements in enhancement of photocatalytic activity using bismuth-based metal oxides Bi2MO6 (M = W, Mo, Cr) for environmental remediation and clean energy production. Journal of Industrial and Engineering Chemistry, 2021, 95, 1-15.	5.8	52
548	Binder-free 3D flower-like alkali doped- SnS2 electrodes for high-performance supercapacitors. Electrochimica Acta, 2021, 376, 137987.	5.2	20
549	Shape-dependent hydrogen generation performance of PtPd bimetallic co-catalyst coupled with C3N4 photocatalyst. Rare Metals, 2021, 40, 3554-3560.	7.1	20
550	Nanoarray Structures for Artificial Photosynthesis. Small, 2021, 17, e2006530.	10.0	32
551	The roles of polyoxometalates in photocatalytic reduction of carbon dioxide. Materials Today Energy, 2021, 21, 100760.	4.7	28
552	Oxygen Vacant Semiconductor Photocatalysts. Advanced Functional Materials, 2021, 31, 2100919.	14.9	242
553	MOF-derived synthesis of MnS/In2S3 p-n heterojunctions with hierarchical structures for efficient photocatalytic CO2 reduction. Journal of Colloid and Interface Science, 2021, 588, 547-556.	9.4	48
554	Unique MIL-53(Fe)/PDI Supermolecule Composites: Z-Scheme Heterojunction and Covalent Bonds for Uprating Photocatalytic Performance. ACS Applied Materials & Interfaces, 2021, 13, 16364-16373.	8.0	37
555	An Overview of the Recent Progress in Polymeric Carbon Nitride Based Photocatalysis. Chemical Record, 2021, 21, 1811-1844.	5.8	29
556	Step-scheme heterojunction photocatalysts for solar energy, water splitting, CO2 conversion, and bacterial inactivation: a review. Environmental Chemistry Letters, 2021, 19, 2941-2966.	16.2	162
557	Recent Advances in TiO2-Based Heterojunctions for Photocatalytic CO2 Reduction With Water Oxidation: A Review. Frontiers in Chemistry, 2021, 9, 637501.	3.6	26
558	Metalâ€5emiconductor Heterostructures for Photoredox Catalysis: Where Are We Now and Where Do We Go?. Advanced Functional Materials, 2021, 31, 2101103.	14.9	41
559	Constructing Heterogeneous Direct Z-Scheme Photocatalysts Based on Metal–Organic Cages and Graphitic-C ₃ N ₄ for High-Efficiency Photocatalytic Water Splitting. ACS Applied Materials & amp; Interfaces, 2021, 13, 25960-25971.	8.0	29
560	Direct Z-Scheme Heterojunction of Ligand-Free FAPbBr ₃ /α-Fe ₂ O ₃ for Boosting Photocatalysis of CO ₂ Reduction Coupled with Water Oxidation. ACS Applied Materials & Interfaces, 2021, 13, 22314-22322.	8.0	59

#	Article	IF	CITATIONS
561	Thermodynamic stability and electronic structure properties of the Bi2WO6 (0 0 1) surface: First principle calculation. Applied Surface Science, 2021, 548, 149053.	6.1	9
562	State-of-the-art progress in tracking plasmon-mediated photoredox catalysis. Pure and Applied Chemistry, 2021, 93, 509-524.	1.9	2
563	Plasmonic Metal Bridge Leading Type III Heterojunctions to Robust Type B Photothermocatalysts. Industrial & Engineering Chemistry Research, 2021, 60, 8420-8429.	3.7	20
564	The Thermodynamic Stability, Electronic and Photocatalytic Properties of the ZnWO ₄ (100) Surface as Predicted by Screened Hybrid Density Functional Theory. ACS Omega, 2021, 6, 15057-15067.	3.5	10
565	Efficient photocatalytic H ₂ production realized by Mn _x Cd _{1â^'x} Se In situ heterojunction. Nanotechnology, 2021, 32, 365602.	2.6	2
566	Recent Progress on Metal-Enhanced Photocatalysis: A Review on the Mechanism. Research, 2021, 2021, 9794329.	5.7	101
567	Accelerating photocatalytic hydrogen evolution of Ta2O5/g-C3N4 via nanostructure engineering and surface assembly. International Journal of Hydrogen Energy, 2021, 46, 20516-20523.	7.1	11
568	Aqueousâ€Phase Photocatalytic Degradation of Emerging Forever Chemical Contaminants. ChemistrySelect, 2021, 6, 5225-5240.	1.5	2
569	In-situ synthesis of WO3–x/MoO3–x heterojunction with abundant oxygen vacancies for efficient photocatalytic reduction of CO2. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 621, 126582.	4.7	30
570	In-situ prepared MIL-53(Fe)/BiOI photocatalyst for efficient degradation of tetracycline under visible-light driven photo-Fenton system: Investigation of performance and mechanism. Journal of Alloys and Compounds, 2021, 870, 159524.	5.5	53
571	Dual-phase metal nitrides as highly efficient co-catalysts for photocatalytic hydrogen evolution. Chemical Engineering Journal, 2021, 416, 129116.	12.7	28
572	Iron sites on defective BiOBr nanosheets: Tailoring the molecular oxygen activation for enhanced photocatalytic organic synthesis. Nano Research, 2022, 15, 1509-1516.	10.4	31
573	Selectively recombining the photoinduced charges in bandgap-broken Ag3PO4/GdCrO3 with a plasmonic Ag bridge for efficient photothermocatalytic VOCs degradation and CO2 reduction. Applied Catalysis B: Environmental, 2021, 291, 120053.	20.2	57
575	Photocatalytic Hydrogen from Water Over Semiconductors. Green Energy and Technology, 2022, , 175-194.	0.6	0
576	Metallic CuS decorated CdS nanowires for efficient photocatalytic H2 evolution under visible-light irradiation. Journal of Alloys and Compounds, 2021, 871, 159461.	5.5	46
577	Oxygen vacancy-rich 2D/0D BiO1â^'XBr/AgBr Z-scheme photocatalysts for efficient visible light driven degradation of tetracycline. Nanotechnology, 2021, 32, 435704.	2.6	1
578	Accelerating the Design of Photocatalytic Surfaces for Antimicrobial Application: Machine Learning Based on a Sparse Dataset. Catalysts, 2021, 11, 1001.	3.5	6
579	Photocatalytic degradation of triclosan in visible-light-induced via CdS@TiO ₂ -rGO nanocomposite. Surface Topography: Metrology and Properties, 2021, 9, 035032.	1.6	10

#	Article	IF	CITATIONS
580	Enhancing Photoelectric Response of an Au@Ag/AgI Schottky Contact through Regulation of Localized Surface Plasmon Resonance. Journal of the American Chemical Society, 2021, 143, 13478-13482.	13.7	37
581	Engineering an Interfacial Facet of S-Scheme Heterojunction for Improved Photocatalytic Hydrogen Evolution by Modulating the Internal Electric Field. ACS Applied Materials & Interfaces, 2021, 13, 39491-39500.	8.0	118
582	Impact of graphitic carbon nitrides synthesized from different precursors on Schottky junction characteristics. Turkish Journal of Chemistry, 2021, 45, 1057-1069.	1.2	4
583	Significantly Enhanced Photocatalytic CO ₂ Reduction by Surface Amorphization of Cocatalysts. Small, 2021, 17, e2102105.	10.0	34
584	Photocatalytic nitrogen reduction to ammonia: Insights into the role of defect engineering in photocatalysts. Nano Research, 2022, 15, 2773-2809.	10.4	69
585	Mechanism insight into photocatalytic conversion of lignin for valuable chemicals and fuels production: A state-of-the-art review. Renewable and Sustainable Energy Reviews, 2021, 147, 111217.	16.4	57
586	Bandgap engineering of KTaO3 for water-splitting by different doping strategies. International Journal of Hydrogen Energy, 2021, 46, 38663-38677.	7.1	10
587	Constructing a Z-scheme ZnIn2S4-S/CNTs/RP nanocomposite with modulated energy band alignment for enhanced photocatalytic hydrogen evolution. Journal of Colloid and Interface Science, 2022, 608, 482-492.	9.4	22
588	State-of-the-art and prospects of Zn-containing layered double hydroxides (Zn-LDH)-based materials for photocatalytic water remediation. Chemosphere, 2021, 278, 130367.	8.2	34
589	Photocatalytic degradation kinetics of cationic and anionic dyes using Au–ZnO nanorods: Role of pH for selective and simultaneous degradation of binary dye mixtures. Ceramics International, 2021, 47, 34751-34764.	4.8	34
590	Insights into the Operation of Nobleâ€Metalâ€Free Cocatalyst 1Tâ€WS ₂ â€Decorated Zn _{0.5} Cd _{0.5} S for Enhanced Photocatalytic Hydrogen Evolution. ChemSusChem, 2021, 14, 4752-4763.	6.8	29
591	Photocatalyst with Chloroplastâ€like Structure for Enhancing Hydrogen Evolution Reaction. Energy and Environmental Materials, 2022, 5, 1229-1237.	12.8	15
592	A roadmap towards the development of superior photocatalysts for solar- driven CO2-to-fuels production. Renewable and Sustainable Energy Reviews, 2021, 148, 111298.	16.4	31
593	Engineering highly active Ag/Nb2O5@Nb2CT (MXene) photocatalysts via steering charge kinetics strategy. Chemical Engineering Journal, 2021, 421, 128766.	12.7	73
594	Van der waals heterostructures by single cobalt sites-anchored graphene and g-C3N4 nanosheets for photocatalytic syngas production with tunable CO/H2 ratio. Applied Catalysis B: Environmental, 2021, 295, 120261.	20.2	51
595	Ni single atoms anchored on nitrogen-doped graphene as H2-Evolution cocatalyst of SrTiO3(Al)/CoO for photocatalytic overall water splitting. Carbon, 2021, 183, 763-773.	10.3	22
596	Advances in structural modification of perovskite semiconductors for visible light assisted photocatalytic CO2 reduction to renewable solar fuels: A review. Journal of Environmental Chemical Engineering, 2021, 9, 106264.	6.7	56
597	Hydrogen evolution from MoSe2/WO3(0â€⁻0â€⁻1) heterojunction by photocatalytic water splitting: A density functional theory study. Applied Surface Science, 2021, 564, 150117.	6.1	16

#	Article	IF	CITATIONS
598	Multifunctional oxygen vacancies in WO3– for catalytic alkylation of C–H by alcohols under red-light. Journal of Catalysis, 2021, 402, 208-217.	6.2	10
599	Synergetic utilization of 3D materials merits and unidirectional electrons transfer of Schottky junction for optimizing optical absorption and charge kinetics. Applied Catalysis B: Environmental, 2021, 295, 120278.	20.2	23
600	A comprehensive evaluation of non-isothermal simultaneous reduction and carburization kinetics of W-Ni oxide nano-composite powder. Materials Chemistry and Physics, 2021, 272, 125027.	4.0	1
601	Piezotronic effect and hierarchical Z-scheme heterostructure stimulated photocatalytic H2 evolution integrated with C-N coupling of benzylamine. Nano Energy, 2021, 89, 106349.	16.0	53
602	Toward practical solar-driven photocatalytic water splitting on two-dimensional MoS2 based solid-state Z-scheme and S-scheme heterostructure. Fuel, 2021, 303, 121302.	6.4	26
603	Aspect ratio dependent photocatalytic enhancement of CsPbBr3 in CO2 reduction with two-dimensional metal organic framework as a cocatalyst. Applied Catalysis B: Environmental, 2021, 297, 120411.	20.2	74
604	Recent advances on heterojunction-based photocatalysts for the degradation of persistent organic pollutants. Chemical Engineering Journal, 2021, 426, 130617.	12.7	53
605	Material design with the concept of solid solution-type defect engineering in realizing the conversion of an electrocatalyst of NiS2 into a photocatalyst for hydrogen evolution. Applied Catalysis B: Environmental, 2021, 298, 120542.	20.2	31
606	In-situ generation Bi12O15Cl6/BiOI core-shell photocatalyst with efficient LED light-driven degradation and antibacterial properties: Factors, degradation pathway and mechanism. Journal of Alloys and Compounds, 2021, 885, 160884.	5.5	20
607	Accelerated photocatalytic degradation of tetracycline hydrochloride over CuAl2O4/g-C3N4 p-n heterojunctions under visible light irradiation. Separation and Purification Technology, 2021, 277, 119461.	7.9	110
608	Dye-Sensitized Fe-MOF nanosheets as Visible-Light driven photocatalyst for high efficient photocatalytic CO2 reduction. Journal of Colloid and Interface Science, 2022, 607, 1180-1188.	9.4	47
609	Recent advances in synthesis strategies and solar-to-hydrogen evolution of 1T phase MS2 (MÂ=ÂW, Mo) co-catalysts. Journal of Materials Science and Technology, 2022, 101, 242-263.	10.7	14
610	Enhanced photocatalytic activity of kaolinite-TiO2-graphene oxide composite with a porous stacking structure. Journal of Alloys and Compounds, 2021, 889, 161682.	5.5	16
611	Recent progress of noble metals with tailored features in catalytic oxidation for organic pollutants degradation. Journal of Hazardous Materials, 2022, 422, 126950.	12.4	49
612	Enhanced photocatalytic H2 evolution based on a Ti3C2/Zn0.7Cd0.3S/Fe2O3 Ohmic/S-scheme hybrid heterojunction with cascade 2D coupling interfaces. Chemical Engineering Journal, 2022, 429, 132587.	12.7	121
613	Emerging cocatalysts in TiO2-based photocatalysts for light-driven catalytic hydrogen evolution: Progress and perspectives. Fuel, 2022, 307, 121745.	6.4	68
614	Enabling photocatalytic hydrogen production over Fe-based MOFs by refining band structure with dye sensitization. Chemical Engineering Journal, 2022, 429, 132217.	12.7	29
615	The band engineering of 2D-hybridized PCN-Sb ₂ MoO ₆ -Bi ₂ O ₃ nanomaterials with dual Z-scheme heterojunction for enhanced photocatalytic water splitting without sacrificial agents.	4.9	5

#	Article	IF	CITATIONS
616	A review on the preparation, microstructure, and photocatalytic performance of Bi ₂ O ₃ in polymorphs. Nanoscale, 2021, 13, 17687-17724.	5.6	58
617	One-pot construction of robust BiOCl/ZnO p–n heterojunctions with semi-coherent interfaces toward improving charge separation for photodegradation enhancement. Nanoscale Advances, 2021, 3, 4851-4857.	4.6	18
618	Porphyrin and single atom featured reticular materials: recent advances and future perspective of solar-driven CO ₂ reduction. Green Chemistry, 2021, 23, 8332-8360.	9.0	37
619	A Review of Titanium Dioxide Photocatalysis Based on Density Functional Theory. Hans Journal of Chemical Engineering and Technology, 2021, 11, 30-36.	0.0	0
620	Unprecedented Nonphotomediated Hole (<i>h</i> ^{<i>+</i>}) Oxidation System Constructed from Defective Carbon Nanotubes and Superoxides. ACS Central Science, 2021, 7, 355-364.	11.3	20
621	Unprecedented Ag–Cu ₂ O composited mesocrystals with efficient charge separation and transfer as well as visible light harvesting for enhanced photocatalytic activity. Nanoscale, 2021, 13, 11867-11877.	5.6	22
622	Constructing CuNi dual active sites on ZnIn ₂ S ₄ for highly photocatalytic hydrogen evolution. Catalysis Science and Technology, 2021, 11, 2753-2761.	4.1	36
623	An Overview of the Photocatalytic Water Splitting over Suspended Particles. Catalysts, 2021, 11, 60.	3.5	35
624	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.	3.0	9
625	Enhanced solar-to-hydrogen efficiency for photocatalytic water splitting based on a polarized heterostructure: the role of intrinsic dipoles in heterostructures. Journal of Materials Chemistry A, 2021, 9, 14515-14523.	10.3	32
626	Recent advancements and opportunities of decorated graphitic carbon nitride toward solar fuel production and beyond. Sustainable Energy and Fuels, 2021, 5, 4457-4511.	4.9	25
627	Zâ€Schemaâ€Photokatalysesysteme für die Kohlendioxidreduktion: Wo stehen wir heute?. Angewandte Chemie, 2020, 132, 23092-23115.	2.0	30
628	Zâ€Scheme Photocatalytic Systems for Carbon Dioxide Reduction: Where Are We Now?. Angewandte Chemie - International Edition, 2020, 59, 22894-22915.	13.8	435
629	Designing Metal-Organic Frameworks Based Photocatalyst for Specific Photocatalytic Reactions: A Crystal Engineering Approach. Environmental Chemistry for A Sustainable World, 2020, , 141-186.	0.5	6
630	Enhanced photocatalytic nitrogen fixation of Ag/B-doped g-C3N4 nanosheets by one-step in-situ decomposition-thermal polymerization method. Applied Catalysis A: General, 2020, 601, 117647.	4.3	75
631	p-n BiOI/Bi3O4Cl hybrid junction with enhanced photocatalytic performance in removing methyl orange, bisphenol A, tetracycline and Escherichia coli. Applied Surface Science, 2020, 527, 146748.	6.1	50
632	Crystal phase dependent solar driven hydrogen evolution catalysis over cobalt diselenide. Chemical Engineering Journal, 2020, 396, 125244.	12.7	30
633	Mesoporous nanoplate multi-directional assembled Bi2WO6 for high efficient photocatalytic oxidation of NO. Chemosphere, 2018, 193, 737-744.	8.2	62

# 634	ARTICLE Boosting visible light driven hydrogen production: Bifunctional interface of Ni(OH)2/Pt cocatalyst on TiO2. International Journal of Hydrogen Energy, 2020, 45, 16614-16621.	IF 7.1	Citations 20
635	Surface Defects in Two-Dimensional Photocatalysts for Efficient Organic Synthesis. Matter, 2020, 2, 842-861.	10.0	107
636	Twin engineering of photocatalysts: a minireview. Catalysis Science and Technology, 2020, 10, 4164-4178.	4.1	19
637	Boosting photocatalytic performance for selective oxidation of biomass-derived pentoses and hexoses to lactic acid using hierarchically porous Cu/Cu ₂ O/CuO@CA. Journal of Materials Chemistry C, 2021, 9, 16450-16458.	5.5	22
638	Structural and Functional Behaviour of Ce-Doped Wide-Bandgap Semiconductors for Photo-Catalytic Applications. Catalysts, 2021, 11, 1209.	3.5	0
639	Synthesis, Functional Modifications, and Diversified Applications of Hybrid BiOCl-Based Heterogeneous Photocatalysts: A Review. Crystal Growth and Design, 2021, 21, 6576-6618.	3.0	61
640	Facet Junction Engineering for Photocatalysis: A Comprehensive Review on Elementary Knowledge, Facet‧ynergistic Mechanisms, Functional Modifications, and Future Perspectives. Advanced Functional Materials, 2022, 32, 2106982.	14.9	51
641	Photocatalytic Zâ€Scheme Overall Water Splitting: Recent Advances in Theory and Experiments. Advanced Materials, 2021, 33, e2105195.	21.0	123
642	Facile construction of 3D CdS-Ag2S nanospheres: a combined study of visible light responsive phtotocatalysis, antibacterial and anti-biofilm activity. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 632, 127729.	4.7	23
643	Fabricating Ag/PW ₁₂ /Zrâ€ <i>m</i> TiO ₂ Composite via Doping and Interface Engineering: An Efficient Catalyst with Bifunctionality in Photo―and Electroâ€Driven Nitrogen Reduction Reactions. Advanced Sustainable Systems, 2022, 6, 2100307.	5.3	9
644	Facile galvanostatic electrodeposition of CoFe2O4 nanosheets from sulfate medium. Journal of Materials Science: Materials in Electronics, 2021, 32, 27987.	2.2	1
645	Enhanced photocatalytic degradation of rhodamine B over Ag3PO4/Polyaniline/NiFe2O4 nanocomposite under solar light irradiation. Inorganic Chemistry Communication, 2021, 134, 109010.	3.9	4
646	Impact of Nanoparticle Consolidation on Charge Separation Efficiency in Anatase TiO2 Films. Frontiers in Chemistry, 2021, 9, 772116.	3.6	2
647	Review on green carbon dot-based materials for the photocatalytic degradation of dyes: fundamentals and future perspective. Materials Advances, 2021, 2, 7559-7582.	5.4	38
648	Simultaneous achievements of doping and structure engineering in carbon nitride for photocatalytic degradation. Materials Science in Semiconductor Processing, 2022, 138, 106277.	4.0	3
649	Nanotechnology for Water and Wastewater Treatment Using Graphene Semiconductor Composite Materials. Environmental Chemistry for A Sustainable World, 2020, , 1-34.	0.5	3
651	Construction of a n-p type Bi12O15Cl6@BiOI-CQDs junction with core-shell structure for boosting photocatalytic degradation and antibacterial performance. Applied Surface Science, 2022, 578, 151913.	6.1	19
652	Construction of multi-scale 1D/2D CdS/ZnS(en)0.5 nanorod/nanosheet heterojunction to boost photocatalytic hydrogen generation performance. Applied Surface Science, 2022, 578, 152033.	6.1	15

ARTICLE IF CITATIONS High-energy ball-milling constructing P-doped g-C3N4/MoP heterojunction with Mo N bond bridged interface and Schottky barrier for enhanced photocatalytic H2 evolution. Applied Catalysis B: 653 20.2 93 Environmental, 2022, 303, 120933. Varying heterojunction thickness within space charge region for photocatalytic water splitting. Cell 654 5.6 Reports Physical Science, 2021, 2, 100652. Bamboo-charcoal-loaded graphitic carbon nitride for photocatalytic hydrogen evolution. 655 7.1 25 International Journal of Hydrogen Energy, 2022, 47, 3733-3740. The strong interfacial coupling effect of Nafion between LaFeO₃/electrolyte for efficient 656 photoelectrochemical water reduction. Nanotechnology, 2022, 33, 105404. Probing the Role of Atomic Defects in Photocatalytic Systems through Photoinduced Enhanced Raman 657 17.4 22 Scattering. ACS Energy Letters, 2021, 6, 4273-4281. MXenes based nano-heterojunctions and composites for advanced photocatalytic environmental 8.2 detoxification and energy conversion: A review. Chemosphere, 2022, 291, 132923. Band Bending Mechanism in CdO/Arsenene Heterostructure: A Potential Direct Z-scheme 659 3.6 21 Photocatalyst. Frontiers in Chemistry, 2021, 9, 788813. Energy band engineering of Bi2O2.33CdS direct Z-scheme heterojunction for enhanced photocatalytic reduction of CO2. Journal of Materials Science and Technology, 2022, 111, 17-27. Visible Light Trapping against Charge Recombination in FeOx–TiO2 Photonic Crystal Photocatalysts. 661 2.9 4 Materials, 2021, 14, 7117. WO3â€"based photocatalysts: A review on synthesis, performance enhancement and photocatalytic 4.8 memory for environmental applications. Ceramics International, 2022, 48, 5845-5875. Topotactic transformed face-to-face heterojunction of BiOCl/Bi2WO6 for improved tetracycline 663 6.7 24 photodegradation. Journal of Environmental Chemical Engineering, 2021, 9, 106750. Developing sustainable, high-performance perovskites in photocatalysis: design strategies and 664 38.1 applications. Chemical Society Reviews, 2021, 50, 13692-13729. Boosting photocatalytic CO2 reduction in a ZnS/ZnIn2S4 heterostructure through strain-induced 665 direct Z-scheme and a mechanistic study of molecular CO2 interaction thereon. Nano Energy, 2022, 93, 16.0 110 106809. In situ configuration of dual S-scheme BP/(Ti3C2Tx@TiO2) heterojunction for broadband spectrum solar-driven photocatalytic H2 evolution in pure water. Journal of Colloid and Interface Science, 2022, 610, 13-23. 9.4 Construction of S-scheme heterojunction consisting of Zn0.5Cd0.5S with sulfur vacancies and Ni 667 Co1-(OH)2 for highly efficient photocatalytic H2 evolution. Chemical Engineering Journal, 2022, 432, 12.7 34 134371. Crystal phase engineering boosted photo-electrochemical kinetics of CoSe2 for oxygen evolution 9.4 catalysis. Journal of Colloid and Interface Science, 2022, 611, 22-28. The influence of band bending phenomenon on photocatalytic Suzuki-Miyaura coupling reaction: The 669 case of AgPd alloy nanoparticles supported on graphitic carbon nitride. Applied Surface Science, 2022, 6.110 580, 152287. PtCu thickness-modulated interfacial charge transfer and surface reactivity in stacked 670 graphene/Pd@PtCu heterostructures for highly efficient visible-light reduction of CO2 to CH4.

CITATION REPORT

Ăpplied Catalysis B: Environmental, 2022, 305, 121069.

#

#	Article	IF	CITATIONS
671	Regulating interfacial morphology and charge-carrier utilization of Ti3C2 modified all-sulfide CdS/ZnIn2S4 S-scheme heterojunctions for effective photocatalytic H2 evolution. Journal of Materials Science and Technology, 2022, 112, 85-95.	10.7	92
672	Platinum nanodots modified Nitrogen-vacancies g-C3N4 Schottky junction for enhancing photocatalytic hydrogen evolution. Applied Surface Science, 2022, 581, 152298.	6.1	23
673	Insight into the Function of Noble-Metal Free Cu ₃ P Decorated Zn _{0.5} Cd _{0.5} S for Enhanced Photocatalytic Hydrogen Evolution Under Visible Light Irradiation Mechanism for Continuous Increasing Activity. SSRN Electronic Journal, 0, , .	0.4	0
674	Rational Design of LDH/Zn ₂ SnO ₄ Heterostructures for Efficient Mineralization of Toluene Through Boosted Interfacial Charge Separation. Energy and Environmental Materials, 2023, 6, .	12.8	12
675	Interface design, surface-related properties, and their role in interfacial electron transfer. Part II: Photochemistry-related topics. Advances in Inorganic Chemistry, 2022, , .	1.0	2
676	Element doping-induced effects in Zn-doped CdTe quantum-dot system: Insights from an ultrafast dynamics perspective. Journal of Chemical Physics, 2022, 156, 034701.	3.0	1
677	2D WO _{3–<i>x</i>} Nanosheet with Rich Oxygen Vacancies for Efficient Visible-Light-Driven Photocatalytic Nitrogen Fixation. Langmuir, 2022, 38, 1178-1187.	3.5	32
678	Incorporating nitrogen vacancies in exfoliated B-doped g-C ₃ N ₄ towards improved photocatalytic ciprofloxacin degradation and hydrogen evolution. New Journal of Chemistry, 2022, 46, 3493-3503.	2.8	36
679	Morphology-dependent visible light photocatalysis. , 2022, , 375-412.		3
680	Phosphides and nitrides for visible light photocatalysis. , 2022, , 197-250.		Ο
681	Methylene Blue Dye as Photosensitizer for Scavenger-Less Water Photo Splitting: New Insight in Green Hydrogen Technology. Polymers, 2022, 14, 523.	4.5	15
683	Graphitic carbon nitride based optoelectronic devices. , 2022, , 515-544.		2
684	Photocatalytic transition-metal-oxides-based p–n heterojunction materials: synthesis, sustainable energy and environmental applications, and perspectives. Journal of Nanostructure in Chemistry, 2023, 13, 129-166.	9.1	17
685	Synergistically Modulating Geometry and Electronic Structures of a Chalcogenide Photocatalyst via an Ion-Exchange Strategy. Journal of Physical Chemistry Letters, 2022, 13, 969-976.	4.6	5
686	Emerging frontiers of Z-scheme photocatalytic systems. Trends in Chemistry, 2022, 4, 111-127.	8.5	100
687	Plasmonic Au–rGO–TiO2 ternary photocatalyst for photocatalytic hydrogen production and dye degradation. Nanotechnology for Environmental Engineering, 2022, 7, 119-137.	3.3	5
688	Boosting photocatalytic activity through tuning electron spin states and external magnetic fields. Journal of Materials Science and Technology, 2022, 115, 208-220.	10.7	24
689	Tremendous boost in the photocatalytic properties of g-C ₃ N ₄ : regulation from polymerization kinetics to crystal structure engineering. CrystEngComm, 2022, 24, 2023-2035.	2.6	3

#	Article	IF	CITATIONS
690	ZnSe Nanorods–CsSnCl ₃ Perovskite Heterojunction Composite for Photocatalytic CO ₂ Reduction. ACS Nano, 2022, 16, 3332-3340.	14.6	179
691	Stacking Engineering of Semiconductor Heterojunctions on Hollow Carbon Spheres for Boosting Photocatalytic CO ₂ Reduction. ACS Catalysis, 2022, 12, 2569-2580.	11.2	86
692	NiS as a Cocatalyst Decorated Heptazine-/Triazine-Based Carbon Nitride Coupled with Cd _{0.5} Zn _{0.5} S Solid Solution Heterojunction Photocatalysts: Efficient Interfacial Charge Transfer and Enhanced Photocatalytic Hydrogen Production Activity. ACS Applied Energy Materials, 2022, 5, 1414-1420.	5.1	4
693	Charge separation and transfer activated by covalent bond in UiO-66-NH2/RGO heterostructure for CO2 photoreduction. Chemical Engineering Journal, 2022, 437, 135210.	12.7	22
694	Photocatalytic CO2 reduction for C2-C3 oxy-compounds on ZIF-67 derived carbon with TiO2. Journal of CO2 Utilization, 2022, 58, 101920.	6.8	8
695	Electrospun Semiconductorâ€Based Nanoâ€Heterostructures for Photocatalytic Energy Conversion and Environmental Remediation: Opportunities and Challenges. Energy and Environmental Materials, 2023, 6, .	12.8	37
696	Emerging Stacked Photocatalyst Design Enables Spatially Separated Ni(OH) ₂ Redox Cocatalysts for Overall CO ₂ Reduction and H ₂ O Oxidation. Small, 2022, 18, e2104681.	10.0	23
697	Room-Temperature Sensing Performance of Pt Nanoparticles Modified In ₂ O ₃ @ZnS Core-Shell Hollow Nanospheres to <i>n</i> -Butanol. SSRN Electronic Journal, 0, , .	0.4	0
698	Charge Separation and Transfer Activated by Covalent Bond in Uio-66-Nh2/Rgo Heterostructure for Co2 Photoreduction. SSRN Electronic Journal, 0, , .	0.4	0
699	Synthesis of Ag/Bi2MoO6 composite nanosheets for enhanced photocatalytic degradation of RhB solution. Digest Journal of Nanomaterials and Biostructures, 2022, 17, 179-191.	0.8	3
700	Single-atom catalysts for high-efficiency photocatalytic and photoelectrochemical water splitting: distinctive roles, unique fabrication methods and specific design strategies. Journal of Materials Chemistry A, 2022, 10, 6835-6871.	10.3	63
701	Construction of Od/2d Ceo2/Cds Direct Z-Scheme Heterostructures for Effective Photocatalytic H2 Evolution and Cr(Vi) Reduction. SSRN Electronic Journal, 0, , .	0.4	0
702	Solar-driven conversion of greenhouse gases toward closing the artificial carbon-cycle loop. Chem Catalysis, 2022, 2, 226-228.	6.1	2
704	Heterojunction Nanomedicine. Advanced Science, 2022, 9, e2105747.	11.2	51
705	Bi-functional carbon doped and decorated ZnO nanorods for enhanced pH monitoring of dairy milk and adsorption of hazardous dyes. Journal of Industrial and Engineering Chemistry, 2022, , .	5.8	4
706	Engineering 2D Materials for Photocatalytic Water-Splitting from a Theoretical Perspective. Materials, 2022, 15, 2221.	2.9	43
707	One-pot synthesis of SrTiO3-SrCO3 heterojunction with strong interfacial electronic interaction as a novel photocatalyst for water splitting to generate H2. Chinese Chemical Letters, 2023, 34, 107323.	9.0	11
708	Simultaneous harnessing of hot electrons and hot holes achieved via n-metal-p Janus plasmonic heteronanocrystals. Nano Energy, 2022, 98, 107217.	16.0	26

#	Article	IF	Citations
709	Recent advances in BiOX-based photocatalysts to enhanced efficiency for energy and environment applications. Catalysis Reviews - Science and Engineering, 2024, 66, 119-173.	12.9	27
710	First-principles study on the electronic properties of GeC/BSe van der Waals heterostructure: A direct Z-scheme photocatalyst for overall water splitting. Physical Review Materials, 2022, 6, .	2.4	12
711	Mechanism Insight into an Unprecedented Dual Seriesâ€Parallel Photocharge Separation in Quaternary Cu ₂ O Facet Junctions. Advanced Functional Materials, 2022, 32, .	14.9	24
712	Two-Dimensional Heterostructure of MoS ₂ /BA ₂ PbI ₄ 2D Ruddlesden–Popper Perovskite with an S Scheme Alignment for Solar Cells: A First-Principles Study. ACS Applied Electronic Materials, 2022, 4, 1939-1948.	4.3	11
713	Insight into NiCo-based nanosheets modified MnS/MnO·2CdO·8S hybrids for enhanced visible-light photocatalytic H2 evolution. International Journal of Hydrogen Energy, 2022, 47, 13862-13875.	7.1	6
714	A review on Z/S – scheme heterojunction for photocatalytic applications based on metal halide perovskite materials. Applied Surface Science Advances, 2022, 9, 100241.	6.8	40
715	Exploring the synergistic role of crystal facet and phase at hetero-interface towards light-switchable chemoselective oxidation over bismuth-based catalysts. Journal of Colloid and Interface Science, 2022, 617, 651-662.	9.4	3
716	Enhanced photoproduction of hydrogen on Pd/TiO2 prepared by mechanochemistry. Applied Catalysis B: Environmental, 2022, 309, 121275.	20.2	16
717	Room-temperature sensing performance of Pt nanoparticles modified In2O3@ZnS core-shell hollow nanospheres to n-butanol. Sensors and Actuators B: Chemical, 2022, 362, 131760.	7.8	25
718	Regulation of the rutile/anatase TiO2 phase junction in-situ grown on –OH terminated Ti3C2T (MXene) towards remarkably enhanced photocatalytic hydrogen evolution. Chemical Engineering Journal, 2022, 439, 135685.	12.7	68
719	Defect-band bridge photothermally activates Type III heterojunction for CO2 reduction and typical VOCs oxidation. Applied Catalysis B: Environmental, 2022, 309, 121248.	20.2	24
720	Identification and Design of Active Sites on Photocatalysts for the Direct Artificial Carbon Cycle. Accounts of Materials Research, 2022, 3, 331-342.	11.7	31
721	Controlled Synthesis and Photoelectrochemical Performance Enhancement of Cu2â^'xSe Decorated Porous Au/Bi2Se3 Z-Scheme Plasmonic Photoelectrocatalyst. Catalysts, 2022, 12, 359.	3.5	6
722	S-Scheme Bi ₂ S ₃ /CdS Nanorod Heterojunction Photocatalysts with Improved Carrier Separation and Redox Capacity for Pollutant Removal. ACS Applied Nano Materials, 2022, 5, 5448-5458.	5.0	16
723	Structure engineering of 1T/2H multiphase MoS2 via oxygen incorporation over 2D layered porous g-C3N4 for remarkably enhanced photocatalytic hydrogen evolution. Materials Today Nano, 2022, 18, 100204.	4.6	19
724	In-situ monitoring of dynamic behavior of catalyst materials and reaction intermediates in semiconductor catalytic processes. Journal of Semiconductors, 2022, 43, 041104.	3.7	10
725	Tuning the band-gap and enhancing the trichloroethylene photocatalytic degradation activities of flower-like Ni-doped SnS2/SnO2 heterostructures by partial oxidation. Journal of Environmental Chemical Engineering, 2022, 10, 107793.	6.7	8
726	Bi2WO6â€based Z-scheme photocatalysts: Principles, mechanisms and photocatalytic applications. Journal of Environmental Chemical Engineering, 2022, 10, 107838.	6.7	24

#	Article	IF	CITATIONS
727	Synergizing Inter and Intraband Transitions in Defective Tungsten Oxide for Efficient Photocatalytic Alcohol Dehydration to Alkenes. Jacs Au, 2022, 2, 1160-1168.	7.9	12
728	Recent Advances in Photocatalytic Removal of Organic and Inorganic Pollutants in Air. SSRN Electronic Journal, 0, , .	0.4	0
729	First-principles calculations of the structural, energetic, electronic, optical, and photocatalytic properties of BaTaO ₂ N low-index surfaces. New Journal of Chemistry, 2022, 46, 11540-11552.	2.8	1
730	Insight into the function of noble-metal free Cu3P decorated Zn0.5Cd0.5S for enhanced photocatalytic hydrogen evolution under visible light irradiation mechanism for continuous increasing activity. Applied Surface Science, 2022, 597, 153660.	6.1	7
731	Perspective on Defective Semiconductor Heterojunctions for CO ₂ Photoreduction. Langmuir, 2022, 38, 6491-6498.	3.5	20
732	High-performance photocatalytic nonoxidative conversion of methane to ethane and hydrogen by heteroatoms-engineered TiO2. Nature Communications, 2022, 13, 2806.	12.8	89
733	One-Pot Integration of S-Doped Biocl and Zno into Type-li Photocatalysts: Simultaneously Boosting Bulk and Surface Charge Separation for Enhanced Antibiotic Removal. SSRN Electronic Journal, 0, , .	0.4	0
734	Rational Design of Metal Halide Perovskite Nanocrystals for Photocatalytic CO ₂ Reduction: Recent Advances, Challenges, and Prospects. ACS Energy Letters, 2022, 7, 2043-2059.	17.4	89
735	Construction of Plasmonic Metal@Semiconductor Core–Shell Photocatalysts: From Epitaxial to Nonepitaxial Strategies. Small Structures, 2022, 3, .	12.0	13
736	Construction of 0D/2D CeO2/CdS direct Z-scheme heterostructures for effective photocatalytic H2 evolution and Cr(VI) reduction. Separation and Purification Technology, 2022, 295, 121294.	7.9	32
737	C-scheme electron transfer mechanism: An efficient ternary heterojunction photocatalyst carbon quantum dots/Bi/BiOBr with full ohmic contact. Journal of Colloid and Interface Science, 2022, 624, 168-180.	9.4	26
738	Electrodeposition of AuPt nanoparticles for ethanol electrooxidation application. AIP Conference Proceedings, 2022, , .	0.4	1
739	Recent development in solarâ€driven photocatalytic hydrogen production utilizing <scp> g ₃ N ₄ </scp> . International Journal of Energy Research, 2022, 46, 14587-14608.	4.5	5
740	Electrodeposition of nanostructured cuprous oxide on various substrates and their electrochemical and photoelectrochemical properties. Journal of Materials Science: Materials in Electronics, 2022, 33, 15791-15801.	2.2	2
741	Efficient and Sustainable inâ€situ Photoâ€Fenton Reaction to Remove Phenolic Pollutants by NH ₂ â€MILâ€101(Fe)/Ti ₃ C ₂ T _x Schottkyâ€Heterojunctions. Chemistry - A European Journal, 2022, 28, .	3.3	6
742	Optimizing Pt Electronic States through Formation of a Schottky Junction on Nonâ€reducible Metal–Organic Frameworks for Enhanced Photocatalysis. Angewandte Chemie, 2022, 134,	2.0	6
743	Optimizing Pt Electronic States through Formation of a Schottky Junction on Nonâ€reducible Metal–Organic Frameworks for Enhanced Photocatalysis. Angewandte Chemie - International Edition, 2022, 61, .	13.8	55
744	Improve the Photocatalytic Hydrogen Production Using ZnS@ZnO Twinâ€Junction Structure with Isoelectronic Traps. Advanced Materials Interfaces, 2022, 9,	3.7	7

	Сітатіо	n Report	
#	Article	IF	CITATIONS
745	Steering interfacial charge kinetics: Synergizing cocatalyst roles of Ti3C2M (MXene) and NCDs for superior photocatalytic performance over TiO2. Applied Surface Science, 2022, 599, 154001.	6.1	17
746	Mechanism of photocatalytic water splitting of 2D WSeTe/XS2 (XÂ=ÂHf, Sn, Zr) van der Waals heterojunctions under the interaction of vertical intrinsic electric and built-in electric field. Applied Surface Science, 2022, 599, 154012.	6.1	23
747	One-Pot Construction of Highly Efficient Taon/Bi2o3/S-Biocl Ternary Photocatalysts: Simultaneously Integrating Type-I with Z-Scheme Junctions for Improved Visible Light-Driven Removal of Organic Pollutants. SSRN Electronic Journal, 0, , .	0.4	0
748	Tailoring the fusion effect of phase-engineered 1T/2H-MoS ₂ towards photocatalytic hydrogen evolution. New Journal of Chemistry, 2022, 46, 14922-14932.	2.8	7
749	Nicop/C-C3n4 Schottky Heterojunctions Towards Efficient Photocatalytic No Oxidation. SSRN Electronic Journal, 0, , .	0.4	0
750	Synthesis of atomic form nickel co-catalysts on TiO ₂ for improved photocatalysis <i>via</i> the RAFT technique. New Journal of Chemistry, 0, , .	2.8	0
751	Shedding light on the role of interfacial chemical bond in heterojunction photocatalysis. Nano Research, 2022, 15, 10158-10170.	10.4	16
752	Topological quantum materials for energy conversion and storage. Nature Reviews Physics, 2022, 4, 611-624.	26.6	57
753	One-pot integration of S-doped BiOCl and ZnO into type-II photocatalysts: Simultaneously boosting bulk and surface charge separation for enhanced antibiotic removal. Separation and Purification Technology, 2022, 299, 121725.	7.9	24
754	Anisotropic gold nanostructures applied to improve solar energy conversion. Applied Materials Today, 2022, 29, 101575.	4.3	4
755	Interfacial microenvironment-regulated cascade charge transport in Co6Mo6C2-MoO2-CoNC@ZnIn2S4 photocatalyst for efficient hydrogen evolution. Chemical Engineering Journal, 2022, 450, 138130.	12.7	24
756	Fabrication of CoS/CdS heterojunctions for enhanced photocatalytic hydrogen production. Inorganica Chimica Acta, 2022, 541, 121085.	2.4	5
757	Applications of electron spin resonance spectroscopy in photoinduced nanomaterial charge separation and reactive oxygen species generation. Journal of Environmental Science and Health, Part C: Toxicology and Carcinogenesis, 2021, 39, 435-459.	0.7	0
758	Probing interfacial charge transfer in heterojunctions for photocatalysis. Physical Chemistry Chemical Physics, 2022, 24, 19659-19672.	2.8	5
759	Two-Dimensional Ternary Pentagonal BCN: A Promising Photocatalyst Semiconductor for Water Splitting with Strong Excitonic Effects. Physical Review Applied, 2022, 18, .	3.8	7
760	Oxygen vacancy rich α-MnO2 @B/O-g-C3N4 photocatalyst: A thriving 1D-2D surface interaction effective towards photocatalytic O2 and H2 evolution through Z-scheme charge dynamics. International Journal of Hydrogen Energy, 2022, 47, 32107-32120.	7.1	24
761	Recent advances in polydopamine and its derivatives assisted electrocatalysis and photocatalysis. International Journal of Hydrogen Energy, 2023, 48, 7004-7018.	7.1	5
762	Metal Mesh and Narrow Band Gap Mn0.5Cd0.5S Photocatalyst Cooperation for Efficient Hydrogen Production. Materials, 2022, 15, 5861.	2.9	4

#	Article	IF	CITATIONS
763	Construction of oxygen-rich double CN-T/CN-U/Bi2WO6 Z-scheme heterojunction nanocomposite for efficient removal of rhodamine B. FlatChem, 2022, 35, 100419.	5.6	2
764	Z-scheme systems: From fundamental principles to characterization, synthesis, and photocatalytic fuel-conversion applications. Physics Reports, 2022, 983, 1-41.	25.6	69
765	In-situ oxidation selective deposition of tetrahedral Ag3PO4{111} on monoclinic BiVO4{040} with highly efficient visible light-driven photocatalysis and long recycling. Journal of Environmental Chemical Engineering, 2022, 10, 108418.	6.7	2
766	One-pot construction of highly efficient TaON/Bi2O3/S–BiOCl ternary photocatalysts: Simultaneously integrating type-â with Z-scheme junctions for improved visible light-driven removal of organic pollutants. Chemosphere, 2022, 307, 135979.	8.2	24
767	An overview on recent progress in photocatalytic air purification: Metal-based and metal-free photocatalysis. Environmental Research, 2022, 214, 113995.	7.5	16
768	Anti-oil-fouling Au/BiOCl coating for visible light-driven photocatalytic inactivation of bacteria. Journal of Colloid and Interface Science, 2022, 628, 955-967.	9.4	1
769	Unraveling photocatalytic electron transfer mechanism in polyoxometalate-encapsulated metal-organic frameworks for high-efficient CO2 reduction reaction. Applied Catalysis B: Environmental, 2022, 318, 121812.	20.2	25
770	Junction of ZnmIn2S3+m and bismuth vanadate as Z-scheme photocatalyst for enhanced hydrogen evolution activity: The role of interfacial interactions. Journal of Colloid and Interface Science, 2022, 628, 488-499.	9.4	16
771	Visible light assisted heterojunction composite of Agl and CDs doped ZIF-8 metal-organic framework for photocatalytic degradation of organic dye. Journal of Photochemistry and Photobiology A: Chemistry, 2023, 434, 114223.	3.9	12
772	Work function mediated interface charge kinetics for boosting photocatalytic water sterilization. Journal of Hazardous Materials, 2023, 442, 130036.	12.4	21
773	Insight into a strategy to improve charge carrier migration in lead-free bismuth-based halide perovskite for efficient selective oxidation of thioanisole under visible light. Chemical Engineering Journal, 2023, 451, 138927.	12.7	15
774	Adjusting charge kinetics of conjugated polymers via integration of LSPR effect with homojunction. Chemical Engineering Journal, 2023, 452, 139068.	12.7	5
775	α-NiS–β-NiS growth on Cd _{0.5} Zn _{0.5} S formed Schottky heterojunctions for enhanced photocatalytic hydrogen production. New Journal of Chemistry, 2022, 46, 17469-17478.	2.8	7
776	A mesh-like BiOBr/Bi ₂ S ₃ nanoarray heterojunction with hierarchical pores and oxygen vacancies for broadband CO ₂ photoreduction. Journal of Materials Chemistry A, 2022, 10, 20934-20945.	10.3	43
777	The surface reconstruction induced enhancement of the oxygen evolution reaction on α-SnWO ₄ (010) based on a density functional theory study. Physical Chemistry Chemical Physics, 2022, 24, 19382-19392.	2.8	1
778	Boosting photocatalytic Suzuki coupling reaction over Pd nanoparticles by regulating Pd/MOF interfacial electron transfer. , 2022, 52, 5.		1
779	Unveiling the Difference in the Activity and Selectivity of Nickel Based Cocatalysts for Co2 Photoreduction. SSRN Electronic Journal, 0, , .	0.4	0
780	Mass-determining role in the electrophoretic separation of colloidal plasmonic nanoparticle oligomers. Nanoscale, 2022, 14, 14161-14168.	5.6	1

#	Article	IF	CITATIONS
781	Insight into the photocatalytic mechanism of the optimal <i>x</i> value in the BiOBr _{<i>x</i>} l _{lâ^'<i>x</i>} , BiOCl _{<i>x</i>} l _{lâ^'<i>x</i>} and BiOCl _{<i>x</i>} Br _{lâ^'<i>x</i>} series varying with pollutant type. Nanoscale, 2022, 14, 13711-13721.	5.6	5
782	Enhanced photocatalytic hydrogen evolution of CdS@CuS core-shell nanorods under visible light. Materials Science in Semiconductor Processing, 2023, 153, 107105.	4.0	7
783	Enhancing the Photoinduced Interlayer Charge Transfer and Spatial Separation in Type-II Heterostructure of WS ₂ and Asymmetric Janus-MoSSe with Intrinsic Self-Build Electric Field. Journal of Physical Chemistry Letters, 2022, 13, 8484-8494.	4.6	13
784	Toward Excellence in Photocathode Engineering for Photoelectrochemical CO ₂ Reduction: Design Rationales and Current Progress. Advanced Energy Materials, 2022, 12, .	19.5	30
785	Substrateâ€Enabled Roomâ€Temperature Electrochemical Deposition of Crystalline ZnMnO ₃ . ChemPhysChem, 2023, 24, .	2.1	2
786	A review on graphitic carbon nitride (g-C3N4) – metal organic framework (MOF) heterostructured photocatalyst materials for photo(electro)chemical hydrogen evolution. International Journal of Hydrogen Energy, 2022, 47, 36784-36813.	7.1	23
787	Two-dimensional Janus like scandium-based MXenes as photocatalysts for overall water splitting: A first-principles study. Sustainable Materials and Technologies, 2022, 34, e00502.	3.3	3
788	Recent advances in covalent organic framework (COF) nanotextures with band engineering for stimulating solar hydrogen production: A comprehensive review. International Journal of Hydrogen Energy, 2022, 47, 34323-34375.	7.1	13
789	Boosting piezo/photo-induced charge transfer of a bi-piezoelectrics BaTiO3/CdS isotype junction for kinetic optimization. Journal of Alloys and Compounds, 2023, 931, 167434.	5.5	5
790	A Bifunctional CdS/MoO ₂ /MoS ₂ Catalyst Enhances Photocatalytic H ₂ Evolution and Pyruvic Acid Synthesis. Angewandte Chemie - International Edition, 2022, 61, .	13.8	134
791	Hierarchical MoO ₂ /ZnIn ₂ S ₄ Schottky Heterojunction Stimulated Photocatalytic H ₂ Evolution under Visible Light. ACS Applied Energy Materials, 2022, 5, 12739-12751.	5.1	12
792	A Bifunctional CdS/MoO ₂ /MoS ₂ Catalyst Enhances Photocatalytic H ₂ Evolution and Pyruvic Acid Synthesis. Angewandte Chemie, 2022, 134, .	2.0	3
793	Preparation of ZnCo2O4/BiVO4 Z-Scheme heterostructures to enhance photocatalytic performance in organic pollutant and antibiotic removal. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 655, 130165.	4.7	6
794	Z-scheme heterojunction WO3/BiOBr supported-single Fe atom for ciprofloxacin degradation via visible-light photocatalysis. Journal of Environmental Chemical Engineering, 2022, 10, 108693.	6.7	14
795	Rational catalyst design for spatial separation of charge carriers in a multi-component photocatalyst for effective hydrogen evolution. Journal of Materials Chemistry A, 2022, 10, 25380-25405.	10.3	9
796	Efficient encapsulation of CsPbBr ₃ and Au nanocrystals in mesoporous metal–organic frameworks towards synergetic photocatalytic CO ₂ reduction. Journal of Materials Chemistry A, 2022, 10, 25212-25219.	10.3	9
797	Photocatalytic hydrogen generation from overall water splitting with direct Z-scheme driven by two-dimensional InTe/Bismuthene heterostructure. International Journal of Hydrogen Energy, 2023, 48, 138-146.	7.1	20
798	Advances in Hybrid Composites for Photocatalytic Applications: A Review. Molecules, 2022, 27, 6828.	3.8	22

#	Article	IF	CITATIONS
799	Effect of Ag-Decorated BiVO4 on Photoelectrochemical Water Splitting: An X-ray Absorption Spectroscopic Investigation. Nanomaterials, 2022, 12, 3659.	4.1	9
800	Metal single atom doped 2D materials for photocatalysis: current status and future perspectives. Progress in Energy, 2023, 5, 012001.	10.9	9
801	Synergic Effect of typeâ€I ZnO/BiVO ₄ Magnetic Heterostructures for Visibleâ€Lightâ€Driven Degradation of Bisphenol A and Methyl Violet. Applied Organometallic Chemistry, 0, , .	3.5	0
802	Recent advances on g–C3N4–based Z-scheme photocatalysts: Structural design and photocatalytic applications. International Journal of Hydrogen Energy, 2023, 48, 196-231.	7.1	42
803	Fabrication of n-p β-Bi2O3@BiOI core/shell photocatalytic heterostructure for the removal of bacteria and bisphenol A under LED light. Colloids and Surfaces B: Biointerfaces, 2023, 221, 112957.	5.0	8
804	Plasmonic Metal Mediated Charge Transfer in Stacked Core–Shell Semiconductor Heterojunction for Significantly Enhanced CO ₂ Photoreduction. Small, 2023, 19, .	10.0	37
805	Multiscale Catalysis Under Magnetic Fields: Methodologies, Advances, and Trends. ChemCatChem, 2022, 14, .	3.7	4
806	Two-Dimensional Transition Metal-Hexaaminobenzene Monolayer Single-Atom Catalyst for Electrocatalytic Carbon Dioxide Reduction. Nanomaterials, 2022, 12, 4005.	4.1	6
807	Ultralong Lifetime of Plasmonâ€Excited Electrons Realized in Nonepitaxial/Epitaxial Au@CdS/CsPbBr ₃ Tripleâ€Heteronanocrystals. Advanced Materials, 2023, 35, .	21.0	17
808	Plasmon coupling inside 2D-like TiB2 flakes for water splitting half reactions enhancement in acidic and alkaline conditions. Chemical Engineering Journal, 2023, 454, 140441.	12.7	7
809	Current challenges and developments of inorganic/organic materials for the abatement of toxic nitrogen oxides (NOx) – A critical review. Progress in Solid State Chemistry, 2022, 68, 100380.	7.2	10
810	A review of methanol photoreforming: elucidating the mechanisms, photocatalysts and recent advancement strategies. Materials Today Chemistry, 2023, 27, 101334.	3.5	3
811	Oxygen-vacancy-rich Ag/Bi5O7Br nanosheets enable improved photocatalytic NO removal and oxygen evolution under visible light exposure. Advanced Powder Technology, 2023, 34, 103927.	4.1	2
812	Carbon quantum dots-doped g-C3N4 nanocomposites with enhanced piezoelectric catalytic performance. Composites Communications, 2023, 37, 101466.	6.3	6
813	Unveiling the difference in the activity and selectivity of nickel based cocatalysts for CO2 photoreduction. Journal of CO2 Utilization, 2023, 68, 102346.	6.8	0
814	The Effects of Native Oxides on the Selective Photo-Reduction Property of Cu Nanoparticles Induced by the Localized Surface Plasmon. Plasmonics, 2023, 18, 73-82.	3.4	3
815	Enhanced Photocatalytic Benzene Oxidation to Phenol over Monoclinic WO ₃ Nanorods under Visible Light. ACS Catalysis, 2022, 12, 14976-14989.	11.2	16
816	Mesoporous Silica Nanoparticlesâ€Based Nanoplatforms: Basic Construction, Current State, and Emerging Applications in Anticancer Therapeutics. Advanced Healthcare Materials, 2023, 12, .	7.6	16

#	Article	IF	CITATIONS
817	Highly efficient photocatalytic water splitting in direct Z-scheme <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si70.svg" display="inline" id="d1e839"><mml:mi>α</mml:mi>-In2Se3/Are van der Waals heterostructures. Surfaces and Interfaces, 2023, 36, 102608.</mml:math 	3.0	4
818	Oxygen Vacancyâ€Mediated Exciton Effect in Hierarchical BiOBr Enables Dichotomy of Energy Transfer and Electron Transfer in Photocatalysis. Advanced Functional Materials, 2023, 33, .	14.9	19
819	Enhanced photocatalytic water splitting over nickel-doped CdS nanocomposites synthesized via one-step controllable irradiation routine at ambient conditions. Applied Surface Science, 2023, 614, 156190.	6.1	7
820	Plasmonic semiconductors for advanced artificial photosynthesis. , 2023, 2, 100047.		3
821	Charge Steering in Heterojunction Photocatalysis: General Principles, Design, Construction, and Challenges. Small Science, 2023, 3, .	9.9	11
822	Oriented anchoring of NCQD on citric acid defective cluster of NH2-MIL-88B(Fe) for the efficient removal of tetracycline via photo-Fenton catalysis. Chemical Engineering Journal, 2023, 456, 141063.	12.7	12
823	A Facile MOF Based Iron-Molybdenum Bimetallic Electrode Material Preparation for Hydrogen Evolution. , 2023, 4, 137-140.		1
824	Core-shell Bi-containing spheres and TiO2 nanoparticles co-loaded on kaolinite as an efficient photocatalyst for methyl orange degradation. Catalysis Communications, 2023, 175, 106609.	3.3	7
825	Enhanced activation of peroxymonosulfate by a floating Cu0-MoS2/C3N4 photocatalyst under visible-light assistance for tetracyclines degradation and Escherichia coli inactivation. Chemical Engineering Journal, 2023, 457, 141220.	12.7	15
826	The Z-scheme photocatalyst S-BiOBr/Bi2Sn2O7 with 3D/0D interfacial structure for the efficient degradation of organic pollutants. Separation and Purification Technology, 2023, 309, 123099.	7.9	16
827	Surface -O terminated urchin-like TiO2/Ti3C2O (MXene) as high performance photocatalyst: Interfacial engineering and mechanism insight. Applied Surface Science, 2023, 615, 156343.	6.1	16
828	Construction of 0D/3D CdS/CoAl-LDH S-scheme heterojunction with boosted charge transfer and highly hydrophilic surface for enhanced photocatalytic hydrogen evolution and antibiotic degradation. Fuel, 2023, 338, 127259.	6.4	7
829	Efficient charge transfer in WS2/WxMo1â^'xS2 heterostructure empowered by energy level hybridization. Science China Information Sciences, 2023, 66, .	4.3	2
830	"O-S―Charge Transfer Mechanism Guiding Design of a Znln ₂ S ₄ /SnSe ₂ /In ₂ Se ₃ Heterostructure Photocatalyst for Efficient Hydrogen Production. ACS Catalysis, 2023, 13, 1020-1032.	11.2	13
831	Photoelectrocatalytic degradation of harmful compounds. , 2023, , 265-305.		0
832	Electron transfer in heterojunction catalysts. Physical Chemistry Chemical Physics, 2023, 25, 7106-7119.	2.8	6
833	Embedding Plasmonic Metal into Heterointerface of MOFsâ€Encapsulated Semiconductor Hollow Architecture for Boosting CO ₂ Photoreduction. Small, 2023, 19, .	10.0	7
834	Fabrication of CuBi2O4/Bi2MoO6 p-n heterojunction as synergistic photoelectric catalyst for efficient removal of ciprofloxacin in photo-electro-Fenton-like system. Journal of Water Process Engineering, 2023, 52, 103534.	5.6	7

#	Article	IF	CITATIONS
835	Photocatalytic activity towards antibiotic degradation and H ₂ evolution by development of a Z-scheme heterojunction constructed from 1T/2H-MoS ₂ nanoflowers embellished on BCN nanosheets. Catalysis Science and Technology, 2023, 13, 2827-2840.	4.1	6
836	Interfacial construction of P25/Bi ₂ WO ₆ composites for selective CO ₂ photoreduction to CO in gas–solid reactions. RSC Advances, 2023, 13, 8564-8576.	3.6	1
837	Hollow Spherical Pd/CdS/NiS with Carrier Spatial Separation for Photocatalytic Hydrogen Generation. Nanomaterials, 2023, 13, 1326.	4.1	1
838	Insights into adsorption and high photocatalytic oxidation of ciprofloxacin under visible light by intra-molecular Donor-Acceptor like p-n isotype heterojunction: Performance and mechanism. Chemical Engineering Journal, 2023, 464, 142533.	12.7	9
839	Surface selenation engineering on metal cocatalysts for highly efficient photoreduction of carbon dioxide to methanol. Chemical Engineering Journal, 2023, 464, 142612.	12.7	3
840	Carbon and nitrogen co-doped In2O3 porous nanosheets with oxygen vacancies for remarkable photocatalytic CO2 conversion. Surfaces and Interfaces, 2023, 38, 102789.	3.0	1
841	Two-dimensional PtI2/Bi2S3 and PtI2/Bi2Se3 heterostructures with high solar-to-hydrogen efficiency. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2023, 666, 131286.	4.7	1
842	Dynamic characterization for artificial photosynthesis through in situ X-ray photoelectron spectroscopy. Current Opinion in Green and Sustainable Chemistry, 2023, 41, 100796.	5.9	0
843	Investigation on the photocatalytic property of direct Z-type van der Waals g-C3N4/AlN heterojunction and its mechanism. Chemical Physics, 2023, 571, 111913.	1.9	5
844	Improved Photoactivity Of NiO/ZnO Nanorods Heterostructured Films Relying On Scaffold Surface Cleaning And NiO Deposition Time Optimization. ChemPhotoChem, 2023, 7, .	3.0	Ο
845	Performance study of g-C3N4/carbon black/BiOBr@Ti3C2/MoS2 photocatalytic fuel cell for the synergistic degradation of different types of pollutants. Carbon Letters, 2023, 33, 847-862.	5.9	6
846	Efficient Exciton Dissociation through the Edge Interfacial State in Metal Halide Perovskite-Based Photocatalysts. Journal of Physical Chemistry Letters, 2023, 14, 1504-1511.	4.6	4
847	Stability of Photocathodes: A Review on Principles, Design, and Strategies. ChemSusChem, 2023, 16, .	6.8	7
848	Ag3PO4-anchored La2Ti2O7 nanorod as a Z-Scheme heterostructure composite with boosted photogenerated carrier separation and enhanced photocatalytic performance under natural sunlight. Environmental Pollution, 2023, 323, 121322.	7.5	7
849	Solarâ€Triggered Engineered 2Dâ€Materials for Environmental Remediation: Status and Future Insights. Advanced Materials Interfaces, 2023, 10, .	3.7	8
850	Computational Approaches to Materials Design for Enhanced Photocatalytic Activity. , 2023, , 308-330.		Ο
851	Self-adaptive bulk/surface engineering of Bi O Br towards enhanced photocatalysis: Current status and future challenges. Journal of Energy Chemistry, 2023, 82, 387-413.	12.9	6
852	Constructing Spatially Separated Cageâ€Like Zâ€scheme Heterojunction Photocatalyst for Enhancing Photocatalytic H ₂ Evolution. Small, 2023, 19, .	10.0	15

#	Article	IF	CITATIONS
853	Spatially Separated Redox Cocatalysts on Ferroelectric Nanoplates for Improved Piezophotocatalytic CO ₂ Reduction and H ₂ O Oxidation. ACS Applied Materials & Interfaces, 0, ,	8.0	4
854	Unraveling the role of phase engineering in tuning photocatalytic hydrogen evolution activity and stability. Chinese Chemical Letters, 2023, 34, 108328.	9.0	5
855	Gold-Promoted Electrodeposition of Metal Sulfides on Silicon Nanowire Photocathodes To Enhance Solar-Driven Hydrogen Evolution. ACS Applied Materials & Interfaces, 2023, 15, 15449-15457.	8.0	7
856	Construction of 0D/1D CdS/g-C3N4 Z-scheme heterojunction for highly selective photocatalytic benzylamine oxidative coupling. Materials Today Chemistry, 2023, 29, 101475.	3.5	2
857	Colloidal Synthesis of Semiconductor Films for Efficient Photoelectrochemical Hydrogen Generation. Energy Material Advances, 2023, 4, .	11.0	5
858	Effect of Ag Modification on the Structure and Photocatalytic Performance of TiO2/Muscovite Composites. Molecules, 2023, 28, 3187.	3.8	1
859	Review and Perspectives of Î ² -Keto-enamine-Based Covalent Organic Framework for Photocatalytic Hydrogen Evolution. Energy & Fuels, 2023, 37, 6323-6347.	5.1	14
860	Non-Noble Nanoparticles Cocatalysts in TiO ₂ for Photocatalytic Hydrogen Production from Water. A review. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2023, 70, 203-212.	0.2	1
861	Dual-functional reaction strategy boosts carbon dioxide reduction by coupling with selective benzyl alcohol oxidation on nano-Au/BiOCl photocatalysts. Journal of Catalysis, 2023, 422, 56-68.	6.2	5
862	A new 0D–2D CsPbBr ₃ –Co ₃ O ₄ heterostructure photocatalyst with efficient charge separation for photocatalytic CO ₂ reduction. Inorganic Chemistry Frontiers, 2023, 10, 3273-3283.	6.0	2
863	Effect of annealing temperature on the properties of electrodeposited Cu2O on FTO glass substrate. Bulletin of Materials Science, 2023, 46, .	1.7	0
864	Sulfur Substitution and Defect Engineering in an Unfavored MnMoO ₄ Catalyst for Efficient Hydrogen Evolution under Visible Light. ACS Applied Materials & Interfaces, 2023, 15, 22142-22156.	8.0	14
865	Interface Engineering of Nano-Photocatalysts for Hydrogen Evolution Reaction and Degradation of Organic Pollutants. Green Chemistry and Sustainable Technology, 2023, , 449-479.	0.7	0
866	Composite of lead-free halide perovskite Cs3Bi2Br9 with TiO2 as an efficient photocatalyst for C(sp3)â^'H bond activation. Applied Catalysis B: Environmental, 2023, 333, 122812.	20.2	8
867	Homojunction and ohmic contact coexisting carbon nitride for efficient photocatalytic hydrogen evolution. Nano Research, 2023, 16, 8782-8792.	10.4	6
868	Strategies for reducing the overpotential of one-dimensional Si nanostructured photoelectrodes for solar hydrogen production. , 0, , .		0
869	Recent progress on plant extract-mediated biosynthesis of ZnO-based nanocatalysts for environmental remediation: Challenges and future outlooks. Advances in Colloid and Interface Science, 2023, 317, 102931.	14.7	15
870	Rational Synthesis of Au–CdS Composite Photocatalysts for Broad-Spectrum Photocatalytic Hydrogen Evolution. ACS Nano, 2023, 17, 11655-11664.	14.6	19

#	Article	IF	CITATIONS
871	An overview of improving photocatalytic activity of MnO2 via the Z-scheme approach for environmental and energy applications. Journal of the Taiwan Institute of Chemical Engineers, 2023, , 104945.	5.3	10
872	Phases evolution and photocatalytic activity of Cu ₂ O films electrodeposited from a non-pH-adjusted solution. Royal Society Open Science, 2023, 10, .	2.4	3
873	Embedding Nanoâ€Piezoelectrics into Heterointerfaces of Sâ€Scheme Heterojunctions for Boosting Photocatalysis and Piezophotocatalysis. Small, 2023, 19, .	10.0	12
874	Hybrid Semiconductor Photocatalyst Nanomaterials for Energy and Environmental Applications: Fundamentals, Designing, and Prospects. Advanced Sustainable Systems, 2023, 7, .	5.3	12
875	Visualization of charge carrier in photocatalysts. National Science Review, 0, , .	9.5	0
876	Mechanism insight into the enhanced photocatalytic purification of antibiotic through encapsulated architectures coupling of crystalline Cu2O/amorphous TiFe layer double hydroxide. Journal of Materials Science and Technology, 2023, 167, 161-170.	10.7	3
877	Photocatalytic Reduction of Carbon Dioxide to Methanol: Carbonaceous Materials, Kinetics, Industrial Feasibility, and Future Directions. Energy & Fuels, 2023, 37, 7577-7602.	5.1	11
878	Light-driven flow synthesis of acetic acid from methane with chemical looping. Nature Communications, 2023, 14, .	12.8	9
879	A Direct Zâ€Scheme Quasiâ€2D/2D Heterojunction Constructed by Loading Photosensitive Metal–Organic Nanorings with Pd Single Atoms on Graphitic–C ₃ N ₄ for Superior Visible Lightâ€Driven H ₂ Production. Solar Rrl, 2023, 7, .	5.8	4
880	Understanding the unique S-scheme charge migration in triazine/heptazine crystalline carbon nitride homojunction. Nature Communications, 2023, 14, .	12.8	34
881	Hollow Zn0.01Co0.99 Se2/ZnIn2S4 Z-scheme heterogeneous photocatalyst with Strong internal electric field and Excellent surface electron transfer capability for Efficient Hydrogen Production. Ceramics International, 2023, 49, 30744-30754.	4.8	4
882	An overview on cellulose-supported photocatalytic materials for the efficient removal of toxic dyes. Industrial Crops and Products, 2023, 202, 117000.	5.2	13
883	One pot development of MnS/g-C3N4 nanocomposite via hydrothermal synthesis for photodegradation of methylene blue. Inorganic Chemistry Communication, 2023, 155, 111003.	3.9	1
884	Bismuth-Based nanophotocatalysts for environmental reintegration. Inorganic Chemistry Communication, 2023, 155, 111016.	3.9	2
885	Progress in photocatalytic CO ₂ reduction based on single-atom catalysts. RSC Advances, 2023, 13, 20889-20908.	3.6	3
886	Photocatalytic CO2RR for gas fuel production: Opportunities and challenges. Separation and Purification Technology, 2023, 324, 124528.	7.9	5
888	Defect-anchored single-atom-layer Pt clusters on TiO2â^'x/Ti for efficient hydrogen evolution via photothermal reforming plastics. Applied Catalysis B: Environmental, 2023, 339, 123081.	20.2	8
889	Editorial: Semiconductor Photocatalysts. Crystals, 2023, 13, 1109.	2.2	0

#	Article	IF	CITATIONS
890	Boosting photocatalytic hydrogen evolution: Electronic redistribution of ZnIn2S4 nanosheets via halogen ion doping. International Journal of Hydrogen Energy, 2023, , .	7.1	0
891	Constructing novel NaLiTi ₃ O ₇ /g-C ₃ N ₄ Z-scheme photocatalysts to facilitate the separation of charge carriers and study the hydrogen production performance. New Journal of Chemistry, 0, , .	2.8	0
892	Intelligent metallic micro/nanomotors: From propulsion to application. Nano Today, 2023, 52, 101939.	11.9	4
893	Synthesis of novel flower-like Bi4Ti3O12/BiOCl heterojunctions with excellent piezoelectric photocatalytic performance. Journal of Alloys and Compounds, 2023, 966, 171572.	5.5	4
895	Theoretical and experimental insight into the construction of FTO/NiSe2/BiVO4 photoanode towards an efficient charge separation for the degradation of pharmaceuticals in water. Journal of Environmental Chemical Engineering, 2023, 11, 110711.	6.7	1
896	Facile Synthesis of Ni-Doped WO3-x Nanosheets with Enhanced Visible-Light-Responsive Photocatalytic Performance for Lignin Depolymerization into Value-Added Biochemicals. Catalysts, 2023, 13, 1205.	3.5	0
897	Enhanced photocatalytic activity of p (BaSnO3)-n (anatase/rutile/brookite TiO2) heterojunction composites by efficient interfacial charge transfer. Journal of Molecular Structure, 2023, 1294, 136440.	3.6	5
898	Nickel phosphate improved silicon nanowires arrays hybrid nanostructures for solar-driven photoelectrochemical hydrogen production. Journal of Photochemistry and Photobiology A: Chemistry, 2023, 445, 115094.	3.9	0
899	Spatial charge separated two-dimensional/two-dimensional Cu-In2S3/CdS heterojunction for boosting photocatalytic hydrogen production. Journal of Colloid and Interface Science, 2023, 652, 1503-1511.	9.4	11
900	A bifunctional hierarchical core–shell Mo ₂ C@ZnIn ₂ S ₄ Schottky junction for efficient photocatalytic H ₂ -evolution integrated with valuable furfural production. Inorganic Chemistry Frontiers, 2023, 10, 6308-6319.	6.0	2
901	<i>In situ</i> construction of a Sillén–Aurivillius layered perovskite-based 0D/2D homologous Schottky junction for efficient piezo-photocatalytic activity. Catalysis Science and Technology, 2023, 13, 5313-5325.	4.1	0
902	Preparation, characterization of iron-based single-atom catalysts and its application for photocatalytic degradation of contaminants in water. Journal of Environmental Chemical Engineering, 2023, 11, 110681.	6.7	1
903	Highly selective and efficient photocatalytic NO removal: Charge carrier kinetics and interface molecular process. Nano Research, 2024, 17, 1003-1026.	10.4	0
904	Modulating the Schottky barrier heights of plasmonic metal/semiconductor heterojunctions by graphene substrates for boosting photocatalytic water oxidation. Applied Surface Science, 2024, 642, 158561.	6.1	6
905	Progress on Singleâ€Atom Photocatalysts for H ₂ Generation: Material Design, Catalytic Mechanism, and Perspectives. Small Methods, 2023, 7, .	8.6	2
906	Graphitic Carbon Nitride/Zinc Oxide-Based Z-Scheme and S-Scheme Heterojunction Photocatalysts for the Photodegradation of Organic Pollutants. International Journal of Molecular Sciences, 2023, 24, 15021.	4.1	2
907	Novel honeycomb-like Ni-MOF enhanced hierarchical Bi2MoO6 microspheres for high efficient photocatalytic CO2 reduction. Inorganic Chemistry Communication, 2023, 156, 111271.	3.9	1
908	LnVO4 (Ln=La, Ce, Pr, Nd, etc.)-based photocatalysts: Synthesis, design, and applications. Journal of Materials Science and Technology, 2024, 177, 10-43.	10.7	0

		CITATION REPORT		
#	ARTICLE	706	IF	CITATIONS
909	Photocatalysis with atomically thin sneets. Chemical Society Reviews, 2023, 52, 7687-77	706.	38.1	6
910	Hollow Plasmonic Pâ€Metalâ€N Sâ€Scheme Heterojunction Photoreactor with Spatially Cocatalysts toward Artificial Photosynthesis. Small, 2024, 20, .	Separated Dual	10.0	3
912	Progress in defect engineering strategies to enhance piezoelectric catalysis for efficient v treatment and energy regeneration. Separation and Purification Technology, 2024, 330,	water 125247.	7.9	6
913	Ni0.8Co0.2/Zn0.8Cd0.2S/g-C3N4 ternary nano-photocatalyst for improved visible-light-d photocatalytic H2 evolution and pollutants degradation. International Journal of Hydroge 2024, 51, 281-299.	riven en Energy,	7.1	1
915	Fe-Doped SnS ₂ Nanoflowers for Magnetically-Tunable Photoelectrocatalytic Evolution Reaction. ACS Applied Nano Materials, 0, , .	: Hydrogen	5.0	0
916	Arsenic Emission Control from Coal Combustion Flue Gas. , 0, , .			0
917	Dye-sensitized NH2-UiO-66 anchored with copper ions for tandem visible-light-driven hyder evolution. Journal of Environmental Chemical Engineering, 2023, 11, 111349.	lrogen	6.7	1
918	Two-dimensional ferroelectric heterostructures for overall water-splitting from DFT aspec Computational Materials Science, 2024, 231, 112599.	ts.	3.0	0
919	A Fresh Perspective on the Impact of ZnTiO3 Coupling on the Microstructure and Photoc Properties of TiO2 Fabricated at Varied Temperatures. Molecules, 2023, 28, 7626.	atalytic	3.8	0
920	Constructing Dual Cocatalysts of Ni ₂ P–NiS-Decorated TiO ₂ Photocatalytic H ₂ Evolution. Langmuir, 2023, 39, 16648-16656.	for Boosting	3.5	1
921	Effects of SnO2 coupling on the structure and photocatalytic performance of TiO2/sepio composites. Journal of Saudi Chemical Society, 2023, 27, 101765.	lite	5.2	0
922	Emerging hollow artificial photosynthetic system with S-scheme heterojunction sandwic layered redox cocatalysts for overall CO2 reduction and H2O oxidation. Applied Catalysis Environmental, 2024, 342, 123445.	ned between s B:	20.2	8
923	Zn ₂ SnO ₄ ternary metal oxide for ultraviolet radiation filter a comparative study with TiO ₂ and ZnO. Science and Technology of Advance 2023, 24, .	pplication: a 2d Materials,	6.1	0
924	Development of ABO ₄ â€ŧype photoanodes for photoelectrochemical water 1, 108-153.	splitting. , 2023,		3
925	Recent Advances in LDH/g-C3N4 Heterojunction Photocatalysts for Organic Pollutant Re Nanomaterials, 2023, 13, 3066.	moval.	4.1	3
926	A ZnO-002/amorphous Bi2WO6 heterojunction with enhanced electron-hole separation high-performance Cr(VI) photoreduction. Applied Surface Science, 2024, 648, 159007.	for	6.1	1
928	Photocatalytic removal of heavy metal ions and antibiotics in agricultural wastewater: A Journal of Semiconductors, 2023, 44, 111701.	review.	3.7	0
930	Piezoelectric-enhanced n-TiO2/BaTiO3/p-TiO2 heterojunction for highly efficient photoelectrocatalysis. Green Energy and Environment, 2023, , .		8.7	0

#	Article	IF	CITATIONS
931	The confusion about S-scheme electron transfer: Critical understanding and new perspective. Energy and Environmental Science, 0, , .	30.8	1
932	Unravelling the role of the combined effect of metallic charge transfer channel and SiO overlayer in the Zr/Si-Fe2O3:Au:SiO nanorod arrays to boost photoelectrochemical water splitting. Journal of Energy Chemistry, 2024, 90, 370-379.	12.9	0
933	Carbonized Polymer Dots/Bi/β-Bi ₂ O ₃ for Efficient Photosynthesis of H ₂ O ₂ via Redox Dual Pathways. Langmuir, 2023, 39, 18060-18072.	3.5	0
934	Construction of embedded CdS nanosheets@PEA2PbBr4 nanoplate p-n heterojunction photocatalysts with spatial charge transfer for enhanced benzylic C(sp3)-H bond oxidation. Chemical Engineering Journal, 2024, 480, 148099.	12.7	0
935	Strategies for boosting the photocatalytic reduction of toxic metal ions: Progress and prospects. Journal of Water Process Engineering, 2024, 57, 104683.	5.6	0
936	Methodologies for enriched photocatalytic CO2 reduction: an overview. International Journal of Environmental Science and Technology, 0, , .	3.5	0
937	Design, preparation, and photocatalytic performance of MoSe2 quantum dots modified BiOCl composite photocatalysts. Optical Materials, 2024, 147, 114745.	3.6	1
938	Recent Progress and Perspectives of S-Scheme Heterojunction Photocatalysts for Photocatalytic CO ₂ Reduction. Energy & Fuels, 0, , .	5.1	1
940	A comprehensive review on the boosted effects of anion vacancy in the heterogeneous photocatalytic degradation, part I: Focus on sulfur, nitrogen, carbon, and halogen vacancies. Ecotoxicology and Environmental Safety, 2024, 269, 115927.	6.0	3
941	A comprehensive review on photo-thermal co-catalytic reduction of CO2 to value-added chemicals. Fuel, 2024, 362, 130906.	6.4	3
942	Biogenic Punica granatum Flower Extract Assisted ZnFe2O4 and ZnFe2O4-Cu Composites for Excellent Photocatalytic Degradation of RhB Dye. Toxics, 2024, 12, 77.	3.7	0
943	Assembling ultrathin nickel hydroxide nanosheets on cadmium sulfide hollow spheres for enhanced CO2 photoreduction. Chemical Engineering Journal, 2024, 482, 149184.	12.7	0
944	Enhanced charge transfer and photocatalytic activity of BiOBr/Bi2WO6 p-n heterojunctions. Journal of Molecular Structure, 2024, 1304, 137719.	3.6	0
945	Solvothermal synthesis of four coordination polymers based on a dual-ligand strategy for sensitive detection of Hg2+ ions and photocatalytic degradation. Polyhedron, 2024, 252, 116884.	2.2	0
946	Construction of Porphyrin-Based Bimetallic Nanomaterials with Photocatalytic Properties. Molecules, 2024, 29, 708.	3.8	0
947	Photoelectrochemical quenching-recovery biosensor based on NSCQDs/Fe2O3@Bi2S3 for the detection of trypsin. Analytica Chimica Acta, 2024, 1297, 342361.	5.4	0
948	Interfacial Charge Transfer Regulates Photoredox Catalysis. ACS Central Science, 2024, 10, 529-542.	11.3	0
949	Interfacial electron redistribution in 2D/3D MoS2/CuBi2O4 p-n heterojunction for visible light assisted reduction of Cr(VI) and oxidation of antibiotics. Journal of Water Process Engineering, 2024, 59, 105074.	5.6	0

#	Article	IF	CITATIONS
950	NiS2/CdS photocatalysts with high specific surface area and excellent H2 evolution performance. International Journal of Hydrogen Energy, 2024, 60, 1500-1508.	7.1	0
951	Cellulosic metallic nanocomposites for photocatalytic degradation of persistent dye pollutants in aquatic bodies: A pragmatic review. Journal of Organometallic Chemistry, 2024, 1010, 123087.	1.8	0
952	Industrial-Scale Engineering of Nano {RuO ₂ /TiO ₂ } for Photocatalytic Water Splitting: The Distinct Role of {(Rutile)TiO ₂ –(Rutile)RuO ₂ } Interfacing. Industrial & Engineering Chemistry Research, 2024, 63, 5773-5786.	3.7	0
953	First-principles study of direct Z-scheme GaS/WTe2 van der Waals heterostructure as photocatalyst for water splitting. Physica B: Condensed Matter, 2024, 682, 415882.	2.7	0
954	Hydrogen generation from direct Z-scheme for photocatalytic overall water splitting with the SiSe/SnSe2 and SiSe/SnSSe heterostructures. Journal of Catalysis, 2024, 432, 115429.	6.2	0
955	Bifunctional noble-metal-free cocatalyst coating enabling better coupling of photocatalytic CO2 reduction and H2O oxidation on direct Z-scheme heterojunction. Nano Research, 0, , .	10.4	0