

Surface-Induced Atomic Site Active Superb CO₂ Photoreduction

Advanced Materials

31, e1900546

DOI: 10.1002/adma.201900546

Citation Report

#	ARTICLE	IF	CITATIONS
1	Silver-loaded In ₂ S ₃ -CdIn ₂ S ₄ @X(X=Ag, Ag ₃ PO ₄ , AgI) ternary heterostructure nanotubes treated by electron beam irradiation with enhanced photocatalytic activity. <i>Science of the Total Environment</i> , 2019, 695, 133884.	3.9	22
2	Substantially enhanced photoelectrochemical performance of TiO ₂ nanorods/CdS nanocrystals heterojunction photoanode decorated with MoS ₂ nanosheets. <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118102.	10.8	99
3	Fabrication of leaf extract mediated bismuth oxybromide/oxyiodide (BiOBr _{1-x} I _x) photocatalysts with tunable band gap and enhanced optical absorption for degradation of organic pollutants. <i>Journal of Colloid and Interface Science</i> , 2019, 555, 304-314.	5.0	39
4	Photocatalyst with a metal-free electron-hole pair double transfer mechanism for pharmaceutical and personal care product degradation. <i>Environmental Science: Nano</i> , 2019, 6, 3292-3306.	2.2	14
5	Realizing nitrogen doping in Bi ₄ Ti ₃ O ₁₂ via low temperature synthesis and its enhanced photocatalytic performance. <i>Journal of Alloys and Compounds</i> , 2019, 806, 492-499.	2.8	27
6	Z-scheme MoS ₂ /Bi ₂ O ₃ heterojunctions: enhanced photocatalytic degradation performance and mechanistic insight. <i>New Journal of Chemistry</i> , 2019, 43, 11876-11886.	1.4	38
7	The Electronic Structure and Optical Properties of Two-Dimensional BiOX ₃ (X=Cl, Br, I) TeQq 0 0 0 rgBT	0.7	2
8	Efficient BiVO ₄ Photoanodes by Postsynthetic Treatment: Remarkable Improvements in Photoelectrochemical Performance from Facile Borate Modification. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 19027-19033.	7.2	108
9	Magnetic Fe ₃ C@C nanoparticles as a novel cocatalyst for boosting visible-light-driven photocatalytic performance of g-C ₃ N ₄ . <i>International Journal of Hydrogen Energy</i> , 2019, 44, 26970-26981.	3.8	29
10	In situ self-assembly synthesis of carbon self-doped graphite carbon nitride hexagonal tubes with enhanced photocatalytic hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 27354-27362.	3.8	25
11	Graphitic carbon nitride tetragonal hollow prism with enhanced photocatalytic hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 28780-28788.	3.8	15
12	Synthesis of Flower-Like g-C ₃ N ₄ /BiOBr and Enhancement of the Activity for the Degradation of Bisphenol A Under Visible Light Irradiation. <i>Frontiers in Chemistry</i> , 2019, 7, 649.	1.8	34
13	An Efficient Strategy for Boosting Photogenerated Charge Separation by Using Porphyrins as Interfacial Charge Mediators. <i>Angewandte Chemie</i> , 2019, 131, 16956-16961.	1.6	8
14	Efficient BiVO ₄ Photoanodes by Postsynthetic Treatment: Remarkable Improvements in Photoelectrochemical Performance from Facile Borate Modification. <i>Angewandte Chemie</i> , 2019, 131, 19203-19209.	1.6	35
15	An Efficient Strategy for Boosting Photogenerated Charge Separation by Using Porphyrins as Interfacial Charge Mediators. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 16800-16805.	7.2	80
16	3D MoS ₂ @TiO ₂ @poly(methyl methacrylate) nanocomposite with enhanced photocatalytic activity. <i>Journal of Colloid and Interface Science</i> , 2019, 557, 709-721.	5.0	33
17	Competition of luminescence and photocatalysis in melilite: Recombination and transportation of electrons. <i>Physica B: Condensed Matter</i> , 2019, 573, 87-91.	1.3	6
18	Hydrogen bond interactions within OH-CQDs/fiber-like carbon nitride for enhanced photodegradation and hydrogen evolution. <i>Applied Surface Science</i> , 2019, 495, 143558.	3.1	24

#	ARTICLE	IF	CITATIONS
19	Adsorption of photocatalytic remediation for series of tetracycline contaminants with BiOCl/CdS composite under simulated sunlight. Journal of the Taiwan Institute of Chemical Engineers, 2019, 104, 94-105.	2.7	25
20	Hydrothermal synthesis of Sm-doped Bi ₂ WO ₆ flower-like microspheres for photocatalytic degradation of rhodamine B. CrystEngComm, 2019, 21, 6208-6218.	1.3	32
21	Construction of a novel BION-Br-AgBr heterojunction photocatalysts as a direct Z-scheme system for efficient visible photocatalytic activity. Applied Surface Science, 2019, 497, 143820.	3.1	69
22	Charge Coupling Enhanced Photocatalytic Activity of BaTiO ₃ /MoO ₃ Heterostructures. ACS Applied Materials & Interfaces, 2019, 11, 40114-40124.	4.0	61
23	Cyano and potassium-rich g-C ₃ N ₄ hollow tubes for efficient visible-light-driven hydrogen evolution. Catalysis Science and Technology, 2019, 9, 3342-3346.	2.1	45
24	Photocatalytic Hydrogen Production by RGO/ZnIn ₂ S ₄ under Visible Light with Simultaneous Organic Amine Degradation. ACS Omega, 2019, 4, 11135-11140.	1.6	32
25	A facile supramolecular aggregation of trithiocyanuric acid with PCN for high photocatalytic hydrogen evolution from water splitting. International Journal of Energy Research, 2019, 43, 5479-5492.	2.2	40
26	A rich structural chemistry in π -conjugated hydroisocyanurates: layered structures of A ₂ B(H ₂ C ₃ N ₃ O ₃) ₄ ·nH ₂ O (A = K, Rb, Cs; B = Mg, Ca; n = 4, 10) with high ultraviolet transparency and strong optical anisotropy. Dalton Transactions, 2019, 48, 9048-9052.	1.6	40
27	Dual role of a g-C ₃ N ₄ /carbon intra-Schottky junction in charge carrier generation and separation for efficient solar H ₂ production. Catalysis Science and Technology, 2019, 9, 3493-3503.	2.1	31
28	Construction of spindle structured CeO ₂ modified with rod-like attapulgite as a high-performance photocatalyst for CO ₂ reduction. Catalysis Science and Technology, 2019, 9, 3788-3799.	2.1	20
29	Photodegradation of organic dyes by PAN/SiO ₂ -TiO ₂ -NH ₂ nanofiber membrane under visible light. Separation and Purification Technology, 2019, 224, 509-514.	3.9	59
30	Facilitating charge transfer via a giant magnetoresistance effect for high-efficiency photocatalytic hydrogen production. Chemical Communications, 2019, 55, 14478-14481.	2.2	7
31	Quenching induced hierarchical 3D porous g-C ₃ N ₄ with enhanced photocatalytic CO ₂ reduction activity. Chemical Communications, 2019, 55, 14023-14026.	2.2	83
32	Switching charge kinetics from type-I to Z-scheme for g-C ₃ N ₄ and ZnIn ₂ S ₄ by defective engineering for efficient and durable hydrogen evolution. Sustainable Energy and Fuels, 2019, 3, 3422-3429.	2.5	21
33	Freestanding ultrathin bismuth-based materials for diversified photocatalytic applications. Journal of Materials Chemistry A, 2019, 7, 25203-25226.	5.2	90
34	Oxygen-assisted stabilization of single-atom Au during photocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 24217-24221.	5.2	59
35	Internal electric field engineering for steering photogenerated charge separation and enhancing photoactivity. EcoMat, 2019, 1, e12007.	6.8	134
36	Bi ₄ NbO ₈ Cl {001} nanosheets coupled with g-C ₃ N ₄ as 2D/2D heterojunction for photocatalytic degradation and CO ₂ reduction. Journal of Hazardous Materials, 2020, 381, 121159.	6.5	111

#	ARTICLE	IF	CITATIONS
37	One pot synthesis of CdS/BiOBr/Bi ₂ O ₂ CO ₃ : A novel ternary double Z-scheme heterostructure photocatalyst for efficient degradation of atrazine. <i>Applied Catalysis B: Environmental</i> , 2020, 260, 118222.	10.8	210
38	Oxygen vacancy rich Bi ₂ O ₄ -Bi ₄ O ₇ -BiO ₂ -x composites for UV-vis-NIR activated high efficient photocatalytic degradation of bisphenol A. <i>Journal of Hazardous Materials</i> , 2020, 382, 121121.	6.5	137
39	Visible-light-driven photocatalytic degradation of naproxen by Bi-modified titanate nanobulks: Synthesis, degradation pathway and mechanism. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 386, 112108.	2.0	26
40	Inter-plane heterojunctions within 2D/2D FeSe ₂ /g-C ₃ N ₄ nanosheet semiconductors for photocatalytic hydrogen generation. <i>Applied Catalysis B: Environmental</i> , 2020, 261, 118249.	10.8	192
41	Remarkably efficient charge transfer through a double heterojunction mechanism by a CdS-SnS-SnS ₂ /rGO composite with excellent photocatalytic performance under visible light. <i>Journal of Hazardous Materials</i> , 2020, 391, 121016.	6.5	26
42	Visible-light-driven WO ₃ /BiOBr heterojunction photocatalysts for oxidative coupling of amines to imines: Energy band alignment and mechanistic insight. <i>Journal of Colloid and Interface Science</i> , 2020, 560, 213-224.	5.0	68
43	Efficient catalytic activity of BiOBr@polyaniline-MnO ₂ ternary nanocomposites for sunlight-driven photodegradation of ciprofloxacin. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 386, 112126.	2.0	15
44	Efficient photocatalytic degradation of monochlorophenol on in-situ fabricated BiPO ₄ /Bi ₂ O ₃ heterojunction microspheres and O ₂ -free hole-induced selective dechlorination conversion with H ₂ evolution. <i>Applied Catalysis B: Environmental</i> , 2020, 263, 118313.	10.8	42
45	Interfacial two-dimensional oxide enhances photocatalytic activity of graphene/titania via electronic structure modification. <i>Carbon</i> , 2020, 157, 350-357.	5.4	7
46	Utilization of core-shell nanoparticles to evaluate subsurface contribution to water oxidation catalysis of [CoII(H ₂ O) ₂] _{1.5} [CoIII(CN) ₆] nanoparticles. <i>Applied Catalysis B: Environmental</i> , 2020, 262, 118101.	10.8	11
47	Enhanced photoactivity and oxidizing ability simultaneously via internal electric field and valence band position by crystal structure of bismuth oxyiodide. <i>Applied Catalysis B: Environmental</i> , 2020, 262, 118262.	10.8	128
48	Improved visible-light activities of g-C ₃ N ₄ nanosheets by co-modifying nano-sized SnO ₂ and Ag for CO ₂ reduction and 2,4-dichlorophenol degradation. <i>Materials Research Bulletin</i> , 2020, 122, 110676.	2.7	36
49	Electronic and nanostructure engineering of bifunctional MoS ₂ towards exceptional visible-light photocatalytic CO ₂ reduction and pollutant degradation. <i>Journal of Hazardous Materials</i> , 2020, 381, 120972.	6.5	90
50	Photocatalytic behavior of biochar-modified carbon nitride with enriched visible-light reactivity. <i>Chemosphere</i> , 2020, 239, 124713.	4.2	63
51	In-situ preparation of MIL-125(Ti)/Bi ₂ WO ₆ photocatalyst with accelerating charge carriers for the photodegradation of tetracycline hydrochloride. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 387, 112149.	2.0	41
52	Benzylamine oxidation boosted electrochemical water-splitting: Hydrogen and benzonitrile co-production at ultra-thin Ni ₂ P nanomeshes grown on nickel foam. <i>Applied Catalysis B: Environmental</i> , 2020, 268, 118393.	10.8	100
53	Integrating 2D/2D CdS/Fe ₂ O ₃ ultrathin bilayer Z-scheme heterojunction with metallic NiS nanosheet-based ohmic-junction for efficient photocatalytic H ₂ evolution. <i>Applied Catalysis B: Environmental</i> , 2020, 266, 118619.	10.8	199
54	Insights into the enhanced adsorption/photocatalysis mechanism of a Bi ₄ O ₅ Br ₂ /g-C ₃ N ₄ nanosheet. <i>Journal of Alloys and Compounds</i> , 2020, 821, 153557.	2.8	104

#	ARTICLE	IF	CITATIONS
55	Boosting the photocatalytic activity of BiOX under solar light <i>via</i> selective crystal facet growth. <i>Journal of Materials Chemistry C</i> , 2020, 8, 2579-2588.	2.7	64
56	Catalytic reduction of nitrogen to produce ammonia by bismuth-based catalysts: state of the art and future prospects. <i>Materials Horizons</i> , 2020, 7, 1014-1029.	6.4	134
57	Efficient infrared light induced CO ₂ reduction with nearly 100% CO selectivity enabled by metallic CoN porous atomic layers. <i>Nano Energy</i> , 2020, 69, 104421.	8.2	88
58	Surface Engineering of Bi _{3-x} N ₄ by Stacked BiOBr Sheets Rich in Oxygen Vacancies for Boosting Photocatalytic Performance. <i>Angewandte Chemie</i> , 2020, 132, 4549-4554.	1.6	27
59	Surface Engineering of Bi _{3-x} N ₄ by Stacked BiOBr Sheets Rich in Oxygen Vacancies for Boosting Photocatalytic Performance. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 4519-4524.	7.2	271
60	Energy level tuning of CdSe colloidal quantum dots in ternary 0D-2D-2D CdSe QD/B-rGO/g-C ₃ N ₄ as photocatalysts for enhanced hydrogen generation. <i>Applied Catalysis B: Environmental</i> , 2020, 265, 118592.	10.8	45
61	Photodeposition of Pt on the Bi ₂ WO ₆ nanosheets under irradiation of 365 nm and 450 nm LED lights. <i>Chemical Physics Letters</i> , 2020, 739, 137019.	1.2	6
62	Bi ₂ O ₃ particles decorated on porous g-C ₃ N ₄ sheets: Enhanced photocatalytic activity through a direct Z-scheme mechanism for degradation of Reactive Black 5 under UV-vis light. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 389, 112289.	2.0	58
63	Plasmonic Bi metal as a co-catalyst deposited on C-doped Bi ₆ O ₆ (OH) ₃ (NO ₃) ₃ ·1.5H ₂ O for efficient visible light photocatalysis. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 389, 112290.	2.0	9
64	BiO nanoparticle loaded on Bi ³⁺ -doped ZnWO ₄ nanorods with oxygen vacancies for enhanced photocatalytic NO removal. <i>Journal of Alloys and Compounds</i> , 2020, 818, 152837.	2.8	25
65	Creation of heterojunction in CdS supported on N, S-rGO for efficient charge separation for photo-reduction of water to hydrogen. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 4095-4112.	3.8	16
66	Emerging layered BiO _{2-x} for photocatalysis: status, challenges, and outlook. <i>Sustainable Energy and Fuels</i> , 2020, 4, 5378-5386.	2.5	19
67	Pyroelectric catalysis. <i>Nano Energy</i> , 2020, 78, 105371.	8.2	73
68	Graphitic carbon nitride-based catalysts and their applications: A review. <i>Nano Structures Nano Objects</i> , 2020, 24, 100577.	1.9	66
69	Hydrogen production from formaldehyde steam reforming using recyclable NiO/NaCl catalyst. <i>Applied Surface Science</i> , 2020, 532, 147376.	3.1	12
70	Engineering the Band-Edge of Fe ₂ O ₃ /ZnO Nanoplates via Separate Dual Cation Incorporation for Efficient Photocatalytic Performance. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 18865-18872.	1.8	66
71	Strain-Engineering of Bi ₁₂ O ₁₇ Br ₂ Nanotubes for Boosting Photocatalytic CO ₂ Reduction. , 2020, 2, 1025-1032.		82
72	Selective oxidation of aniline contaminants via a hydrogen-abstraction pathway by Bi ₂ ·15WO ₆ under visible light and alkaline conditions. <i>Chemosphere</i> , 2020, 261, 127719.	4.2	9

#	ARTICLE	IF	CITATIONS
73	Robust route to highly porous graphitic carbon nitride microtubes with preferred adsorption ability via rational design of one-dimension supramolecular precursors for efficient photocatalytic CO ₂ conversion. Nano Energy, 2020, 77, 105104.	8.2	71
74	Selective Photocatalytic Reduction of CO ₂ to CH ₄ Modulated by Chloride Modification on Bi ₂ WO ₆ Nanosheets. ACS Applied Materials & Interfaces, 2020, 12, 54507-54516.	4.0	62
75	Insights into the impurities of Bi ₂ WO ₆ synthesized using the hydrothermal method. RSC Advances, 2020, 10, 40597-40607.	1.7	16
76	Trace-Level Fluorination of Mesoporous TiO ₂ Improves Photocatalytic and Pb(II) Adsorbent Performances. Inorganic Chemistry, 2020, 59, 17631-17637.	1.9	9
77	One-pot hydrothermal synthesis of dual Z-scheme BiOBr/g-C ₃ N ₄ /Bi ₂ WO ₆ and photocatalytic degradation of tetracycline under visible light. Materials Letters, 2020, 281, 128463.	1.3	26
78	Surface engineered 2D materials for photocatalysis. Chemical Communications, 2020, 56, 11000-11013.	2.2	61
79	Cobalt-doped MoS ₂ enhances the evolution of hydrogen by piezo-electric catalysis under the 850 nm near-infrared light irradiation. New Journal of Chemistry, 2020, 44, 14291-14298.	1.4	13
80	Controllably Engineering Mesoporous Surface and Dimensionality of SnO ₂ toward High-Performance CO ₂ Electroreduction. Advanced Functional Materials, 2020, 30, 2002092.	7.8	76
81	Enhanced Visible Light-Driven Photocatalytic Activities and Photoluminescence Characteristics of BiOF Nanoparticles Determined via Doping Engineering. Inorganic Chemistry, 2020, 59, 11801-11813.	1.9	37
82	Kinetic study of air treatment by photocatalytic paints under indoor radiation source: Influence of ambient conditions and photocatalyst content. Applied Catalysis B: Environmental, 2020, 268, 118694.	10.8	30
83	Fundamentals and challenges of ultrathin 2D photocatalysts in boosting CO ₂ photoreduction. Chemical Society Reviews, 2020, 49, 6592-6604.	18.7	220
84	Hydrogen production from formaldehyde steam reforming using recyclable NiO/NaF catalyst. International Journal of Hydrogen Energy, 2020, 45, 28752-28763.	3.8	14
85	Semiconductor nanocrystals for small molecule activation via artificial photosynthesis. Chemical Society Reviews, 2020, 49, 9028-9056.	18.7	127
86	State-of-the-art advancements in photo-assisted CO ₂ hydrogenation: recent progress in catalyst development and reaction mechanisms. Journal of Materials Chemistry A, 2020, 8, 24868-24894.	5.2	40
87	Fe ₁ /TiO ₂ Hollow Microspheres: Fe and Ti Dual Active Sites Boosting the Photocatalytic Oxidation of NO. Small, 2020, 16, e2004583.	5.2	62
88	Optimizing the Carbon Dioxide Reduction Pathway through Surface Modification by Halogenation. ChemSusChem, 2020, 13, 5638-5646.	3.6	17
89	Fusiform-Shaped g-C ₃ N ₄ Capsules with Superior Photocatalytic Activity. Small, 2020, 16, e2003910.	5.2	47
90	Cl [•] modification for effective promotion of photoelectrochemical water oxidation over BiVO ₄ . Chemical Communications, 2020, 56, 13153-13156.	2.2	13

#	ARTICLE	IF	CITATIONS
91	Identification of Halogen-Associated Active Sites on Bismuth-Based Perovskite Quantum Dots for Efficient and Selective CO ₂ -to-CO Photoreduction. ACS Nano, 2020, 14, 13103-13114.	7.3	282
92	Visible-light-driven photocatalytic selective organic oxidation reactions. Journal of Materials Chemistry A, 2020, 8, 20897-20924.	5.2	60
93	In Situ-Grown Island-Shaped Hollow Graphene on TaON with Spatially Separated Active Sites Achieving Enhanced Visible-Light CO ₂ Reduction. ACS Catalysis, 2020, 10, 15083-15091.	5.5	51
94	Recent progresses on improving CO ₂ adsorption and proton production for enhancing efficiency of photocatalytic CO ₂ reduction by H ₂ O. Green Chemical Engineering, 2020, 1, 33-39.	3.3	19
95	Grinding induced the formation of the heterojunction Bi ₆ O ₅ (OH) ₃ (NO ₃) ₅ ·3H ₂ O/BiOI with improved visible-light photoreactivity. Journal of Nanoparticle Research, 2020, 22, 1.	0.8	2
96	Edge activation of an inert polymeric carbon nitride matrix with boosted absorption kinetics and near-infrared response for efficient photocatalytic CO ₂ reduction. Journal of Materials Chemistry A, 2020, 8, 11761-11772.	5.2	42
97	Influences of silver halides AgX (X = Cl, Br, and I) on magnesium bismuth oxide photocatalyst in methylene blue degradation under visible light irradiation. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 397, 112585.	2.0	12
98	Controllable construction and efficient photocatalysis performance of Bi@Bi ₆ O ₇ FCl ₃ heterostructures exposed with the (012) plane bi-quantum-dots. Materials and Design, 2020, 192, 108737.	3.3	5
99	Atomic Sulfur Passivation Improves the Photoelectrochemical Performance of ZnSe Nanorods. Nanomaterials, 2020, 10, 1081.	1.9	5
100	Construction of 2D/2D Bi ₂ Se ₃ /g-C ₃ N ₄ nanocomposite with High interfacial charge separation and photo-heat conversion efficiency for selective photocatalytic CO ₂ reduction. Applied Catalysis B: Environmental, 2020, 277, 119232.	10.8	140
101	Dual roles of basic bismuth nitrates in the composites: morphology regulation and heterojunction effects. Journal of Materials Science, 2020, 55, 11984-11998.	1.7	6
102	Accelerated generation of hydroxyl radical through surface polarization on BiVO ₄ microtubes for efficient chlortetracycline degradation. Chemical Engineering Journal, 2020, 400, 125871.	6.6	49
103	Influence of the Chemical Compositions of Bismuth Oxyiodides on the Electroreduction of Carbon Dioxide to Formate. ChemPlusChem, 2020, 85, 672-678.	1.3	11
104	BiVO ₄ /Bi ₄ Ti ₃ O ₁₂ heterojunction enabling efficient photocatalytic reduction of CO ₂ with H ₂ O to CH ₃ OH and CO. Applied Catalysis B: Environmental, 2020, 270, 118876.	10.8	179
105	Visible light photocatalytic activity enhancing of MTiO ₃ perovskites by M cation (M = Co, Cu, and Ni) substitution and Gadolinium doping. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 394, 112461.	2.0	26
106	Visible-light-driven selective alcohol dehydrogenation and hydrogenolysis <i>via</i> the Mott Schottky effect. Journal of Materials Chemistry A, 2020, 8, 6854-6862.	5.2	17
107	Thin-layered Photocatalysts. Advanced Functional Materials, 2020, 30, 1910005.	7.8	117
108	Designing a Deep-LIV Nonlinear Optical Fluorooxosilicophosphate. Journal of the American Chemical Society, 2020, 142, 6472-6476.	6.6	89

#	ARTICLE	IF	CITATIONS
109	Facile synthesise of CdS QDs decorated Bi ₂ MoO ₆ /Bi ₂ Mo ₃ O ₁₂ heterojunction photocatalysts and enhanced performance of visible light removal of organic pollutants. Environmental Technology (United Kingdom), 2020, 42, 1-14.	1.2	6
110	Room-temperature controllable synthesis of Bi ₅ O ₇ I nanostrips for improved photocatalytic activity. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 594, 124642.	2.3	18
111	Standalone Solar Carbon-Based Fuel Production Based on Semiconductors. Cell Reports Physical Science, 2020, 1, 100101.	2.8	18
112	Charge steering in ultrathin 2D nanomaterials for photocatalysis. Journal of Materials Chemistry A, 2020, 8, 12928-12950.	5.2	44
113	Self-sacrificing template strategy to non-noble Bi modified BiVO ₄ for promoted visible light photocatalytic performance. Chemical Physics Letters, 2020, 755, 137786.	1.2	7
114	BiOI/Bi ₂ O ₂ [BO ₂ (OH)] heterojunction with boosted photocatalytic degradation performance for diverse pollutants under visible light irradiation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 603, 125184.	2.3	15
115	<i>In situ</i> self-assembly of zirconium metal-organic frameworks onto ultrathin carbon nitride for enhanced visible light-driven conversion of CO ₂ to CO. Journal of Materials Chemistry A, 2020, 8, 6034-6040.	5.2	45
116	Cooperation of oxygen vacancies and 2D ultrathin structure promoting CO ₂ photoreduction performance of Bi ₄ Ti ₃ O ₁₂ . Science Bulletin, 2020, 65, 934-943.	4.3	151
117	Two Covalent Ultraviolet Nonlinear Optical Crystals. Chemistry - an Asian Journal, 2020, 15, 775-779.	1.7	3
118	A facile method for fabricating color adjustable multifunctional cotton fabrics with solid solution BiOBr _{1-x} nanosheets. Cellulose, 2020, 27, 3517-3530.	2.4	6
119	Microwave-assisted hydrothermal synthesis of BiOBr/BiOCl flowerlike composites used for photocatalysis. Research on Chemical Intermediates, 2020, 46, 2117-2135.	1.3	32
120	Enhancement of Solar-Driven Photocatalytic Activity of BiOI Nanosheets through Predominant Exposed High Energy Facets and Vacancy Engineering. Small, 2020, 16, e1904783.	5.2	54
121	Silver-Based Plasmonic Catalysts for Carbon Dioxide Reduction. ACS Sustainable Chemistry and Engineering, 2020, 8, 1879-1887.	3.2	23
122	Macroscopic Spontaneous Polarization and Surface Oxygen Vacancies Collaboratively Boosting CO ₂ Photoreduction on Bi ₃ O ₅ Single Crystals. Advanced Materials, 2020, 32, e1908350.	11.1	372
123	Photocatalytic and Thermometric Characteristics of Er ³⁺ -Activated Bi ₅ IO ₇ Upconverting Microparticles. Advanced Materials Interfaces, 2020, 7, 1902208.	1.9	54
124	Aliovalent-substituted synthesis for a non-centrosymmetric phosphate with enhanced nonlinear-optical response. Journal of Solid State Chemistry, 2020, 288, 121361.	1.4	2
125	Effects of Surface Terminations of 2D Bi ₂ WO ₆ on Photocatalytic Hydrogen Evolution from Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 20067-20074.	4.0	78
126	Hybrid photocatalytic systems comprising a manganese complex anchored on g-C ₃ N ₄ for efficient visible-light photoreduction of CO ₂ . Inorganic Chemistry Communication, 2020, 117, 107951.	1.8	20

#	ARTICLE	IF	CITATIONS
127	A Z-scheme Fe ₂ O ₃ /g-C ₃ N ₄ heterojunction for carbon dioxide to hydrocarbon fuel under visible illuminance. <i>Journal of Colloid and Interface Science</i> , 2020, 575, 265-273.	5.0	49
128	A review of recent progress in gas phase CO ₂ reduction and suggestions on future advancement. <i>Materials Today Chemistry</i> , 2020, 16, 100264.	1.7	27
129	Role of thermal decomposition process in the photocatalytic or photoluminescence properties of BiPO ₄ polymorphs. <i>Water Environment Research</i> , 2020, 92, 1874-1887.	1.3	22
130	Ferroelectric polarization and thin-layered structure synergistically promoting CO ₂ photoreduction of Bi ₂ MoO ₆ . <i>Journal of Materials Chemistry A</i> , 2020, 8, 9268-9277.	5.2	113
131	Ag/BiOI/C enhanced photocatalytic activity under visible light irradiation. <i>Journal of Dispersion Science and Technology</i> , 2021, 42, 1116-1124.	1.3	3
132	Photocatalysis Enhanced by External Fields. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16309-16328.	7.2	218
133	Photocatalysis Enhanced by External Fields. <i>Angewandte Chemie</i> , 2021, 133, 16445-16464.	1.6	20
134	Inside&Out Semiconductor Engineering for CO ₂ Photoreduction: From Recent Advances to New Trends. <i>Small Structures</i> , 2021, 2, 2000061.	6.9	346
135	Enhanced photocatalytic oxidizing ability of Zn _{1-x} In _{2x/3} S solid solution via band structure by composition regulation. <i>Separation and Purification Technology</i> , 2021, 255, 117726.	3.9	12
136	Photocatalysis Within Intrinsic Spontaneous Polarization Electric Field. <i>Solar Rrl</i> , 2021, 5, 2000446.	3.1	18
137	Efficient ytterbium-doped Bi ₂ WO ₆ photocatalysts: Synthesis, the formation of oxygen vacancies and boosted superoxide yield for enhanced visible-light photocatalytic activity. <i>Journal of Alloys and Compounds</i> , 2021, 851, 156935.	2.8	53
138	Recent advances in and comprehensive consideration of the oxidation half reaction in photocatalytic CO ₂ conversion. <i>Journal of Materials Chemistry A</i> , 2021, 9, 87-110.	5.2	30
139	Intermediate excited state suppression and upconversion enhancement of Er ³⁺ ions by carbon-doping boosting photocarrier separation in bismuth oxychloride nanosheets. <i>Journal of Colloid and Interface Science</i> , 2021, 588, 838-846.	5.0	7
140	Nanostructured Metal Sulfides: Classification, Modification Strategy, and Solar-Driven CO ₂ Reduction Application. <i>Advanced Functional Materials</i> , 2021, 31, 2008008.	7.8	221
141	Photocatalytic Oxygen Evolution from Water Splitting. <i>Advanced Science</i> , 2021, 8, 2002458.	5.6	98
142	Charge-transfer-mediated photocatalysis of W ₁₈ O ₄₉ @CdS nanotubes to boost photocatalytic hydrogen production. <i>Applied Surface Science</i> , 2021, 541, 148415.	3.1	30
143	Interface engineering in low-dimensional bismuth-based materials for photoreduction reactions. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2662-2677.	5.2	32
144	Carbonized polymer dots modified ultrathin Bi ₁₂ O ₁₇ Cl ₂ nanosheets Z-scheme heterojunction for robust CO ₂ photoreduction. <i>Chemical Engineering Science</i> , 2021, 232, 116338.	1.9	48

#	ARTICLE	IF	CITATIONS
145	In situ irradiated X-ray photoelectron spectroscopy on Ag-WS ₂ heterostructure for hydrogen production enhancement. <i>Journal of Materiomics</i> , 2021, 7, 320-327.	2.8	7
146	Engineering full hollow and yolk-shell structures of Z-scheme photocatalysts for advanced hydrogen production. <i>Chemical Engineering Journal</i> , 2021, 408, 127267.	6.6	22
147	The In-situ Growth NiFe-layered Double Hydroxides/g-C ₃ N ₄ Nanocomposite 2D/2D Heterojunction for Enhanced Photocatalytic CO ₂ Reduction Performance. <i>Catalysis Letters</i> , 2021, 151, 1683-1692.	1.4	30
148	Nanovilli electrode boosts hydrogen evolution: A surface with superaerophobicity and superhydrophilicity. <i>Nano Research</i> , 2021, 14, 961-968.	5.8	24
149	Atomic-Level Charge Separation Strategies in Semiconductor-Based Photocatalysts. <i>Advanced Materials</i> , 2021, 33, e2005256.	11.1	215
150	Synergetic polarization effect of protonation and Fe-doping on g-C ₃ N ₄ with enhanced photocatalytic activity. <i>Catalysis Science and Technology</i> , 2021, 11, 7125-7133.	2.1	9
151	Facet-selective charge separation in two-dimensional bismuth-based photocatalysts. <i>Catalysis Science and Technology</i> , 2021, 11, 3659-3675.	2.1	17
152	Plasma-induced black bismuth tungstate as a photon harvester for photocatalytic carbon dioxide conversion. <i>New Journal of Chemistry</i> , 2021, 45, 1993-2000.	1.4	11
153	Fabrication of BiOI nanosheets with exposed (001) and (110) facets with different methods for photocatalytic oxidation elemental mercury. <i>Colloids and Interface Science Communications</i> , 2021, 40, 100357.	2.0	22
154	Doping regulation in transition metal compounds for electrocatalysis. <i>Chemical Society Reviews</i> , 2021, 50, 9817-9844.	18.7	245
155	One-Step Block Copolymer Templated Synthesis of Bismuth Oxybromide for Bisphenol A Degradation: An Extended Study from Photocatalysis to Chemical Oxidation. <i>ACS ES&T Water</i> , 2021, 1, 837-846.	2.3	16
156	A fluorine induced enhancement of the surface polarization and crystallization of g-C ₃ N ₄ for an efficient charge separation. <i>New Journal of Chemistry</i> , 2021, 45, 9334-9345.	1.4	8
157	A surface-alkalinized Ti ₃ C ₂ MXene as an efficient cocatalyst for enhanced photocatalytic CO ₂ reduction over ZnO. <i>Catalysis Science and Technology</i> , 2021, 11, 4953-4961.	2.1	35
158	Surface polarization enables high charge separation in TiO ₂ nanorod photoanode. <i>Nano Research</i> , 2021, 14, 4056-4062.	5.8	20
159	Pt nanoparticles embedded spine-like g-C ₃ N ₄ nanostructures with superior photocatalytic activity for H ₂ generation and CO ₂ reduction. <i>Nanotechnology</i> , 2021, 32, 175401.	1.3	23
160	Modulating electron density of vacancy site by single Au atom for effective CO ₂ photoreduction. <i>Nature Communications</i> , 2021, 12, 1675.	5.8	178
161	Potassium and iodide codoped mesoporous titanium dioxide for enhancing photocatalytic degradation of phenolic compounds. <i>Chemical Physics Letters</i> , 2021, 767, 138367.	1.2	18
162	Suppressing Water Dissociation via Control of Intrinsic Oxygen Defects for Awakening Solar H ₂ O ₂ Generation. <i>Small</i> , 2021, 17, e2100400.	5.2	36

#	ARTICLE	IF	CITATIONS
163	Z-Scheme Bi/Bi ₂ O ₃ /CO ₃ /Layered Double-Hydroxide Nanosheet Heterojunctions for Photocatalytic CO ₂ Reduction under Visible Light. ACS Applied Nano Materials, 2021, 4, 4902-4911.	2.4	60
164	Oxygen Vacant Semiconductor Photocatalysts. Advanced Functional Materials, 2021, 31, 2100919.	7.8	242
165	Facile Construction of a Hollow In ₂ S ₃ /Polymeric Carbon Nitride Heterojunction for Efficient Visible-Light-Driven CO ₂ Reduction. ACS Sustainable Chemistry and Engineering, 2021, 9, 5942-5951.	3.2	37
166	Environmental-friendly synthesis of heterojunction photocatalysts g-C ₃ N ₄ /BiPO ₄ with enhanced photocatalytic performance. Applied Surface Science, 2021, 544, 148872.	3.1	61
167	Ag/Ultrathin-Layered Double Hydroxide Nanosheets Induced by a Self-Redox Strategy for Highly Selective CO ₂ Reduction. ACS Applied Materials & Interfaces, 2021, 13, 16536-16544.	4.0	40
168	Z-scheme polyimide/tungsten trioxide aerogel photocatalyst for enhanced photocatalytic CO ₂ reduction under visible light. Nanotechnology, 2021, 32, 315714.	1.3	6
169	Facile synthesis of C ₃ N ₄ -supported metal catalysts for efficient CO ₂ photoreduction. Nano Research, 2022, 15, 551-556.	5.8	57
170	Ultra-Thin Carbon-Doped Bi ₂ WO ₆ Nanosheets for Enhanced Photocatalytic CO ₂ Reduction. Transactions of Tianjin University, 2021, 27, 338-347.	3.3	29
171	Review on Bismuth-Based Photocatalyst for CO ₂ Conversion. ChemNanoMat, 2021, 7, 684-698.	1.5	33
172	Chemically Exfoliated Semiconducting Bimetallic Porphyrinylphosphonate Metal-Organic Layers for Photocatalytic CO ₂ Reduction under Visible Light. ACS Applied Energy Materials, 2021, 4, 4319-4326.	2.5	22
173	2D Graphitic Carbon Nitride for Energy Conversion and Storage. Advanced Functional Materials, 2021, 31, 2102540.	7.8	190
174	Porous catalytic membranes for CO ₂ conversion. Journal of Energy Chemistry, 2021, 63, 74-86.	7.1	14
175	N-doped TiO ₂ -quantum dots tightly anchored on graphene with superior interfacial contact via Ti bond. Applied Organometallic Chemistry, 2021, 35, e6342.	1.7	2
176	Synergistic Polarization Engineering on Bulk and Surface for Boosting CO ₂ Photoreduction. Angewandte Chemie, 2021, 133, 18451-18456.	1.6	19
177	Research progress of defect-engineered UiO-66(Zr) MOFs for photocatalytic hydrogen production. Frontiers in Energy, 2021, 15, 656-666.	1.2	18
178	Recent progress and perspectives in heterogeneous photocatalytic CO ₂ reduction through a solid-gas mode. Coordination Chemistry Reviews, 2021, 438, 213906.	9.5	93
179	Synergy of ferroelectric polarization and oxygen vacancy to promote CO ₂ photoreduction. Nature Communications, 2021, 12, 4594.	5.8	180
180	Emerging applications of MXene materials in CO ₂ photocatalysis. FlatChem, 2021, 28, 100252.	2.8	31

#	ARTICLE	IF	CITATIONS
181	Engineering Cocatalysts onto Low-Dimensional Photocatalysts for CO ₂ Reduction. Small Structures, 2021, 2, 2100046.	6.9	40
182	Synergistic Polarization Engineering on Bulk and Surface for Boosting CO ₂ Photoreduction. Angewandte Chemie - International Edition, 2021, 60, 18303-18308.	7.2	197
183	Investigations of the photoelectrochemical properties of different contents In of In _x Ga _{1-x} N in CO ₂ reduction. Research on Chemical Intermediates, 2021, 47, 4825-4835.	1.3	3
184	Full-spectrum responsive photocatalytic activity via non-noble metal Bi decorated mulberry-like BiVO ₄ . Journal of Materials Science and Technology, 2021, 83, 102-112.	5.6	66
185	Enhancing the Charge Carrier Transfer of ZnFe ₂ O ₄ /C/TiO ₂ Hollow Nanosphere Photocatalyst via Contact Interface Engineering. Industrial & Engineering Chemistry Research, 2021, 60, 12893-12900.	1.8	5
186	Organic Conjugation of Polymeric Carbon Nitride for Improved Photocatalytic CO ₂ Conversion and H ₂ Fixation. Energy Technology, 2021, 9, 2100091.	1.8	22
187	Targeted regulation of exciton dissociation in graphitic carbon nitride by vacancy modification for efficient photocatalytic CO ₂ reduction. Applied Catalysis B: Environmental, 2021, 292, 120179.	10.8	85
188	Copper-triggered delocalization of bismuth p-orbital favours high-throughput CO ₂ electroreduction. Applied Catalysis B: Environmental, 2022, 301, 120781.	10.8	36
189	Insights into the degradation mechanism of perfluorooctanoic acid under visible-light irradiation through fabricating flower-shaped Bi ₅ O ₇ /ZnO n-n heterojunction microspheres. Chemical Engineering Journal, 2021, 420, 129934.	6.6	99
190	Advantageous roles of phosphate decorated octahedral CeO ₂ {111}/g-C ₃ N ₄ in boosting photocatalytic CO ₂ reduction: Charge transfer bridge and Lewis basic site. Applied Catalysis B: Environmental, 2021, 294, 120257.	10.8	107
191	Bi ₄ O ₅ I ₂ -Bi ₅ O ₇ /Ni foam constructed in-situ accelerating interfacial carrier transfer for efficient photocatalysis. Applied Surface Science, 2021, 564, 150485.	3.1	18
192	Promoted charge separation from nickel intervening in [Bi ₂ O ₂] ²⁺ layers of Bi ₂ O ₂ S crystals for enhanced photocatalytic CO ₂ conversion. Applied Catalysis B: Environmental, 2021, 294, 120249.	10.8	69
193	Efficient synthesis of tunable band-gap CuInZnS decorated g-C ₃ N ₄ hybrids for enhanced CO ₂ photocatalytic reduction and near-infrared-triggered photodegradation performance. Applied Surface Science, 2021, 564, 150396.	3.1	21
194	Defect-triggered catalysis with multiple reactive species over bismuth oxyhalides in the dark. Applied Surface Science, 2021, 567, 150765.	3.1	7
195	Defect engineering in metal sulfides for energy conversion and storage. Coordination Chemistry Reviews, 2021, 448, 214147.	9.5	107
196	Probing the role of surface hydroxyls for Bi, Sn and In catalysts during CO ₂ Reduction. Applied Catalysis B: Environmental, 2021, 298, 120581.	10.8	54
197	Unblocked intramolecular charge transfer for enhanced CO ₂ photoreduction enabled by an imidazolium-based ionic conjugated microporous polymer. Applied Catalysis B: Environmental, 2022, 300, 120719.	10.8	25
198	Ultrasound-assisted room-temperature in situ precipitation synthesis of BC doped Bi ₄ O ₅ Br ₂ for enhanced photocatalytic activity in pollutants degradation under visible light. Journal of Alloys and Compounds, 2021, 889, 161609.	2.8	12

#	ARTICLE	IF	CITATIONS
199	Z-scheme Fe ₂ (MoO ₄) ₃ /Ag/Ag ₃ PO ₄ heterojunction with enhanced degradation rate by in-situ generated H ₂ O ₂ : Turning waste (H ₂ O ₂) into wealth (H ₂ CO ₂). Journal of Colloid and Interface Science, 2022, 606, 1800-1810.	5.0	16
200	Z-scheme junction Bi ₂ O ₂ (NO ₃)(OH)/g-C ₃ N ₄ for promoting CO ₂ photoreduction. Chemical Engineering Journal, 2022, 429, 132268.	6.6	27
201	Role of transition metal oxides in g-C ₃ N ₄ -based heterojunctions for photocatalysis and supercapacitors. Journal of Energy Chemistry, 2022, 64, 214-235.	7.1	117
202	Molecular-functionalized engineering of porous carbon nitride nanosheets for wide-spectrum responsive solar fuel generation. Journal of Colloid and Interface Science, 2022, 607, 1061-1070.	5.0	41
203	Energy and environmental catalysis driven by stress and temperature-variation. Journal of Materials Chemistry A, 2021, 9, 12400-12432.	5.2	44
204	Synthesis of efficient Y-Bi ₂ WO ₆ /G visible light photocatalysts with high stability for pollutant degradation. Environmental Science and Pollution Research, 2021, 28, 27864-27877.	2.7	4
205	Hollow Multishelled Structured SrTiO ₃ with La/Rh Co-Doping for Enhanced Photocatalytic Water Splitting under Visible Light. Small, 2021, 17, e2005345.	5.2	38
206	All-in-one polarized Cd/CdS/halloysite ferroelectric hybrid for exceptional photocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2021, 9, 17936-17944.	5.2	22
207	High crystallinity and conjugation promote the polarization degree in O-doped g-C ₃ N ₄ for removing organic pollutants. CrystEngComm, 2021, 23, 1366-1376.	1.3	15
208	Interface engineering of heterojunction photocatalysts based on 1D nanomaterials. Catalysis Science and Technology, 2021, 11, 27-42.	2.1	86
209	Recent advances in surface and interface design of photocatalysts for the degradation of volatile organic compounds. Advances in Colloid and Interface Science, 2020, 284, 102275.	7.0	30
210	Surface defective g-C ₃ N ₄ @Cl with unique spongy structure by polarization effect for enhanced photocatalytic removal of organic pollutants. Journal of Hazardous Materials, 2020, 398, 122897.	6.5	55
211	A retrospective on MXene-based composites for solar fuel production. Pure and Applied Chemistry, 2020, 92, 1953-1969.	0.9	14
212	Supporting ultrathin fish scale-like BiOBr nanosheets on Bi ₆ Mo ₂ O ₁₅ sub-microwires for boosting photocatalytic performance. CrystEngComm, 2021, 23, 7720-7724.	1.3	0
213	Atomic-level insights into surface engineering of semiconductors for photocatalytic CO ₂ reduction. Journal of Energy Chemistry, 2022, 67, 309-341.	7.1	67
214	Van Der Waals gap-rich BiOCl atomic layers realizing efficient, pure-water CO ₂ -to-CO photocatalysis. Nature Communications, 2021, 12, 5923.	5.8	150
215	Construction of Low-Cost Z-scheme Heterostructure Cu ₂ O/PCN for Highly Selective CO ₂ Photoreduction to Methanol with Water Oxidation. Small, 2021, 17, e2103558.	5.2	23
216	Versatile Titanates: Classification, Property, Preparation, and Sustainable Energy Catalysis. Advanced Functional Materials, 2022, 32, 2108350.	7.8	14

#	ARTICLE	IF	CITATIONS
217	Elemental 2D Materials: Solution-Processed Synthesis and Applications in Electrochemical Ammonia Production. <i>Advanced Functional Materials</i> , 2022, 32, 2107280.	7.8	20
218	Investigation of BiVO_4 structure variations on the dichlorotoluene ammoxidation performance. <i>Journal of the Chinese Chemical Society</i> , 2021, 68, 866-870.	0.8	1
219	Janus silver/ternary silver halide nanostructures as plasmonic photocatalysts boost the conversion of CO_2 to acetaldehyde. <i>Nanoscale</i> , 2021, 13, 20289-20298.	2.8	5
220	CO_2 reduction to formic acid via $\text{NH}_2\text{-C@Cu}_2\text{O}$ photocatalyst in situ derived from amino modified Cu-MOF. <i>Journal of CO_2 Utilization</i> , 2021, 54, 101781.	3.3	22
221	Enhancement of double heterojunction $\text{Bi}_{12}\text{SiO}_{20}\text{-Bi}_2\text{O}_2\text{SiO}_3\text{-BiOX}_m\text{Y}_n$ with high Adsorption-Visible catalytic Performance: Synergistic effect of morphology regulation and controllable energy band. <i>Journal of Molecular Liquids</i> , 2022, 348, 118065.	2.3	11
222	Black phosphorus-based heterostructures for photocatalysis and photoelectrochemical water splitting. <i>Journal of Energy Chemistry</i> , 2022, 67, 745-779.	7.1	51
223	Efficient piezocatalytic H_2O_2 production of atomic-level thickness $\text{Bi}_4\text{Ti}_3\text{O}_{12}$ nanosheets with surface oxygen vacancy. <i>Chemical Engineering Journal</i> , 2022, 431, 133930.	6.6	27
224	Trace surface fluorination and tungsten-intercalation cooperated dual modification induced photo-activity enhancement of titanium dioxide. <i>Journal of Industrial and Engineering Chemistry</i> , 2022, 108, 195-202.	2.9	0
225	Ultrathin covalent and cuprophilic interaction-assembled copper-sulfur monolayer in organic metal chalcogenide for oriented photoconductivity. <i>Chemical Communications</i> , 2022, 58, 2858-2861.	2.2	7
226	Efficient Visible-Light Photoreduction of CO_2 to CH_4 over an Fe-Based Metal-Organic Framework (PCN-250- Fe_3) in a Solid-Gas Mode. <i>ACS Applied Energy Materials</i> , 2022, 5, 2384-2390.	2.5	27
227	Coupling morphology control and surface I grafting for boosting the photocatalytic activity of $\text{Bi}_2\text{O}_2[\text{BO}_2(\text{OH})]$ nanosheets. <i>Applied Surface Science</i> , 2022, 582, 152407.	3.1	6
228	Opportunities for Ultrathin 2D Catalysts in Promoting CO_2 Photoreduction. <i>Inorganic Materials Series</i> , 2022, , 65-149.	0.5	1
229	ZnSe Nanorods-Cs SnCl_3 Perovskite Heterojunction Composite for Photocatalytic CO_2 Reduction. <i>ACS Nano</i> , 2022, 16, 3332-3340.	7.3	179
230	FeVO_4 nanowires for efficient photocatalytic CO_2 reduction. <i>Catalysis Science and Technology</i> , 2022, 12, 3289-3294.	2.1	12
231	Excellent photocatalytic rhodamine B degradation for water remediation over Pr^{3+} doped Bi_2WO_6 microspheres. <i>Journal of the Iranian Chemical Society</i> , 2022, 19, 3029-3041.	1.2	5
232	Methane transformation by photocatalysis. <i>Nature Reviews Materials</i> , 2022, 7, 617-632.	23.3	114
233	Emerging Strategies for CO_2 Photoreduction to CH_4 : From Experimental to Data-Driven Design. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	68
234	A Crystalline Partially Fluorinated Triazine Covalent Organic Framework for Efficient Photosynthesis of Hydrogen Peroxide. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	9

#	ARTICLE	IF	CITATIONS
235	Emerging Trends in Sustainable CO ₂ Management Materials. <i>Advanced Materials</i> , 2022, 34, e2201547.	11.1	52
236	A Crystalline Partially Fluorinated Triazine Covalent Organic Framework for Efficient Photosynthesis of Hydrogen Peroxide. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	121
237	Chemically Bonded Fe ₂ O ₃ /Bi ₄ MO ₈ Cl Plate Z-scheme Junction with Strong Internal Electric Field for Selective Photooxidation of Aromatic Alcohols. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	8
238	Rationally design and in-situ fabrication of ultrasall pomegranate-like CdIn ₂ S ₄ /ZnIn ₂ S ₄ Z-scheme heterojunction with abundant vacancies for improving CO ₂ reduction and water splitting. <i>Chemical Engineering Journal</i> , 2022, 442, 136309.	6.6	30
239	Chemically Bonded Fe ₂ O ₃ /Bi ₄ MO ₈ Cl Plate Z-scheme Junction with Strong Internal Electric Field for Selective Photooxidation of Aromatic Alcohols. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	72
240	In situ synthesized Fe ₂ O ₃ /BCN heterojunction for promoting photocatalytic CO ₂ reduction performance. <i>Journal of Colloid and Interface Science</i> , 2022, 621, 311-320.	5.0	15
241	Layered bismuth-based photocatalysts. <i>Coordination Chemistry Reviews</i> , 2022, 463, 214515.	9.5	99
242	Local Spatial Polarization Induced Efficient Charge Separation of Squaraine-Linked COF for Enhanced Photocatalytic Performance. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	56
243	Spontaneous Atomic Sites Formation in Wurtzite CoO Nanorods for Robust CO ₂ Photoreduction. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	16
244	A suspension-mimicking hydrogel-based n-type polymer photocathode for solar-driven water splitting. <i>Cell Reports Physical Science</i> , 2022, 3, 100863.	2.8	2
245	Efficient degradation of organic pollutants by enhanced interfacial internal electric field induced via various crystallinity carbon nitride homojunction. <i>Applied Catalysis B: Environmental</i> , 2022, 312, 121388.	10.8	45
246	Enhanced Photocatalytic Activity for CO ₂ Reduction over a CsPbBr ₃ /CoAl-LDH Composite: Insight into the S-Scheme Charge Transfer Mechanism. <i>ACS Applied Energy Materials</i> , 2022, 5, 6238-6247.	2.5	26
247	Well-construction of Zn ₂ SnO ₄ /SnO ₂ @ZIF-8 core-shell hetero-structure with efficient photocatalytic activity towards tetracycline under restricted space. <i>Chinese Journal of Chemical Engineering</i> , 2022, 52, 45-55.	1.7	8
248	Polarization-induced carrier separation in conjugated polyimide for boosted visible light driven H ₂ O ₂ production. <i>Applied Surface Science</i> , 2022, 594, 153478.	3.1	10
249	Molten-salt assisted synthesis of Cu clusters modified TiO ₂ with oxygen vacancies for efficient photocatalytic reduction of CO ₂ to CO. <i>Chemical Engineering Journal</i> , 2022, 445, 136718.	6.6	34
250	Atomically Thin Bi ₂ O ₃ (OH) _{1+x} (NO ₃) _{1-x} Nanosheets with Regulated Surface Composition for Enhanced Photocatalytic CO ₂ Reduction. <i>ACS Applied Nano Materials</i> , 2022, 5, 7019-7028.	2.4	9
251	Bismuth, a Previously Less-studied Element, Is Bursting into New Hotspots. <i>ChemistrySelect</i> , 2022, 7, .	0.7	3
252	Allotropes selection apropos of photocatalytic CO ₂ reduction from first principles studies. <i>Materials Today Physics</i> , 2022, , 100751.	2.9	3

#	ARTICLE	IF	CITATIONS
253	SnTa2O6: A novel CO2 reduction photocatalyst with nearly 100% CO selectivity. Chemical Engineering Journal, 2022, 446, 137242.	6.6	10
254	Steering Catalytic Activity and Selectivity of CO ₂ Photoreduction to Syngas with Hydroxy-Rich Cu ₂ S@NiCo ₂ O ₃ Double-Shelled Nanoboxes. Angewandte Chemie - International Edition, 2022, 61, .	7.2	38
255	Steering Catalytic Activity and Selectivity of CO ₂ Photoreduction to Syngas with Hydroxy-Rich Cu ₂ S@NiCo ₂ O ₃ Double-Shelled Nanoboxes. Angewandte Chemie, 0, , .	1.6	2
256	Oxygen vacancy triggering the broad-spectrum photocatalysis of bismuth oxyhalide solid solution for ciprofloxacin removal. Journal of Colloid and Interface Science, 2022, 626, 221-230.	5.0	21
257	Anchoring ZnIn ₂ S ₄ nanosheets on ultrathin boron carbon nitride layers for improved photo-redox catalysis. Applied Surface Science, 2022, 599, 153985.	3.1	14
258	Chemical and biological air remediation by photocatalytic building materials. , 2022, , 63-95.		0
259	Metal-induced oxygen vacancies on Bi ₂ WO ₆ for efficient CO ₂ photoreduction. Science China Materials, 2022, 65, 3497-3503.	3.5	13
260	A novel Sillón-structured Bi-based oxybromide: CdBiO ₂ Br ultrathin nanosheets for enhanced photocatalytic activity. Environmental Technology (United Kingdom), 0, , 1-15.	1.2	0
261	Creation of Sn _x Nb _{1-x} O ₂ solid solution through heavy Nb-doping in SnO ₂ to boost its photocatalytic CO ₂ reduction to C ₂ + products under simulated solar illumination. Journal of Advanced Ceramics, 2022, 11, 1404-1416.	8.9	18
262	Surface defect and lattice engineering of Bi ₅ O ₇ Br ultrathin nanosheets for efficient photocatalysis. Nano Research, 2023, 16, 248-255.	5.8	8
263	Fiber-like ZnO with highly dispersed Pt nanoparticles for enhanced photocatalytic CO ₂ reduction. Journal of Colloid and Interface Science, 2022, 628, 768-776.	5.0	22
264	Oxygen-vacancy-induced charge localization and atomic site activation in ultrathin Bi ₄ O ₅ Br ₂ nanotubes for boosted CO ₂ photoreduction. Chemical Engineering Journal, 2023, 452, 139304.	6.6	8
265	Improved photocatalytic activity of Bi ₂ MoO ₆ by modifying the halogen ions (Cl ⁻ , Br ⁻ , or I ⁻) for photoreduction of N ₂ into NH ₃ . Journal of Power Sources, 2022, 547, 231990.	4.0	4
266	Structural optimization and antibacterial property of alkylimidazole salt/carboxymethyl cellulose/starch composite films. Carbohydrate Polymers, 2022, 298, 120098.	5.1	8
267	Adsorbent-to-photocatalyst: Recycling heavy metal cadmium by natural clay mineral for visible-light-driven photocatalytic antibacterial. Journal of Colloid and Interface Science, 2023, 629, 1055-1065.	5.0	8
268	Piezoelectric built-in electric field advancing TiO ₂ for highly efficient photocatalytic air purification. RSC Advances, 2022, 12, 22410-22415.	1.7	1
269	State-of-the-art advancements of atomically thin two-dimensional photocatalysts for energy conversion. Chemical Communications, 2022, 58, 9594-9613.	2.2	10
270	Ruthenium oxychloride supported by manganese oxide for stable oxygen evolution in acidic media. Journal of Materials Chemistry A, 2022, 10, 20964-20974.	5.2	11

#	ARTICLE	IF	CITATIONS
271	Cation vacancy activating surface neighboring sites for efficient CO ₂ photoreduction on Bi ₄ Ti ₃ O ₁₂ nanosheets. Journal of Materials Chemistry A, 2022, 10, 20396-20401.	5.2	11
272	Efficient CO ₂ photoreduction triggered by oxygen vacancies in ultrafine Bi ₅ O ₇ Br nanowires. Applied Catalysis B: Environmental, 2023, 321, 122031.	10.8	20
273	Atomic-level insight of sulfidation-engineered Aurivillius-related Bi ₂ O ₂ SiO ₃ nanosheets enabling visible light low-concentration CO ₂ conversion. , 2023, 5, .		38
274	Defect Engineering and Surface Polarization of TiO ₂ Nanorod Arrays toward Efficient Photoelectrochemical Oxygen Evolution. Catalysts, 2022, 12, 1021.	1.6	5
275	Symmetry breaking for semiconductor photocatalysis. Trends in Chemistry, 2022, 4, 1045-1055.	4.4	17
276	Structure, properties, and characterization of mullite-type materials Bi ₂ Mo ₉ and their applications in photocatalysis: A review. Journal of Environmental Chemical Engineering, 2022, 10, 108640.	3.3	39
277	Enhancing internal electric field by Zn ²⁺ doping for promoting bulk-charge separation and improving visible photocatalytic activity of Bi ₂ YO ₄ Cl. Materials Chemistry Frontiers, 2022, 6, 3613-3624.	3.2	2
278	Encapsulated CdSe/CdS nanorods in double-shelled porous nanocomposites for efficient photocatalytic CO ₂ reduction. Nature Communications, 2022, 13, .	5.8	55
279	Enhanced CO ₂ Photoreduction over Bi ₂ Te ₃ /TiO ₂ Nanocomposite via a Seebeck Effect. Catalysts, 2022, 12, 1323.	1.6	2
280	Bismuth-based materials for CO ₂ photoreduction. Current Opinion in Green and Sustainable Chemistry, 2023, 39, 100718.	3.2	3
281	Boosting photocatalytic CO ₂ reduction by tuning photogenerated carrier kinetics in two-dimensional WO _x /BiOCl S-scheme heterojunction with oxygen vacancies. Journal of Catalysis, 2022, 416, 1-10.	3.1	25
282	Enhanced adsorption and photocatalytic Cr(VI) reduction and sterilization of defective MoS ₂ /PVP. Journal of Colloid and Interface Science, 2023, 630, 742-753.	5.0	16
283	Electronegative Cl ⁻ modified BiVO ₄ photoanode synergized with nickel hydroxide cocatalyst for high-performance photoelectrochemical water splitting. Chemical Engineering Journal, 2023, 454, 140081.	6.6	13
284	Surface-iodination-induced efficient charge separation in bismuth oxysulfide crystals for enhanced photocatalytic CO ₂ conversion. Chemical Engineering Journal, 2023, 453, 139848.	6.6	12
285	Cooperation of congenital and acquisitus sulfur vacancy for excellent photocatalytic hydrogen peroxide evolution of CdS nanorods from air. Chemical Engineering Journal, 2023, 454, 140420.	6.6	14
286	Boosting visible light driven gas-phase photocatalytic reduction of CO ₂ on BiOCl microspheres by enhanced carrier transportation through lattice structure modification. Separation and Purification Technology, 2023, 306, 122654.	3.9	2
287	Photocatalytic CO ₂ Reduction Reactions. RSC Green Chemistry, 2022, , 285-307.	0.0	1
288	Dye-Anchoring Strategy with a Metal-Organic Framework for a Highly Efficient Visible-Light-Driven Photocatalytic CO ₂ Reduction through the Solid-Gas Mode. ACS Applied Energy Materials, 2023, 6, 334-341.	2.5	47

#	ARTICLE	IF	CITATIONS
289	Micro-/nanostructured ZnFe ₂ O ₄ hollow sphere/GO composite for structurally enhanced photocatalysis performance. <i>Rare Metals</i> , 2023, 42, 813-821.	3.6	10
290	In Situ Construction of Closely Bonded S-Scheme BiOI@Bi ₂ O ₃ (OH)(NO ₃) Heterojunctions for Boosted Visible-Light-Driven Photocatalytic Activity. <i>ACS Applied Energy Materials</i> , 2022, 5, 15729-15739.	2.5	9
291	Synergyâ€ Compensation Effect of Ferroelectric Polarization and Cationic Vacancy Collaboratively Promoting CO ₂ Photoreduction. <i>Small</i> , 2023, 19, .	5.2	10
292	Fight for carbon neutrality with state-of-the-art negative carbon emission technologies. , 2022, 1, 259-279.		18
293	Halogenâ€ Incorporated Sn Catalysts for Selective Electrochemical CO ₂ Reduction to Formate. <i>Angewandte Chemie</i> , 0, , .	1.6	0
294	Halogenâ€ Incorporated Sn Catalysts for Selective Electrochemical CO ₂ Reduction to Formate. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	36
295	Interfacial engineering in two-dimensional heterojunction photocatalysts. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 12257-12287.	3.8	16
296	Single-atom catalysts for energy conversion. <i>Journal of Materials Chemistry A</i> , 2023, 11, 2568-2594.	5.2	11
297	Construction of Bi ₂ O ₃ quantum Dots/SrBi ₄ Ti ₄ O ₁₅ S-scheme heterojunction with enhanced photocatalytic CO ₂ reduction: Role of Bi ₂ O ₃ quantum dots and mechanism study. <i>Separation and Purification Technology</i> , 2023, 309, 123064.	3.9	20
298	Boosting exciton dissociation and charge transfer by regulating dielectric constant in polymer carbon nitride for CO ₂ photoreduction. <i>Applied Catalysis B: Environmental</i> , 2023, 327, 122417.	10.8	15
299	High Efficiency Photocatalyst with Ultraâ€ Fine Pd NPs Constructed at Room Temperature for CO ₂ Reduction. <i>ChemistrySelect</i> , 2023, 8, .	0.7	0
300	Substitution and oxygen vacancy double defects on Bi ₂ MoO ₆ induced efficient conversion of CO ₂ and highly selective production of CH ₄ . <i>Applied Surface Science</i> , 2023, 617, 156605.	3.1	8
301	Recent advances in 2D semiconductor nanomaterials for photocatalytic CO ₂ reduction. <i>Nano Research</i> , 2023, 16, 8542-8569.	5.8	7
314	Semiconductor-based artificial photosynthesis for water-splitting and CO ₂ reduction. , 2023, , 377-405.		0