

Shicheng Yan

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103
papers

4,195
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35
h-index

63
g-index

107
ext. papers

4,951
ext. citations

11.2
avg, IF

5.62
L-index

#	Paper	IF	Citations
103	High-yield synthesis of ultralong and ultrathin Zn ₂ GeO ₄ nanoribbons toward improved photocatalytic reduction of CO ₂ into renewable hydrocarbon fuel. <i>Journal of the American Chemical Society</i> , 2010 , 132, 14385-7	16.4	553
102	Solar hydrogen generation from seawater with a modified BiVO ₄ photoanode. <i>Energy and Environmental Science</i> , 2011 , 4, 4046	35.4	486
101	An In Situ Simultaneous Reduction-Hydrolysis Technique for Fabrication of TiO ₂ -Graphene 2D Sandwich-Like Hybrid Nanosheets: Graphene-Promoted Selectivity of Photocatalytic-Driven Hydrogenation and Coupling of CO ₂ into Methane and Ethane. <i>Advanced Functional Materials</i> , 2013 , 23, 1713-1718	15.6	318
100	Sol-gel hydrothermal synthesis of visible-light-driven Cr-doped SrTiO ₃ for efficient hydrogen production. <i>Journal of Materials Chemistry</i> , 2011 , 21, 11347		138
99	Facile temperature-controlled synthesis of hexagonal Zn ₂ GeO ₄ nanorods with different aspect ratios toward improved photocatalytic activity for overall water splitting and photoreduction of CO ₂ . <i>Chemical Communications</i> , 2011 , 47, 5632-4	5.8	138
98	A Facet-Dependent Schottky-Junction Electron Shuttle in a BiVO ₄ {010}Au/TiO ₂ Z-Scheme Photocatalyst for Efficient Charge Separation. <i>Advanced Functional Materials</i> , 2018 , 28, 1801214	15.6	125
97	Solar fuel production: Strategies and new opportunities with nanostructures. <i>Nano Today</i> , 2015 , 10, 468-486	17.6	112
96	A simple and efficient strategy for the synthesis of a chemically tailored g-C ₃ N ₄ material. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 17521-17529	13	96
95	The charge carrier dynamics, efficiency and stability of two-dimensional material-based perovskite solar cells. <i>Chemical Society Reviews</i> , 2019 , 48, 4854-4891	58.5	83
94	Oxygen-Vacancy-Activated CO ₂ Splitting over Amorphous Oxide Semiconductor Photocatalyst. <i>ACS Catalysis</i> , 2018 , 8, 516-525	13.1	80
93	Zinc Gallogermanate Solid Solution: A Novel Photocatalyst for Efficiently Converting CO ₂ into Solar Fuels. <i>Advanced Functional Materials</i> , 2013 , 23, 1839-1845	15.6	79
92	La ₂ O ₃ -Modified LaTiO ₂ N Photocatalyst with Spatially Separated Active Sites Achieving Enhanced CO ₂ Reduction. <i>Advanced Functional Materials</i> , 2017 , 27, 1702447	15.6	66
91	An Ion-Exchange Phase Transformation to ZnGa ₂ O ₄ Nanocube Towards Efficient Solar Fuel Synthesis. <i>Advanced Functional Materials</i> , 2013 , 23, 758-763	15.6	63
90	Enhanced Water-Splitting Performance of Perovskite SrTaO ₂ N Photoanode Film through Ameliorating Interparticle Charge Transport. <i>Advanced Functional Materials</i> , 2016 , 26, 7156-7163	15.6	63
89	BiVO ₄ nanoleaves: Mild synthesis and improved photocatalytic activity for O ₂ production under visible light irradiation. <i>CrystEngComm</i> , 2011 , 13, 2500	3.3	57
88	Sacrificing ionic liquid-assisted anchoring of carbonized polymer dots on perovskite-like PbBiO ₂ Br for robust CO ₂ photoreduction. <i>Applied Catalysis B: Environmental</i> , 2019 , 254, 551-559	21.8	55
87	Surface states as electron transfer pathway enhanced charge separation in TiO ₂ nanotube water splitting photoanodes. <i>Applied Catalysis B: Environmental</i> , 2018 , 234, 100-108	21.8	54

86	Efficient conversion of CO ₂ and H ₂ O into hydrocarbon fuel over ZnAl ₂ O ₄ -modified mesoporous ZnGaNO under visible light irradiation. <i>Chemical Communications</i> , 2012 , 48, 1048-50	5.8	54
85	Facile synthesis of anatase TiO ₂ mesocrystal sheets with dominant {001} facets based on topochemical conversion. <i>CrystEngComm</i> , 2010 , 12, 3425	3.3	54
84	Frustrated Lewis Pairs Accelerating CO ₂ Reduction on Oxyhydroxide Photocatalysts with Surface Lattice Hydroxyls as a Solid-State Proton Donor. <i>Advanced Functional Materials</i> , 2018 , 28, 1804191	15.6	54
83	Atom vacancies induced electron-rich surface of ultrathin Bi nanosheet for efficient electrochemical CO ₂ reduction. <i>Applied Catalysis B: Environmental</i> , 2020 , 266, 118625	21.8	53
82	Silicon Photoanodes Partially Covered by Ni@Ni(OH) ₂ Core-Shell Particles for Photoelectrochemical Water Oxidation. <i>ChemSusChem</i> , 2017 , 10, 2897-2903	8.3	49
81	CoS ₂ @N-doped carbon core-shell nanorod array grown on Ni foam for enhanced electrocatalytic water oxidation. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 6795-6803	13	45
80	Effective separation and transfer of carriers into the redox sites on Ta ₃ N ₅ /Bi photocatalyst for promoting conversion of CO ₂ into CH ₄ . <i>Applied Catalysis B: Environmental</i> , 2018 , 224, 10-16	21.8	44
79	Synthesis of a mesoporous single crystal Ga ₂ O ₃ nanoplate with improved photoluminescence and high sensitivity in detecting CO. <i>Chemical Communications</i> , 2010 , 46, 6388-90	5.8	44
78	Non-oxide semiconductors for artificial photosynthesis: Progress on photoelectrochemical water splitting and carbon dioxide reduction. <i>Nano Today</i> , 2020 , 30, 100830	17.9	42
77	Schottky junction effect enhanced plasmonic photocatalysis by TaON@Ni NP heterostructures. <i>Chemical Communications</i> , 2019 , 55, 11754-11757	5.8	38
76	In-Situ Formed Hydroxide Accelerating Water Dissociation Kinetics on CoN for Hydrogen Production in Alkaline Solution. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 22102-22109	9.5	38
75	Direct Growth of Fe ₂ V ₄ O ₁₃ Nanoribbons on a Stainless-Steel Mesh for Visible-Light Photoreduction of CO ₂ into Renewable Hydrocarbon Fuel and Degradation of Gaseous Isopropyl Alcohol. <i>ChemPlusChem</i> , 2013 , 78, 274-278	2.8	38
74	Tuning the ion permeability of an Al ₂ O ₃ coating layer on Fe ₂ O ₃ photoanodes for improved photoelectrochemical water oxidation. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 8402-8407	13	37
73	Defect Engineering in Semiconductors: Manipulating Nonstoichiometric Defects and Understanding Their Impact in Oxynitrides for Solar Energy Conversion. <i>Advanced Functional Materials</i> , 2019 , 29, 1808389	15.6	37
72	Balancing Catalytic Activity and Interface Energetics of Electrocatalyst-Coated Photoanodes for Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 3624-3633	9.5	37
71	Mg-doped Ta ₃ N ₅ nanorods coated with a conformal CoOOH layer for water oxidation: bulk and surface dual modification of photoanodes. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 20439-20447	13	37
70	Oxygen related recombination defects in Ta ₃ N ₅ water splitting photoanode. <i>Applied Physics Letters</i> , 2015 , 107, 171902	3.4	36
69	Unlocking the potential of graphene for water oxidation using an orbital hybridization strategy. <i>Energy and Environmental Science</i> , 2018 , 11, 407-416	35.4	35

68	Nanostructured TaON/TaN as a highly efficient type-II heterojunction photoanode for photoelectrochemical water splitting. <i>Dalton Transactions</i> , 2018 , 47, 8949-8955	4.3	35
67	Surface electric field driven directional charge separation on Ta ₃ N ₅ cuboids enhancing photocatalytic solar energy conversion. <i>Applied Catalysis B: Environmental</i> , 2018 , 237, 742-752	21.8	35
66	Oriented Growth of Sc-Doped Ta ₃ N ₅ Nanorod Photoanode Achieving Low-Onset-Potential for Photoelectrochemical Water Oxidation. <i>ACS Applied Energy Materials</i> , 2018 , 1, 4150-4157	6.1	32
65	Ultralong metaheewettite CaV ₆ O ₁₆ ·nH ₂ O nanoribbons as novel host materials for lithium storage: Towards high-rate and excellent long-term cyclability. <i>Nano Energy</i> , 2016 , 22, 38-47	17.1	31
64	An anion-controlled crystal growth route to Zn ₂ GeO ₄ nanorods for efficient photocatalytic conversion of CO ₂ into CH ₄ . <i>Dalton Transactions</i> , 2013 , 42, 12975-9	4.3	29
63	Tuning the transport behavior of centimeter-scale WTe ₂ ultrathin films fabricated by pulsed laser deposition. <i>Applied Physics Letters</i> , 2017 , 111, 031906	3.4	29
62	ZnO plates synthesized from the ammonium zinc nitrate hydroxide precursor. <i>CrystEngComm</i> , 2012 , 14, 154-159	3.3	29
61	Interface Manipulation to Improve Plasmon-Coupled Photoelectrochemical Water Splitting on Fe ₃ O ₄ Photoanodes. <i>ChemSusChem</i> , 2018 , 11, 237-244	8.3	28
60	Two-step reactive template route to a mesoporous ZnGaNO solid solution for improved photocatalytic performance. <i>Journal of Materials Chemistry</i> , 2011 , 21, 5682		28
59	In Situ-Grown Island-Shaped Hollow Graphene on TaON with Spatially Separated Active Sites Achieving Enhanced Visible-Light CO ₂ Reduction. <i>ACS Catalysis</i> , 2020 , 10, 15083-15091	13.1	25
58	Inhibiting Hydrogen Evolution using a Chloride Adlayer for Efficient Electrochemical CO Reduction on Zn Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 4565-4571	9.5	25
57	Low onset potential on single crystal Ta ₃ N ₅ polyhedron array photoanode with preferential exposure of {001} facets. <i>Applied Catalysis B: Environmental</i> , 2018 , 237, 665-672	21.8	24
56	Back Electron Transfer at TiO ₂ Nanotube Photoanodes in the Presence of a HO Hole Scavenger. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 33887-33895	9.5	24
55	Solvothermal synthesis of monodisperse iron oxides with various morphologies and their applications in removal of Cr(VI). <i>CrystEngComm</i> , 2011 , 13, 2727	3.3	24
54	Surface chemistry imposes selective reduction of CO ₂ to CO over Ta ₃ N ₅ /LaTiO ₂ N photocatalyst. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 14838-14846	13	23
53	CO ₂ photoreduction on hydroxyl-group-rich mesoporous single crystal TiO ₂ . <i>Applied Surface Science</i> , 2018 , 427, 603-607	6.7	22
52	Visible light driven TaON/V ₂ O ₅ heterojunction photocatalyst for deep elimination of volatile-aromatic compounds. <i>Applied Catalysis B: Environmental</i> , 2019 , 245, 220-226	21.8	22
51	Temperature-controlled evolution of microstructures that promote charge separation in a TaON photoanode for enhanced solar energy conversion. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 12848-12855	13	21

50	Oriented-growth Ta ₃ N ₅ /SrTaO ₂ N array heterojunction with extended depletion region for improved water oxidation. <i>Applied Catalysis B: Environmental</i> , 2020 , 269, 118777	21.8	19
49	Understanding spatial effects of tetrahedral and octahedral cobalt cations on peroxydisulfate activation for efficient pollution degradation. <i>Applied Catalysis B: Environmental</i> , 2021 , 291, 120072	21.8	19
48	Highly selective electrochemical CO ₂ reduction to CO using a redox-active couple on low-crystallinity mesoporous ZnGa ₂ O ₄ catalyst. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 9316-9323	13	18
47	Oriented attachment growth of hundred-nanometer-size LaTaON ₂ single crystals in molten salts for enhanced photoelectrochemical water splitting. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 7706-7713 ¹³	13	18
46	TaN nanorods encapsulated into 3D hydrangea-like MoS for enhanced photocatalytic hydrogen evolution under visible light irradiation. <i>Dalton Transactions</i> , 2019 , 48, 13176-13183	4.3	18
45	Dual-metal hydroxide with ordering frustrated Lewis pairs for photoactivating CO ₂ to CO. <i>Applied Catalysis B: Environmental</i> , 2021 , 283, 119639	21.8	16
44	Inorganic ions promoted photocatalysis based on polymer photocatalyst. <i>Applied Catalysis B: Environmental</i> , 2014 , 158-159, 321-328	21.8	15
43	One-step synthesis of IrO ₂ -decorated ultrathin NiFe LDH nanosheets for efficient oxygen evolution reaction. <i>Chemical Communications</i> , 2020 , 56, 11465-11468	5.8	15
42	Molten salt-assisted a-axis-oriented growth of Ta ₃ N ₅ nanorod arrays with enhanced charge transport for efficient photoelectrochemical water oxidation. <i>CrystEngComm</i> , 2018 , 20, 5364-5369	3.3	14
41	Solid Solution Photocatalyst with Spontaneous Polarization Exhibiting Low Recombination Toward Efficient CO ₂ Photoreduction. <i>ChemSusChem</i> , 2016 , 9, 2064-8	8.3	14
40	Incorporating p-Phenylene as an Electron-Donating Group into Graphitic Carbon Nitride for Efficient Charge Separation. <i>ChemSusChem</i> , 2019 , 12, 4285-4292	8.3	13
39	Basic Molten Salt Route to Prepare Porous SrTiO ₃ Nanocrystals for Efficient Photocatalytic Hydrogen Production. <i>European Journal of Inorganic Chemistry</i> , 2014 , 2014, 3731-3735	2.3	13
38	Novel Cobalt Germanium Hydroxide for Electrochemical Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 30357-30366	9.5	12
37	Formation of 3D interconnectively macro/mesoporous TiO ₂ sponges through gelation of lotus root starch toward CO ₂ photoreduction into hydrocarbon fuels. <i>RSC Advances</i> , 2014 , 4, 43172-43177	3.7	12
36	Reactive Inorganic Vapor Deposition of Perovskite Oxynitride Films for Solar Energy Conversion. <i>Research</i> , 2019 , 2019, 9282674	7.8	12
35	High-Performance and Stable Silicon Photoanode Modified by Crystalline Ni@ Amorphous Co Core-Shell Nanoparticles. <i>ChemCatChem</i> , 2018 , 10, 5025-5031	5.2	11
34	ALD-grown oxide protective layers on Ta ₃ N ₅ /Ti ₂ O ₃ nanoarray heterojunction for improved photoelectrochemical water splitting. <i>Applied Physics Letters</i> , 2020 , 117, 163902	3.4	9
33	KOH-modified Ni/LaTiO ₂ N Schottky junction efficiently reducing CO ₂ to CH ₄ under visible light irradiation. <i>Applied Catalysis B: Environmental</i> , 2019 , 244, 786-794	21.8	9

32	One-step synthesis of single crystalline wedge-shaped Ta ₃ N ₅ nanoflakes with ultrathin top ends. <i>CrystEngComm</i> , 2019 , 21, 2980-2984	3.3	7
31	Modeling of Zinc Bromine redox flow battery with application to channel design. <i>Journal of Power Sources</i> , 2020 , 450, 227436	8.9	7
30	Ultrafast Fenton-like reaction route to FeOOH/NiFe-LDH heterojunction electrode for efficient oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> ,	13	7
29	Lewis acid activated CO reduction over a Ni modified Ni-Ge hydroxide driven by visible-infrared light. <i>Dalton Transactions</i> , 2019 , 48, 1672-1679	4.3	6
28	In Situ Determination of Polaron-Mediated Ultrafast Electron Trapping in Rutile TiO Nanorod Photoanodes. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 10815-10822	6.4	6
27	Direct Electrochemical Protonation of Metal Oxide Particles. <i>Journal of the American Chemical Society</i> , 2021 , 143, 9236-9243	16.4	6
26	Inorganic Frustrated Lewis Pairs in Photocatalytic CO ₂ Reduction. <i>ChemPhotoChem</i> , 2021 , 5, 495-501	3.3	6
25	Catalytic reduction of NO _x by CO over a Ni ₂ Co based oxide catalyst. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 15133-15140	13	5
24	Formation of Hexagonal PdSe ₂ for Electronics and Catalysis. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 10935-10940	3.8	5
23	Polaron States as a Massive Electron-Transfer Pathway at Heterojunction Interface. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 9184-9194	6.4	5
22	Enhanced charge separation by oriented growth of Ta ₃ N ₅ -Cu ₂ O n-p array heterojunction. <i>Applied Physics Letters</i> , 2019 , 114, 132105	3.4	4
21	Synthesis of Hydroxyl-Group-Rich Single-Crystalline SrTaO ₂ N from Single-Crystalline NaTaO ₃ by Topotactic Transformation. <i>Crystal Growth and Design</i> , 2020 , 20, 4307-4312	3.5	4
20	Ni ₂ P as an electron donor stabilizing Pt for highly efficient isopropanol fuel cell. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 6573-6582	6.7	4
19	Anatase Mg _{0.05} Ta _{0.95} O _{1.15} N _{0.85} : a novel photocatalyst for solar hydrogen production. <i>RSC Advances</i> , 2016 , 6, 86240-86244	3.7	4
18	In situ formed oxy/hydroxide antennas accelerating the water dissociation kinetics on a Co@N-doped carbon core-shell assembly for hydrogen production in alkaline solution. <i>Dalton Transactions</i> , 2019 , 48, 11927-11933	4.3	4
17	Silicon Photoanode Modified with Work-function-tuned Ni@Fe Ni (OH) Core-Shell Particles for Water Oxidation. <i>ChemSusChem</i> , 2020 , 13, 6037-6044	8.3	4
16	Low-Work-Function Silver Activating N-doped Graphene as Efficient Oxygen Reduction Catalysts in Acidic Medium. <i>ChemCatChem</i> , 2018 , 11, 1033	5.2	4
15	A hierarchical dual-phase photoetching template route to assembling functional layers on Si photoanode with tunable nanostructures for efficient water splitting. <i>Applied Catalysis B: Environmental</i> , 2019 , 259, 118115	21.8	3

14	N-Doped Graphene-Coated Commercial Pt/C Catalysts toward High-Stability and Antipoisoning in Oxygen Reduction Reaction.. <i>Journal of Physical Chemistry Letters</i> , 2022 , 13, 2019-2026	6.4	3
13	A phase transformation-free redox couple mediated electrocatalytic oxygen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2022 , 306, 121146	21.8	2
12	Spin unlocking oxygen evolution reaction on antiperovskite nitrides. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 25435-25444	13	2
11	Selectively triggering photoelectrons for CO ₂ -to-CH ₄ reduction over {110} SrTiO ₃ with dual-metal sites. <i>Nanotechnology</i> , 2021 ,	3.4	2
10	Surface polaron states on single-crystal rutile TiO nanorod arrays enhancing charge separation and transfer. <i>Dalton Transactions</i> , 2020 , 49, 15054-15060	4.3	2
9	Silicon photoanodes partially covered by Ni@Fe core-shell particles with in situ formed gradient-enhanced junction electric field for photoelectrochemical water oxidation. <i>Applied Physics Letters</i> , 2019 , 115, 213904	3.4	2
8	A Novel Visible-Light-Responsive Semiconductor ScTaO ₄ N x for Photocatalytic Oxygen and Hydrogen Evolution Reactions. <i>ChemCatChem</i> , 2021 , 13, 180-184	5.2	2
7	Crystal facet-dependent frustrated Lewis pairs on dual-metal hydroxide for photocatalytic CO ₂ reduction. <i>Applied Catalysis B: Environmental</i> , 2022 , 300, 120748	21.8	2
6	Galvanic cell reaction driven electrochemical doping of TiO nanotube photoanodes for enhanced charge separation. <i>Chemical Communications</i> , 2018 , 54, 11116-11119	5.8	1
5	Heat-Electricity Coupling Driven Cascade Oxidation Reaction of Redox Couple and Water.. <i>Journal of Physical Chemistry Letters</i> , 2021 , 49-57	6.4	1
4	Bi particles with exposed (012) facet on 3D substrate as highly active and durable electrode for CO ₂ reduction to formate. <i>Journal of CO₂ Utilization</i> , 2022 , 55, 101797	7.6	1
3	Solid-state redox couple mediated water splitting. <i>Dalton Transactions</i> , 2021 , 50, 2722-2725	4.3	1
2	Synthesis of mesoporous strontium titanate by molten salt assisted template-free method. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 4325-4332	3.8	0
1	Heat-Triggered Ferri-to-Paramagnetic Transition Accelerates Redox Couple-Mediated Electrocatalytic Water Oxidation. <i>Advanced Functional Materials</i> , 2111234	15.6	0