Shicheng Yan

List of Publications by Year in Descending Order

103 papers	4,195 citations	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	A phase transformation-free redox couple mediated electrocatalytic oxygen evolution reaction. *Applied Catalysis B: Environmental*, **2022**, 306, 121146	21.8	2
102	Bi particles with exposed (012) facet on 3D substrate as highly active and durable electrode for CO2 reduction to formate. *Journal of CO2 Utilization*, **2022**, 55, 101797	7.6	1
101	Crystal facet-dependent frustrated Lewis pairs on dual-metal hydroxide for photocatalytic CO2 reduction. *Applied Catalysis B: Environmental*, **2022**, 300, 120748	21.8	2
100	N-Doped Graphene-Coated Commercial Pt/C Catalysts toward High-Stability and Antipoisoning in Oxygen Reduction Reaction.. *Journal of Physical Chemistry Letters*, **2022**, 13, 2019-2026	6.4	3
99	Heat-Electricity Coupling Driven Cascade Oxidation Reaction of Redox Couple and Water.. *Journal of Physical Chemistry Letters*, **2021**, 49-57	6.4	1
98	In Situ Determination of Polaron-Mediated Ultrafast Electron Trapping in Rutile TiO Nanorod Photoanodes. *Journal of Physical Chemistry Letters*, **2021**, 12, 10815-10822	6.4	6
97	Spin unlocking oxygen evolution reaction on antiperovskite nitrides. *Journal of Materials Chemistry A*, **2021**, 9, 25435-25444	13	2
96	Selectively triggering photoelectrons for CO2-to-CH4 reduction over {110} SrTiO3 with dual-metal sites. *Nanotechnology*, **2021**,	3.4	2
95	Direct Electrochemical Protonation of Metal Oxide Particles. *Journal of the American Chemical Society*, **2021**, 143, 9236-9243	16.4	6
94	Dual-metal hydroxide with ordering frustrated Lewis pairs for photoactivating CO2 to CO. *Applied Catalysis B: Environmental*, **2021**, 283, 119639	21.8	16
93	A Novel Visible-Light-Responsive Semiconductor ScTaO 4 N x for Photocatalytic Oxygen and Hydrogen Evolution Reactions. *ChemCatChem*, **2021**, 13, 180-184	5.2	2
92	Inorganic Frustrated Lewis Pairs in Photocatalytic CO2 Reduction. *ChemPhotoChem*, **2021**, 5, 495-501	3.3	6
91	Understanding spatial effects of tetrahedral and octahedral cobalt cations on peroxymonosulfate activation for efficient pollution degradation. *Applied Catalysis B: Environmental*, **2021**, 291, 120072	21.8	19
90	Solid-state redox couple mediated water splitting. *Dalton Transactions*, **2021**, 50, 2722-2725	4.3	1
89	In Situ-Grown Island-Shaped Hollow Graphene on TaON with Spatially Separated Active Sites Achieving Enhanced Visible-Light CO2 Reduction. *ACS Catalysis*, **2020**, 10, 15083-15091	13.1	25
88	Synthesis of Hydroxyl-Group-Rich Single-Crystalline SrTaO2N from Single-Crystalline NaTaO3 by Topotactic Transformation. *Crystal Growth and Design*, **2020**, 20, 4307-4312	3.5	4
87	CoS2@N-doped carbon core shell nanorod array grown on Ni foam for enhanced electrocatalytic water oxidation. *Journal of Materials Chemistry A*, **2020**, 8, 6795-6803	13	45

86	Oriented-growth Ta3N5/SrTaO2N array heterojunction with extended depletion region for improved water oxidation. *Applied Catalysis B: Environmental*, **2020**, 269, 118777	21.8	19
85	Ni2P as an electron donor stabilizing Pt for highly efficient isopropanol fuel cell. *International Journal of Hydrogen Energy*, **2020**, 45, 6573-6582	6.7	4
84	Atom vacancies induced electron-rich surface of ultrathin Bi nanosheet for efficient electrochemical CO2 reduction. *Applied Catalysis B: Environmental*, **2020**, 266, 118625	21.8	53
83	Formation of Hexagonal PdSe2 for Electronics and Catalysis. *Journal of Physical Chemistry C*, **2020**, 124, 10935-10940	3.8	5
82	Polaron States as a Massive Electron-Transfer Pathway at Heterojunction Interface. *Journal of Physical Chemistry Letters*, **2020**, 11, 9184-9194	6.4	5
81	Modeling of Zinc Bromine redox flow battery with application to channel design. *Journal of Power Sources*, **2020**, 450, 227436	8.9	7
80	Non-oxide semiconductors for artificial photosynthesis: Progress on photoelectrochemical water splitting and carbon dioxide reduction. *Nano Today*, **2020**, 30, 100830	17.9	42
79	Inhibiting Hydrogen Evolution using a Chloride Adlayer for Efficient Electrochemical CO Reduction on Zn Electrodes. *ACS Applied Materials & Interfaces*, **2020**, 12, 4565-4571	9.5	25
78	Silicon Photoanode Modified with Work-function-tuned Ni@Fe Ni (OH) Core-Shell Particles for Water Oxidation. *ChemSusChem*, **2020**, 13, 6037-6044	8.3	4
77	ALD-grown oxide protective layers on Ta3N5□Cu2O n□ nanoarray heterojunction for improved photoelectrochemical water splitting. *Applied Physics Letters*, **2020**, 117, 163902	3.4	9
76	Surface polaron states on single-crystal rutile TiO nanorod arrays enhancing charge separation and transfer. *Dalton Transactions*, **2020**, 49, 15054-15060	4.3	2
75	One-step synthesis of IrO-decorated ultrathin NiFe LDH nanosheets for efficient oxygen evolution reaction. *Chemical Communications*, **2020**, 56, 11465-11468	5.8	15
74	Schottky junction effect enhanced plasmonic photocatalysis by TaON@Ni NP heterostructures. *Chemical Communications*, **2019**, 55, 11754-11757	5.8	38
73	A hierarchical dual-phase photoetching template route to assembling functional layers on Si photoanode with tunable nanostructures for efficient water splitting. *Applied Catalysis B: Environmental*, **2019**, 259, 118115	21.8	3
72	Lewis acid activated CO reduction over a Ni modified Ni-Ge hydroxide driven by visible-infrared light. *Dalton Transactions*, **2019**, 48, 1672-1679	4.3	6
71	Defect Engineering in Semiconductors: Manipulating Nonstoichiometric Defects and Understanding Their Impact in Oxynitrides for Solar Energy Conversion. *Advanced Functional Materials*, **2019**, 29, 1808389	15.6	37
70	Sacrificing ionic liquid-assisted anchoring of carbonized polymer dots on perovskite-like PbBiO2Br for robust CO2 photoreduction. *Applied Catalysis B: Environmental*, **2019**, 254, 551-559	21.8	55
69	One-step synthesis of single crystalline wedge-shaped Ta3N5 nanoflakes with ultrathin top ends. *CrystEngComm*, **2019**, 21, 2980-2984	3.3	7

68	Enhanced charge separation by oriented growth of Ta3N5-Cu2O n-p array heterojunction. *Applied Physics Letters*, **2019**, 114, 132105	3.4	4
67	Highly selective electrochemical CO2 reduction to CO using a redox-active couple on low-crystallinity mesoporous ZnGa2O4 catalyst. *Journal of Materials Chemistry A*, **2019**, 7, 9316-9323	13	18
66	The charge carrier dynamics, efficiency and stability of two-dimensional material-based perovskite solar cells. *Chemical Society Reviews*, **2019**, 48, 4854-4891	58.5	83
65	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. *Dalton Transactions*, **2019**, 48, 11927-11933	4.3	4
64	Incorporating p-Phenylene as an Electron-Donating Group into Graphitic Carbon Nitride for Efficient Charge Separation. *ChemSusChem*, **2019**, 12, 4285-4292	8.3	13
63	TaN nanorods encapsulated into 3D hydrangea-like MoS for enhanced photocatalytic hydrogen evolution under visible light irradiation. *Dalton Transactions*, **2019**, 48, 13176-13183	4.3	18
62	Reactive Inorganic Vapor Deposition of Perovskite Oxynitride Films for Solar Energy Conversion. *Research*, **2019**, 2019, 9282674	7.8	12
61	Synthesis of mesoporous strontium titanate by molten salt assisted template-free method. *Journal of the American Ceramic Society*, **2019**, 102, 4325-4332	3.8	0
60	Silicon photoanodes partially covered by Ni@Fe core-shell particles with in situ formed gradient-enhanced junction electric field for photoelectrochemical water oxidation. *Applied Physics Letters*, **2019**, 115, 213904	3.4	2
59	Visible light driven TaON/V2O5 heterojunction photocatalyst for deep elimination of volatile-aromatic compounds. *Applied Catalysis B: Environmental*, **2019**, 245, 220-226	21.8	22
58	KOH-modified Ni/LaTiO2N Schottky junction efficiently reducing CO2 to CH4 under visible light irradiation. *Applied Catalysis B: Environmental*, **2019**, 244, 786-794	21.8	9
57	Surface states as electron transfer pathway enhanced charge separation in TiO2 nanotube water splitting photoanodes. *Applied Catalysis B: Environmental*, **2018**, 234, 100-108	21.8	54
56	Oriented attachment growth of hundred-nanometer-size LaTaON2 single crystals in molten salts for enhanced photoelectrochemical water splitting. *Journal of Materials Chemistry A*, **2018**, 6, 7706-7713	13	18
55	Balancing Catalytic Activity and Interface Energetics of Electrocatalyst-Coated Photoanodes for Photoelectrochemical Water Splitting. *ACS Applied Materials & Interfaces*, **2018**, 10, 3624-3633	9.5	37
54	Unlocking the potential of graphene for water oxidation using an orbital hybridization strategy. *Energy and Environmental Science*, **2018**, 11, 407-416	35.4	35
53	Effective separation and transfer of carriers into the redox sites on Ta3N5/Bi photocatalyst for promoting conversion of CO2 into CH4. *Applied Catalysis B: Environmental*, **2018**, 224, 10-16	21.8	44
52	CO2 photoreduction on hydroxyl-group-rich mesoporous single crystal TiO2. *Applied Surface Science*, **2018**, 427, 603-607	6.7	22
51	Interface Manipulation to Improve Plasmon-Coupled Photoelectrochemical Water Splitting on □Fe O Photoanodes. *ChemSusChem*, **2018**, 11, 237-244	8.3	28

50	Oriented Growth of Sc-Doped Ta3N5 Nanorod Photoanode Achieving Low-Onset-Potential for Photoelectrochemical Water Oxidation. *ACS Applied Energy Materials*, **2018**, 1, 4150-4157	6.1	32
49	Novel Cobalt Germanium Hydroxide for Electrochemical Water Oxidation. *ACS Applied Materials & Interfaces*, **2018**, 10, 30357-30366	9.5	12
48	Galvanic cell reaction driven electrochemical doping of TiO nanotube photoanodes for enhanced charge separation. *Chemical Communications*, **2018**, 54, 11116-11119	5.8	1
47	Molten salt-assisted a-axis-oriented growth of Ta3N5 nanorod arrays with enhanced charge transport for efficient photoelectrochemical water oxidation. *CrystEngComm*, **2018**, 20, 5364-5369	3.3	14
46	Nanostructured TaON/TaN as a highly efficient type-II heterojunction photoanode for photoelectrochemical water splitting. *Dalton Transactions*, **2018**, 47, 8949-8955	4.3	35
45	A Facet-Dependent Schottky-Junction Electron Shuttle in a BiVO4{010}Au□u2O Z-Scheme Photocatalyst for Efficient Charge Separation. *Advanced Functional Materials*, **2018**, 28, 1801214	15.6	125
44	In-Situ Formed Hydroxide Accelerating Water Dissociation Kinetics on CoN for Hydrogen Production in Alkaline Solution. *ACS Applied Materials & Interfaces*, **2018**, 10, 22102-22109	9.5	38
43	Surface electric field driven directional charge separation on Ta3N5 cuboids enhancing photocatalytic solar energy conversion. *Applied Catalysis B: Environmental*, **2018**, 237, 742-752	21.8	35
42	Low onset potential on single crystal Ta3N5 polyhedron array photoanode with preferential exposure of {001} facets. *Applied Catalysis B: Environmental*, **2018**, 237, 665-672	21.8	24
41	Oxygen-Vacancy-Activated CO2 Splitting over Amorphous Oxide Semiconductor Photocatalyst. *ACS Catalysis*, **2018**, 8, 516-525	13.1	80
40	Low-Work-Function Silver Activating N-doped Graphene as Efficient Oxygen Reduction Catalysts in Acidic Medium. *ChemCatChem*, **2018**, 11, 1033	5.2	4
39	High-Performance and Stable Silicon Photoanode Modified by Crystalline Ni@ Amorphous Co Core-Shell Nanoparticles. *ChemCatChem*, **2018**, 10, 5025-5031	5.2	11
38	Frustrated Lewis Pairs Accelerating CO2 Reduction on Oxyhydroxide Photocatalysts with Surface Lattice Hydroxyls as a Solid-State Proton Donor. *Advanced Functional Materials*, **2018**, 28, 1804191	15.6	54
37	Surface chemistry imposes selective reduction of CO2 to CO over Ta3N5/LaTiO2N photocatalyst. *Journal of Materials Chemistry A*, **2018**, 6, 14838-14846	13	23
36	Silicon Photoanodes Partially Covered by Ni@Ni(OH) Core-Shell Particles for Photoelectrochemical Water Oxidation. *ChemSusChem*, **2017**, 10, 2897-2903	8.3	49
35	Temperature-controlled evolution of microstructures that promote charge separation in a TaON photoanode for enhanced solar energy conversion. *Journal of Materials Chemistry A*, **2017**, 5, 12848-12855	13	21
34	Tuning the ion permeability of an Al2O3 coating layer on Fe2O3 photoanodes for improved photoelectrochemical water oxidation. *Journal of Materials Chemistry A*, **2017**, 5, 8402-8407	13	37
33	Mg-doped Ta3N5 nanorods coated with a conformal CoOOH layer for water oxidation: bulk and surface dual modification of photoanodes. *Journal of Materials Chemistry A*, **2017**, 5, 20439-20447	13	37

32	Back Electron Transfer at TiO Nanotube Photoanodes in the Presence of a HO Hole Scavenger. *ACS Applied Materials & Interfaces*, **2017**, 9, 33887-33895	9.5	24
31	Tuning the transport behavior of centimeter-scale WTe2 ultrathin films fabricated by pulsed laser deposition. *Applied Physics Letters*, **2017**, 111, 031906	3.4	29
30	La2O3-Modified LaTiO2N Photocatalyst with Spatially Separated Active Sites Achieving Enhanced CO2 Reduction. *Advanced Functional Materials*, **2017**, 27, 1702447	15.6	66
29	Anatase Mg0.05Ta0.95O1.15N0.85: a novel photocatalyst for solar hydrogen production. *RSC Advances*, **2016**, 6, 86240-86244	3.7	4
28	Ultralong metahewettite CaV6O16□3H2O nanoribbons as novel host materials for lithium storage: Towards high-rate and excellent long-term cyclability. *Nano Energy*, **2016**, 22, 38-47	17.1	31
27	Enhanced Water-Splitting Performance of Perovskite SrTaO2N Photoanode Film through Ameliorating Interparticle Charge Transport. *Advanced Functional Materials*, **2016**, 26, 7156-7163	15.6	63
26	Solid Solution Photocatalyst with Spontaneous Polarization Exhibiting Low Recombination Toward Efficient CO2 Photoreduction. *ChemSusChem*, **2016**, 9, 2064-8	8.3	14
25	Solar fuel production: Strategies and new opportunities with nanostructures. *Nano Today*, **2015**, 10, 468-486	17.9	112
24	Catalytic reduction of NOx by CO over a Ni□a based oxide catalyst. *Journal of Materials Chemistry A*, **2015**, 3, 15133-15140	13	5
23	Oxygen related recombination defects in Ta3N5 water splitting photoanode. *Applied Physics Letters* , **2015**, 107, 171902	3.4	36
22	Formation of 3D interconnectively macro/mesoporous TiO2 sponges through gelation of lotus root starch toward CO2 photoreduction into hydrocarbon fuels. *RSC Advances*, **2014**, 4, 43172-43177	3.7	12
21	Basic Molten Salt Route to Prepare Porous SrTiO3 Nanocrystals for Efficient Photocatalytic Hydrogen Production. *European Journal of Inorganic Chemistry*, **2014**, 2014, 3731-3735	2.3	13
20	A simple and efficient strategy for the synthesis of a chemically tailored g-C3N4 material. *Journal of Materials Chemistry A*, **2014**, 2, 17521-17529	13	96
19	Inorganic ions promoted photocatalysis based on polymer photocatalyst. *Applied Catalysis B: Environmental*, **2014**, 158-159, 321-328	21.8	15
18	An anion-controlled crystal growth route to Zn2GeO4 nanorods for efficient photocatalytic conversion of CO2 into CH4. *Dalton Transactions*, **2013**, 42, 12975-9	4.3	29
17	Zinc Gallogermanate Solid Solution: A Novel Photocatalyst for Efficiently Converting CO2 into Solar Fuels. *Advanced Functional Materials*, **2013**, 23, 1839-1845	15.6	79
16	An In Situ Simultaneous Reduction-Hydrolysis Technique for Fabrication of TiO2-Graphene 2D Sandwich-Like Hybrid Nanosheets: Graphene-Promoted Selectivity of Photocatalytic-Driven Hydrogenation and Coupling of CO2 into Methane and Ethane. *Advanced Functional Materials*, **2013** , 23, 1743-1749	15.6	318
15	Direct Growth of Fe2V4O13 Nanoribbons on a Stainless-Steel Mesh for Visible-Light Photoreduction of CO2 into Renewable Hydrocarbon Fuel and Degradation of Gaseous Isopropyl Alcohol. *ChemPlusChem*, **2013**, 78, 274-278	2.8	38

14	An Ion-Exchange Phase Transformation to ZnGa2O4 Nanocube Towards Efficient Solar Fuel Synthesis. *Advanced Functional Materials*, **2013**, 23, 758-763	15.6	63
13	Efficient conversion of CO2 and H2O into hydrocarbon fuel over ZnAl2O(4)-modified mesoporous ZnGaNO under visible light irradiation. *Chemical Communications*, **2012**, 48, 1048-50	5.8	54
12	ZnO plates synthesized from the ammonium zinc nitrate hydroxide precursor. *CrystEngComm*, **2012**, 14, 154-159	3.3	29
11	Solar hydrogen generation from seawater with a modified BiVO4 photoanode. *Energy and Environmental Science*, **2011**, 4, 4046	35.4	486
10	Sol□gel hydrothermal synthesis of visible-light-driven Cr-doped SrTiO3 for efficient hydrogen production. *Journal of Materials Chemistry*, **2011**, 21, 11347		138
9	Facile temperature-controlled synthesis of hexagonal Zn2GeO4 nanorods with different aspect ratios toward improved photocatalytic activity for overall water splitting and photoreduction of CO2. *Chemical Communications*, **2011**, 47, 5632-4	5.8	138
8	Two-step reactive template route to a mesoporous ZnGaNO solid solution for improved photocatalytic performance. *Journal of Materials Chemistry*, **2011**, 21, 5682		28
7	BiVO4 nanol□eaves: Mild synthesis and improved photocatalytic activity for O2 production under visible light irradiation. *CrystEngComm*, **2011**, 13, 2500	3.3	57
6	Solvothermal synthesis of monodisperse iron oxides with various morphologies and their applications in removal of Cr(VI). *CrystEngComm*, **2011**, 13, 2727	3.3	24
5	Synthesis of a mesoporous single crystal Ga2O3 nanoplate with improved photoluminescence and high sensitivity in detecting CO. *Chemical Communications*, **2010**, 46, 6388-90	5.8	44
4	Facile synthesis of anatase TiO2 mesocrystal sheets with dominant {001} facets based on topochemical conversion. *CrystEngComm*, **2010**, 12, 3425	3.3	54
3	High-yield synthesis of ultralong and ultrathin Zn2GeO4 nanoribbons toward improved photocatalytic reduction of CO2 into renewable hydrocarbon fuel. *Journal of the American Chemical Society*, **2010**, 132, 14385-7	16.4	553
2	Ultrafast Fenton-like reaction route to FeOOH/NiFe-LDH heterojunction electrode for efficient oxygen evolution reaction. *Journal of Materials Chemistry A*,	13	7
1	Heat-Triggered Ferri-to-Paramagnetic Transition Accelerates Redox Couple-Mediated Electrocatalytic Water Oxidation. *Advanced Functional Materials*,2111234	15.6	0