Bin Liu

List of Publications by Year in Descending Order

253 papers	26,945 citations	77 h-index	160 g-index
273 ext. papers	32,054 ext. citations	12.8 avg, IF	7.71 L-index

#	Paper	IF	Citations
253	Strong Metal-Support Interaction Boosts Activity, Selectivity, and Stability in Electrosynthesis of HO.. *Journal of the American Chemical Society*, **2022**,	16.4	10
252	Constructing partially amorphous borate doped iron-nickel nitrate hydroxide nanoarrays by rapid microwave activation for oxygen evolution. *Applied Surface Science*, **2022**, 153245	6.7	0
251	Efficient and Selective CO Reduction to Formate on Pd-Doped Pb (CO) (OH) : Dynamic Catalyst Reconstruction and Accelerated CO Protonation.. *Small*, **2022**, e2107885	11	1
250	Polarization Engineering of Covalent Triazine Frameworks for Highly Efficient Photosynthesis of Hydrogen Peroxide from Molecular Oxygen and Water.. *Advanced Materials*, **2022**, e2110266	24	6
249	Electrochemical looping hydrogen production at room temperature. *Chem Catalysis*, **2021**, 1, 1365-1366		1
248	Boosting Hydrogen Evolution Reaction via Electronic Coupling of Cerium Phosphate with Molybdenum Phosphide Nanobelts (Small 40/2021). *Small*, **2021**, 17, 2170208	11	1
247	Electrochemical Reduction of CO to CO over Transition Metal/N-Doped Carbon Catalysts: The Active Sites and Reaction Mechanism. *Advanced Science*, **2021**, e2102886	13.6	18
246	Ordered clustering of single atomic Te vacancies in atomically thin PtTe promotes hydrogen evolution catalysis. *Nature Communications*, **2021**, 12, 2351	17.4	24
245	Atomically dispersed antimony on carbon nitride for the artificial photosynthesis of hydrogen peroxide. *Nature Catalysis*, **2021**, 4, 374-384	36.5	96
244	In-Situ doping-induced crystal form transition of amorphous PdP catalyst for robust electrocatalytic hydrodechlorination. *Applied Catalysis B: Environmental*, **2021**, 284, 119713	21.8	14
243	Unveiling the In Situ Generation of a Monovalent Fe(I) Site in the Single-Fe-Atom Catalyst for Electrochemical CO2 Reduction. *ACS Catalysis*, **2021**, 11, 7292-7301	13.1	14
242	Phosphorus modified carbon fiber cloth as a robust and efficient anode for alkaline water electrolysis. *Materials Today Energy*, **2021**, 20, 100683	7	2
241	Progress of Nonprecious-Metal-Based Electrocatalysts for Oxygen Evolution in Acidic Media. *Advanced Materials*, **2021**, 33, e2003786	24	33
240	Orbital coupling of hetero-diatomic nickel-iron site for bifunctional electrocatalysis of CO reduction and oxygen evolution. *Nature Communications*, **2021**, 12, 4088	17.4	51
239	Van der Waals heterojunction for selective visible-light-driven photocatalytic CO2 reduction. *Applied Catalysis B: Environmental*, **2021**, 284, 119733	21.8	53
238	Coordination Engineering of Single-Atom Catalysts for the Oxygen Reduction Reaction: A Review. *Advanced Energy Materials*, **2021**, 11, 2002473	21.8	74
237	Noble metal nanowire arrays as an ethanol oxidation electrocatalyst. *Nanoscale Advances*, **2021**, 3, 177-181	5.1	2

236	Real-time photoelectrochemical quantification of hydrogen peroxide produced by living cells. *Chemical Engineering Journal*, **2021**, 407, 127203	14.7	16
235	How does mass transfer influence electrochemical carbon dioxide reduction reaction? A case study of Ni molecular catalyst supported on carbon. *Chemical Communications*, **2021**, 57, 1384-1387	5.8	6
234	Halide perovskite composites for photocatalysis: A mini review. *EcoMat*, **2021**, 3, e12079	9.4	23
233	Atomically Dispersed Fe Heteroatom (N, S) Bridge Sites Anchored on Carbon Nanosheets for Promoting Oxygen Reduction Reaction. *ACS Energy Letters*, **2021**, 6, 379-386	20.1	49
232	Atomically dispersed Pd electrocatalyst for efficient aqueous phase dechlorination reaction. *Electrochimica Acta*, **2021**, 391, 138886	6.7	2
231	In situ/operando Mssbauer spectroscopy for probing heterogeneous catalysis. *Chem Catalysis*, **2021**, 1, 1215-1215		4
230	Boosting Hydrogen Evolution Reaction via Electronic Coupling of Cerium Phosphate with Molybdenum Phosphide Nanobelts. *Small*, **2021**, 17, e2102413	11	6
229	Precise Tuning of Bimetallic Electronic Effect for Boosting Oxygen Reduction Catalysis. *Nano Letters*, **2021**, 21, 7753-7760	11.5	4
228	Dynamic Restructuring of Cu-Doped SnS Nanoflowers for Highly Selective Electrochemical CO Reduction to Formate. *Angewandte Chemie - International Edition*, **2021**, 60, 26233-26237	16.4	12
227	Ni P Interlayer and Mn Doping Synergistically Expedite the Hydrogen Evolution Reaction Kinetics of Co P. *Chemistry - A European Journal*, **2021**, 27, 3536-3541	4.8	5
226	Ultrafine CoWC as an efficient anode catalyst for direct hydrazine fuel cells. *Chemical Communications*, **2021**, 57, 10415-10418	5.8	1
225	Recent advances in single atom catalysts for the electrochemical carbon dioxide reduction reaction. *Chemical Science*, **2021**, 12, 6800-6819	9.4	36
224	Tuning the Electronic Structures of Multimetal Oxide Nanoplates to Realize Favorable Adsorption Energies of Oxygenated Intermediates. *ACS Nano*, **2020**,	16.7	19
223	Electron-withdrawing functional ligand promotes CO2 reduction catalysis in single atom catalyst. *Science China Chemistry*, **2020**, 63, 1727-1733	7.9	20
222	Dual single-site catalyst promoter boosts catalytic performance. *National Science Review*, **2020**, 7, 1841-1842	16.2	0
221	Amorphous Multimetal Alloy Oxygen Evolving Catalysts **2020**, 2, 624-632		25
220	Rational Design of an Iridium-Tungsten Composite with an Iridium-Rich Surface for Acidic Water Oxidation. *ACS Applied Materials & Interfaces*, **2020**, 12, 25991-26001	9.5	13
219	Amorphous versus Crystalline in Water Oxidation Catalysis: A Case Study of NiFe Alloy. *Nano Letters* , **2020**, 20, 4278-4285	11.5	99

218	Metal organic frameworks for adsorption-based separation of fluorocompounds: a review. *Materials Advances*, **2020**, 1, 310-320	3.3	18
217	High performance Ni catalysts prepared by freeze drying for efficient dry reforming of methane. *Applied Catalysis B: Environmental*, **2020**, 275, 119109	21.8	31
216	Single-Ni-atom catalyzes aqueous phase electrochemical reductive dechlorination reaction. *Applied Catalysis B: Environmental*, **2020**, 277, 119057	21.8	22
215	Advances in Thermodynamic-Kinetic Model for Analyzing the Oxygen Evolution Reaction. *ACS Catalysis*, **2020**, 10, 8597-8610	13.1	40
214	Tuning reactivity of Fischer-Tropsch synthesis by regulating TiO overlayer over Ru/TiO nanocatalysts. *Nature Communications*, **2020**, 11, 3185	17.4	43
213	Progress of Electrochemical Hydrogen Peroxide Synthesis over Single Atom Catalysts **2020**, 2, 1008-1024		46
212	Carbon-based cathode materials for rechargeable zinc-air batteries: From current collectors to bifunctional integrated air electrodes **2020**, 2, 370-386		35
211	Design of hierarchical, three-dimensional free-standing single-atom electrode for H2O2 production in acidic media **2020**, 2, 276-282		20
210	A general method to construct single-atom catalysts supported on N-doped graphene for energy applications. *Journal of Materials Chemistry A*, **2020**, 8, 6190-6195	13	24
209	The nonmetal modulation of composition and morphology of g-C3N4-based photocatalysts. *Applied Catalysis B: Environmental*, **2020**, 269, 118828	21.8	112
208	In-situ phase transition of WO3 boosting electron and hydrogen transfer for enhancing hydrogen evolution on Pt. *Nano Energy*, **2020**, 71, 104653	17.1	58
207	Enabling Direct H2O2 Production in Acidic Media through Rational Design of Transition Metal Single Atom Catalyst. *CheM*, **2020**, 6, 658-674	16.2	176
206	Plasmon-enhanced photoelectrochemical water splitting by InGaN/GaN nano-photoanodes. *Semiconductor Science and Technology*, **2020**, 35, 025017	1.8	10
205	Electrostatic self-assembly of a AgI/Bi2Ga4O9 p□ junction photocatalyst for boosting superoxide radical generation. *Journal of Materials Chemistry A*, **2020**, 8, 4083-4090	13	44
204	Pre-deposited Co nanofilms promoting high alloying degree of PdxAu nanoparticles as electrocatalysts in alkaline media. *International Journal of Hydrogen Energy*, **2020**, 45, 28024-28033	6.7	3
203	Elucidating the Electrocatalytic CO Reduction Reaction over a Model Single-Atom Nickel Catalyst. *Angewandte Chemie - International Edition*, **2020**, 59, 798-803	16.4	187
202	Elucidating the Electrocatalytic CO2 Reduction Reaction over a Model Single-Atom Nickel Catalyst. *Angewandte Chemie*, **2020**, 132, 808-813	3.6	22
201	Polyvinyl Chloride-Derived Carbon Spheres for CO Adsorption. *ChemSusChem*, **2020**, 13, 6426-6432	8.3	3

200	Amorphous/Crystalline Heterostructured Cobalt-Vanadium-Iron (Oxy)hydroxides for Highly Efficient Oxygen Evolution Reaction. *Advanced Energy Materials*, **2020**, 10, 2002215	21.8	73
199	Identification of the Electronic and Structural Dynamics of Catalytic Centers in Single-Fe-Atom Material. *CheM*, **2020**, 6, 3440-3454	16.2	79
198	Boosting oxygen evolution reaction on graphene through engineering electronic structure. *Carbon*, **2020**, 170, 414-420	10.4	10
197	Adaptive Bifunctional Electrocatalyst of Amorphous CoFe Oxide @ 2D Black Phosphorus for Overall Water Splitting. *Angewandte Chemie*, **2020**, 132, 21292-21299	3.6	8
196	Adaptive Bifunctional Electrocatalyst of Amorphous CoFe Oxide @ 2D Black Phosphorus for Overall Water Splitting. *Angewandte Chemie - International Edition*, **2020**, 59, 21106-21113	16.4	69
195	Hybridization of Bimetallic Molybdenum-Tungsten Carbide with Nitrogen-Doped Carbon: A Rational Design of Super Active Porous Composite Nanowires with Tailored Electronic Structure for Boosting Hydrogen Evolution Catalysis. *Advanced Functional Materials*, **2020**, 30, 2003198	15.6	21
194	Atomically-precise dopant-controlled single cluster catalysis for electrochemical nitrogen reduction. *Nature Communications*, **2020**, 11, 4389	17.4	52
193	Microenvironment modulation of single-atom catalysts and their roles in electrochemical energy conversion. *Science Advances*, **2020**, 6,	14.3	86
192	Coordination engineering of iridium nanocluster bifunctional electrocatalyst for highly efficient and pH-universal overall water splitting. *Nature Communications*, **2020**, 11, 4246	17.4	92
191	Atomically Dispersed Nickel(I) on an Alloy-Encapsulated Nitrogen-Doped Carbon Nanotube Array for High-Performance Electrochemical CO2 Reduction Reaction. *Angewandte Chemie*, **2020**, 132, 12153-12159	3.6	19
190	Atomically Dispersed Nickel(I) on an Alloy-Encapsulated Nitrogen-Doped Carbon Nanotube Array for High-Performance Electrochemical CO Reduction Reaction. *Angewandte Chemie - International Edition*, **2020**, 59, 12055-12061	16.4	56
189	Making fully printed perovskite solar cells stable outdoor with inorganic superhydrophobic coating. *Journal of Energy Chemistry*, **2020**, 50, 332-338	12	7
188	Layered Structure Causes Bulk NiFe Layered Double Hydroxide Unstable in Alkaline Oxygen Evolution Reaction. *Advanced Materials*, **2019**, 31, e1903909	24	142
187	Bifunctional N-CoSe2/3D-MXene as Highly Efficient and Durable Cathode for Rechargeable Zn-Air Battery **2019**, 1, 432-439		49
186	Photoelectrochemical CO2 reduction to adjustable syngas on grain-boundary-mediated a-Si/TiO2/Au photocathodes with low onset potentials. *Energy and Environmental Science*, **2019**, 12, 923-928	35.4	74
185	Breaking Long-Range Order in Iridium Oxide by Alkali Ion for Efficient Water Oxidation. *Journal of the American Chemical Society*, **2019**, 141, 3014-3023	16.4	172
184	Nanostructuring Confinement for Controllable Interfacial Charge Transfer. *Small*, **2019**, 15, e1804391	11	10
183	A General Method to Probe Oxygen Evolution Intermediates at Operating Conditions. *Joule*, **2019**, 3, 1498-1509	27.8	115

182	Selective photoelectrochemical oxidation of glycerol to high value-added dihydroxyacetone. *Nature Communications*, **2019**, 10, 1779	17.4	83
181	Breaking the symmetry: Gradient in NiFe layered double hydroxide nanoarrays for efficient oxygen evolution. *Nano Energy*, **2019**, 60, 661-666	17.1	40
180	In Situ/Operando Techniques for Characterization of Single-Atom Catalysts. *ACS Catalysis*, **2019**, 9, 2521-2531	13.1	173
179	Self-assembly of three-dimensional CdS nanosphere/graphene networks for efficient photocatalytic hydrogen evolution. *Journal of Energy Chemistry*, **2019**, 31, 34-38	12	20
178	Revealing Energetics of Surface Oxygen Redox from Kinetic Fingerprint in Oxygen Electrocatalysis. *Journal of the American Chemical Society*, **2019**, 141, 13803-13811	16.4	87
177	Rational design of carbon-based metal-free catalysts for electrochemical carbon dioxide reduction: A review. *Journal of Energy Chemistry*, **2019**, 36, 95-105	12	51
176	Nanowire Photoelectrochemistry. *Chemical Reviews*, **2019**, 119, 9221-9259	68.1	92
175	Supported Noble-Metal Single Atoms for Heterogeneous Catalysis. *Advanced Materials*, **2019**, 31, e1902031	21	115
174	Catalyst: Single-Atom Catalysis: Directing the Way toward the Nature of Catalysis. *CheM*, **2019**, 5, 2733-2735	19.1	34
173	Expedient synthesis of -hydrazone esters and 1-indazole scaffolds through heterogeneous single-atom platinum catalysis. *Science Advances*, **2019**, 5, eaay1537	14.3	17
172	NiFe Hydroxide Lattice Tensile Strain: Enhancement of Adsorption of Oxygenated Intermediates for Efficient Water Oxidation Catalysis. *Angewandte Chemie*, **2019**, 131, 746-750	3.6	45
171	The Absence and Importance of Operando Techniques for Metal-Free Catalysts. *Advanced Materials* , **2019**, 31, e1805609	24	18
170	Preparation of Ni(OH)2/TiO2 porous film with novel structure and electrochromic property. *Solar Energy Materials and Solar Cells*, **2019**, 191, 108-116	6.4	16
169	NiFe Hydroxide Lattice Tensile Strain: Enhancement of Adsorption of Oxygenated Intermediates for Efficient Water Oxidation Catalysis. *Angewandte Chemie - International Edition*, **2019**, 58, 736-740	16.4	188
168	Phase interactions in Ni-Cu-Al2O3 mixed oxide oxygen carriers for chemical looping applications. *Applied Energy*, **2019**, 236, 635-647	10.7	20
167	Organic-inorganic hybrid perovskite □TiO2 nanorod arrays for efficient and stable photoelectrochemical hydrogen evolution from HI splitting. *Materials Today Chemistry*, **2019**, 12, 1-6	6.2	23
166	Single-Atom Catalysis toward Efficient CO Conversion to CO and Formate Products. *Accounts of Chemical Research*, **2019**, 52, 656-664	24.3	217
165	N, P dual-doped hollow carbon spheres supported MoS2 hybrid electrocatalyst for enhanced hydrogen evolution reaction. *Catalysis Today*, **2019**, 330, 259-267	5.3	28

164	Holey nickel hydroxide nanosheets for wearable solid-state fiber-supercapacitors. *Nanoscale*, **2018**, 10, 5442-5448	7.7	39
163	Assembly and photochemical properties of mesoporous networks of spinel ferrite nanoparticles for environmental photocatalytic remediation. *Applied Catalysis B: Environmental*, **2018**, 227, 330-339	21.8	36
162	Anchoring Mn3O4 Nanoparticles on Oxygen Functionalized Carbon Nanotubes as Bifunctional Catalyst for Rechargeable Zinc-Air Battery. *ACS Applied Energy Materials*, **2018**, 1, 963-969	6.1	55
161	Fluorocarbon Separation in a Thermally Robust Zirconium Carboxylate Metal-Organic Framework. *Chemistry - an Asian Journal*, **2018**, 13, 977-981	4.5	8
160	Identifying Active Sites of Nitrogen-Doped Carbon Materials for the CO2 Reduction Reaction. *Advanced Functional Materials*, **2018**, 28, 1800499	15.6	179
159	In Situ/Operando Characterization Techniques to Probe the Electrochemical Reactions for Energy Conversion. *Small Methods*, **2018**, 2, 1700395	12.8	90
158	An Earth-Abundant Catalyst-Based Seawater Photoelectrolysis System with 17.9% Solar-to-Hydrogen Efficiency. *Advanced Materials*, **2018**, 30, e1707261	24	110
157	Tuning the Electronic Spin State of Catalysts by Strain Control for Highly Efficient Water Electrolysis. *Small Methods*, **2018**, 2, 1800001	12.8	41
156	Atomically dispersed Ni(i) as the active site for electrochemical CO2 reduction. *Nature Energy*, **2018**, 3, 140-147	62.3	1046
155	Ultrasmall Transition Metal Carbide Nanoparticles Encapsulated in N, S-Doped Graphene for All-pH Hydrogen Evolution. *Small Methods*, **2018**, 2, 1700353	12.8	43
154	High-Performance Ni□e Redox Catalysts for Selective CH4 to Syngas Conversion via Chemical Looping. *ACS Catalysis*, **2018**, 8, 1748-1756	13.1	47
153	Plasmon-Dictated Photo-Electrochemical Water Splitting for Solar-to-Chemical Energy Conversion: Current Status and Future Perspectives. *Advanced Materials Interfaces*, **2018**, 5, 1701098	4.6	59
152	High Spin State Promotes Water Oxidation Catalysis at Neutral pH in Spinel Cobalt Oxide. *Industrial & Engineering Chemistry Research*, **2018**, 57, 1441-1445	3.9	19
151	Surface Rutilization of Anatase TiO2 for Efficient Electron Extraction and Stable Pmax Output of Perovskite Solar Cells. *CheM*, **2018**, 4, 911-923	16.2	20
150	Hydrogenated TiO2 nanosheet based flowerlike architectures: Enhanced sensing performances and sensing mechanism. *Journal of Alloys and Compounds*, **2018**, 749, 543-555	5.7	11
149	Fabrication of 3D mesoporous networks of assembled CoO nanoparticles for efficient photocatalytic reduction of aqueous Cr(VI). *Applied Catalysis B: Environmental*, **2018**, 221, 635-644	21.8	68
148	Iron Vacancies Induced Bifunctionality in Ultrathin Feroxyhyte Nanosheets for Overall Water Splitting. *Advanced Materials*, **2018**, 30, e1803144	24	160
147	In situ growth of single-layered □Ni(OH)2 nanosheets on a carbon cloth for highly efficient electrocatalytic oxidation of urea. *Journal of Materials Chemistry A*, **2018**, 6, 13867-13873	13	51

146	Unique role of M□ssbauer spectroscopy in assessing structural features of heterogeneous catalysts. *Applied Catalysis B: Environmental*, **2018**, 224, 518-532	21.8	58
145	Homologous Co3O4?CoP nanowires grown on carbon cloth as a high-performance electrode pair for triclosan degradation and hydrogen evolution. *Materials Chemistry Frontiers*, **2018**, 2, 323-330	7.8	27
144	Boosting oxygen reaction activity by coupling sulfides for high-performance rechargeable metal□air battery. *Journal of Materials Chemistry A*, **2018**, 6, 21162-21166	13	26
143	Nitrogen and sulfur Co-doped graphene inlaid with cobalt clusters for efficient oxygen reduction reaction. *Materials Today Energy*, **2018**, 10, 184-190	7	15
142	Shape-Controlled Synthesis of Metal-Organic Frameworks with Adjustable Fenton-Like Catalytic Activity. *ACS Applied Materials & Interfaces*, **2018**, 10, 38051-38056	9.5	24
141	Aqueous-phase hydrodechlorination of 4-chlorophenol on palladium nanocrystals: Identifying the catalytic sites and unraveling the reaction mechanism. *Journal of Catalysis*, **2018**, 368, 336-344	7.3	25
140	Unraveling the Active Site on Metal-Free, Carbon-Based Catalysts for Multifunctional Applications **2018**, 251-283		
139	Single Cobalt Atoms Anchored on Porous N-Doped Graphene with Dual Reaction Sites for Efficient Fenton-like Catalysis. *Journal of the American Chemical Society*, **2018**, 140, 12469-12475	16.4	551
138	Molecular modulation of fluorene-dibenzothiophene-S,S-dioxide-based conjugated polymers for enhanced photoelectrochemical water oxidation under visible light. *Materials Chemistry Frontiers*, **2018**, 2, 2021-2025	7.8	7
137	Novel design of photoelectrochemical device by dual BiVO4 photoelectrode with abundant oxygen vacancy. *Science Bulletin*, **2018**, 63, 1027-1028	10.6	4
136	Mesoporous implantable Pt/SrTiO3:C,N nanocuboids delivering enhanced photocatalytic H2-production activity via plasmon-induced interfacial electron transfer. *Applied Catalysis B: Environmental*, **2018**, 236, 338-347	21.8	28
135	Adsorption separation of R134a, R125, and R143a fluorocarbon mixtures using 13X and surface modified 5A zeolites. *AICHE Journal*, **2018**, 64, 640-648	3.6	11
134	Unraveling Oxygen Evolution Reaction on Carbon-Based Electrocatalysts: Effect of Oxygen Doping on Adsorption of Oxygenated Intermediates. *ACS Energy Letters*, **2017**, 2, 294-300	20.1	100
133	Nickel-Cobalt Diselenide 3D Mesoporous Nanosheet Networks Supported on Ni Foam: An All-pH Highly Efficient Integrated Electrocatalyst for Hydrogen Evolution. *Advanced Materials*, **2017**, 29, 1606521	24	301
132	Use of Platinum as the Counter Electrode to Study the Activity of Nonprecious Metal Catalysts for the Hydrogen Evolution Reaction. *ACS Energy Letters*, **2017**, 2, 1070-1075	20.1	270
131	Highly efficient and durable MoNiNC catalyst for hydrogen evolution reaction. *Nano Energy*, **2017**, 37, 1-6	17.1	66
130	Enhanced visible-light photocatalytic hydrogen production activity of three-dimensional mesoporous p-CuS/n-CdS nanocrystal assemblies. *Inorganic Chemistry Frontiers*, **2017**, 4, 433-441	6.8	33
129	Direct and selective hydrogenation of CO2 to ethylene and propene by bifunctional catalysts. *Catalysis Science and Technology*, **2017**, 7, 5602-5607	5.5	81

128	In situ etching-induced self-assembly of metal cluster decorated one-dimensional semiconductors for solar-powered water splitting: unraveling cooperative synergy by photoelectrochemical investigations. *Nanoscale*, **2017**, 9, 17118-17132	7.7	68
127	Separation of Au Nanoplates and Nanoparticles through Density Gradient Centrifugation. *Chemistry Letters*, **2017**, 46, 1570-1572	1.7	1
126	Highly Concentrated, Ultrathin Nickel Hydroxide Nanosheet Ink for Wearable Energy Storage Devices. *Advanced Materials*, **2017**, 29, 1703455	24	46
125	Fabricating efficient CdSeCdS photocatalyst systems by spatially resetting water splitting sites. *Journal of Materials Chemistry A*, **2017**, 5, 20131-20135	13	18
124	Unraveling the Intrinsic Structures that Influence the Transport of Charges in TiO2 Electrodes. *Advanced Energy Materials*, **2017**, 7, 1700886	21.8	19
123	Effects of structure and size of Ni nanocatalysts on hydrogen selectivity via water-gas-shift reactionA first-principles-based kinetic study. *Catalysis Today*, **2017**, 280, 210-219	5.3	19
122	An ambipolar azaacene as a stable photocathode for metal-free light-driven water reduction. *Materials Chemistry Frontiers*, **2017**, 1, 495-498	7.8	26
121	Revisiting one-dimensional TiO2 based hybrid heterostructures for heterogeneous photocatalysis: a critical review. *Materials Chemistry Frontiers*, **2017**, 1, 231-250	7.8	55
120	Layer-by-layer assembly of nitrogen-doped graphene quantum dots monolayer decorated one-dimensional semiconductor nanoarchitectures for solar-driven water splitting. *Journal of Materials Chemistry A*, **2016**, 4, 16383-16393	13	51
119	A Molecular Relay-Modified CdS-Sensitized Photoelectrochemical Cell for Overall Water Splitting. *ChemElectroChem*, **2016**, 3, 1471-1477	4.3	4
118	Identification of Surface Reactivity Descriptor for Transition Metal Oxides in Oxygen Evolution Reaction. *Journal of the American Chemical Society*, **2016**, 138, 9978-85	16.4	232
117	Tuning chemical bonding of MnO2 through transition-metal doping for enhanced CO oxidation. *Journal of Catalysis*, **2016**, 341, 82-90	7.3	100
116	Adsorption Separation of R-22, R-32 and R-125 Fluorocarbons using 4A Molecular Sieve Zeolite. *ChemistrySelect*, **2016**, 1, 3718-3722	1.8	10
115	Modulation of Crystal Surface and Lattice by Doping: Achieving Ultrafast Metal-Ion Insertion in Anatase TiO. *ACS Applied Materials & Interfaces*, **2016**, 8, 29186-29193	9.5	13
114	Sulfur-Mediated Self-Templating Synthesis of Tapered C-PAN/g-C3N4 Composite Nanotubes toward Efficient Photocatalytic H2 Evolution. *ACS Energy Letters*, **2016**, 1, 969-975	20.1	62
113	In Situ Spectroscopic Identification of □O Bridging on Spinel CoO Water Oxidation Electrocatalyst. *Journal of Physical Chemistry Letters*, **2016**, 7, 4847-4853	6.4	99
112	Identification of catalytic sites for oxygen reduction and oxygen evolution in N-doped graphene materials: Development of highly efficient metal-free bifunctional electrocatalyst. *Science Advances* , **2016**, 2, e1501122	14.3	884
111	Iridium Oxide-Assisted Plasmon-Induced Hot Carriers: Improvement on Kinetics and Thermodynamics of Hot Carriers. *Advanced Energy Materials*, **2016**, 6, 1501339	21.8	74

110	Cadmium selenide-sensitized upright-standing mesoporous zinc oxide nanosheets for efficient photoelectrochemical H2 production. *Journal of Energy Chemistry*, **2016**, 25, 371-374	12	13
109	Niobium Doping Enhances Charge Transport in TiO2 Nanorods. *ChemNanoMat*, **2016**, 2, 660-664	3.5	9
108	Linker-assisted assembly of 1D TiO2 nanobelts/3D CdS nanospheres hybrid heterostructure as efficient visible light photocatalyst. *Applied Catalysis A: General*, **2016**, 521, 50-56	5.1	21
107	Hierarchical carbon@Ni3S2@MoS2 double core□shell nanorods for high-performance supercapacitors. *Journal of Materials Chemistry A*, **2016**, 4, 1319-1325	13	75
106	Achieving stable and efficient water oxidation by incorporating NiFe layered double hydroxide nanoparticles into aligned carbon nanotubes. *Nanoscale Horizons*, **2016**, 1, 156-160	10.8	84
105	Metal-Organic Frameworks as Promising Photosensitizers for Photoelectrochemical Water Splitting. *Advanced Science*, **2016**, 3, 1500243	13.6	74
104	Layer-by-layer assembly of versatile nanoarchitectures with diverse dimensionality: a new perspective for rational construction of multilayer assemblies. *Chemical Society Reviews*, **2016**, 45, 3088-121	58.5	244
103	Tunneling Interlayer for Efficient Transport of Charges in Metal Oxide Electrodes. *Journal of the American Chemical Society*, **2016**, 138, 3183-9	16.4	34
102	ZIF-8 derived carbon (C-ZIF) as a bifunctional electron acceptor and HER cocatalyst for g-C3N4: construction of a metal-free, all carbon-based photocatalytic system for efficient hydrogen evolution. *Journal of Materials Chemistry A*, **2016**, 4, 3822-3827	13	99
101	Graphdiyne: A Metal-Free Material as Hole Transfer Layer To Fabricate Quantum Dot-Sensitized Photocathodes for Hydrogen Production. *Journal of the American Chemical Society*, **2016**, 138, 3954-7	16.4	257
100	In Operando Identification of Geometrical-Site-Dependent Water Oxidation Activity of Spinel Co3O4. *Journal of the American Chemical Society*, **2016**, 138, 36-9	16.4	543
99	1D TiO2 Nanotube-Based Photocatalysts. *Green Chemistry and Sustainable Technology*, **2016**, 151-173	1.1	1
98	Doping-induced structural evolution from rutile to anatase: formation of Nb-doped anatase TiO2 nanosheets with high photocatalytic activity. *Journal of Materials Chemistry A*, **2016**, 4, 6926-6932	13	29
97	Controllable synthesis of □MoC1-x and □Mo2C nanowires for highly selective CO2 reduction to CO. *Catalysis Communications*, **2016**, 84, 147-150	3.2	44
96	Full Characterization and Photoelectrochemical Behavior of Pyrene-fused Octaazadecacene and Tetraazaoctacene. *Chemistry - an Asian Journal*, **2016**, 11, 482-5	4.5	24
95	Nitrogen-doped cobalt phosphate@nanocarbon hybrids for efficient electrocatalytic oxygen reduction. *Energy and Environmental Science*, **2016**, 9, 2563-2570	35.4	183
94	Surface Rutilization of Anatase TiO2 Nanorods for Creation of Synergistically Bridging and Fencing Electron Highways. *Advanced Functional Materials*, **2016**, 26, 456-465	15.6	42
93	Sustainable hydrogen and chemical production via photo-electrochemical reforming of biomass-derived alcohols. *Nano Research*, **2016**, 9, 3388-3393	10	15

92	Size Effects of Platinum Nanoparticles in the Photocatalytic Hydrogen Production Over 3D Mesoporous Networks of CdS and Pt Nanojunctions. *Advanced Functional Materials*, **2016**, 26, 8062-8071	15.6	74
91	Ni3+-Induced Formation of Active NiOOH on the Spinel Ni□Co Oxide Surface for Efficient Oxygen Evolution Reaction. *Advanced Energy Materials*, **2015**, 5, 1500091	21.8	310
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