Shuangyin Wang

List of Publications by Citations

301 papers	29,654 citations	94 h-index	166 g-index
319 ext. papers	36,219 ext. citations	11.4 avg, IF	7.84 L-index

#	Paper	IF	Citations
301	Plasma-Engraved Co3 O4 Nanosheets with Oxygen Vacancies and High Surface Area for the Oxygen Evolution Reaction. *Angewandte Chemie - International Edition*, **2016**, 55, 5277-81	16.4	1248
300	BCN graphene as efficient metal-free electrocatalyst for the oxygen reduction reaction. *Angewandte Chemie - International Edition*, **2012**, 51, 4209-12	16.4	996
299	Defect Chemistry of Nonprecious-Metal Electrocatalysts for Oxygen Reactions. *Advanced Materials*, **2017**, 29, 1606459	24	943
298	Etched and doped Co9S8/graphene hybrid for oxygen electrocatalysis. *Energy and Environmental Science*, **2016**, 9, 1320-1326	35.4	652
297	Vertically aligned BCN nanotubes as efficient metal-free electrocatalysts for the oxygen reduction reaction: a synergetic effect by co-doping with boron and nitrogen. *Angewandte Chemie - International Edition*, **2011**, 50, 11756-60	16.4	650
296	Layered Double Hydroxide Nanosheets with Multiple Vacancies Obtained by Dry Exfoliation as Highly Efficient Oxygen Evolution Electrocatalysts. *Angewandte Chemie - International Edition*, **2017**, 56, 5867-5871	16.4	622
295	Polyelectrolyte-functionalized graphene as metal-free electrocatalysts for oxygen reduction. *ACS Nano*, **2011**, 5, 6202-9	16.7	617
294	Filling the oxygen vacancies in Co3O4 with phosphorus: an ultra-efficient electrocatalyst for overall water splitting. *Energy and Environmental Science*, **2017**, 10, 2563-2569	35.4	616
293	Polyelectrolyte functionalized carbon nanotubes as efficient metal-free electrocatalysts for oxygen reduction. *Journal of the American Chemical Society*, **2011**, 133, 5182-5	16.4	616
292	Edge-rich and dopant-free graphene as a highly efficient metal-free electrocatalyst for the oxygen reduction reaction. *Chemical Communications*, **2016**, 52, 2764-7	5.8	443
291	In Situ Exfoliated, Edge-Rich, Oxygen-Functionalized Graphene from Carbon Fibers for Oxygen Electrocatalysis. *Advanced Materials*, **2017**, 29, 1606207	24	423
290	Water-Plasma-Enabled Exfoliation of Ultrathin Layered Double Hydroxide Nanosheets with Multivacancies for Water Oxidation. *Advanced Materials*, **2017**, 29, 1701546	24	417
289	Metal-Free Carbon Materials for CO Electrochemical Reduction. *Advanced Materials*, **2017**, 29, 1701784	24	385
288	Plasma-Engraved Co3O4 Nanosheets with Oxygen Vacancies and High Surface Area for the Oxygen Evolution Reaction. *Angewandte Chemie*, **2016**, 128, 5363-5367	3.6	363
287	A general approach to cobalt-based homobimetallic phosphide ultrathin nanosheets for highly efficient oxygen evolution in alkaline media. *Energy and Environmental Science*, **2017**, 10, 893-899	35.4	342
286	Recent Progress on Layered Double Hydroxides and Their Derivatives for Electrocatalytic Water Splitting. *Advanced Science*, **2018**, 5, 1800064	13.6	329
285	Oxygen reduction reaction in a droplet on graphite: direct evidence that the edge is more active than the basal plane. *Angewandte Chemie - International Edition*, **2014**, 53, 10804-8	16.4	326

284	Pyridinic-N-Dominated Doped Defective Graphene as a Superior Oxygen Electrocatalyst for Ultrahigh-Energy-Density Zn–Air Batteries. *ACS Energy Letters*, **2018**, 3, 1183-1191	20.1	325
283	Plasma-Assisted Synthesis and Surface Modification of Electrode Materials for Renewable Energy. *Advanced Materials*, **2018**, 30, e1705850	24	323
282	Sulfur-doped graphene derived from cycled lithium-sulfur batteries as a metal-free electrocatalyst for the oxygen reduction reaction. *Angewandte Chemie - International Edition*, **2015**, 54, 1888-92	16.4	293
281	Enhancement effect of Ag for Pd/C towards the ethanol electro-oxidation in alkaline media. *Applied Catalysis B: Environmental*, **2009**, 91, 507-515	21.8	284
280	Identification of the Dynamic Behavior of Oxygen Vacancy-Rich CoO for Oxygen Evolution Reaction. *Journal of the American Chemical Society*, **2020**, 142, 12087-12095	16.4	279
279	Atomic-Scale CoOx Species in Metal–Organic Frameworks for Oxygen Evolution Reaction. *Advanced Functional Materials*, **2017**, 27, 1702546	15.6	279
278	Creating coordinatively unsaturated metal sites in metal-organic-frameworks as efficient electrocatalysts for the oxygen evolution reaction: Insights into the active centers. *Nano Energy*, **2017**, 41, 417-425	17.1	274
277	Defect Engineering on Electrode Materials for Rechargeable Batteries. *Advanced Materials*, **2020**, 32, e1905923	24	270
276	One-pot synthesis of nitrogen and sulfur co-doped graphene as efficient metal-free electrocatalysts for the oxygen reduction reaction. *Chemical Communications*, **2014**, 50, 4839-42	5.8	266
275	In Situ Exfoliated, N-Doped, and Edge-Rich Ultrathin Layered Double Hydroxides Nanosheets for Oxygen Evolution Reaction. *Advanced Functional Materials*, **2018**, 28, 1703363	15.6	258
274	Cobalt nanoparticle-embedded carbon nanotube/porous carbon hybrid derived from MOF-encapsulated Co3O4 for oxygen electrocatalysis. *Chemical Communications*, **2016**, 52, 9727-30	5.8	254
273	One-Pot Synthesis of Fe2O3 Nanoparticles on Nitrogen-Doped Graphene as Advanced Supercapacitor Electrode Materials. *Journal of Physical Chemistry C*, **2014**, 118, 17231-17239	3.8	252
272	Few-Layer Black Phosphorus Nanosheets as Electrocatalysts for Highly Efficient Oxygen Evolution Reaction. *Advanced Energy Materials*, **2017**, 7, 1700396	21.8	251
271	Identification of active sites for acidic oxygen reduction on carbon catalysts with and without nitrogen doping. *Nature Catalysis*, **2019**, 2, 688-695	36.5	251
270	Hierarchically Porous Ni3S2 Nanorod Array Foam as Highly Efficient Electrocatalyst for Hydrogen Evolution Reaction and Oxygen Evolution Reaction. *Electrochimica Acta*, **2015**, 174, 297-301	6.7	250
269	Preferential Cation Vacancies in Perovskite Hydroxide for the Oxygen Evolution Reaction. *Angewandte Chemie - International Edition*, **2018**, 57, 8691-8696	16.4	250
268	Tuning Surface Electronic Configuration of NiFe LDHs Nanosheets by Introducing Cation Vacancies (Fe or Ni) as Highly Efficient Electrocatalysts for Oxygen Evolution Reaction. *Small*, **2018**, 14, e1800136	11	239
267	Electrocatalytic Activity and Interconnectivity of Pt Nanoparticles on Multiwalled Carbon Nanotubes for Fuel Cells. *Journal of Physical Chemistry C*, **2009**, 113, 18935-18945	3.8	227

266	Nitrogen-Doped CoP Electrocatalysts for Coupled Hydrogen Evolution and Sulfur Generation with Low Energy Consumption. *Advanced Materials*, **2018**, 30, e1800140	24	224
265	Facile Synthesis of Black Phosphorus: an Efficient Electrocatalyst for the Oxygen Evolving Reaction. *Angewandte Chemie - International Edition*, **2016**, 55, 13849-13853	16.4	223
264	Nanoparticle-Stacked Porous Nickel-Iron Nitride Nanosheet: A Highly Efficient Bifunctional Electrocatalyst for Overall Water Splitting. *ACS Applied Materials & Interfaces*, **2016**, 8, 18652-7	9.5	222
263	Porous cobalt-iron nitride nanowires as excellent bifunctional electrocatalysts for overall water splitting. *Chemical Communications*, **2016**, 52, 12614-12617	5.8	208
262	Plasma-engineered MoS2 thin-film as an efficient electrocatalyst for hydrogen evolution reaction. *Chemical Communications*, **2015**, 51, 7470-3	5.8	207
261	Efficient Metal-Free Electrocatalysts from N-Doped Carbon Nanomaterials: Mono-Doping and Co-Doping. *Advanced Materials*, **2019**, 31, e1805121	24	205
260	Phosphorus-doped CoS2 nanosheet arrays as ultra-efficient electrocatalysts for the hydrogen evolution reaction. *Chemical Communications*, **2015**, 51, 14160-3	5.8	202
259	Nitrogen-Doped Carbon Nanotube/Graphite Felts as Advanced Electrode Materials for Vanadium Redox Flow Batteries. *Journal of Physical Chemistry Letters*, **2012**, 3, 2164-7	6.4	196
258	PtRu nanoparticles supported on 1-aminopyrene-functionalized multiwalled carbon nanotubes and their electrocatalytic activity for methanol oxidation. *Langmuir*, **2008**, 24, 10505-12	4	194
257	Hierarchically Ordered Porous Carbon with Atomically Dispersed FeN for Ultraefficient Oxygen Reduction Reaction in Proton-Exchange Membrane Fuel Cells. *Angewandte Chemie - International Edition*, **2020**, 59, 2688-2694	16.4	194
256	Zirconium-Regulation-Induced Bifunctionality in 3D Cobalt-Iron Oxide Nanosheets for Overall Water Splitting. *Advanced Materials*, **2019**, 31, e1901439	24	191
255	3D Carbon Electrocatalysts In Situ Constructed by Defect-Rich Nanosheets and Polyhedrons from NaCl-Sealed Zeolitic Imidazolate Frameworks. *Advanced Functional Materials*, **2018**, 28, 1705356	15.6	180
254	Highly porous graphene on carbon cloth as advanced electrodes for flexible all-solid-state supercapacitors. *Nano Energy*, **2013**, 2, 530-536	17.1	175
253	Insight into the design of defect electrocatalysts: From electronic structure to adsorption energy. *Materials Today*, **2019**, 31, 47-68	21.8	173
252	Vertically aligned BCN nanotubes with high capacitance. *ACS Nano*, **2012**, 6, 5259-65	16.7	172
251	Prospects of fuel cell technologies. *National Science Review*, **2017**, 4, 163-166	10.8	170
250	Defect Engineering for Fuel-Cell Electrocatalysts. *Advanced Materials*, **2020**, 32, e1907879	24	170
249	Hierarchical Co(OH)F Superstructure Built by Low-Dimensional Substructures for Electrocatalytic Water Oxidation. *Advanced Materials*, **2017**, 29, 1700286	24	167

248	Rational Design of Transition Metal-Based Materials for Highly Efficient Electrocatalysis. *Small Methods*, **2019**, 3, 1800211	12.8	166
247	Recent Advances on Black Phosphorus for Energy Storage, Catalysis, and Sensor Applications. *Advanced Materials*, **2018**, 30, e1800295	24	166
246	Bridging the Surface Charge and Catalytic Activity of a Defective Carbon Electrocatalyst. *Angewandte Chemie - International Edition*, **2019**, 58, 1019-1024	16.4	162
245	Oxidizing metal ions with graphene oxide: the in situ formation of magnetic nanoparticles on self-reduced graphene sheets for multifunctional applications. *Chemical Communications*, **2011**, 47, 11689-91	5.8	158
244	ZIF-67-derived Co-NC@CoP-NC nanopolyhedra as an efficient bifunctional oxygen electrocatalyst. *Journal of Materials Chemistry A*, **2016**, 4, 15836-15840	13	157
243	BCN Graphene as Efficient Metal-Free Electrocatalyst for the Oxygen Reduction Reaction. *Angewandte Chemie*, **2012**, 124, 4285-4288	3.6	151
242	Microwave-assisted one-pot synthesis of metal/metal oxide nanoparticles on graphene and their electrochemical applications. *Electrochimica Acta*, **2011**, 56, 3338-3344	6.7	148
241	Coupling N and CO in HO to synthesize urea under ambient conditions. *Nature Chemistry*, **2020**, 12, 717-724	17.4	146
240	Photoelectrochemical Synthesis of Ammonia on the Aerophilic-Hydrophilic Heterostructure with 37.8% Efficiency. *CheM*, **2019**, 5, 617-633	16.2	144
239	Electrochemical Oxidation of 5-Hydroxymethylfurfural on Nickel Nitride/Carbon Nanosheets: Reaction Pathway Determined by In Situ Sum Frequency Generation Vibrational Spectroscopy. *Angewandte Chemie - International Edition*, **2019**, 58, 15895-15903	16.4	141
238	Pd/Pt core□shell nanowire arrays as highly effective electrocatalysts for methanol electrooxidation in direct methanol fuel cells. *Electrochemistry Communications*, **2008**, 10, 1575-1578	5.1	140
237	Nitrogen-doped hierarchically porous carbon networks: synthesis and applications in lithium-ion battery, sodium-ion battery and zinc-air battery. *Electrochimica Acta*, **2016**, 219, 592-603	6.7	138
236	Sulfur-Doped Fe/N/C Nanosheets as Highly Efficient Electrocatalysts for Oxygen Reduction Reaction. *ACS Applied Materials & Interfaces*, **2016**, 8, 19379-85	9.5	135
235	Defect Engineering Strategies for Nitrogen Reduction Reactions under Ambient Conditions. *Small Methods*, **2019**, 3, 1800331	12.8	134
234	Acid-etched layered double hydroxides with rich defects for enhancing the oxygen evolution reaction. *Chemical Communications*, **2017**, 53, 11778-11781	5.8	133
233	Defect Chemistry in Heterogeneous Catalysis: Recognition, Understanding, and Utilization. *ACS Catalysis*, **2020**, 10, 11082-11098	13.1	131
232	Interface engineering of Pt and CeO2 nanorods with unique interaction for methanol oxidation. *Nano Energy*, **2018**, 53, 604-612	17.1	131
231	Self-assembly of mixed Pt and Au nanoparticles on PDDA-functionalized graphene as effective electrocatalysts for formic acid oxidation of fuel cells. *Physical Chemistry Chemical Physics*, **2011**, 13, 6883-91	3.6	129

230	Polyelectrolyte functionalized carbon nanotubes as a support for noble metal electrocatalysts and their activity for methanol oxidation. *Nanotechnology*, **2008**, 19, 265601	3.4	126
229	The enhancement of polysulfide absorbsion in Li S batteries by hierarchically porous CoS2/carbon paper interlayer. *Journal of Power Sources*, **2016**, 325, 71-78	8.9	123
228	In situ confined synthesis of molybdenum oxide decorated nickel–iron alloy nanosheets from MoO42−intercalated layered double hydroxides for the oxygen evolution reaction. *Journal of Materials Chemistry A*, **2017**, 5, 87-91	13	122
227	Bifunctional MOF-Derived Carbon Photonic Crystal Architectures for Advanced Zn–Air and Li–S Batteries: Highly Exposed Graphitic Nitrogen Matters. *Advanced Functional Materials*, **2017**, 27, 1701971	15.6	121
226	Vertically Aligned BCN Nanotubes as Efficient Metal-Free Electrocatalysts for the Oxygen Reduction Reaction: A Synergetic Effect by Co-Doping with Boron and Nitrogen. *Angewandte Chemie*, **2011**, 123, 11960-11964	3.6	120
225	B?N Pairs Enriched Defective Carbon Nanosheets for Ammonia Synthesis with High Efficiency. *Small* , **2019**, 15, e1805029	11	119
224	Recent Advances on Non-precious Metal Porous Carbon-based Electrocatalysts for Oxygen Reduction Reaction. *ChemElectroChem*, **2018**, 5, 1775-1785	4.3	114
223	Sandwiched Thin-Film Anode of Chemically Bonded Black Phosphorus/Graphene Hybrid for Lithium-Ion Battery. *Small*, **2017**, 13, 1700758	11	112
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221	Fe-doped phosphorene for the nitrogen reduction reaction. *Journal of Materials Chemistry A*, **2018**, 6, 13790-13796	13	109
220	Electropolymerized supermolecule derived N, P co-doped carbon nanofiber networks as a highly efficient metal-free electrocatalyst for the hydrogen evolution reaction. *Journal of Materials Chemistry A*, **2016**, 4, 13726-13730	13	109
219	Graphene oxide-assisted deposition of carbon nanotubes on carbon cloth as advanced binder-free electrodes for flexible supercapacitors. *Journal of Materials Chemistry A*, **2013**, 1, 5279	13	108
218	Defect Engineering of Cobalt-Based Materials for Electrocatalytic Water Splitting. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 15954-15969	8.3	107
217	Crystalline TiO protective layer with graded oxygen defects for efficient and stable silicon-based photocathode. *Nature Communications*, **2018**, 9, 3572	17.4	107
216	Bridging Covalently Functionalized Black Phosphorus on Graphene for High-Performance Sodium-Ion Battery. *ACS Applied Materials & Interfaces*, **2017**, 9, 36849-36856	9.5	106
215	Controlled synthesis of dendritic Au@Pt core-shell nanomaterials for use as an effective fuel cell electrocatalyst. *Nanotechnology*, **2009**, 20, 025605	3.4	105
214	Supported Single Atoms as New Class of Catalysts for Electrochemical Reduction of Carbon Dioxide. *Small Methods*, **2019**, 3, 1800440	12.8	104
213	Porous CoP nanosheets converted from layered double hydroxides with superior electrochemical activity for hydrogen evolution reactions at wide pH ranges. *Chemical Communications*, **2018**, 54, 1465-1468	5.8	102

212	Tuning the Electron Localization of Gold Enables the Control of Nitrogen-to-Ammonia Fixation. *Angewandte Chemie - International Edition*, **2019**, 58, 18604-18609	16.4	102
211	Enhanced electrochemical activity of Pt nanowire network electrocatalysts for methanol oxidation reaction of fuel cells. *Electrochimica Acta*, **2011**, 56, 1563-1569	6.7	100
210	Three-dimensional carbon frameworks enabling MoS2 as anode for dual ion batteries with superior sodium storage properties. *Energy Storage Materials*, **2018**, 15, 22-30	19.4	97
209	Controlled deposition of Pt on Au nanorods and their catalytic activity towards formic acid oxidation. *Electrochemistry Communications*, **2008**, 10, 961-964	5.1	97
208	Defect-Based Single-Atom Electrocatalysts. *Small Methods*, **2019**, 3, 1800406	12.8	94
207	Charge Transfer Modulated Activity of Carbon-Based Electrocatalysts. *Advanced Energy Materials*, **2020**, 10, 1901227	21.8	93
206	Electroreduction of Carbon Dioxide Driven by the Intrinsic Defects in the Carbon Plane of a Single Fe-N Site. *Advanced Materials*, **2021**, 33, e2003238	24	92
205	Activity Origins and Design Principles of Nickel-Based Catalysts for Nucleophile Electrooxidation. *CheM*, **2020**, 6, 2974-2993	16.2	91
204	NiCo2O4/N-doped graphene as an advanced electrocatalyst for oxygen reduction reaction. *Journal of Power Sources*, **2015**, 280, 640-648	8.9	90
203	Oxygen Reduction Reaction in a Droplet on Graphite: Direct Evidence that the Edge Is More Active than the Basal Plane. *Angewandte Chemie*, **2014**, 126, 10980-10984	3.6	88
202	Rational design of three-phase interfaces for electrocatalysis. *Nano Research*, **2019**, 12, 2055-2066	10	86
201	p-Type SnO thin layers on n-type SnS2 nanosheets with enriched surface defects and embedded charge transfer for lithium ion batteries. *Journal of Materials Chemistry A*, **2017**, 5, 512-518	13	85
200	Graphene-Encapsulated FeS in Carbon Fibers as High Reversible Anodes for Na /K Batteries in a Wide Temperature Range. *Small*, **2019**, 15, e1804740	11	82
199	N-doped nanoporous CoO nanosheets with oxygen vacancies as oxygen evolving electrocatalysts. *Nanotechnology*, **2017**, 28, 165402	3.4	81
198	Antimony Nanorod Encapsulated in Cross-Linked Carbon for High-Performance Sodium Ion Battery Anodes. *Nano Letters*, **2019**, 19, 538-544	11.5	81
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196	Facile Synthesis of Black Phosphorus: an Efficient Electrocatalyst for the Oxygen Evolving Reaction. *Angewandte Chemie*, **2016**, 128, 14053-14057	3.6	76
195	Transforming Co3O4 nanosheets into porous N-doped Co O nanosheets with oxygen vacancies for the oxygen evolution reaction. *Journal of Energy Chemistry*, **2019**, 35, 24-29	12	75

194	Optimal Geometrical Configuration of Cobalt Cations in Spinel Oxides to Promote Oxygen Evolution Reaction. *Angewandte Chemie - International Edition*, **2020**, 59, 4736-4742	16.4	74
193	Efficient Encapsulation of Small S Molecules in MOF-Derived Flowerlike Nitrogen-Doped Microporous Carbon Nanosheets for High-Performance Li-S Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 9435-9443	9.5	73
192	Molecular doping of graphene as metal-free electrocatalyst for oxygen reduction reaction. *Chemical Communications*, **2014**, 50, 10672-5	5.8	73
191	Quaternary bimetallic phosphosulphide nanosheets derived from prussian blue analogues: Origin of the ultra-high activity for oxygen evolution. *Journal of Power Sources*, **2018**, 403, 90-96	8.9	73
190	Layered Double Hydroxide Nanosheets with Multiple Vacancies Obtained by Dry Exfoliation as Highly Efficient Oxygen Evolution Electrocatalysts. *Angewandte Chemie*, **2017**, 129, 5961-5965	3.6	70
189	Low-temperature synthesis of small-sized high-entropy oxides for water oxidation. *Journal of Materials Chemistry A*, **2019**, 7, 24211-24216	13	69
188	Ultrafine nano-sulfur particles anchored on in situ exfoliated graphene for lithium–sulfur batteries. *Journal of Materials Chemistry A*, **2017**, 5, 9412-9417	13	68
187	Nonporous MOF-derived dopant-free mesoporous carbon as an efficient metal-free electrocatalyst for the oxygen reduction reaction. *Journal of Materials Chemistry A*, **2016**, 4, 9370-9374	13	68
186	On-site evolution of ultrafine ZnO nanoparticles from hollow metal–organic frameworks for advanced lithium ion battery anodes. *Journal of Materials Chemistry A*, **2017**, 5, 22512-22518	13	67
185	Identifying the Geometric Site Dependence of Spinel Oxides for the Electrooxidation of 5-Hydroxymethylfurfural. *Angewandte Chemie - International Edition*, **2020**, 59, 19215-19221	16.4	66
184	Engineering the electronic structure of Co3O4 by carbon-doping for efficient overall water splitting. *Electrochimica Acta*, **2019**, 303, 316-322	6.7	65
183	Iron-Doped NiCoP Porous Nanosheet Arrays as a Highly Efficient Electrocatalyst for Oxygen Evolution Reaction. *ACS Applied Energy Materials*, **2018**, 1, 571-579	6.1	65
182	One-step hydrothermal synthesis of NiCo2S4–GO as an efficient electrocatalyst for the oxygen reduction reaction. *Journal of Materials Chemistry A*, **2014**, 2, 20990-20995	13	65
181	Efficient and Durable Bifunctional Oxygen Catalysts Based on NiFeO@MnO Core-Shell Structures for Rechargeable Zn-Air Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 8121-8133	9.5	64
180	Edge-selectively phosphorus-doped few-layer graphene as an efficient metal-free electrocatalyst for the oxygen evolution reaction. *Chemical Communications*, **2016**, 52, 13008-13011	5.8	64
179	In-situ evolution of active layers on commercial stainless steel for stable water splitting. *Applied Catalysis B: Environmental*, **2019**, 248, 277-285	21.8	64
178	In Situ Activating Strategy to Significantly Boost Oxygen Electrocatalysis of Commercial Carbon Cloth for Flexible and Rechargeable Zn-Air Batteries. *Advanced Science*, **2018**, 5, 1800760	13.6	64
177	One-step, room temperature generation of porous and amorphous cobalt hydroxysulfides from layered double hydroxides for superior oxygen evolution reactions. *Journal of Materials Chemistry A* , **2018**, 6, 24311-24316	13	62

176	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
175	Tuning the Selective Adsorption Site of Biomass on Co O by Ir Single Atoms for Electrosynthesis. *Advanced Materials*, **2021**, 33, e2007056	24	58
174	Rapid cationic defect and anion dual-regulated layered double hydroxides for efficient water oxidation. *Nanoscale*, **2018**, 10, 13638-13644	7.7	58
173	In situ growth of cobalt@cobalt-borate core-shell nanosheets as highly-efficient electrocatalysts for oxygen evolution reaction in alkaline/neutral medium. *Nanoscale*, **2017**, 9, 16059-16065	7.7	57
172	Interfacial effects in supported catalysts for electrocatalysis. *Journal of Materials Chemistry A*, **2019**, 7, 23432-23450	13	57
171	Rapidly engineering the electronic properties and morphological structure of NiSe nanowires for the oxygen evolution reaction. *Journal of Materials Chemistry A*, **2017**, 5, 25494-25500	13	57
170	Engineering the coordination geometry of metal□rganic complex electrocatalysts for highly enhanced oxygen evolution reaction. *Journal of Materials Chemistry A*, **2018**, 6, 805-810	13	57
169	Chemically activated MoS2 for efficient hydrogen production. *Nano Energy*, **2019**, 57, 535-541	17.1	55
168	Perfecting electrocatalysts via imperfections: towards the large-scale deployment of water electrolysis technology. *Energy and Environmental Science*, **2021**, 14, 1722-1770	35.4	55
167	N-, P- and S-tridoped graphene as metal-free electrocatalyst for oxygen reduction reaction. *Journal of Electroanalytical Chemistry*, **2015**, 753, 21-27	4.1	54
166	A simple approach to the synthesis of BCN graphene with high capacitance. *Nanotechnology*, **2015**, 26, 045402	3.4	54
165	Boron-doped carbon nanotube-supported Pt nanoparticles with improved CO tolerance for methanol electro-oxidation. *Physical Chemistry Chemical Physics*, **2012**, 14, 13910-3	3.6	54
164	A facile annealing strategy for achieving in situ controllable Cu2O nanoparticle decorated copper foil as a current collector for stable lithium metal anodes. *Journal of Materials Chemistry A*, **2018**, 6, 18444-18448	13	54
163	Single-crystalline layered double hydroxides with rich defects and hierarchical structure by mild reduction for enhancing the oxygen evolution reaction. *Science China Chemistry*, **2019**, 62, 1365-1370	7.9	53
162	Hierarchically porous MOF/polymer composites via interfacial nanoassembly and emulsion polymerization. *Journal of Materials Chemistry A*, **2018**, 6, 20473-20479	13	53
161	Three-dimensional hierarchical MoS2/CoS2 heterostructure arrays for highly efficient electrocatalytic hydrogen evolution. *Green Energy and Environment*, **2017**, 2, 134-141	5.7	52
160	Defect-Enhanced Charge Separation and Transfer within Protection Layer/Semiconductor Structure of Photoanodes. *Advanced Materials*, **2018**, 30, e1801773	24	51
159	3D-crosslinked tannic acid/poly(ethylene oxide) complex as a three-in-one multifunctional binder for high-sulfur-loading and high-stability cathodes in lithium-sulfur batteries. *Energy Storage Materials*, **2019**, 17, 293-299	19.4	51

158	Modulating the electronic structure of ultrathin layered double hydroxide nanosheets with fluorine: an efficient electrocatalyst for the oxygen evolution reaction. *Journal of Materials Chemistry A*, **2019**, 7, 14483-14488	13	50
157	Sulfur-Doped Graphene Derived from Cycled Lithium–Sulfur Batteries as a Metal-Free Electrocatalyst for the Oxygen Reduction Reaction. *Angewandte Chemie*, **2015**, 127, 1908-1912	3.6	50
156	The Co3O4 nanosheet array as support for MoS2 as highly efficient electrocatalysts for hydrogen evolution reaction. *Journal of Energy Chemistry*, **2017**, 26, 1136-1139	12	50
155	Transition Metal-dinitrogen Complex Embedded Graphene for Nitrogen Reduction Reaction. *ChemCatChem*, **2019**, 11, 2821-2827	5.2	49
154	The origin of the enhanced performance of nitrogen-doped MoS2 in lithium ion batteries. *Nanotechnology*, **2016**, 27, 175402	3.4	49
153	Unveiling the Electrooxidation of Urea: Intramolecular Coupling of the N-N Bond. *Angewandte Chemie - International Edition*, **2021**, 60, 7297-7307	16.4	49
152	Enriched nucleation sites for Pt deposition on ultrathin WO3 nanosheets with unique interactions for methanol oxidation. *Journal of Materials Chemistry A*, **2018**, 6, 23028-23033	13	49
151	LDHs derived nanoparticle-stacked metal nitride as interlayer for long-life lithium sulfur batteries. *Science Bulletin*, **2018**, 63, 169-175	10.6	48
150	N, P-dual doped carbon with trace Co and rich edge sites as highly efficient electrocatalyst for oxygen reduction reaction. *Science China Materials*, **2018**, 61, 679-685	7.1	48
149	Electrochemical Oxidation of 5-Hydroxymethylfurfural on Nickel Nitride/Carbon Nanosheets: Reaction Pathway Determined by In Situ Sum Frequency Generation Vibrational Spectroscopy. *Angewandte Chemie*, **2019**, 131, 16042-16050	3.6	47
148	Advanced Exfoliation Strategies for Layered Double Hydroxides and Applications in Energy Conversion and Storage. *Advanced Functional Materials*, **2020**, 30, 1909832	15.6	47
147	N, O Co-doped carbon felt for high-performance all-vanadium redox flow battery. *International Journal of Hydrogen Energy*, **2017**, 42, 7177-7185	6.7	47
146	Highly nitrogen doped carbon nanosheets as an efficient electrocatalyst for the oxygen reduction reaction. *Chemical Communications*, **2015**, 51, 11791-4	5.8	46
145	Surface modification of basalt with silane coupling agent on asphalt mixture moisture damage. *Applied Surface Science*, **2015**, 346, 497-502	6.7	46
144	Efficiency and stability of narrow-gap semiconductor-based photoelectrodes. *Energy and Environmental Science*, **2019**, 12, 2345-2374	35.4	44
143	One-pot synthesis of nitrogen and sulfur co-doped graphene supported MoS 2 as high performance anode materials for lithium-ion batteries. *Electrochimica Acta*, **2015**, 177, 298-303	6.7	41
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