Zhiyi Lu

List of Publications by Citations

62 papers	8,853 citations	38 h-index	64 g-index
64 ext. papers	10,448 ext. citations	11.5 avg, IF	6.14 L-index

#	Paper	IF	Citations
62	Bifunctional non-noble metal oxide nanoparticle electrocatalysts through lithium-induced conversion for overall water splitting. *Nature Communications*, **2015**, 6, 7261	17.4	855
61	Electrochemical tuning of vertically aligned MoS2 nanofilms and its application in improving hydrogen evolution reaction. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 19701-6	11.5	747
60	Three-dimensional NiFe layered double hydroxide film for high-efficiency oxygen evolution reaction. *Chemical Communications*, **2014**, 50, 6479-82	5.8	634
59	High-efficiency oxygen reduction to hydrogen peroxide catalysed by oxidized carbon materials. *Nature Catalysis*, **2018**, 1, 156-162	36.5	632
58	Ultrahigh hydrogen evolution performance of under-water "superaerophobic" MoS□ nanostructured electrodes. *Advanced Materials*, **2014**, 26, 2683-7, 2615	24	604
57	Electrochemical tuning of MoS2 nanoparticles on three-dimensional substrate for efficient hydrogen evolution. *ACS Nano*, **2014**, 8, 4940-7	16.7	487
56	Nitrogen-doped tungsten carbide nanoarray as an efficient bifunctional electrocatalyst for water splitting in acid. *Nature Communications*, **2018**, 9, 924	17.4	391
55	Electrochemical tuning of layered lithium transition metal oxides for improvement of oxygen evolution reaction. *Nature Communications*, **2014**, 5, 4345	17.4	350
54	Under-Water Superaerophobic Pine-Shaped Pt Nanoarray Electrode for Ultrahigh-Performance Hydrogen Evolution. *Advanced Functional Materials*, **2015**, 25, 1737-1744	15.6	283
53	Trinary Layered Double Hydroxides as High-Performance Bifunctional Materials for Oxygen Electrocatalysis. *Advanced Energy Materials*, **2015**, 5, 1500245	21.8	265
52	Transition-Metal Single Atoms in a Graphene Shell as Active Centers for Highly Efficient Artificial Photosynthesis. *CheM*, **2017**, 3, 950-960	16.2	249
51	Beta-phased Ni(OH)2 nanowall film with reversible capacitance higher than theoretical Faradic capacitance. *Chemical Communications*, **2011**, 47, 9651-3	5.8	244
50	Superwetting Electrodes for Gas-Involving Electrocatalysis. *Accounts of Chemical Research*, **2018**, 51, 1590-1598	24.3	235
49	Ternary NiFeMn layered double hydroxides as highly-efficient oxygen evolution catalysts. *Chemical Communications*, **2016**, 52, 908-11	5.8	230
48	Ultrathin Co3O4 nanosheet arrays with high supercapacitive performance. *Scientific Reports*, **2013**, 3, 3537	4.9	165
47	Superaerophilic Carbon-Nanotube-Array Electrode for High-Performance Oxygen Reduction Reaction. *Advanced Materials*, **2016**, 28, 7155-61	24	159
46	Stable ultrahigh specific capacitance of NiO nanorod arrays. *Nano Research*, **2011**, 4, 658-665	10	152

45	One-step scalable preparation of N-doped nanoporous carbon as a high-performance electrocatalyst for the oxygen reduction reaction. *Nano Research*, **2013**, 6, 293-301	10	137
44	Hierarchical Co3O4@Ni-Co-O supercapacitor electrodes with ultrahigh specific capacitance per area. *Nano Research*, **2012**, 5, 369-378	10	136
43	High pseudocapacitive cobalt carbonate hydroxide films derived from CoAl layered double hydroxides. *Nanoscale*, **2012**, 4, 3640-3	7.7	131
42	Binary nickel–iron nitride nanoarrays as bifunctional electrocatalysts for overall water splitting. *Inorganic Chemistry Frontiers*, **2016**, 3, 630-634	6.8	119
41	Identifying the Active Surfaces of Electrochemically Tuned LiCoO for Oxygen Evolution Reaction. *Journal of the American Chemical Society*, **2017**, 139, 6270-6276	16.4	115
40	In situ fabrication of porous MoS2 thin-films as high-performance catalysts for electrochemical hydrogen evolution. *Chemical Communications*, **2013**, 49, 7516-8	5.8	111
39	Nanoarray based superaerophobic surfaces for gas evolution reaction electrodes. *Materials Horizons*, **2015**, 2, 294-298	14.4	111
38	Organic wastewater treatment by a single-atom catalyst and electrolytically produced HO. *Nature Sustainability*, **2021**, 4, 233-241	22.1	105
37	Hierarchical Co3O4 nanosheet@nanowire arrays with enhanced pseudocapacitive performance. *RSC Advances*, **2012**, 2, 1663-1668	3.7	103
36	A 3D Nanoporous Ni–Mo Electrocatalyst with Negligible Overpotential for Alkaline Hydrogen Evolution. *ChemElectroChem*, **2014**, 1, 1138-1144	4.3	94
35	High-Performance Water Electrolysis System with Double Nanostructured Superaerophobic Electrodes. *Small*, **2016**, 12, 2492-8	11	84
34	Shell-Protective Secondary Silicon Nanostructures as Pressure-Resistant High-Volumetric-Capacity Anodes for Lithium-Ion Batteries. *Nano Letters*, **2018**, 18, 7060-7065	11.5	78
33	Hierarchical nanoarray materials for advanced nickel–zinc batteries. *Inorganic Chemistry Frontiers*, **2015**, 2, 184-187	6.8	72
32	Reversible and selective ion intercalation through the top surface of few-layer MoS. *Nature Communications*, **2018**, 9, 5289	17.4	70
31	Hierarchical Ni0.25Co0.75(OH)2 nanoarrays for a high-performance supercapacitor electrode prepared by an in situ conversion process. *Journal of Materials Chemistry A*, **2013**, 1, 8327	13	68
30	Room-temperature synthetic NiFe layered double hydroxide with different anions intercalation as an excellent oxygen evolution catalyst. *RSC Advances*, **2015**, 5, 55131-55135	3.7	62
29	NiTi layered double hydroxide thin films for advanced pseudocapacitor electrodes. *Journal of Materials Chemistry A*, **2013**, 1, 10655	13	62
28	Ammonia Thermal Treatment toward Topological Defects in Porous Carbon for Enhanced Carbon Dioxide Electroreduction. *Advanced Materials*, **2020**, 32, e2001300	24	60

27	A 3D porous Ni-Cu alloy film for high-performance hydrazine electrooxidation. *Nanoscale*, **2016**, 8, 1479-84	7.7	59
26	Superaerophobic RuO -Based Nanostructured Electrode for High-Performance Chlorine Evolution Reaction. *Small*, **2017**, 13, 1602240	11	55
25	Transition metal oxides/hydroxides nanoarrays for aqueous electrochemical energy storage systems. *Science China Materials*, **2014**, 57, 59-69	7.1	40
24	Atomically dispersed Lewis acid sites boost 2-electron oxygen reduction activity of carbon-based catalysts. *Nature Communications*, **2020**, 11, 5478	17.4	38
23	Lithium Electrochemical Tuning for Electrocatalysis. *Advanced Materials*, **2018**, 30, e1800978	24	34
22	Dehydrated layered double hydroxides: Alcohothermal synthesis and oxygen evolution activity. *Nano Research*, **2016**, 9, 3152-3161	10	24
21	Cobalt-Embedded Nitrogen-Doped Carbon Nanotubes as High-Performance Bifunctional Oxygen Catalysts. *Energy Technology*, **2017**, 5, 1265-1271	3.5	23
20	Large-Scale, Low-Cost, and High-Efficiency Water-Splitting System for Clean H Generation. *ACS Applied Materials & Interfaces*, **2019**, 11, 3971-3977	9.5	23
19	Improved Oxygen Reduction Reaction Activity of Nanostructured CoS2 through Electrochemical Tuning. *ACS Applied Energy Materials*, **2019**, 2, 8605-8614	6.1	21
18	Recent Progress on Carbonaceous Material Engineering for Electrochemical Hydrogen Peroxide Generation. *Transactions of Tianjin University*, **2020**, 26, 188-196	2.9	18
17	One-Step Scalable Production of Co1□x S/Graphene Nanocomposite as High-Performance Bifunctional Electrocatalyst. *Particle and Particle Systems Characterization*, **2016**, 33, 569-575	3.1	16
16	V2O5 nanostructure arrays: controllable synthesis and performance as cathodes for lithium ion batteries. *RSC Advances*, **2013**, 3, 19937	3.7	14
15	Green sacrificial template fabrication of hierarchical MoO3 nanostructures. *CrystEngComm*, **2014**, 16, 3935	3.3	12
14	Morphology and Phase Evolution of CoAl Layered Double Hydroxides in an Alkaline Environment with Enhanced Pseudocapacitive Performance. *ChemElectroChem*, **2015**, 2, 679-683	4.3	12
13	Atomically Dispersed High-Density Al-N Sites in Porous Carbon for Efficient Photodriven CO Cycloaddition. *Advanced Materials*, **2021**, 33, e2103186	24	12
12	The Critical Role of Additive Sulfate for Stable Alkaline Seawater Oxidation on Nickel-Based Electrodes. *Angewandte Chemie - International Edition*, **2021**, 60, 22740-22744	16.4	11
11	Common-Ion Effect Triggered Highly Sustained Seawater Electrolysis with Additional NaCl Production. *Research*, **2020**, 2020, 2872141	7.8	9
10	Fast and Stable Electrochemical Production of H2O2 by Electrode Architecture Engineering. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 7120-7129	8.3	8

9	Enhanced interface interaction in Cu2S@Ni core-shell nanorod arrays as hydrogen evolution reaction electrode for alkaline seawater electrolysis. *Journal of Power Sources*, **2021**, 506, 230235	8.9	8
8	Ligand Defect Density Regulation in Metal-Organic Frameworks by Functional Group Engineering on Linkers.. *Nano Letters*, **2022**,	11.5	5
7	Atomically dispersed lewis acid sites meet poly(ionic liquid)s networks for solvent-free and co-catalyst-free conversion of CO2 to cyclic carbonates. *Applied Catalysis B: Environmental*, **2022**, 313, 121463	21.8	5
6	Oxygen vacancies promoted heterogeneous catalytic ozonation of atrazine by defective 4A zeolite. *Journal of Cleaner Production*, **2022**, 336, 130376	10.3	2
5	The Critical Role of Additive Sulfate for Stable Alkaline Seawater Oxidation on Nickel-Based Electrodes. *Angewandte Chemie*, **2021**, 133, 22922	3.6	2
4	A 3D Nanoporous Ni$_3$Mo Electrocatalyst with Negligible Overpotential for Alkaline Hydrogen Evolution. *ChemElectroChem*, **2014**, 1, 1089-1089	4.3	1
3	Tafel Analysis Guided Optimization of Zn-O-C Catalysts for the Selective 2-Electron Oxygen Reduction Reaction in Neutral Media.. *Journal of Physical Chemistry Letters*, **2022**, 3409-3416	6.4	1
2	Bubble Consumption Dynamics in Electrochemical Oxygen Reduction. *Chemical Research in Chinese Universities*, **2020**, 36, 473-478	2.2	0
1	Transformation from a non-radical to a radical pathway the amorphization of a Ni(OH) catalyst as a peroxymonosulfate activator for the ultrafast degradation of organic pollutants. *Nanoscale*, **2021**, 13, 7700-7708	7.7	0