

Zhongbin Zhuang

List of Publications by Year in descending order

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105
papers

20,170
citations

16451

64
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docs citations

113
times ranked

18276
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#	ARTICLE	IF	CITATIONS
1	Isolated Single Iron Atoms Anchored on N-Doped Porous Carbon as an Efficient Electrocatalyst for the Oxygen Reduction Reaction. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 6937-6941.	13.8	1,542
2	Efficient Water Oxidation Using Nanostructured γ -Nickel-Hydroxide as an Electrocatalyst. <i>Journal of the American Chemical Society</i> , 2014, 136, 7077-7084.	13.7	1,202
3	3D Porous Crystalline Polyimide Covalent Organic Frameworks for Drug Delivery. <i>Journal of the American Chemical Society</i> , 2015, 137, 8352-8355.	13.7	838
4	Correlating hydrogen oxidation and evolution activity on platinum at different pH with measured hydrogen binding energy. <i>Nature Communications</i> , 2015, 6, 5848.	12.8	784
5	Direct transformation of bulk copper into copper single sites via emitting and trapping of atoms. <i>Nature Catalysis</i> , 2018, 1, 781-786.	34.4	746
6	Enhanced oxygen reduction with single-atomic-site iron catalysts for a zinc-air battery and hydrogen-air fuel cell. <i>Nature Communications</i> , 2018, 9, 5422.	12.8	696
7	Universal dependence of hydrogen oxidation and evolution reaction activity of platinum-group metals on pH and hydrogen binding energy. <i>Science Advances</i> , 2016, 2, e1501602.	10.3	573
8	3D Microporous Base-Functionalized Covalent Organic Frameworks for Size-Selective Catalysis. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 2878-2882.	13.8	554
9	Engineering unsymmetrically coordinated Cu-SiN ₃ single atom sites with enhanced oxygen reduction activity. <i>Nature Communications</i> , 2020, 11, 3049.	12.8	537
10	Designed synthesis of large-pore crystalline polyimide covalent organic frameworks. <i>Nature Communications</i> , 2014, 5, 4503.	12.8	535
11	Fe Isolated Single Atoms on S, N Codoped Carbon by Copolymer Pyrolysis Strategy for Highly Efficient Oxygen Reduction Reaction. <i>Advanced Materials</i> , 2018, 30, e1800588.	21.0	511
12	Iridium single-atom catalyst on nitrogen-doped carbon for formic acid oxidation synthesized using a general host-guest strategy. <i>Nature Chemistry</i> , 2020, 12, 764-772.	13.6	452
13	Rational Design of Single Molybdenum Atoms Anchored on N-Doped Carbon for Effective Hydrogen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 16086-16090.	13.8	431
14	Single Tungsten Atoms Supported on MOF-Derived N-Doped Carbon for Robust Electrochemical Hydrogen Evolution. <i>Advanced Materials</i> , 2018, 30, e1800396.	21.0	427
15	Single-atom Rh/N-doped carbon electrocatalyst for formic acid oxidation. <i>Nature Nanotechnology</i> , 2020, 15, 390-397.	31.5	420
16	Synthesis of Monodisperse Au@Co ₃ O ₄ Core-Shell Nanocrystals and Their Enhanced Catalytic Activity for Oxygen Evolution Reaction. <i>Advanced Materials</i> , 2014, 26, 3950-3955.	21.0	418
17	Nickel supported on nitrogen-doped carbon nanotubes as hydrogen oxidation reaction catalyst in alkaline electrolyte. <i>Nature Communications</i> , 2016, 7, 10141.	12.8	368
18	Wurtzite Cu ₂ ZnSnS ₄ nanocrystals: a novel quaternary semiconductor. <i>Chemical Communications</i> , 2011, 47, 3141.	4.1	321

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19	Isolated Single Iron Atoms Anchored on N-Doped Porous Carbon as an Efficient Electrocatalyst for the Oxygen Reduction Reaction. <i>Angewandte Chemie</i> , 2017, 129, 7041-7045.	2.0	306
20	Activity targets for nanostructured platinum-group-metal-free catalysts in hydroxide exchange membrane fuel cells. <i>Nature Nanotechnology</i> , 2016, 11, 1020-1025.	31.5	282
21	High-Concentration Single Atomic Pt Sites on Hollow Cu _x for Selective O ₂ Reduction to H ₂ O ₂ in Acid Solution. <i>CheM</i> , 2019, 5, 2099-2110.	11.7	279
22	Non-precious metal electrocatalysts with high activity for hydrogen oxidation reaction in alkaline electrolytes. <i>Energy and Environmental Science</i> , 2014, 7, 1719-1724.	30.8	276
23	MOF-Derived Formation of Ni ₂ P-CoP Bimetallic Phosphides with Strong Interfacial Effect toward Electrocatalytic Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 23222-23229.	8.0	276
24	Accelerating water dissociation kinetics by isolating cobalt atoms into ruthenium lattice. <i>Nature Communications</i> , 2018, 9, 4958.	12.8	264
25	In Situ Phosphatizing of Triphenylphosphine Encapsulated within Metal-Organic Frameworks to Design Atomic Co ₁ P ₁ N ₃ Interfacial Structure for Promoting Catalytic Performance. <i>Journal of the American Chemical Society</i> , 2020, 142, 8431-8439.	13.7	259
26	Three-dimensional open nano-netcage electrocatalysts for efficient pH-universal overall water splitting. <i>Nature Communications</i> , 2019, 10, 4875.	12.8	253
27	Engineering Isolated Mn ₂ C ₂ Atomic Interface Sites for Efficient Bifunctional Oxygen Reduction and Evolution Reaction. <i>Nano Letters</i> , 2020, 20, 5443-5450.	9.1	249
28	Discovery of main group single Sb ₄ active sites for CO ₂ electroreduction to formate with high efficiency. <i>Energy and Environmental Science</i> , 2020, 13, 2856-2863.	30.8	245
29	Investigating the Influences of the Adsorbed Species on Catalytic Activity for Hydrogen Oxidation Reaction in Alkaline Electrolyte. <i>Journal of the American Chemical Society</i> , 2017, 139, 5156-5163.	13.7	243
30	Functionalization of Hollow Nanomaterials for Catalytic Applications: Nanoreactor Construction. <i>Advanced Materials</i> , 2019, 31, e1800426.	21.0	239
31	Design of a Single-Atom Indium ⁺ -N ₄ Interface for Efficient Electroreduction of CO ₂ to Formate. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 22465-22469.	13.8	232
32	Atomically Dispersed Copper-Platinum Dual Sites Alloyed with Palladium Nanorings Catalyze the Hydrogen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 16047-16051.	13.8	231
33	Design of ultrathin Pt-Mo-Ni nanowire catalysts for ethanol electrooxidation. <i>Science Advances</i> , 2017, 3, e1603068.	10.3	224
34	Controllable Synthesis of Cu ₂ S Nanocrystals and Their Assembly into a Superlattice. <i>Journal of the American Chemical Society</i> , 2008, 130, 10482-10483.	13.7	214
35	Controlled synthesis of semiconductor nanostructures in the liquid phase. <i>Chemical Society Reviews</i> , 2011, 40, 5492.	38.1	199
36	Shape Control of CdSe Nanocrystals with Zinc Blende Structure. <i>Journal of the American Chemical Society</i> , 2009, 131, 16423-16429.	13.7	168

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37	Hierarchical Fe-doped NiO x nanotubes assembled from ultrathin nanosheets containing trivalent nickel for oxygen evolution reaction. <i>Nano Energy</i> , 2017, 38, 167-174.	16.0	160
38	Platinum-Ruthenium Nanotubes and Platinum-Ruthenium Coated Copper Nanowires As Efficient Catalysts for Electro-Oxidation of Methanol. <i>ACS Catalysis</i> , 2015, 5, 1468-1474.	11.2	155
39	Controlled Hydrothermal Synthesis and Structural Characterization of a Nickel Selenide Series. <i>Chemistry - A European Journal</i> , 2006, 12, 211-217.	3.3	149
40	Electrocatalysts for hydrogen oxidation and evolution reactions. <i>Science China Materials</i> , 2016, 59, 217-238.	6.3	142
41	A highly-active, stable and low-cost platinum-free anode catalyst based on RuNi for hydroxide exchange membrane fuel cells. <i>Nature Communications</i> , 2020, 11, 5651.	12.8	142
42	Exfoliated Mesoporous 2D Covalent Organic Frameworks for High-Rate Electrochemical Double-Layer Capacitors. <i>Advanced Materials</i> , 2020, 32, e1907289.	21.0	136
43	Constructing FeN ₄ /graphitic nitrogen atomic interface for high-efficiency electrochemical CO ₂ reduction over a broad potential window. <i>CheM</i> , 2021, 7, 1297-1307.	11.7	133
44	Indium Hydroxides, Oxyhydroxides, and Oxides Nanocrystals Series. <i>Inorganic Chemistry</i> , 2007, 46, 5179-5187.	4.0	131
45	Ultrasml Cu ₇ S ₄ @MoS ₂ Hetero-Nanoframes with Abundant Active Edge Sites for Ultrahigh-Performance Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 6502-6505.	13.8	128
46	N-Bridged Co-Ni: new bimetallic sites for promoting electrochemical CO ₂ reduction. <i>Energy and Environmental Science</i> , 2021, 14, 3019-3028.	30.8	128
47	Strain Regulation to Optimize the Acidic Water Oxidation Performance of Atomic-Layer IrO _x . <i>Advanced Materials</i> , 2019, 31, e1903616.	21.0	121
48	Correlating Hydrogen Oxidation/Evolution Reaction Activity with the Minority Weak Hydrogen-Binding Sites on Ir/C Catalysts. <i>ACS Catalysis</i> , 2015, 5, 4449-4455.	11.2	114
49	Atomic Co/Ni dual sites with N/P-coordination as bifunctional oxygen electrocatalyst for rechargeable zinc-air batteries. <i>Nano Research</i> , 2021, 14, 3482-3488.	10.4	113
50	Controlled synthesis of wurtzite CuInS ₂ nanocrystals and their side-by-side nanorod assemblies. <i>CrystEngComm</i> , 2011, 13, 4039.	2.6	98
51	Ultrathin Palladium Nanomesh for Electrocatalysis. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 3435-3438.	13.8	98
52	Two-Dimensional Amorphous SnO _x from Liquid Metal: Mass Production, Phase Transfer, and Electrocatalytic CO ₂ Reduction toward Formic Acid. <i>Nano Letters</i> , 2020, 20, 2916-2922.	9.1	97
53	Promoting the methanol oxidation catalytic activity by introducing surface nickel on platinum nanoparticles. <i>Nano Research</i> , 2018, 11, 2058-2068.	10.4	93
54	ZIF-67 as Continuous Self-Sacrifice Template Derived NiCo ₂ O ₄ /Co,N-CNTs Nanocages as Efficient Bifunctional Electrocatalysts for Rechargeable Zn-Air Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 10021-10029.	6.7	90

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55	Design of Ru-Ni diatomic sites for efficient alkaline hydrogen oxidation. <i>Science Advances</i> , 2022, 8, .	10.3	89
56	Room-Temperature Soft Magnetic Iron Oxide Nanocrystals: Synthesis, Characterization, and Size-Dependent Magnetic Properties. <i>Chemistry of Materials</i> , 2008, 20, 5029-5034.	6.7	82
57	Evidence of an Oxidative-Addition-Promoted Pd-Leaching Mechanism in the Suzuki Reaction by Using a Pd-Nanostructure Design. <i>Chemistry - A European Journal</i> , 2012, 18, 9813-9817.	3.3	82
58	Rational Design of Single Molybdenum Atoms Anchored on N-Doped Carbon for Effective Hydrogen Evolution Reaction. <i>Angewandte Chemie</i> , 2017, 129, 16302-16306.	2.0	82
59	A General Chemical Conversion Method to Various Semiconductor Hollow Structures. <i>Small</i> , 2005, 1, 216-221.	10.0	79
60	Direct Synthesis of Water-Soluble Ultrathin CdS Nanorods and Reversible Tuning of the Solubility by Alkalinity. <i>Journal of the American Chemical Society</i> , 2010, 132, 1819-1821.	13.7	78
61	A Facile "Dispersion" Decomposition-Route to Metal Sulfide Nanocrystals. <i>Chemistry - A European Journal</i> , 2011, 17, 10445-10452.	3.3	74
62	One-pot synthesis of IrNi@Ir core-shell nanoparticles as highly active hydrogen oxidation reaction electrocatalyst in alkaline electrolyte. <i>Nano Energy</i> , 2019, 59, 26-32.	16.0	72
63	Oxygen Reduction at Very Low Overpotential on Nanoporous Ag Catalysts. <i>Advanced Energy Materials</i> , 2015, 5, 1500149.	19.5	68
64	Sulfate-Functionalized RuFeO _x as Highly Efficient Oxygen Evolution Reaction Electrocatalyst in Acid. <i>Advanced Functional Materials</i> , 2021, 31, 2101405.	14.9	67
65	Ternary Pd-Ni-P hybrid electrocatalysts derived from Pd-Ni core-shell nanoparticles with enhanced formic acid oxidation activity. <i>Chemical Communications</i> , 2016, 52, 11143-11146.	4.1	65
66	Mesoporous Pd@Ru Core-Shell Nanorods for Hydrogen Evolution Reaction in Alkaline Solution. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 34147-34152.	8.0	64
67	PdAg bimetallic electrocatalyst for highly selective reduction of CO ₂ with low COOH* formation energy and facile CO desorption. <i>Nano Research</i> , 2019, 12, 2866-2871.	10.4	61
68	Tetrahedral Colloidal Crystals of Ag ₂ S Nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 8174-8177.	13.8	57
69	Phase-Controlled Synthesis of Nickel Phosphide Nanocrystals and Their Electrocatalytic Performance for the Hydrogen Evolution Reaction. <i>Chemistry - A European Journal</i> , 2018, 24, 11748-11754.	3.3	55
70	Multishelled FeCo@FeCoP@C Hollow Spheres as Highly Efficient Hydrogen Evolution Catalysts. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 1267-1273.	8.0	53
71	Ultrathin Pt-Zn Nanowires: High-Performance Catalysts for Electrooxidation of Methanol and Formic Acid. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 77-81.	6.7	52
72	IrCuNi Deeply Concave Nanocubes as Highly Active Oxygen Evolution Reaction Electrocatalyst in Acid Electrolyte. <i>Nano Letters</i> , 2021, 21, 2809-2816.	9.1	49

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73	Cr-Doped CoP Nanorod Arrays as High-Performance Hydrogen Evolution Reaction Catalysts at High Current Density. <i>Small</i> , 2021, 17, e2100832.	10.0	48
74	A New Alkali-Stable Phosphonium Cation Based on Fundamental Understanding of Degradation Mechanisms. <i>ChemSusChem</i> , 2016, 9, 2374-2379.	6.8	45
75	Engineering Ag-N Single-Atom Sites on Porous Concave N-Doped Carbon for Boosting CO ₂ Electroreduction. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 17736-17744.	8.0	45
76	Synthesis of Ag-Ni-Fe-P Multielemental Nanoparticles as Bifunctional Oxygen Reduction/Evolution Reaction Electrocatalysts. <i>ACS Nano</i> , 2021, 15, 7131-7138.	14.6	45
77	Mesoporous S doped Fe-N-C materials as highly active oxygen reduction reaction catalyst. <i>Chemical Communications</i> , 2018, 54, 12073-12076.	4.1	44
78	Enhanced Photocatalytic Properties of SnO ₂ Nanocrystals with Decreased Size for ppb-Level Acetaldehyde Decomposition. <i>ChemCatChem</i> , 2011, 3, 371-377.	3.7	41
79	A hierarchical hollow-on-hollow NiCoP electrocatalyst for efficient hydrogen evolution reaction. <i>Chemical Communications</i> , 2020, 56, 90-93.	4.1	34
80	Converting biomass into efficient oxygen reduction reaction catalysts for proton exchange membrane fuel cells. <i>Science China Materials</i> , 2020, 63, 524-532.	6.3	30
81	Design of a Single-Atom Indium ⁺ N ₄ Interface for Efficient Electroreduction of CO ₂ to Formate. <i>Angewandte Chemie</i> , 2020, 132, 22651-22655.	2.0	29
82	Photocatalytic hydrogenation of nitroarenes using Cu _{1.94} S-Zn _{0.23} Cd _{0.77} S heteronanorods. <i>Nano Research</i> , 2018, 11, 3730-3738.	10.4	28
83	A metal and nitrogen doped carbon composite with both oxygen reduction and evolution active sites for rechargeable zinc-air batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 15752-15759.	10.3	28
84	Defect-Rich, Highly Porous PtAg Nanoflowers with Superior Anti-Poisoning Ability for Efficient Methanol Oxidation Reaction. <i>Small</i> , 2022, 18, e2106643.	10.0	28
85	CoP nanotubes formed by Kirkendall effect as efficient hydrogen evolution reaction electrocatalysts. <i>Materials Letters</i> , 2017, 202, 146-149.	2.6	26
86	Amorphous MoS ₂ confined in nitrogen-doped porous carbon for improved electrocatalytic stability toward hydrogen evolution reaction. <i>Nano Research</i> , 2019, 12, 3116-3122.	10.4	22
87	Self-Assembly Precursor-Derived MoP Supported on N,P-Codoped Reduced Graphene Oxides as Efficient Catalysts for Hydrogen Evolution Reaction. <i>Inorganic Chemistry</i> , 2018, 57, 13859-13865.	4.0	21
88	Direct synthesis of parallel doped N-MoP/N-CNT as highly active hydrogen evolution reaction catalyst. <i>Science China Materials</i> , 2019, 62, 690-698.	6.3	21
89	Porous platinum-silver bimetallic alloys: surface composition and strain tunability toward enhanced electrocatalysis. <i>Nanoscale</i> , 2018, 10, 21703-21711.	5.6	20
90	Silver based single atom catalyst with heteroatom coordination environment as high performance oxygen reduction reaction catalyst. <i>Nano Research</i> , 2022, 15, 7968-7975.	10.4	20

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91	Hollow bimetallic M-Fe-P (M=Mn, Co, Cu) nanoparticles as efficient electrocatalysts for hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 22806-22815.	7.1	19
92	Ultrathin NiFeS nanosheets as highly active electrocatalysts for oxygen evolution reaction. <i>Chinese Chemical Letters</i> , 2022, 33, 3916-3920.	9.0	18
93	A durability study of carbon nanotube fiber based stretchable electronic devices under cyclic deformation. <i>Carbon</i> , 2015, 94, 352-361.	10.3	17
94	CoFeW ternary oxides nanoparticles for oxygen evolution reaction. <i>Materials Letters</i> , 2018, 223, 246-249.	2.6	17
95	Impacts of anions on the electrochemical oxygen reduction reaction activity and stability of Pt/C in alkaline electrolyte. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 13373-13382.	7.1	17
96	Single-Atom Ru on Al ₂ O ₃ for Highly Active and Selective 1,2-Dichloroethane Catalytic Degradation. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 53683-53690.	8.0	16
97	Ultrasmall Cu ₇ S ₄ @MoS ₂ Hetero-Nanoframes with Abundant Active Edge Sites for Ultrahigh-Performance Hydrogen Evolution. <i>Angewandte Chemie</i> , 2016, 128, 6612-6615.	2.0	14
98	Relating alkaline stability to the structure of quaternary phosphonium cations. <i>RSC Advances</i> , 2018, 8, 26640-26645.	3.6	12
99	Defective Ni ₃ S ₂ nanowires as highly active electrocatalysts for ethanol oxidative upgrading. <i>Nano Research</i> , 2022, 15, 2987-2993.	10.4	11
100	Nickel chalcogenides as selective ethanol oxidation electro-catalysts and their structure-performance relationships. <i>Chemical Communications</i> , 2022, 58, 2496-2499.	4.1	9
101	Improving the water electrolysis performance by manipulating the generated nano/micro-bubbles using surfactants. <i>Nano Research</i> , 2023, 16, 420-426.	10.4	9
102	Insights into the Effect of Precursors on the FeP-Catalyzed Hydrogen Evolution Reaction. <i>Inorganic Chemistry</i> , 2022, , .	4.0	8
103	Amorphous palladium-based alloy nanoparticles as highly active electrocatalysts for ethanol oxidation. <i>Chemical Communications</i> , 2022, 58, 4488-4491.	4.1	7
104	Innenr¼cktitelbild: Isolated Single Iron Atoms Anchored on N-Doped Porous Carbon as an Efficient Electrocatalyst for the Oxygen Reduction Reaction (<i>Angew. Chem.</i> 24/2017). <i>Angewandte Chemie</i> , 2017, 129, 7107-7107.	2.0	6
105	Fe,Ni,S,N-doped carbon materials as highly active Bi-functional catalysts for rechargeable Zinc-Air battery. <i>Materials Letters</i> , 2020, 258, 126826.	2.6	6