Niancai Cheng

List of Publications by Year
in descending order

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35 papers	4,104 citations	236925 25 h-index	377865 34 g-index
35 all docs	35 docs citations	35 times ranked	6378 citing authors

#	Article	IF	Citations
1	Regulating the intermediate affinity on Pd nanoparticles through the control of inserted-B atoms for alkaline hydrogen evolution. Chemical Engineering Journal, 2022, 433, 133525.	12.7	23
2	Electronic modulation optimizes OH* intermediate adsorption on Co-Nx-C sites via coupling CoNi alloy in hollow carbon nanopolyhedron toward efficient reversible oxygen electrocatalysis. Applied Catalysis B: Environmental, 2022, 304, 121006.	20.2	76
3	Reduced water dissociation barrier on constructing Pt-Co/CoOx interface for alkaline hydrogen evolution. Nano Research, 2022, 15, 4958-4964.	10.4	31
4	Electronic modulation of Pt nanoclusters through tuning the interface of Pt-SnO2 clusters for enhanced hydrogen evolution catalysis. Chemical Engineering Journal, 2022, 435, 135102.	12.7	28
5	Progressively stimulating carrier motion over transient metal chalcogenide quantum dots towards solar-to-hydrogen conversion. Journal of Materials Chemistry A, 2022, 10, 11926-11937.	10.3	32
6	Tuning the dual-active sites of ZIF-67 derived porous nanomaterials for boosting oxygen catalysis and rechargeable Zn-air batteries. Nano Research, 2021, 14, 2353.	10.4	66
7	Defects enriched hollow porous Co-N-doped carbons embedded with ultrafine CoFe/Co nanoparticles as bifunctional oxygen electrocatalyst for rechargeable flexible solid zinc-air batteries. Nano Research, 2021, 14, 868-878.	10.4	102
8	Confined sub-nanometer PtCo clusters as a highly efficient and robust electrocatalyst for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 5468-5474.	10.3	58
9	Electronic tuning of confined sub-nanometer cobalt oxide clusters boosting oxygen catalysis and rechargeable Znâ€“air batteries. Nano Energy, 2021, 83, 105813.	16.0	103
10	Pt₃Sn nanoparticles enriched with SnO₂/Pt₃Sn interfaces for highly efficient alcohol electrooxidation. Nanoscale Advances, 2021, 3, 5062-5067.	4.6	5
11	High-performance alcohol electrooxidation on Pt₃Snâ€“SnO₂ nanocatalysts synthesized through the transformation of Ptâ€“Sn nanoparticles. Journal of Materials Chemistry A, 2020, 8, 592-598.	10.3	31
12	Thiourea-Zeolitic imidazolate Framework-67 assembly derived Coâ€“CoO nanoparticles encapsulated in N, S Codoped open carbon shell as bifunctional oxygen electrocatalyst for rechargeable flexible solid Znâ€“Air batteries. Journal of Power Sources, 2020, 473, 228570.	7.8	45
13	Structurally Ordered Pt₃Co Nanoparticles Anchored on N-Doped Graphene for Highly Efficient Hydrogen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2020, 8, 16938-16945.	6.7	23
14	Hydrazine Hydrate Induced Two-Dimensional Porous Co³⁺ Enriched Co₃O₄ Nanosheets for Enhanced Water Oxidation Catalysis. ACS Sustainable Chemistry and Engineering, 2020, 8, 9813-9821.	6.7	55
15	Defect-enriched hollow porous Coâ€“N-doped carbon for oxygen reduction reaction and Zn-Air batteries. Carbon, 2020, 167, 188-195.	10.3	73
16	Encapsulating Pt Nanoparticles inside a Derived Two-Dimensional Metalâ€“Organic Frameworks for the Enhancement of Catalytic Activity. ACS Applied Materials & Interfaces, 2020, 12, 10359-10368.	8.0	54
17	Enhancement of the performance of Pd nanoclusters confined within ultrathin silica layers for formic acid oxidation. Nanoscale, 2020, 12, 12891-12897.	5.6	16
18	Highly Active and Durable Ultrasmall Pd Nanocatalyst Encapsulated in Ultrathin Silica Layers by Selective Deposition for Formic Acid Oxidation. ACS Applied Materials & Interfaces, 2019, 11, 43130-43137.	8.0	18

#	Article	IF	Citations
19	Single-Atom Catalysts: From Design to Application. Electrochemical Energy Reviews, 2019, 2, 539-573.	25.5	320
20	Highly Exposed Active Sites of Defect-Enriched Derived MOFs for Enhanced Oxygen Reduction Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 17855-17862.	6.7	66
21	Structurally ordered PtSn intermetallic nanoparticles supported on ATO for efficient methanol oxidation reaction. Nanoscale, 2019, 11, 19895-19902.	5.6	35
22	Heterometallic metalâ€“organic framework nanocages of high crystallinity: an elongated channel structure formed in situ through metal-ion (M = W or Mo) doping. Journal of Materials Chemistry A, 2018, 6, 23336-23344.	10.3	33
23	Atomic layer deposited tantalum oxide to anchor Pt/C for a highly stable catalyst in PEMFCs. Journal of Materials Chemistry A, 2017, 5, 9760-9767.	10.3	48
24	Origin of the high oxygen reduction reaction of nitrogen and sulfur co-doped MOF-derived nanocarbon electrocatalysts. Materials Horizons, 2017, 4, 900-907.	12.2	95
25	Antipoisoning Performance of Platinum Catalysts with Varying Carbon Nanotube Properties: Electrochemically Revealing the Importance of Defects. ChemElectroChem, 2017, 4, 296-303.	3.4	3
26	Recent Progress on MOF-Derived Nanomaterials as Advanced Electrocatalysts in Fuel Cells. Catalysts, 2016, 6, 116.	3.5	105
27	Platinum single-atom and cluster catalysis of the hydrogen evolution reaction. Nature Communications, 2016, 7, 13638.	12.8	1,521
28	Electrocatalysts by atomic layer deposition for fuel cell applications. Nano Energy, 2016, 29, 220-242.	16.0	79
29	Metal organic frameworks for energy storage and conversion. Energy Storage Materials, 2016, 2, 35-62.	18.0	483
30	Atomic scale enhancement of metalâ€“support interactions between Pt and ZrC for highly stable electrocatalysts. Energy and Environmental Science, 2015, 8, 1450-1455.	30.8	120
31	Extremely Stable Platinum Nanoparticles Encapsulated in a Zirconia Nanocage by Areaâ€Selective Atomic Layer Deposition for the Oxygen Reduction Reaction. Advanced Materials, 2015, 27, 277-281.	21.0	238
32	High stability and activity of Pt electrocatalyst on atomic layer deposited metal oxide/nitrogen-doped graphene hybrid support. International Journal of Hydrogen Energy, 2014, 39, 15967-15974.	7.1	51
33	Enhanced life of proton exchange membrane fuel cell catalysts using perfluorosulfonic acid stabilized carbon support. Electrochimica Acta, 2011, 56, 2154-2159.	5.2	21
34	Improved lifetime of PEM fuel cell catalysts through polymer stabilization. Electrochemistry Communications, 2009, 11, 1610-1614.	4.7	46
35	Platinum single-atom and cluster catalysis of the hydrogen evolution reaction. , 0, .		1