

Niancai Cheng

List of Publications by Year in descending order

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Version: 2024-02-01

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	Platinum single-atom and cluster catalysis of the hydrogen evolution reaction. Nature Communications, 2016, 7, 13638.	12.8	1,521
2	Metal organic frameworks for energy storage and conversion. Energy Storage Materials, 2016, 2, 35-62.	18.0	483
3	Single-Atom Catalysts: From Design to Application. Electrochemical Energy Reviews, 2019, 2, 539-573.	25.5	320
4	Extremely Stable Platinum Nanoparticles Encapsulated in a Zirconia Nanocage by Area-Selective Atomic Layer Deposition for the Oxygen Reduction Reaction. Advanced Materials, 2015, 27, 277-281.	21.0	238
5	Atomic scale enhancement of metal-support interactions between Pt and ZrC for highly stable electrocatalysts. Energy and Environmental Science, 2015, 8, 1450-1455.	30.8	120
6	Recent Progress on MOF-Derived Nanomaterials as Advanced Electrocatalysts in Fuel Cells. Catalysts, 2016, 6, 116.	3.5	105
7	Electronic tuning of confined sub-nanometer cobalt oxide clusters boosting oxygen catalysis and rechargeable Zn-air batteries. Nano Energy, 2021, 83, 105813.	16.0	103
8	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
9	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
10	Electrocatalysts by atomic layer deposition for fuel cell applications. Nano Energy, 2016, 29, 220-242.	16.0	79
11	Electronic modulation optimizes OH* intermediate adsorption on Co-N _x -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
12	Defect-enriched hollow porous Co-N-doped carbon for oxygen reduction reaction and Zn-Air batteries. Carbon, 2020, 167, 188-195.	10.3	73
13	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
14	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
15	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
16	Hydrazine Hydrate Induced Two-Dimensional Porous Co ₃ O ₄ Nanosheets for Enhanced Water Oxidation Catalysis. ACS Sustainable Chemistry and Engineering, 2020, 8, 9813-9821.	6.7	55
17	Encapsulating Pt Nanoparticles inside a Derived Two-Dimensional Metal-Organic Frameworks for the Enhancement of Catalytic Activity. ACS Applied Materials & Interfaces, 2020, 12, 10359-10368.	8.0	54
18	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

#	ARTICLE	IF	CITATIONS
19	Atomic layer deposited tantalum oxide to anchor Pt/C for a highly stable catalyst in PEMFCs. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9760-9767.	10.3	48
20	Improved lifetime of PEM fuel cell catalysts through polymer stabilization. <i>Electrochemistry Communications</i> , 2009, 11, 1610-1614.	4.7	46
21	Thiourea-Zeolitic imidazolate Framework-67 assembly derived Co ²⁺ /CoO nanoparticles encapsulated in N, S Codoped open carbon shell as bifunctional oxygen electrocatalyst for rechargeable flexible solid Zn ²⁺ /Air batteries. <i>Journal of Power Sources</i> , 2020, 473, 228570.	7.8	45
22	Structurally ordered PtSn intermetallic nanoparticles supported on ATO for efficient methanol oxidation reaction. <i>Nanoscale</i> , 2019, 11, 19895-19902.	5.6	35
23	Heterometallic metal-organic framework nanocages of high crystallinity: an elongated channel structure formed <i>in situ</i> through metal-ion (M = W or Mo) doping. <i>Journal of Materials Chemistry A</i> , 2018, 6, 23336-23344.	10.3	33
24	Progressively stimulating carrier motion over transient metal chalcogenide quantum dots towards solar-to-hydrogen conversion. <i>Journal of Materials Chemistry A</i> , 2022, 10, 11926-11937.	10.3	32
25	High-performance alcohol electrooxidation on Pt ₃ Sn/SnO ₂ nanocatalysts synthesized through the transformation of Pt-Sn nanoparticles. <i>Journal of Materials Chemistry A</i> , 2020, 8, 592-598.	10.3	31
26	Reduced water dissociation barrier on constructing Pt-Co/CoO _x interface for alkaline hydrogen evolution. <i>Nano Research</i> , 2022, 15, 4958-4964.	10.4	31
27	Electronic modulation of Pt nanoclusters through tuning the interface of Pt-SnO ₂ clusters for enhanced hydrogen evolution catalysis. <i>Chemical Engineering Journal</i> , 2022, 435, 135102.	12.7	28
28	Structurally Ordered Pt ₃ Co Nanoparticles Anchored on N-Doped Graphene for Highly Efficient Hydrogen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 16938-16945.	6.7	23
29	Regulating the intermediate affinity on Pd nanoparticles through the control of inserted-B atoms for alkaline hydrogen evolution. <i>Chemical Engineering Journal</i> , 2022, 433, 133525.	12.7	23
30	Enhanced life of proton exchange membrane fuel cell catalysts using perfluorosulfonic acid stabilized carbon support. <i>Electrochimica Acta</i> , 2011, 56, 2154-2159.	5.2	21
31	Highly Active and Durable Ultrasmall Pd Nanocatalyst Encapsulated in Ultrathin Silica Layers by Selective Deposition for Formic Acid Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 43130-43137.	8.0	18
32	Enhancement of the performance of Pd nanoclusters confined within ultrathin silica layers for formic acid oxidation. <i>Nanoscale</i> , 2020, 12, 12891-12897.	5.6	16
33	Pt ₃ Sn nanoparticles enriched with SnO ₂ /Pt ₃ Sn interfaces for highly efficient alcohol electrooxidation. <i>Nanoscale Advances</i> , 2021, 3, 5062-5067.	4.6	5
34	Antipoisoning Performance of Platinum Catalysts with Varying Carbon Nanotube Properties: Electrochemically Revealing the Importance of Defects. <i>ChemElectroChem</i> , 2017, 4, 296-303.	3.4	3
35	Platinum single-atom and cluster catalysis of the hydrogen evolution reaction. , 0, .		1