

Lu Zhang

List of Publications by Year in descending order

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69
papers

3,265
citations

136885

32
h-index

149623

56
g-index

69
all docs

69
docs citations

69
times ranked

2591
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphene-encapsulated cobalt nanoparticles embedded in porous nitrogen-doped graphitic carbon nanosheets as efficient electrocatalysts for oxygen reduction reaction. <i>Journal of Colloid and Interface Science</i> , 2019, 552, 744-751.	5.0	186
2	A novel electrochemical immunosensor for highly sensitive detection of prostate-specific antigen using 3D open-structured PtCu nanoframes for signal amplification. <i>Biosensors and Bioelectronics</i> , 2019, 126, 187-192.	5.3	144
3	Controlled fabrication of well-dispersed AgPd nanoclusters supported on reduced graphene oxide with highly enhanced catalytic properties towards 4-nitrophenol reduction. <i>Journal of Colloid and Interface Science</i> , 2018, 516, 355-363.	5.0	128
4	FeCo/FeCoP encapsulated in N, Mn-codoped three-dimensional fluffy porous carbon nanostructures as highly efficient bifunctional electrocatalyst with multi-components synergistic catalysis for ultra-stable rechargeable Zn-air batteries. <i>Journal of Colloid and Interface Science</i> , 2022, 605, 451-462.	5.0	127
5	Iron, rhodium-codoped Ni ₂ P nanosheets arrays supported on nickel foam as an efficient bifunctional electrocatalyst for overall water splitting. <i>Journal of Colloid and Interface Science</i> , 2022, 605, 888-896.	5.0	122
6	One-pot aqueous synthesis of two-dimensional porous bimetallic PtPd alloyed nanosheets as highly active and durable electrocatalyst for boosting oxygen reduction and hydrogen evolution. <i>Journal of Colloid and Interface Science</i> , 2019, 543, 1-8.	5.0	115
7	Facile solvothermal synthesis of Pt ₇₁ Co ₂₉ lamellar nanoflowers as an efficient catalyst for oxygen reduction and methanol oxidation reactions. <i>Journal of Colloid and Interface Science</i> , 2019, 536, 556-562.	5.0	114
8	Mn, N, P-tridoped bamboo-like carbon nanotubes decorated with ultrafine Co ₂ P/FeCo nanoparticles as bifunctional oxygen electrocatalyst for long-term rechargeable Zn-air battery. <i>Journal of Colloid and Interface Science</i> , 2021, 590, 330-340.	5.0	112
9	In situ produced Co ₉ S ₈ nanoclusters/Co/Mn-S, N multi-doped 3D porous carbon derived from eriochrome black T as an effective bifunctional oxygen electrocatalyst for rechargeable Zn-air batteries. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 2100-2110.	5.0	108
10	Crystalline palladium-cobalt alloy nanoassemblies with enhanced activity and stability for the formic acid oxidation reaction. <i>Applied Catalysis B: Environmental</i> , 2013, 138-139, 229-235.	10.8	107
11	Facile synthesis of nanoflower-like phosphorus-doped Ni ₃ S ₂ /CoFe ₂ O ₄ arrays on nickel foam as a superior electrocatalyst for efficient oxygen evolution reaction. <i>Journal of Colloid and Interface Science</i> , 2021, 581, 774-782.	5.0	99
12	Theophylline-regulated pyrolysis synthesis of nitrogen-doped carbon nanotubes with iron-cobalt nanoparticles for greatly boosting oxygen reduction reaction. <i>Journal of Colloid and Interface Science</i> , 2022, 626, 653-661.	5.0	96
13	A facile one-pot room-temperature growth of self-supported ultrathin rhodium-iridium nanosheets as high-efficiency electrocatalysts for hydrogen evolution reaction. <i>Journal of Colloid and Interface Science</i> , 2022, 606, 1707-1714.	5.0	95
14	Iron, manganese co-doped Ni ₃ S ₂ nanoflowers in situ assembled by ultrathin nanosheets as a robust electrocatalyst for oxygen evolution reaction. <i>Journal of Colloid and Interface Science</i> , 2021, 588, 248-256.	5.0	94
15	Coordination regulated pyrolysis synthesis of ultrafine FeNi/(FeNi) ₉ S ₈ nanoclusters/nitrogen, sulfur-codoped graphitic carbon nanosheets as efficient bifunctional oxygen electrocatalysts. <i>Journal of Colloid and Interface Science</i> , 2022, 610, 573-582.	5.0	87
16	Facile synthesis of Pd-Co-P ternary alloy network nanostructures and their enhanced electrocatalytic activity towards hydrazine oxidation. <i>Journal of Materials Chemistry A</i> , 2014, 2, 1252-1256.	5.2	84
17	Ultrafine NiCoP-decorated N,S,P-codoped hierarchical porous carbon nanosheets as an efficient bifunctional electrocatalyst for oxygen reduction and oxygen evolution. <i>Materials Chemistry Frontiers</i> , 2019, 3, 1849-1858.	3.2	82
18	Melamine-assisted solvothermal synthesis of PtNi nanodendrites as highly efficient and durable electrocatalyst for hydrogen evolution reaction. <i>Journal of Colloid and Interface Science</i> , 2018, 531, 578-584.	5.0	64

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19	Aminouracil-assisted synthesis of CoFe decorated bougainvillea-like N-doped carbon nanoflowers for boosting Zn-air battery and water electrolysis. <i>Journal of Power Sources</i> , 2022, 521, 230926.	4.0	59
20	In-situ construction of 3D hetero-structured sulfur-doped nanoflower-like FeNi LDH decorated with NiCo Prussian blue analogue cubes as efficient electrocatalysts for boosting oxygen evolution reaction. <i>Journal of Colloid and Interface Science</i> , 2022, 611, 205-214.	5.0	57
21	Highly active Fe centered FeM-N-doped carbon (M=Co/Ni/Mn): A general strategy for efficient oxygen conversion in Zn-air battery. <i>Chemical Engineering Journal</i> , 2021, 424, 130559.	6.6	55
22	Highly sensitive label-free amperometric immunoassay of prostate specific antigen using hollow dendritic AuPtAg alloyed nanocrystals. <i>Biosensors and Bioelectronics</i> , 2018, 111, 47-51.	5.3	53
23	Amorphous 3D pomegranate-like NiCoFe nanoassemblies derived by bi-component cyanogel reduction for outstanding oxygen evolution reaction. <i>Journal of Energy Chemistry</i> , 2021, 53, 260-267.	7.1	52
24	Facile Synthesis of 3D NiCoP@NiCoPO ₄ Core-Shell Nanostructures with Boosted Catalytic Activity toward Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2019, 2, 4188-4194.	2.5	47
25	3D highly branched PtCoRh nanoassemblies: Glycine-assisted solvothermal synthesis and superior catalytic activity for alcohol oxidation. <i>Journal of Colloid and Interface Science</i> , 2019, 554, 512-519.	5.0	46
26	Bioinspired One-Step Pyrolysis Fabrication of 3D Porous Co, N, P-doped Carbon Nanosheets with Enriched CoN Active Sites as High-Performance Bifunctional Oxygen Electro-catalyst for Rechargeable Zn-Air Battery. <i>ACS Applied Energy Materials</i> , 2020, 3, 2781-2790.	2.5	46
27	Solvothermal Synthesis of Monodisperse PtCu Dodecahedral Nanoframes with Enhanced Catalytic Activity and Durability for Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2018, 1, 5054-5061.	2.5	43
28	Prussian blue analogue-derived CoFe nanocrystals wrapped in nitrogen-doped carbon nanocubes for overall water splitting and Zn-air battery. <i>Journal of Power Sources</i> , 2020, 480, 229107.	4.0	42
29	Assembled hollow spheres with CoFe alloyed nanocrystals encapsulated in N, P-doped carbon nanovesicles: An ultra-stable bifunctional oxygen catalyst for rechargeable Zn-air battery. <i>Journal of Power Sources</i> , 2020, 475, 228594.	4.0	41
30	Poly-L-lysine mediated synthesis of palladium nanochain networks and nanodendrites as highly efficient electrocatalysts for formic acid oxidation and hydrogen evolution. <i>Journal of Colloid and Interface Science</i> , 2018, 516, 325-331.	5.0	36
31	Platinum ₆₉ -cobalt ₃₁ alloyed nanosheet nanoassemblies as advanced bifunctional electrocatalysts for boosting ethylene glycol oxidation and oxygen reduction. <i>Journal of Colloid and Interface Science</i> , 2018, 525, 216-224.	5.0	36
32	Electronic Regulation of ZnCo Dual-Atomic Active Sites Entrapped in 1D@2D Hierarchical N-Doped Carbon for Efficient Synergistic Catalysis of Oxygen Reduction in Zn-Air Battery. <i>Small</i> , 2022, 18, e2107141.	5.2	36
33	Facile one-pot aqueous fabrication of interconnected ultrathin PtPbPd nanowires as advanced electrocatalysts for ethanol oxidation and oxygen reduction reactions. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 27455-27464.	3.8	32
34	Straw-like phosphorus-doped Co ₂ MnO ₄ nanoneedle arrays supported on nickel foam for high-efficiency hydrogen evolution reaction in wide pH range of electrolytes. <i>Applied Surface Science</i> , 2021, 548, 149280.	3.1	31
35	Facile solvothermal fabrication of polypyrrole sheets supported dendritic platinum-cobalt nanoclusters for highly efficient oxygen reduction and ethylene glycol oxidation. <i>Journal of Colloid and Interface Science</i> , 2018, 530, 394-402.	5.0	29
36	One-step pyrolysis synthesis of nitrogen, manganese-codoped porous carbon encapsulated cobalt-iron nanoparticles with superior catalytic activity for oxygen reduction reaction. <i>Journal of Colloid and Interface Science</i> , 2021, 592, 405-415.	5.0	29

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37	Synthesis and Electrocatalytic Properties of Palladium Network Nanostructures. <i>ChemPlusChem</i> , 2012, 77, 936-940.	1.3	27
38	Facile synthesis of prickly platinum-palladium core-shell nanocrystals and their boosted electrocatalytic activity towards polyhydric alcohols oxidation and hydrogen evolution. <i>Journal of Colloid and Interface Science</i> , 2018, 516, 476-483.	5.0	26
39	Ultrathin PdFePb nanowires: One-pot aqueous synthesis and efficient electrocatalysis for polyhydric alcohol oxidation reaction. <i>Journal of Colloid and Interface Science</i> , 2019, 555, 276-283.	5.0	26
40	Heterometallic nanomaterials: activity modulation, sensing, imaging and therapy. <i>Chemical Science</i> , 2022, 13, 5505-5530.	3.7	26
41	Surfactant-free palladium nanodendrite assemblies with enhanced electrocatalytic performance for formic acid oxidation. <i>Electrochemistry Communications</i> , 2013, 32, 43-46.	2.3	25
42	CoFe alloy embedded in N-doped carbon nanotubes derived from triamterene as a highly efficient and durable electrocatalyst beyond commercial Pt/C for oxygen reduction. <i>Journal of Colloid and Interface Science</i> , 2021, 604, 856-865.	5.0	25
43	Cobalt-based oxygen electrocatalysts for zinc-air batteries: Recent progress, challenges, and perspectives. <i>Nano Research</i> , 2022, 15, 5038-5063.	5.8	25
44	Thermoelectric properties of PEDOT films prepared by electrochemical polymerization. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2017, 55, 524-531.	2.4	24
45	Bimetallic Alloyed PtCu Nanocubic Frames with Three-Dimensional Molecular Accessible Surfaces for Boosting Oxygen Reduction and Glycerol Oxidation Reactions. <i>ChemCatChem</i> , 2018, 10, 3319-3326.	1.8	24
46	Transitional metal alloyed nanoparticles entrapped into the highly porous N-doped 3D honeycombed carbon: A high-efficiency bifunctional oxygen electrocatalyst for boosting rechargeable Zn-air batteries. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 19385-19396.	3.8	23
47	Layer-by-Layer Self-Assembly of Sulphydryl-Functionalized Multiwalled Carbon Nanotubes and Phosphate-Functionalized Gold Nanoparticles: Detection of Hydrazine. <i>ChemPlusChem</i> , 2012, 77, 914-922.	1.3	22
48	Cobalt nanoparticles/ nitrogen, sulfur-codoped ultrathin carbon nanotubes derived from metal organic frameworks as high-efficiency electrocatalyst for robust rechargeable zinc-air battery. <i>Journal of Colloid and Interface Science</i> , 2021, 603, 559-571.	5.0	22
49	A Facile and Robust Method for Synthesis of Hierarchically Multibranch PtIrCo Alloyed Nanowires: Growth Mechanism and Efficient Electrocatalysis for Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2019, 2, 7886-7892.	2.5	21
50	Facile solvothermal fabrication of Pt ₄₇ Ni ₅₃ nanopolyhedrons for greatly boosting electrocatalytic performances for oxygen reduction and hydrogen evolution. <i>Journal of Colloid and Interface Science</i> , 2018, 525, 260-268.	5.0	20
51	Effective construction of 3D Rh/Rh ₂ P flake-like assembled heterostructures for efficient hydrogen evolution. <i>Journal of Alloys and Compounds</i> , 2021, 865, 158864.	2.8	20
52	Hollow Ag ₄₄ Pt ₅₆ nanotube bundles with high electrocatalytic performances for hydrogen evolution and ethylene glycol oxidation reactions. <i>Journal of Colloid and Interface Science</i> , 2018, 532, 571-578.	5.0	19
53	PdCo/Pd-Hexacyanocobaltate Hybrid Nanoflowers: Cyanogel-Bridged One-Pot Synthesis and Their Enhanced Catalytic Performance. <i>Scientific Reports</i> , 2016, 6, 32402.	1.6	17
54	CoNi/MoC nanoparticles entrapped into N, P-codoped carbon nanotubes-on-nanosheets: A synergy of 1D@2D heterostructures with multiple active sites for rechargeable Zn-air battery. <i>Journal of Power Sources</i> , 2021, 506, 230225.	4.0	17

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55	Three-dimensional self-supporting superstructured double-sided nanoneedles arrays of iron carbide nanoclusters embedded in manganese, nitrogen co-doped carbon for highly efficient oxygen reduction reaction. <i>Journal of Colloid and Interface Science</i> , 2022, 614, 655-665.	5.0	17
56	One-Step Synthesis of PtCu Alloyed Nanocages with Highly Open Structures as Bifunctional Electrocatalysts for Oxygen Reduction and Polyhydric Alcohol Oxidation. <i>ACS Applied Energy Materials</i> , 0, , .	2.5	16
57	Well entrapped platinum-iron nanoparticles on three-dimensional nitrogen-doped ordered mesoporous carbon as highly efficient and durable catalyst for oxygen reduction and zinc-air battery. <i>Journal of Colloid and Interface Science</i> , 2022, 621, 275-284.	5.0	16
58	Thermoelectric performances of graphene/polyaniline composites prepared by one-step electrosynthesis. <i>RSC Advances</i> , 2015, 5, 86855-86860.	1.7	13
59	A simple wet-chemical strategy for facile fabrication of hierarchical PdAu nanodendrites as excellent electrocatalyst for oxygen reduction reaction. <i>Journal of Colloid and Interface Science</i> , 2019, 552, 51-58.	5.0	12
60	Cobalt phosphide nanoparticles encapsulated in manganese, nitrogen co-doped porous carbon nanosheets with rich nanoholes for high-efficiency oxygen reduction reaction. <i>Journal of Colloid and Interface Science</i> , 2022, 627, 630-639.	5.0	11
61	Water-regulated and bioinspired one-step pyrolysis of iron-cobalt nanoparticles-capped carbon nanotubes/porous honeycombed nitrogen-doped carbon composite for highly efficient oxygen reduction. <i>Journal of Colloid and Interface Science</i> , 2022, 618, 352-361.	5.0	10
62	Facile synthesis of porous dendritic Pt ₆₈ Ag ₃₂ nanodandelions for greatly boosting electrocatalytic activity towards oxygen reduction and hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 6096-6106.	3.8	9
63	Cyanogel and its derived-materials: properties, preparation methods, and electrochemical applications. <i>Materials Today Energy</i> , 2021, 20, 100701.	2.5	7
64	Sandwich-like superstructure of in-situ self-assembled hetero-structured carbon nanocomposite for improving electrocatalytic oxygen reduction. <i>Journal of Colloid and Interface Science</i> , 2022, 616, 34-43.	5.0	6
65	Development of Test-Bed Controller for Powertrain of HEV. <i>Energies</i> , 2020, 13, 3372.	1.6	3
66	Detecting Navel Orange Canker with Hyperspectral Imaging. , 2011, , .		1
67	Research on Control Method of Hybrid Electric Vehicle Considering Air Conditioning Power. , 2020, , .		1
68	The safe thickness of water-barrier rock wall during excavation of karst tunnel. , 2011, , .		0
69	The Design and Experimental Study of Surface Wetting System Based on Metal-Plastic Molding. , 2017, , .		0