

# Ziqiang Wang

## List of Publications by Year in descending order

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91  
papers

3,410  
citations

126708

33  
h-index

161609

54  
g-index

91  
all docs

91  
docs citations

91  
times ranked

2689  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanosized Cu-MOFs induced by graphene oxide and enhanced gas storage capacity. <i>Energy and Environmental Science</i> , 2013, 6, 818.	15.6	248
2	Ambient Electrochemical Synthesis of Ammonia from Nitrogen and Water Catalyzed by Flower-Like Gold Microstructures. <i>ChemSusChem</i> , 2018, 11, 3480-3485.	3.6	176
3	Defect-Rich Porous Palladium Metallene for Enhanced Alkaline Oxygen Reduction Electrocatalysis. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 12027-12031.	7.2	173
4	One-pot synthesis of bi-metallic PdRu tripods as an efficient catalyst for electrocatalytic nitrogen reduction to ammonia. <i>Journal of Materials Chemistry A</i> , 2019, 7, 801-805.	5.2	136
5	Electrochemical Fabrication of Porous Au Film on Ni Foam for Nitrogen Reduction to Ammonia. <i>Small</i> , 2019, 15, e1804769.	5.2	132
6	Ir-Doped Ni-based metal-organic framework ultrathin nanosheets on Ni foam for enhanced urea electro-oxidation. <i>Chemical Communications</i> , 2020, 56, 2151-2154.	2.2	101
7	Surface Engineering of Defective and Porous Ir Metallene with Polyallylamine for Hydrogen Evolution Electrocatalysis. <i>Advanced Materials</i> , 2022, 34, e2110680.	11.1	95
8	Ambient Nitrogen Reduction to Ammonia Electrocatalyzed by Bimetallic PdRu Porous Nanostructures. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 2400-2405.	3.2	94
9	Atomic defects in pothole-rich two-dimensional copper nanoplates triggering enhanced electrocatalytic selective nitrate-to-ammonia transformation. <i>Journal of Materials Chemistry A</i> , 2021, 9, 16411-16417.	5.2	82
10	Electrocatalytic Nitrogen Reduction to Ammonia by Fe <sub>2</sub> O <sub>3</sub> Nanorod Array on Carbon Cloth. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 11754-11759.	3.2	77
11	Cooperativity of Cu and Pd active sites in CuPd aerogels enhances nitrate electroreduction to ammonia. <i>Chemical Communications</i> , 2021, 57, 7525-7528.	2.2	73
12	A platinum oxide decorated amorphous cobalt oxide hydroxide nanosheet array towards alkaline hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3864-3868.	5.2	67
13	Bimetallic Ag <sub>3</sub> Cu porous networks for ambient electrolysis of nitrogen to ammonia. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12526-12531.	5.2	67
14	Nitrogen-doped porous carbons with high performance for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 8489-8497.	3.8	65
15	Ultrafine PtO <sub>2</sub> nanoparticles coupled with a Co(OH)F nanowire array for enhanced hydrogen evolution. <i>Chemical Communications</i> , 2018, 54, 810-813.	2.2	65
16	Hydrophilic/Aerophobic Hydrogen-Evolving Electrode: NiRu-Based Metal-Organic Framework Nanosheets In Situ Grown on Conductive Substrates. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 34728-34735.	4.0	65
17	Synergism of Interfaces and Defects: Cu/Oxygen Vacancy-Rich Cu-Mn <sub>3</sub> O <sub>4</sub> Heterostructured Ultrathin Nanosheet Arrays for Selective Nitrate Electroreduction to Ammonia. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 44733-44741.	4.0	64
18	Pt-Ni-P nanocages with surface porosity as efficient bifunctional electrocatalysts for oxygen reduction and methanol oxidation. <i>Journal of Materials Chemistry A</i> , 2019, 7, 9791-9797.	5.2	63

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19	PtM (M = Co, Ni) Mesoporous Nanotubes as Bifunctional Electrocatalysts for Oxygen Reduction and Methanol Oxidation. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 7960-7968.	3.2	58
20	Trimetallic PtPdNi-Truncated Octahedral Nanocages with a Well-Defined Mesoporous Surface for Enhanced Oxygen Reduction Electrocatalysis. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 4252-4257.	4.0	57
21	In Situ Reconstruction of Partially Hydroxylated Porous Rh Metallene for Ethylene Glycol-Assisted Seawater Splitting. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	57
22	Mesoporous Au <sub>3</sub> Pd Film on Ni Foam: A Self-Supported Electrocatalyst for Efficient Synthesis of Ammonia. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 436-442.	4.0	49
23	Three-dimensional Pd-Ag-S porous nanosponges for electrocatalytic nitrogen reduction to ammonia. <i>Nanoscale</i> , 2020, 12, 13507-13512.	2.8	49
24	Direct synthesis of superlong Pt Te mesoporous nanotubes for electrocatalytic oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1711-1717.	5.2	46
25	Trimetallic PdCuIr with long-spined sea-urchin-like morphology for ambient electroreduction of nitrogen to ammonia. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3190-3196.	5.2	45
26	Engineering bunched RhTe nanochains for efficient methanol oxidation electrocatalysis. <i>Chemical Communications</i> , 2020, 56, 13595-13598.	2.2	43
27	Phosphorus-triggered modification of the electronic structure and surface properties of Pd <sub>4</sub> S nanowires for robust hydrogen evolution electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19873-19878.	5.2	42
28	Metal-Nonmetal nanoarchitectures: quaternary PtPdNiP mesoporous nanospheres for enhanced oxygen reduction electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3910-3916.	5.2	38
29	Metal-Nonmetal One-Dimensional Electrocatalyst: AuPdP Nanowires for Ambient Nitrogen Reduction to Ammonia. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 15772-15777.	3.2	37
30	Ultrafine ruthenium-iridium-tellurium nanotubes for boosting overall water splitting in acidic media. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2021-2026.	5.2	36
31	Synthesis of N-doped hierarchical carbon spheres for CO <sub>2</sub> capture and supercapacitors. <i>RSC Advances</i> , 2016, 6, 1422-1427.	1.7	35
32	Synergism of Interface and Electronic Effects: Bifunctional N-Doped Ni <sub>3</sub> S <sub>2</sub> /N-Doped MoS <sub>2</sub> Hetero-Nanowires for Efficient Electrocatalytic Overall Water Splitting. <i>Chemistry - A European Journal</i> , 2019, 25, 16074-16080.	1.7	35
33	Boosting Electrocatalytic Activities of Pt-Based Mesoporous Nanoparticles for Overall Water Splitting by a Facile Ni, P Co-Incorporation Strategy. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 9709-9716.	3.2	35
34	A mesoporous Au film with surface sulfur modification for efficient ammonia electrosynthesis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 20414-20419.	5.2	34
35	Hyperbranched PdRu nanospine assemblies: an efficient electrocatalyst for formic acid oxidation. <i>Journal of Materials Chemistry A</i> , 2018, 6, 17514-17518.	5.2	33
36	Mesoporous Bimetallic Au@Rh Core-Shell Nanowires as Efficient Electrocatalysts for pH-Universal Hydrogen Evolution. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 30479-30485.	4.0	33

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37	Defect-Rich Porous Palladium Metallene for Enhanced Alkaline Oxygen Reduction Electrocatalysis. <i>Angewandte Chemie</i> , 2021, 133, 12134-12138.	1.6	32
38	Facile Construction of IrRh Nanosheet Assemblies As Efficient and Robust Bifunctional Electrocatalysts for Overall Water Splitting. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 15747-15754.	3.2	31
39	Transition metal M (M = Co, Ni, and Fe) and boron co-modulation in Rh-based aerogels for highly efficient and pH-universal hydrogen evolution electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 5595-5600.	5.2	30
40	Pt@Mesoporous PtRu Yolk-Shell Nanostructured Electrocatalyst for Methanol Oxidation Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 14867-14873.	3.2	29
41	A quaternary metal-metalloid nonmetal electrocatalyst: B, P-co-doping into PdRu nanospine assemblies boosts the electrocatalytic capability toward formic acid oxidation. <i>Journal of Materials Chemistry A</i> , 2020, 8, 2424-2429.	5.2	29
42	Polyethylenimine-modified bimetallic Au@Rh core-shell mesoporous nanospheres surpass Pt for pH-universal hydrogen evolution electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 13080-13086.	5.2	29
43	PtPdRh Mesoporous Nanospheres: An Efficient Catalyst for Methanol Electro-Oxidation. <i>Langmuir</i> , 2019, 35, 413-419.	1.6	26
44	Crystalline core-amorphous shell heterostructures: epitaxial assembly of NiB nanosheets onto PtPd mesoporous hollow nanopolyhedra for enhanced hydrogen evolution electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 8927-8933.	5.2	25
45	Rational construction of Au <sub>3</sub> Cu@Cu nanocages with porous core-shell heterostructured walls for enhanced electrocatalytic N <sub>2</sub> fixation. <i>Journal of Materials Chemistry A</i> , 2021, 9, 8372-8377.	5.2	25
46	Enhanced Dual Fuel Cell Electrocatalysis with Trimetallic PtPdCo Mesoporous Nanoparticles. <i>Chemistry - an Asian Journal</i> , 2018, 13, 2939-2946.	1.7	24
47	Construction of hierarchical IrTe nanotubes with assembled nanosheets for overall water splitting electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 18576-18581.	5.2	24
48	Two-Dimensional Heterojunction Electrocatalyst: Au-Bi <sub>2</sub> Te <sub>3</sub> Nanosheets for Electrochemical Ammonia Synthesis. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 47458-47464.	4.0	24
49	Phosphorus incorporation accelerates ammonia electrosynthesis over a mesoporous Au film. <i>Chemical Communications</i> , 2022, 58, 6088-6091.	2.2	24
50	B-Doped PdRu nanopillar assemblies for enhanced formic acid oxidation electrocatalysis. <i>Nanoscale</i> , 2020, 12, 19159-19164.	2.8	21
51	Flexible synthesis of Au@Pd core-shell mesoporous nanoflowers for efficient methanol oxidation. <i>Nanoscale</i> , 2021, 13, 3208-3213.	2.8	21
52	Anodic hydrazine oxidation assisted hydrogen evolution over bimetallic RhIr mesoporous nanospheres. <i>Journal of Materials Chemistry A</i> , 2021, 9, 18323-18328.	5.2	21
53	Phosphorus-modified ruthenium-tellurium dendritic nanotubes outperform platinum for alkaline hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 5026-5032.	5.2	20
54	Self-assembly synthesis of nitrogen-doped mesoporous carbons used as high-performance electrode materials in lithium-ion batteries and supercapacitors. <i>New Journal of Chemistry</i> , 2017, 41, 12901-12909.	1.4	19

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55	Mesoporous Rh nanotubes for efficient electro-oxidation of methanol. <i>Journal of Materials Chemistry A</i> , 2021, 9, 4744-4750.	5.2	19
56	N-doping induced lattice-strained porous PdIr bimetallic for pH-universal hydrogen evolution electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2022, 10, 8364-8370.	5.2	19
57	Liquid Metal Interfacial Growth and Exfoliation to Form Mesoporous Metallic Nanosheets for Alkaline Methanol Electroreforming. <i>ACS Nano</i> , 2022, 16, 2978-2987.	7.3	17
58	Ultralong Ternary PtRuTe Mesoporous Nanotubes Fabricated by Micelle Assembly with a Self-Sacrificial Template. <i>Chemistry - A European Journal</i> , 2019, 25, 5316-5321.	1.7	16
59	Effects of AuCuB Catalysts with Porous Nanostructures on Electrosynthesis of Ammonia. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 12588-12594.	3.2	16
60	Two-Dimensional Ni <sub>2</sub> N-Doped Carbon Nanocomposites Supported on Ni Foam for Electrocatalytic Overall Water Splitting. <i>Chemistry - A European Journal</i> , 2020, 26, 14496-14501.	1.7	16
61	Engineering One-Dimensional AuPd Nanospikes for Efficient Electrocatalytic Nitrogen Fixation. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 20233-20239.	4.0	16
62	Electroreduction of Nitrate to Ammonia on Palladium-Cobalt Oxygen Nanowire Arrays. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 13169-13176.	4.0	16
63	Enhanced Oxygen Reduction and Methanol Oxidation Electrocatalysis over Bifunctional PtPdIr Mesoporous Hollow Nanospheres. <i>Chemistry - an Asian Journal</i> , 2019, 14, 3868-3874.	1.7	15
64	<i>In situ</i> electrochemical reduction-assisted exfoliation: conversion of BiOCl nanoplates into Bi nanosheets enables efficient electrocatalytic nitrogen fixation. <i>Sustainable Energy and Fuels</i> , 2020, 4, 3334-3339.	2.5	15
65	Boron-Doped PdCuAu Nanospine Assembly as an Efficient Electrocatalyst toward Formic Acid Oxidation. <i>Chemistry - A European Journal</i> , 2020, 26, 2493-2498.	1.7	12
66	Anchoring Au nanoparticles on Bi ultrathin nanosheets for use as an efficient heterogeneous catalyst for ambient-condition electrochemical ammonia synthesis. <i>Sustainable Energy and Fuels</i> , 2020, 4, 4516-4521.	2.5	12
67	PdNi/Ni Nanotubes Assembled by Mesoporous Nanoparticles for Efficient Alkaline Ethanol Oxidation Reaction. <i>Chemistry - A European Journal</i> , 2021, 27, 14472-14477.	1.7	11
68	Palladium Nanothorn Assembly Array for Efficient Electroreduction of Nitrogen to Ammonia. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 14228-14233.	3.2	10
69	Tannic acid decorated AuPd lavender-like nanochains for enhanced oxygen reduction electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 15678-15683.	5.2	10
70	Regulation of the surface micro-structure and crystal phase of Pd <sub>2</sub> B mesoporous nanoparticles for enhanced hydrogen evolution electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 21123-21131.	5.2	10
71	A phosphorus modified mesoporous AuRh film as an efficient bifunctional electrocatalyst for urea-assisted energy-saving hydrogen production. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3086-3092.	5.2	10
72	Hollow PtPd Nanorods with Mesoporous Shells as an Efficient Electrocatalyst for the Methanol Oxidation Reaction. <i>Chemistry - an Asian Journal</i> , 2019, 14, 3019-3024.	1.7	9

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73	Pore-Size-Tuned Pd Films Grown on Ni Foam as an Advanced Catalyst for Electrosynthesis of Ammonia. ACS Sustainable Chemistry and Engineering, 2020, 8, 11827-11833.	3.2	9
74	A P-doped PtTe mesoporous nanotube electrocatalyst. Sustainable Energy and Fuels, 2020, 4, 2950-2955.	2.5	9
75	Mesoporous Pt@PtM (M = Co, Ni) cage-bell nanostructures toward methanol electro-oxidation. Nanoscale Advances, 2020, 2, 1084-1089.	2.2	8
76	ZIF-derived porous carbon composites coated on NiCo <sub>2</sub> S <sub>4</sub> nanotubes array toward efficient water splitting. Nanotechnology, 2020, 31, 195402.	1.3	8
77	Direct fabrication of bimetallic AuPt nanobrick spherical nanoarchitectonics for the oxygen reduction reaction. New Journal of Chemistry, 2019, 43, 9628-9633.	1.4	7
78	In-situ Formation of Amorphous Co-Al-P Layer on CoAl Layered Double Hydroxide Nanoarray as Neutral Electrocatalysts for Hydrogen Evolution Reaction. Frontiers in Chemistry, 2020, 8, 552795.	1.8	7
79	Bimetallic mesoporous RhRu film for electrocatalytic nitrogen reduction to ammonia. Inorganic Chemistry Frontiers, 2021, 8, 4276-4281.	3.0	7
80	Phosphorus-triggered activation of PdPb nanoflowers for enhanced oxygen reduction electrocatalysis. Journal of Materials Chemistry A, 2022, 10, 15528-15534.	5.2	7
81	Multinary PtPdNiP truncated octahedral mesoporous nanocages for enhanced methanol oxidation electrocatalysis. New Journal of Chemistry, 2020, 44, 15492-15497.	1.4	6
82	Phosphorus modulation of a mesoporous rhodium film for enhanced nitrogen electroreduction. Nanoscale, 2021, 13, 13809-13815.	2.8	6
83	Ternary AuPS Alloy Mesoporous Film for Efficient Electroreduction of Nitrogen to Ammonia. ACS Applied Materials & Interfaces, 2021, 13, 28057-28063.	4.0	6
84	Interface functionalization of mesoporous ruthenium films with polyaniline for enhanced hydrogen evolution electrocatalysis at all pH values. Journal of Materials Chemistry A, 2022, 10, 14435-14440.	5.2	6
85	A Mesoporous Nanorattle-Structured Pd@PtRu Electrocatalyst. Chemistry - an Asian Journal, 2019, 14, 3397-3403.	1.7	4
86	Ultrathin Porous WPdH Nanosheet Assemblies for Efficient Alkaline Oxygen Reduction. Energy & Fuels, 2022, 36, 7775-7781.	2.5	4
87	An interconnected porous Au <sub>3</sub> Pt film on Ni foam: an efficient electrocatalyst for alkaline hydrogen evolution reaction. Sustainable Energy and Fuels, 2020, 4, 4878-4883.	2.5	2
88	Mesoporous PdRu Nanocrystals for Oxygen Reduction Electrocatalysis. Energy & Fuels, 2021, 35, 13382-13388.	2.5	2
89	Urchin-like PdOs nanostructure for hydrogen evolution electrocatalysis. Nanotechnology, 2022, 33, 325401.	1.3	2
90	Rational synthesis of Pt-based dandelion-like yolk-shell nanoparticles with enhanced oxygen reduction properties. Sustainable Energy and Fuels, 2019, 3, 3329-3334.	2.5	1

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91	Porous PdAg alloy nanostructures with a concave surface for efficient electrocatalytic methanol oxidation. <i>Nanotechnology</i> , 2021, 32, 355402.	1.3	1