

Yu Zhang

List of Publications by Year in descending order

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papers

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times ranked

22558
citing authors

#	ARTICLE	IF	CITATIONS
1	Intrinsic peroxidase-like activity of ferromagnetic nanoparticles. <i>Nature Nanotechnology</i> , 2007, 2, 577-583.	15.6	5,080
2	Noble metal-free hydrogen evolution catalysts for water splitting. <i>Chemical Society Reviews</i> , 2015, 44, 5148-5180.	18.7	4,776
3	Electrochemical Reduction of N_2 under Ambient Conditions for Artificial N_2 Fixation and Renewable Energy Storage Using N_2/NH_3 Cycle. <i>Advanced Materials</i> , 2017, 29, 1604799.	11.1	969
4	Ultrafast Formation of Amorphous Bimetallic Hydroxide Films on 3D Conductive Sulfide Nanoarrays for Large-Current-Density Oxygen Evolution Electrocatalysis. <i>Advanced Materials</i> , 2017, 29, 1700404.	11.1	462
5	Protective Coating of Superparamagnetic Iron Oxide Nanoparticles. <i>Chemistry of Materials</i> , 2003, 15, 1617-1627.	3.2	450
6	Controllable Growth and Transfer of Monolayer MoS_2 on Au Foils and Its Potential Application in Hydrogen Evolution Reaction. <i>ACS Nano</i> , 2014, 8, 10196-10204.	7.3	404
7	Corrosion engineering towards efficient oxygen evolution electrodes with stable catalytic activity for over 6000 hours. <i>Nature Communications</i> , 2018, 9, 2609.	5.8	389
8	Multi-shelled metal oxides prepared via an anion-adsorption mechanism for lithium-ion batteries. <i>Nature Energy</i> , 2016, 1, .	19.8	352
9	Coupling Sub-Nanometric Copper Clusters with Quasi-Amorphous Cobalt Sulfide Yields Efficient and Robust Electrocatalysts for Water Splitting Reaction. <i>Advanced Materials</i> , 2017, 29, 1606200.	11.1	350
10	Homogeneous CoO on Graphene for Binder-Free and Ultralong-Life Lithium Ion Batteries. <i>Advanced Functional Materials</i> , 2013, 23, 4345-4353.	7.8	333
11	$Pt@CeO_2$ Multicore-Shell Self-Assembled Nanospheres: Clean Synthesis, Structure Optimization, and Catalytic Applications. <i>Journal of the American Chemical Society</i> , 2013, 135, 15864-15872.	6.6	323
12	In Situ Generation of Bifunctional, Efficient Fe-Based Catalysts from Mackinawite Iron Sulfide for Water Splitting. <i>Chem</i> , 2018, 4, 1139-1152.	5.8	271
13	Prevention of dendrite growth and volume expansion to give high-performance aprotic bimetallic Li-Na alloy O_2 batteries. <i>Nature Chemistry</i> , 2019, 11, 64-70.	6.6	265
14	Cathode Surface-Induced, Solvation-Mediated, Micrometer-Sized Li_2O_2 Cycling for $Li-O_2$ Batteries. <i>Advanced Materials</i> , 2016, 28, 9620-9628.	11.1	232
15	Surfactant-Free Aqueous Synthesis of Pure Single-Crystalline SnSe Nanosheet Clusters as Anode for High Energy- and Power-Density Sodium-Ion Batteries. <i>Advanced Materials</i> , 2017, 29, 1602469.	11.1	231
16	Generating Defect-Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 9464-9469.	7.2	226
17	Rhodium-nickel nanoparticles grown on graphene as highly efficient catalyst for complete decomposition of hydrous hydrazine at room temperature for chemical hydrogen storage. <i>Energy and Environmental Science</i> , 2012, 5, 6885.	15.6	214
18	Alkali Metal Anodes for Rechargeable Batteries. <i>Chem</i> , 2019, 5, 313-338.	5.8	170

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19	Dendritic, Transferable, Strictly Monolayer MoS ₂ Flakes Synthesized on SrTiO ₃ Single Crystals for Efficient Electrocatalytic Applications. ACS Nano, 2014, 8, 8617-8624.	7.3	158
20	Flexible Electrodes for Sodium-Ion Batteries: Recent Progress and Perspectives. Advanced Materials, 2017, 29, 1703012.	11.1	156
21	Transition-Metal-Boron Intermetallics with Strong Interatomic d-sp Orbital Hybridization for High-Performance Electrocatalysis. Angewandte Chemie - International Edition, 2020, 59, 3961-3965.	7.2	139
22	A Flexible and Wearable Lithium-Oxygen Battery with Record Energy Density achieved by the Interlaced Architecture inspired by Bamboo Slips. Advanced Materials, 2016, 28, 8413-8418.	11.1	138
23	Ru Species Supported on MOF-Derived N-Doped TiO ₂ /C Hybrids as Efficient Electrocatalytic/Photocatalytic Hydrogen Evolution Reaction Catalysts. Advanced Functional Materials, 2020, 30, 2003007.	7.8	126
24	Formation of Septuple-Shelled (Co _{2/3} Mn _{1/3})(Co _{5/6} Mn _{1/6}) ₂ O ₄ Hollow Spheres as Electrode Material for Alkaline Rechargeable Battery. Advanced Materials, 2017, 29, 1700550.	11.1	122
25	Î ² -NiS modified CdS nanowires for photocatalytic H ₂ evolution with exceptionally high efficiency. Chemical Science, 2018, 9, 1574-1585.	3.7	112
26	Blood-Capillary-Inspired, Free-Standing, Flexible, and Low-Cost Super-Hydrophobic N-CNTs@SS Cathodes for High-Capacity, High-Rate, and Stable Li-Air Batteries. Advanced Energy Materials, 2018, 8, 1702242.	10.2	108
27	In situ generated Fe ₃ in homogeneous iron matrix toward high-performance cathode material for sodium-ion batteries. Nano Energy, 2014, 10, 295-304.	8.2	101
28	High-Performance ZnCo ₂ O ₄ @CeO ₂ Core@shell Microspheres for Catalytic CO Oxidation. ACS Applied Materials & Interfaces, 2014, 6, 22216-22223.	4.0	98
29	The PVDF-HFP gel polymer electrolyte for Li-O ₂ battery. Solid State Ionics, 2018, 318, 88-94.	1.3	93
30	Rectangular AgIn(WO ₄) ₂ Nanotubes: A Promising Photoelectric Material. Advanced Functional Materials, 2008, 18, 2328-2334.	7.8	88
31	Transition-Metal-Boron Intermetallics with Strong Interatomic d-sp Orbital Hybridization for High-Performance Electrocatalysis. Angewandte Chemie, 2020, 132, 3989-3993.	1.6	88
32	Î ³ -Al ₂ O ₃ supported Pd@CeO ₂ core@shell nanospheres: salting-out assisted growth and self-assembly, and their catalytic performance in CO oxidation. Chemical Science, 2015, 6, 2877-2884.	3.7	86
33	Protecting the Lithium Metal Anode for a Safe Flexible Lithium-Air Battery in Ambient Air. Angewandte Chemie - International Edition, 2019, 58, 18240-18245.	7.2	81
34	Dispersion-Assisted Assembly Approach to Synthesize Three-Dimensional Graphene/Polymer Composite Aerogel as a Powerful Organic Cathode for Rechargeable Li and Na Batteries. ACS Applied Materials & Interfaces, 2017, 9, 15549-15556.	4.0	79
35	An Illumination-Assisted Flexible Self-Powered Energy System Based on a Li-O ₂ Battery. Angewandte Chemie - International Edition, 2019, 58, 16411-16415.	7.2	78
36	Preparation and gas storage of high surface area microporous carbon derived from biomass source cornstalks. Bioresource Technology, 2008, 99, 4803-4808.	4.8	76

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37	Co ₃ O ₄ @CeO ₂ Core@Shell Cubes: Designed Synthesis and Optimization of Catalytic Properties. <i>Chemistry - A European Journal</i> , 2014, 20, 4469-4473.	1.7	75
38	Copper doped ceria porous nanostructures towards a highly efficient bifunctional catalyst for carbon monoxide and nitric oxide elimination. <i>Chemical Science</i> , 2015, 6, 2495-2500.	3.7	74
39	High-Performance Integrated Self-Package Flexible Li ⁺ O ₂ Battery Based on Stable Composite Anode and Flexible Gas Diffusion Layer. <i>Advanced Materials</i> , 2017, 29, 1700378.	11.1	72
40	Highly transparent bulk PMMA/ZnO nanocomposites with bright visible luminescence and efficient UV-shielding capability. <i>Journal of Materials Chemistry</i> , 2012, 22, 11971.	6.7	70
41	Rational catalyst design for oxygen evolution under acidic conditions: strategies toward enhanced electrocatalytic performance. <i>Journal of Materials Chemistry A</i> , 2021, 9, 5890-5914.	5.2	65
42	Green and controlled synthesis of Cu ₂ O@graphene hierarchical nanohybrids as high-performance anode materials for lithium-ion batteries via an ultrasound assisted approach. <i>Dalton Transactions</i> , 2012, 41, 4316.	1.6	64
43	Rh@Ni Nanoparticles as Highly Efficient Catalysts for Hydrogen Generation from Hydrous Hydrazine. <i>Advanced Energy Materials</i> , 2015, 5, 1401879.	10.2	61
44	A Controllable Surface Etching Strategy for Well-Defined Spiny Yolk@Shell CuO@CeO ₂ Cubes and Their Catalytic Performance Boost. <i>Advanced Functional Materials</i> , 2018, 28, 1802559.	7.8	60
45	Comparative Study of Structural Changes in NH ₃ BH ₃ , LiNH ₂ BH ₃ , and KNH ₂ BH ₃ During Dehydrogenation Process. <i>Journal of Physical Chemistry C</i> , 2012, 116, 5957-5964.	1.5	57
46	High-Performance Ultrathin Co ₃ O ₄ Nanosheet Supported PdO/CeO ₂ Catalysts for Methane Combustion. <i>Advanced Energy Materials</i> , 2019, 9, 1803583.	10.2	57
47	Superior electrode performance of mesoporous hollow TiO ₂ microspheres through efficient hierarchical nanostructures. <i>Journal of Power Sources</i> , 2011, 196, 8618-8624.	4.0	52
48	Decoration of Pt on Cu/Co double-doped CeO ₂ nanospheres and their greatly enhanced catalytic activity. <i>Chemical Science</i> , 2016, 7, 1867-1873.	3.7	51
49	Microporous carbon derived from pinecone hull as anode material for lithium secondary batteries. <i>Materials Letters</i> , 2007, 61, 5209-5212.	1.3	50
50	Solid state NMR study on the thermal decomposition pathway of sodium amidoborane NaNH ₂ BH ₃ . <i>Journal of Materials Chemistry</i> , 2011, 21, 2609.	6.7	48
51	Generating Defect-Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. <i>Angewandte Chemie</i> , 2019, 131, 9564-9569.	1.6	47
52	Highly Active PdO/Mn ₃ O ₄ /CeO ₂ Nanocomposites Supported on One Dimensional Halloysite Nanotubes for Photoassisted Thermal Catalytic Methane Combustion. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 18552-18556.	7.2	46
53	Thermal decomposition of alkaline-earth metal hydride and ammonia borane composites. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 12405-12409.	3.8	45
54	CO Oxidation Catalyzed by Two-Dimensional Co ₃ O ₄ /CeO ₂ Nanosheets. <i>ACS Applied Nano Materials</i> , 2019, 2, 5769-5778.	2.4	45

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55	Self-Assembled Pd@CeO ₂ /Al ₂ O ₃ Catalysts with Enhanced Activity for Catalytic Methane Combustion. <i>Small</i> , 2017, 13, 1700941.	5.2	40
56	Conductivity Modulation of 3D-Printed Shellular Electrodes through Embedding Nanocrystalline Intermetallics into Amorphous Matrix for Ultrahigh-Current Oxygen Evolution. <i>Advanced Energy Materials</i> , 2021, 11, 2100968.	10.2	40
57	Promoting electrocatalytic nitrogen reduction to ammonia <i>via</i> Fe-boosted nitrogen activation on MnO ₂ surfaces. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13679-13684.	5.2	38
58	Nanocarbon encapsulating Ni-doped MoP/graphene composites for highly improved electrocatalytic hydrogen evolution reaction. <i>Composites Communications</i> , 2021, 26, 100792.	3.3	38
59	Colloidal Noble-Metal and Bimetallic Alloy Nanocrystals: A General Synthetic Method and Their Catalytic Hydrogenation Properties. <i>Chemistry - A European Journal</i> , 2010, 16, 6251-6256.	1.7	36
60	An Illumination-Assisted Flexible Self-Powered Energy System Based on a Li-O ₂ Battery. <i>Angewandte Chemie</i> , 2019, 131, 16563-16567.	1.6	35
61	Activation of Ammonia Borane Hybridized with Alkaline-Metal Hydrides: A Low-Temperature and High-Purity Hydrogen Generation Material. <i>Journal of Physical Chemistry C</i> , 2010, 114, 14662-14664.	1.5	33
62	Fe ₃ O ₄ -nanoparticle-decorated TiO ₂ nanofiber hierarchical heterostructures with improved lithium-ion battery performance over wide temperature range. <i>Nano Research</i> , 2015, 8, 1659-1668.	5.8	33
63	Protecting the Lithium Metal Anode for a Safe Flexible Lithium-Air Battery in Ambient Air. <i>Angewandte Chemie</i> , 2019, 131, 18408-18413.	1.6	32
64	In Situ Fabrication of Porous Co _x P Hierarchical Nanostructures on Carbon Fiber Cloth with Exceptional Performance for Sodium Storage. <i>Advanced Materials</i> , 2022, 34, e2108985.	11.1	32
65	Highly Active Catalyst of Two-Dimensional CoS ₂ /Graphene Nanocomposites for Hydrogen Evolution Reaction. <i>Nanoscale Research Letters</i> , 2015, 10, 488.	3.1	29
66	Galvanic replacement synthesis of Ag _x Au _{1-x} @CeO ₂ (0 ≤ x ≤ 1) core@shell nanospheres with greatly enhanced catalytic performance. <i>Chemical Science</i> , 2015, 6, 7015-7019.	3.7	29
67	Design and synthesis of near-IR luminescent mesoporous materials covalently linked with tris(8-hydroxyquinolate)lanthanide(III) complexes. <i>Microporous and Mesoporous Materials</i> , 2008, 115, 535-540.	2.2	28
68	Hydrogen storage properties and mechanisms of Mg(BH ₄) ₂ ...2NH ₃ ·xMgH ₂ combination systems. <i>Journal of Alloys and Compounds</i> , 2014, 585, 674-680.	2.8	27
69	Solvation Effect on the Improved Sodium Storage Performance of Na-Heteropentacenequinone for Sodium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 26806-26812.	7.2	26
70	Ternary lanthanide (Er ³⁺ , Nd ³⁺ , Yb ³⁺ , Sm ³⁺ , Pr ³⁺) complex-functionalized mesoporous SBA-15 materials that emit in the near-infrared range. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2008, 199, 57-63.	2.0	24
71	The design of hollow PdO@Co ₃ O ₄ nano-dodecahedrons with moderate catalytic activity for Li-O ₂ batteries. <i>Chemical Communications</i> , 2019, 55, 12683-12686.	2.2	23
72	Self-Assembled Growth of AgIn(MoO ₄) ₂ Submicroplates into Hierarchical Structures and Their Near-Infrared Luminescent Properties. <i>Crystal Growth and Design</i> , 2009, 9, 848-852.	1.4	22

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73	Water-soluble Au@CeO ₂ hybrid nanosheets with high catalytic activity and recyclability. Dalton Transactions, 2012, 41, 7193.	1.6	22
74	Trimetallic (Co/Ni/Cu) Hydroxyphosphate Nanosheet Array as Efficient and Durable Electrocatalyst for Oxygen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2018, 6, 16859-16866.	3.2	22
75	Mini Review: Recent Advances on Flexible Rechargeable Li-Air Batteries. Energy & Fuels, 2021, 35, 4751-4761.	2.5	18
76	Filling Mesopores of Conductive Metal-Organic Frameworks with Cu Clusters for Selective Nitrate Reduction to Ammonia. ACS Applied Materials & Interfaces, 2022, 14, 32176-32182.	4.0	16
77	CuIn(WO ₄) ₂ nanospindles and nanorods: controlled synthesis and host for lanthanide near-infrared luminescence properties. CrystEngComm, 2009, 11, 1987.	1.3	14
78	Precious-Metal-Free Nanocatalysts for Highly Efficient Hydrogen Production from Hydrous Hydrazine. Advanced Functional Materials, 2014, 24, 7073-7077.	7.8	14
79	Synthesis, structures and photoluminescence of two Er(III) coordination polymers. Journal of Coordination Chemistry, 2008, 61, 945-955.	0.8	13
80	Pr-doped NiCoP nanowire arrays for efficient hydrogen evolution in both acidic and alkaline media. Journal of Alloys and Compounds, 2021, 862, 158047.	2.8	13
81	Layer-by-Layer Electrodeposition of FTO/TiO ₂ /Cu _x O/CeO ₂ (1 < x < 2) Photocatalysts with High Peroxidase-Like Activity by Greatly Enhanced Singlet Oxygen Generation. Small Methods, 2021, 5, 2100423.	4.6	11
82	3D Carbon Networks: Design and Applications in Sodium Ion Batteries. ChemPlusChem, 2021, 86, 1135-1161.	1.3	11
83	Optimized Self-Templating Synthesis Method for Highly Crystalline Hollow Cu ₂ O Nanoboxes. Small Methods, 2020, 4, 2000521.	4.6	10
84	In situ redox strategy for large-scale fabrication of surfactant-free M-Fe ₂ O ₃ (M = Pt, Pd, Au) hybrid nanospheres. Science China Materials, 2016, 59, 191-199.	3.5	9
85	Recent progresses, challenges and perspectives on rechargeable Li-O ₂ batteries. Nano Select, 2020, 1, 79-93.	1.9	9
86	Hollow Zn ₂ /GeO ₄ ; Nanorods Supported on Reduced Graphene Oxides as an Environment-Friendly High-Capacity Anode Material for Lithium Ion Batteries. Science of Advanced Materials, 2013, 5, 523-529.	0.1	9
87	Preparation of Quaternary FeCoMoCu Metal Oxides for Oxygen Evolution Reaction. Chemical Research in Chinese Universities, 2022, 38, 823-828.	1.3	9
88	Synthesis of Ferrite Nanocrystals Stabilized by Ionic-Liquid Molecules through a Thermal Decomposition Route. Chemistry - A European Journal, 2011, 17, 920-924.	1.7	8
89	Lithium hydrazide as a potential compound for hydrogen storage. International Journal of Hydrogen Energy, 2012, 37, 5750-5753.	3.8	6
90	Catalytically active Co ₃ O ₄ hybrid microstructures and their morphology evolution induced by ceria. Materials Research Bulletin, 2017, 96, 2-9.	2.7	5

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91	Synthesis, structure and characterization of new 1D and 2D Ni(II) coordination polymers. <i>Solid State Sciences</i> , 2009, 11, 364-367.	1.5	4
92	Catalytic activity boost of CeO ₂ /Co ₃ O ₄ nanospheres derived from CeCo-glycolate <i>via</i> yolk-shell structural evolution. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 421-426.	3.0	3
93	Carbon anode material formed from template molecules occluded in a magnesium-substituted aluminophosphate. <i>Materials Chemistry and Physics</i> , 2009, 113, 309-313.	2.0	2
94	Synthesis of monodispersed Au-PbS hybrid nanocrystals via a solid-liquid interfacial reaction. <i>CrystEngComm</i> , 2012, 14, 7552.	1.3	2
95	Highly Active PdO/Mn ₃ O ₄ /CeO ₂ Nanocomposites Supported on One Dimensional Halloysite Nanotubes for Photoassisted Thermal Catalytic Methane Combustion. <i>Angewandte Chemie</i> , 2021, 133, 18700-18704.	1.6	2
96	Solvation Effect on the Improved Sodium Storage Performance of N-heteropentacenequinone. <i>Angewandte Chemie</i> , 0, , .	1.6	2
97	Hierarchical Gold Nanoflower Syntheses and Surface-Enhanced Raman Scattering Properties Research. <i>Science of Advanced Materials</i> , 2013, 5, 1797-1800.	0.1	1