

Xin-yi Zhang

List of Publications by Year in descending order

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67
papers

3,587
citations

201575

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133188

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docs citations

71
times ranked

5897
citing authors

#	ARTICLE	IF	CITATIONS
1	Rational Electrodeâ€“Electrolyte Design for Long-Life Rechargeable Aqueous Zinc-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2022, 126, 1264-1270.	1.5	8
2	Unveiling the synergistic effect of cobalt ion in nickel-cobalt layered double hydroxide for electrochemical energy storage: Experimental and computational approaches. <i>Electrochimica Acta</i> , 2022, 423, 140547.	2.6	3
3	A bifunctional catalyst based on a carbon quantum dots/mesoporous SrTiO ₃ heterostructure for cascade photoelectrochemical nitrogen reduction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 12713-12721.	5.2	8
4	Electrocatalytic reduction of nitrogen on FeAg/Si for ammonia synthesis: A simple strategy for continuous regulation of faradaic efficiency by controlling H ⁺ ions transfer rate. <i>Applied Catalysis B: Environmental</i> , 2021, 283, 119606.	10.8	21
5	Ultrathin Co ₃ O ₄ â€“Pt core-shell nanoparticles coupled with three-dimensional graphene for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 10303-10311.	3.8	11
6	Large-scale Synthesis of Porous Pt Nanospheres /Three-dimensional Graphene Hybrid Materials as a Highly Active and Stable Electrocatalyst for Oxygen Reduction Reaction. <i>ChemistrySelect</i> , 2021, 6, 2080-2084.	0.7	1
7	Advanced Aqueous Zinc-Ion Batteries Enabled by 3D Ternary MnO/Reduced Graphene Oxide/Multiwall Carbon Nanotube Hybrids. <i>Energy Technology</i> , 2021, 9, 2100022.	1.8	11
8	High-capacity and high-rate Ni-Fe batteries based on mesostructured quaternary carbon/Fe/FeO/Fe ₃ O ₄ hybrid material. <i>IScience</i> , 2021, 24, 102547.	1.9	15
9	A facile strategy synthesized PtRhNi truncated triangle nanoflakes with PtRh-rich surface as highly active and stable bifunctional catalysts for direct methanol fuel cells. <i>Journal of Colloid and Interface Science</i> , 2021, 604, 894-902.	5.0	10
10	High-efficient CO ₂ electrocatalysis over nanoporous Au film enabled by a combined pore engineering and ionic liquid-mediated approach. <i>Chemical Engineering Journal</i> , 2021, 425, 131663.	6.6	8
11	The twinned Pd nanocatalyst exhibits sustainable NRR electrocatalytic performance by promoting the desorption of NH ₃ . <i>Journal of Materials Chemistry A</i> , 2021, 9, 13483-13489.	5.2	48
12	Synthesis of Ni ^x MoS _x /gâ€“C ₃ N ₄ for Photocatalytic Hydrogen Evolution under Visible Light. <i>ChemCatChem</i> , 2020, 12, 911-916.	1.8	18
13	Solid-state synthesis semiconducting BaTiO ₃ nanoparticles at low temperature. <i>Materials Chemistry and Physics</i> , 2020, 242, 122496.	2.0	7
14	Boosting the photocatalytic activity of mesoporous SrTiO ₃ for nitrogen fixation through multiple defects and strain engineering. <i>Journal of Materials Chemistry A</i> , 2020, 8, 22251-22256.	5.2	28
15	Rational Design and in-situ Synthesis of Ultra-Thin δ -Ni(OH) ₂ Nanoplates for High Performance All-Solid-State Flexible Supercapacitors. <i>Frontiers in Chemistry</i> , 2020, 8, 602322.	1.8	14
16	Ultrathin PtCo nanorod assemblies with self-optimized surface for oxygen reduction reaction. <i>Journal of Electroanalytical Chemistry</i> , 2020, 870, 114194.	1.9	19
17	Electrocatalytic production of ammonia: Biomimetic electrodeâ€“electrolyte design for efficient electrocatalytic nitrogen fixation under ambient conditions. <i>Applied Catalysis B: Environmental</i> , 2020, 271, 118919.	10.8	55
18	Highly Efficient Photoelectrochemical Synthesis of Ammonia Using Plasmon-Enhanced Black Silicon under Ambient Conditions. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 20376-20382.	4.0	34

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19	High Nitrogen Gas Solubility and Physicochemical Properties of [C ₄ mpyr][eFAP] Fluorinated Solvent Mixtures. <i>Journal of Physical Chemistry C</i> , 2019, 123, 21376-21385.	1.5	23
20	MoS _x Quantum Dot-Modified Black Silicon for Highly Efficient Photoelectrochemical Hydrogen Evolution. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 17598-17605.	3.2	17
21	Enhanced Visible-Light Photocatalytic Remediation of Tetracycline Hydrochloride by Nanostructured BiOI Homojunctions. <i>Nano</i> , 2019, 14, 1950112.	0.5	6
22	An amorphous MoS _x modified g-C ₃ N ₄ composite for efficient photocatalytic hydrogen evolution under visible light. <i>RSC Advances</i> , 2019, 9, 15900-15909.	1.7	20
23	Influence of Structural Parameters on the Surface Enhanced Raman Scattering of Au Nanoarrays. <i>Journal of Nanoscience and Nanotechnology</i> , 2019, 19, 5317-5322.	0.9	4
24	SBA-15 Templated Mesoporous Graphitic C ₃ N ₄ for Remarkably Enhanced Photocatalytic Degradation of Organic Pollutants under Visible Light. <i>Nano</i> , 2019, 14, 1950136.	0.5	8
25	Enhanced Visible-Light Photocatalytic Degradation of Antibiotics by MoS ₂ -Modified U-g-C ₃ N ₄ /T-g-C ₃ N ₄ Isotypic Heterojunction. <i>Nano</i> , 2019, 14, 1950111.	0.5	4
26	In Situ Synthesis of Core-Shell-Ni ₃ Fe(OH) ₉ /Ni ₃ Fe Hybrid Nanostructures as Highly Active and Stable Bifunctional Catalysts for Water Electrolysis. <i>ACS Applied Energy Materials</i> , 2018, 1, 986-992.	2.5	15
27	Rational Electrode-Electrolyte Design for Efficient Ammonia Electrosynthesis under Ambient Conditions. <i>ACS Energy Letters</i> , 2018, 3, 1219-1224.	8.8	204
28	MOF-74 derived porous hybrid metal oxide hollow nanowires for high-performance electrochemical energy storage. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8396-8404.	5.2	101
29	g-C ₃ N ₄ /g-C ₃ N ₄ isotype heterojunction as an efficient platform for direct photodegradation of antibiotic. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2018, 26, 210-217.	1.0	32
30	NiS and MoS ₂ nanosheet co-modified graphitic C ₃ N ₄ ternary heterostructure for high efficient visible light photodegradation of antibiotic. <i>Journal of Hazardous Materials</i> , 2018, 341, 10-19.	6.5	179
31	CeO ₂ /rGO nanocomposites derived from Ce-MOF and graphene oxide as a robust platform for highly sensitive uric acid detection. <i>Nanoscale</i> , 2018, 10, 1939-1945.	2.8	88
32	Ultrathin porous Bi ₅ O ₇ X (X = Cl, Br, I) nanotubes for effective solar desalination. <i>Journal of Materials Chemistry A</i> , 2018, 6, 20037-20043.	5.2	24
33	Transformation of cellulosic saccharides into alkyl glucosides catalyzed by bifunctional ionic liquids. <i>Chemical Communications</i> , 2018, 54, 11969-11972.	2.2	2
34	Synthesis and Physicochemical Properties of Fluorinated Ionic Liquids with High Nitrogen Gas Solubility. <i>Journal of Physical Chemistry C</i> , 2018, 122, 24550-24558.	1.5	60
35	Hierarchically Ordered Nanochannel Array Membrane Reactor with Three-Dimensional Electrocatalytic Interfaces for Electrohydrogenation of CO ₂ to Alcohol. <i>ACS Energy Letters</i> , 2018, 3, 2649-2655.	8.8	11
36	Energy-Efficient Nitrogen Reduction to Ammonia at Low Overpotential in Aqueous Electrolyte under Ambient Conditions. <i>ChemSusChem</i> , 2018, 11, 3356-3356.	3.6	0

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37	Dual-MnCo ₂ O ₄ /Ni electrode with three-level hierarchy for high-performance electrochemical energy storage. <i>Electrochimica Acta</i> , 2018, 280, 55-61.	2.6	13
38	Photoelectrochemical Characterisation on Surface-Enhanced Inverted Black Silicon Photocathodes by Using Platinum/Palladium Co-catalysts for Solar Hydrogen Conversion. <i>ChemPlusChem</i> , 2018, 83, 651-657.	1.3	7
39	Novel Periodic Bilayer Au Nanostructures for Ultrasensitive Surface-Enhanced Raman Spectroscopy. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800820.	1.9	7
40	Energy-Efficient Nitrogen Reduction to Ammonia at Low Overpotential in Aqueous Electrolyte under Ambient Conditions. <i>ChemSusChem</i> , 2018, 11, 3416-3422.	3.6	140
41	MnO ₂ /MnCo ₂ O ₄ /Ni heterostructure with quadruple hierarchy: a bifunctional electrode architecture for overall urea oxidation. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7825-7832.	5.2	152
42	Surfactant-Free Synthesis of Graphene-Supported PdCu Nanocrystals with High Alloying Degree as Highly Active Catalyst for Formic Acid Electrooxidation. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700227.	1.9	17
43	Controllable fabrication of heterostructured Au/Bi ₂ O ₃ with plasmon effect for efficient photodegradation of rhodamine 6G. <i>Journal of Experimental Nanoscience</i> , 2017, 12, 33-44.	1.3	8
44	Ultrasensitive surface-enhanced Raman scattering detection of urea by highly ordered Au/Cu hybrid nanostructure arrays. <i>Chemical Communications</i> , 2017, 53, 7949-7952.	2.2	30
45	Metal-polydopamine frameworks and their transformation to hollow metal/N-doped carbon particles. <i>Nanoscale</i> , 2017, 9, 5323-5328.	2.8	140
46	Metal-Free Black Silicon for Solar-powered Hydrogen Generation. <i>Electrochimica Acta</i> , 2017, 235, 453-462.	2.6	12
47	Nanostructured Gold/Bismutite Hybrid Heterocatalysts for Plasmon-Enhanced Photosynthesis of Ammonia. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 10858-10863.	3.2	77
48	Electro-synthesis of ammonia from nitrogen at ambient temperature and pressure in ionic liquids. <i>Energy and Environmental Science</i> , 2017, 10, 2516-2520.	15.6	497
49	Highly Ordered Ag/Cu Hybrid Nanostructure Arrays for Ultrasensitive Surface-Enhanced Raman Spectroscopy. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600115.	1.9	22
50	Measure and control: molecular management is a key to the Sustainocene!. <i>Green Chemistry</i> , 2016, 18, 5689-5692.	4.6	7
51	Highly Ordered Hierarchical Mesoporous MnCo ₂ O ₄ with Cubic C _{3i} Symmetry for Electrochemical Energy Storage. <i>Journal of Physical Chemistry C</i> , 2016, 120, 23976-23983.	1.5	34
52	Nanostructured photoelectrochemical solar cell for nitrogen reduction using plasmon-enhanced black silicon. <i>Nature Communications</i> , 2016, 7, 11335.	5.8	294
53	Synthesis of Nitrogen-Doped Porous Carbon Nanocubes as a Catalyst Support for Methanol Oxidation. <i>ChemCatChem</i> , 2016, 8, 1901-1904.	1.8	17
54	Synthesis of porous NiO/CeO ₂ hybrid nanoflake arrays as a platform for electrochemical biosensing. <i>Nanoscale</i> , 2016, 8, 770-774.	2.8	41

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55	Sulfated Carbon Quantum Dots as Efficient Visible-Light Switchable Acid Catalysts for Room-Temperature Ring-Opening Reactions. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 8420-8424.	7.2	68
56	Quantum Dots: Carbon Quantum Dots/Cu ₂ O Heterostructures for Solar-Light-Driven Conversion of CO ₂ to Methanol (Adv. Energy Mater. 5/2015). <i>Advanced Energy Materials</i> , 2015, 5, .	10.2	21
57	Hierarchical Porous Plasmonic Metamaterials for Reproducible Ultrasensitive Surface-Enhanced Raman Spectroscopy. <i>Advanced Materials</i> , 2015, 27, 1090-1096.	11.1	193
58	Electrochemical Biosensor based on Pt/Au Alloy Nanowire Arrays for Phosphate Detection. <i>Journal of the Electrochemical Society</i> , 2015, 162, B62-B67.	1.3	34
59	A graphene-directed assembly route to hierarchically porous Co _x /C catalysts for high-performance oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2015, 3, 16867-16873.	5.2	151
60	Controllable synthesis of mesoporous carbon nanospheres and Fe ³⁺ /carbon nanospheres as efficient oxygen reduction electrocatalysts. <i>Nanoscale</i> , 2015, 7, 6247-6254.	2.8	104
61	Nanofabrication of highly ordered, tunable metallic mesostructures via quasi-hard-templating of lyotropic liquid crystals. <i>Scientific Reports</i> , 2015, 4, 7420.	1.6	10
62	A facile synthesis of mesoporous Co ₃ O ₄ /CeO ₂ hybrid nanowire arrays for high performance supercapacitors. <i>Journal of Materials Chemistry A</i> , 2015, 3, 10425-10431.	5.2	108
63	Carbon Quantum Dots/Cu ₂ O Heterostructures for Solar-Light-Driven Conversion of CO ₂ to Methanol. <i>Advanced Energy Materials</i> , 2015, 5, 1401077.	10.2	163
64	Self-assembled highly crystalline TiO ₂ mesostructures for sunlight-driven, pH-responsive photodegradation of dyes. <i>Materials Research Bulletin</i> , 2014, 55, 13-18.	2.7	15
65	Controlled morphogenesis and self-assembly of bismutite nanocrystals into three-dimensional nanostructures and their applications. <i>Journal of Materials Chemistry A</i> , 2014, 2, 2275-2282.	5.2	14
66	UV/ozone-assisted low temperature preparation of mesoporous TiO ₂ with tunable phase composition and enhanced solar light photocatalytic activity. <i>Journal of Materials Chemistry A</i> , 2014, 2, 18791-18795.	5.2	11
67	In situ growth of Co ₃ O ₄ nanoparticles on δ -MnO ₂ nanotubes: a new hybrid for high-performance supercapacitors. <i>Journal of Materials Chemistry A</i> , 2014, 2, 8465-8471.	5.2	44