

Ya-Qian Zhang

List of Publications by Year in descending order

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54
papers

3,352
citations

136740

32
h-index

189595

50
g-index

54
all docs

54
docs citations

54
times ranked

4620
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphitic Carbon Nitride ($g\text{-}C_3N_4$) Derived N-Rich Graphene with Tuneable Interlayer Distance as a High-Rate Anode for Sodium-Ion Batteries. <i>Advanced Materials</i> , 2019, 31, e1901261.	11.1	362
2	New Opportunity for <i>in Situ</i> Exsolution of Metallic Nanoparticles on Perovskite Parent. <i>Nano Letters</i> , 2016, 16, 5303-5309.	4.5	222
3	A coupling for success: Controlled growth of Co/CoO _x nanoshoots on perovskite mesoporous nanofibres as high-performance trifunctional electrocatalysts in alkaline condition. <i>Nano Energy</i> , 2017, 32, 247-254.	8.2	189
4	The interplay between thermodynamics and kinetics in the solid-state synthesis of layered oxides. <i>Nature Materials</i> , 2020, 19, 1088-1095.	13.3	129
5	Confining ultrasmall bimetallic alloys in porous "carbon for use as scalable and sustainable electrocatalysts for rechargeable Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12451-12456.	5.2	128
6	All-In-One Perovskite Catalyst: Smart Controls of Architecture and Composition toward Enhanced Oxygen/Hydrogen Evolution Reactions. <i>Advanced Energy Materials</i> , 2017, 7, 1700666.	10.2	124
7	The Excellence of Both Worlds: Developing Effective Double Perovskite Oxide Catalyst of Oxygen Reduction Reaction for Room and Elevated Temperature Applications. <i>Advanced Functional Materials</i> , 2016, 26, 4106-4112.	7.8	106
8	Novel layered solid oxide fuel cells with multiple-twinned Ni _{0.8} Co _{0.2} nanoparticles: the key to thermally independent CO ₂ utilization and power-chemical cogeneration. <i>Energy and Environmental Science</i> , 2016, 9, 207-215.	15.6	103
9	Highly Active and Redox-Stable Ce-Doped LaSrCrFeO-Based Cathode Catalyst for CO ₂ SOECs. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 6457-6463.	4.0	101
10	Characterization of mechanical degradation in an all-solid-state battery cathode. <i>Journal of Materials Chemistry A</i> , 2020, 8, 17399-17404.	5.2	100
11	Wavy SnO ₂ catalyzed simultaneous reinforcement of carbon dioxide adsorption and activation towards electrochemical conversion of CO ₂ to HCOOH. <i>Applied Catalysis B: Environmental</i> , 2020, 261, 118243.	10.8	97
12	Anode-Engineered Protonic Ceramic Fuel Cell with Excellent Performance and Fuel Compatibility. <i>Advanced Materials</i> , 2016, 28, 8922-8926.	11.1	94
13	Stabilizing Double Perovskite for Effective Bifunctional Oxygen Electrocatalysis in Alkaline Conditions. <i>Chemistry of Materials</i> , 2017, 29, 6228-6237.	3.2	94
14	<i>In situ</i> grown cobalt phosphide (CoP) on perovskite nanofibers as an optimized trifunctional electrocatalyst for Zn-air batteries and overall water splitting. <i>Journal of Materials Chemistry A</i> , 2019, 7, 26607-26617.	5.2	92
15	A Wireless Power Transfer System With Dual Switch-Controlled Capacitors for Efficiency Optimization. <i>IEEE Transactions on Power Electronics</i> , 2020, 35, 6091-6101.	5.4	85
16	A strongly cooperative spinel nanohybrid as an efficient bifunctional oxygen electrocatalyst for oxygen reduction reaction and oxygen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2018, 236, 413-419.	10.8	82
17	Molybdenum doped Pr _{0.5} Ba _{0.5} MnO ₃ (Mo-PBMO) double perovskite as a potential solid oxide fuel cell anode material. <i>Journal of Power Sources</i> , 2016, 301, 237-241.	4.0	76
18	Biomass Waste-Derived 3D Metal-Free Porous Carbon as a Bifunctional Electrocatalyst for Rechargeable Zinc-Air Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 17039-17046.	3.2	74

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19	Bifunctional Catalyst of Core-Shell Nanoparticles Socketed on Oxygen-Deficient Layered Perovskite for Soot Combustion: <i>In Situ</i> Observation of Synergistic Dual Active Sites. <i>ACS Catalysis</i> , 2016, 6, 2710-2714.	5.5	70
20	Single iron atoms stabilized by microporous defects of biomass-derived carbon aerogels as high-performance cathode electrocatalysts for aluminum-air batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20840-20846.	5.2	68
21	Direct Visualization of the Interfacial Degradation of Cathode Coatings in Solid State Batteries: A Combined Experimental and Computational Study. <i>Advanced Energy Materials</i> , 2020, 10, 1903778.	10.2	67
22	Fabrication of gold nanoparticles-decorated reduced graphene oxide as a high performance electrochemical sensing platform for the detection of toxicant Sudan I. <i>Electrochimica Acta</i> , 2015, 167, 226-236.	2.6	63
23	A rational design for enhanced oxygen reduction: Strongly coupled silver nanoparticles and engineered perovskite nanofibers. <i>Nano Energy</i> , 2017, 38, 392-400.	8.2	60
24	Designed synthesis of a novel BiVO ₄ -Cu ₂ O-TiO ₂ as an efficient visible-light-responding photocatalyst. <i>Journal of Colloid and Interface Science</i> , 2015, 444, 58-66.	5.0	56
25	Separation and Quantum Tunneling of Photo-generated Carriers Using a Tribo-Induced Field. <i>Matter</i> , 2019, 1, 650-660.	5.0	56
26	In situ chemical synthesis of sandwich-structured MnO ₂ /graphene nanoflowers and their supercapacitive behavior. <i>Electrochimica Acta</i> , 2015, 173, 148-155.	2.6	52
27	Tuning adsorption strength of CO ₂ and its intermediates on tin oxide-based electrocatalyst for efficient CO ₂ reduction towards carbonaceous products. <i>Applied Catalysis B: Environmental</i> , 2020, 277, 119252.	10.8	50
28	Hierarchical electrode design of highly efficient and stable unitized regenerative fuel cells (URFCs) for long-term energy storage. <i>Energy and Environmental Science</i> , 2020, 13, 4872-4881.	15.6	43
29	Toward a rational photocatalyst design: a new formation strategy of co-catalyst/semiconductor heterostructures <i>via in situ</i> exsolution. <i>Chemical Communications</i> , 2018, 54, 1505-1508.	2.2	39
30	A-site deficient perovskite with nano-socketed Ni-Fe alloy particles as highly active and durable catalyst for high-temperature CO ₂ electrolysis. <i>Electrochimica Acta</i> , 2020, 335, 135683.	2.6	38
31	Tuning local carbon active sites saturability of graphitic carbon nitride to boost CO ₂ electroreduction towards CH ₄ . <i>Nano Energy</i> , 2020, 73, 104833.	8.2	35
32	A facile one-step in situ synthesis of copper nanostructures/graphene oxide as an efficient electrocatalyst for 2-naphthol sensing application. <i>Electrochimica Acta</i> , 2015, 153, 352-360.	2.6	33
33	A graph-based semi-supervised k nearest-neighbor method for nonlinear manifold distributed data classification. <i>Information Sciences</i> , 2016, 367-368, 673-688.	4.0	33
34	Smart tuning of 3D ordered electrocatalysts for enhanced oxygen reduction reaction. <i>Applied Catalysis B: Environmental</i> , 2017, 219, 640-644.	10.8	33
35	Realizing continuous cation order-to-disorder tuning in a class of high-energy spinel-type Li-ion cathodes. <i>Matter</i> , 2021, 4, 3897-3916.	5.0	32
36	Biogas to syngas: flexible on-cell micro-reformer and NiSn bimetallic nanoparticle implanted solid oxide fuel cells for efficient energy conversion. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4603-4609.	5.2	30

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37	Nanowrinkled Carbon Aerogels Embedded with FeNx Sites as Effective Oxygen Electrodes for Rechargeable Zinc-Air Battery. <i>Research</i> , 2019, 2019, 6813585.	2.8	29
38	Facile Synthesis of Highly Active and Robust Ni-Mo Bimetallic Electrocatalyst for Hydrocarbon Oxidation in Solid Oxide Fuel Cells. <i>ACS Energy Letters</i> , 2016, 1, 225-230.	8.8	27
39	Grafting doped manganite into nickel anode enables efficient and durable energy conversions in biogas solid oxide fuel cells. <i>Applied Catalysis B: Environmental</i> , 2017, 200, 174-181.	10.8	27
40	Toward highly efficient in situ dry reforming of H ₂ S contaminated methane in solid oxide fuel cells via incorporating a coke/sulfur resistant bimetallic catalyst layer. <i>Journal of Materials Chemistry A</i> , 2016, 4, 9080-9087.	5.2	26
41	In-situ resonant band engineering of solution-processed semiconductors generates high performance n-type thermoelectric nano-inks. <i>Nature Communications</i> , 2020, 11, 2069.	5.8	23
42	Increasing Capacity in Disordered Rocksalt Cathodes by Mg Doping. <i>Chemistry of Materials</i> , 2020, 32, 10728-10736.	3.2	21
43	Thermodynamically Driven Synthetic Optimization for Cation-Disordered Rock Salt Cathodes. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	20
44	Facile fabrication of sandwich-structured Co ₃ O ₄ /N-rGO/AB hybrid with enhanced ORR electrocatalytic performances for metal-air batteries. <i>RSC Advances</i> , 2015, 5, 9057-9063.	1.7	17
45	Organic Photochemistry-Assisted Nanoparticle Segregation on Perovskites. <i>Cell Reports Physical Science</i> , 2020, 1, 100243.	2.8	11
46	Phase-contrast imaging of multiply-scattering extended objects at atomic resolution by reconstruction of the scattering matrix. <i>Physical Review Research</i> , 2021, 3, .	1.3	11
47	A bifunctional solid oxide electrolysis cell for simultaneous CO ₂ utilization and synthesis gas production. <i>Chemical Communications</i> , 2016, 52, 13687-13690.	2.2	10
48	Solid-State Calcium-Ion Diffusion in Ca _{1.5} Ba _{0.5} Si ₅ O ₃ N ₆ . <i>Chemistry of Materials</i> , 2022, 34, 128-139.	3.2	7
49	Modified Feedforward Control to Suppress DC Voltage Disturbances for Three-Stage MMC-PET. , 2019, , .		4
50	Ce/Ni Decorated Titanate Based Perovskite for Solid Oxide Fuel Cells. <i>ECS Transactions</i> , 2017, 75, 91-97.	0.3	2
51	Fuel Cells: Anode-Engineered Protonic Ceramic Fuel Cell with Excellent Performance and Fuel Compatibility (<i>Adv. Mater.</i> 40/2016). <i>Advanced Materials</i> , 2016, 28, 8921-8921.	11.1	1
52	Controlling the Anisotropic Surface Wetting of Metal Nanoparticles by a Competitive Ligand Packing Strategy: Implications for Encapsulation. <i>ACS Applied Nano Materials</i> , 0, , .	2.4	0
53	The Interplay between Thermodynamics and Kinetics in the Solid-State Synthesis of Layered Oxides. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 313-313.	0.0	0
54	Resolving Li-F Locking Effect in Disordered Rocksalt Cathodes with Mg-Doping. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 129-129.	0.0	0