Jian Wang

List of Publications by Year in descending order

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59	11,786	117453	133063
papers	citations	34 h-index	59 g-index

59	59	59	14921
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Techno-economic analysis of a solar thermochemical cycle-based direct coal liquefaction system for low-carbon oil production. Energy, 2022, 239, 122167.	4.5	7
2	Effects of cathode thickness and microstructural properties on the performance of protonic ceramic fuel cell (PCFC): A 3D modelling study. International Journal of Hydrogen Energy, 2022, 47, 4047-4061.	3.8	19
3	Bridging the Charge Accumulation and High Reaction Order for Highâ€Rate Oxygen Evolution and Long Stable Znâ€Air Batteries. Advanced Functional Materials, 2022, 32, .	7.8	49
4	Novel battery thermal management system with different shapes of pin fins. International Journal of Energy Research, 2022, 46, 5997-6011.	2.2	9
5	In Situ Anchoring Coâ€“Nâ€“C Nanoparticles on Co₄N Nanosheets toward Ultrastable Flexible Selfâ€Supported Bifunctional Oxygen Electrocatalyst Enables Recyclable Znâ€“Air Batteries Over 10 000 Cycles and Fast Charging. Small, 2022, 18, e2105887.	5.2	22
6	Pd/Fe₂O₃ with Electronic Coupling Single-Site Pdâ€“Fe Pair Sites for Low-Temperature Semihydrogenation of Alkynes. Journal of the American Chemical Society, 2022, 144, 573-581.	6.6	69
7	Carbon-based electrocatalysts for sustainable energy applications. Progress in Materials Science, 2021, 116, 100717.	16.0	216
8	Engineering the electronic structure of perovskite oxide surface with ionic liquid for enhanced oxygen reduction reaction. Applied Catalysis B: Environmental, 2021, 282, 119593.	10.8	35
9	Unlocking the Potential of Mechanochemical Coupling: Boosting the Oxygen Evolution Reaction by Mating Proton Acceptors with Electron Donors. Advanced Functional Materials, 2021, 31, 2008077.	7.8	40
10	Novel synthesis of Silicon/Carbon nanotubes microspheres as anode additives through chemical vapor deposition in fluidized bed reactors. Scripta Materialia, 2021, 192, 49-54.	2.6	19
11	Innovative nonâ€“oxidative methane dehydroaromatization via solar membrane reactor. Energy, 2021, 216, 119265.	4.5	21
12	Formation of FeOOH Nanosheets Induces Substitutional Doping of CeO_{2â^’}_x with Highâ€Valence Ni for Efficient Water Oxidation. Advanced Energy Materials, 2021, 11, 2002731.	10.2	110
13	One-Pot Heterointerfacial Metamorphosis for Synthesis and Control of Widely Varying Heterostructured Nanoparticles. Journal of the American Chemical Society, 2021, 143, 3383-3392.	6.6	9
14	Redirecting dynamic surface restructuring of a layered transition metal oxide catalyst for superior water oxidation. Nature Catalysis, 2021, 4, 212-222.	16.1	266
15	Pt/Fe2O3 with Ptâ€“Fe pair sites as a catalyst for oxygen reduction with ultralow Pt loading. Nature Energy, 2021, 6, 614-623.	19.8	274
16	Introducing Ag in Ba0.9La0.1FeO3-: Combining cationic substitution with metal particle decoration. Materials Reports Energy, 2021, 1, 100018.	1.7	6
17	A new high-voltage calcium intercalation host for ultra-stable and high-power calcium rechargeable batteries. Nature Communications, 2021, 12, 3369.	5.8	59
18	A mid/low-temperature solar-driven integrated membrane reactor for the dehydrogenation of propane â€“ A thermodynamic assessment. Applied Thermal Engineering, 2021, 193, 116952.	3.0	11

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19	Single-atom catalyst for high-performance methanol oxidation. Nature Communications, 2021, 12, 5235.	5.8	113
20	Restructuring highly electron-deficient metal-metal oxides for boosting stability in acidic oxygen evolution reaction. Nature Communications, 2021, 12, 5676.	5.8	92
21	Environmental and economic multi-objective optimization of comprehensive energy industry: A case study. Energy, 2021, 237, 121534.	4.5	7
22	Thermodynamic Assessment of a Solar-Driven Integrated Membrane Reactor for Ethanol Steam Reforming. Molecules, 2021, 26, 6921.	1.7	2
23	Theoretical Thermodynamic Efficiency Limit of Isothermal Solar Fuel Generation from H2O/CO2 Splitting in Membrane Reactors. Molecules, 2021, 26, 7047.	1.7	4
24	Manipulating the Conversion Kinetics of Polysulfides by Engineering Oxygen pâ€Band of Halloysite for Improved Liâ€S Batteries. Small, 2021, , 2105661.	5.2	11
25	Stable and Highâ€Power Calciumâ€Ion Batteries Enabled by Calcium Intercalation into Graphite. Advanced Materials, 2020, 32, e1904411.	11.1	87
26	The Role of Ceria in a Hybrid Catalyst toward Alkaline Water Oxidation. ChemSusChem, 2020, 13, 5273-5279.	3.6	36
27	Perspective of CIGS-BIPVâ€™s Product Competitiveness in China. International Journal of Photoenergy, 2020, 2020, 1-10.	1.4	9
28	Boosting the anchoring and catalytic capability of MoS₂ for high-loading lithium sulfur batteries. Journal of Materials Chemistry A, 2020, 8, 17646-17656.	5.2	33
29	Non-precious-metal catalysts for alkaline water electrolysis: operando characterizations, theoretical calculations, and recent advances. Chemical Society Reviews, 2020, 49, 9154-9196.	18.7	448
30	A Review of Carbonâ€Supported Nonprecious Metals as Energyâ€Related Electrocatalysts. Small Methods, 2020, 4, 2000621.	4.6	76
31	Probing and Resolving the Heterogeneous Degradation of Nickelâ€Rich Layered Oxide Cathodes across Multiâ€Length Scales. Small Methods, 2020, 4, 2000551.	4.6	18
32	Recent Advances of First d-Block Metal-Based Perovskite Oxide Electrocatalysts for Alkaline Water Splitting. Catalysts, 2020, 10, 770.	1.6	28
33	Construction of Single-Phase Nickel Disulfide Microflowers as High-Performance Electrodes for Hybrid Supercapacitors. Energy & Fuels, 2020, 34, 10178-10187.	2.5	27
34	P-Substituted Ba_{0.95}La_{0.05}FeO_{3â^'Î´} as a Cathode Material for SOFCs. ACS Applied Energy Materials, 2019, 2, 5472-5480.	2.5	36
35	A strategy for optimizing efficiencies of solar thermochemical fuel production based on nonstoichiometric oxides. International Journal of Hydrogen Energy, 2019, 44, 19585-19594.	3.8	38
36	In-situ synthesis of bimetallic phosphide with carbon tubes as an active electrocatalyst for oxygen evolution reaction. Applied Catalysis B: Environmental, 2019, 254, 292-299.	10.8	141

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37	Thermodynamic analysis of a solar thermochemical cycle-based direct coal liquefaction system for oil production. Energy, 2019, 179, 1279-1287.	4.5	20
38	Experimental investigation of heat transfer and flow characteristics in finned copper foam heat sinks subjected to jet impingement cooling. Applied Energy, 2019, 241, 433-443.	5.1	70
39	Highly Active and Stable Cobalt-Free Hafnium-doped SrFe_{0.9}Hf_{0.1}O_{3â^Î´} Perovskite Cathode for Solid Oxide Fuel Cells. ACS Applied Energy Materials, 2018, 1, 2134-2142.	2.5	34
40	In situ formation of a 3D core-shell and triple-conducting oxygen reduction reaction electrode for proton-conducting SOFCs. Journal of Power Sources, 2018, 385, 76-83.	4.0	51
41	Water Splitting with an Enhanced Bifunctional Double Perovskite. ACS Catalysis, 2018, 8, 364-371.	5.5	186
42	Mechanochemical Coupling of MoS₂ and Perovskites for Hydrogen Generation. ACS Applied Energy Materials, 2018, 1, 6409-6416.	2.5	33
43	Bimetal-decorated nanocarbon as a superior electrocatalyst for overall water splitting. Journal of Power Sources, 2018, 401, 312-321.	4.0	41
44	Energetics of Nanoparticle Exsolution from Perovskite Oxides. Journal of Physical Chemistry Letters, 2018, 9, 3772-3778.	2.1	65
45	In situ growth of Pt₃Ni nanoparticles on an A-site deficient perovskite with enhanced activity for the oxygen reduction reaction. Journal of Materials Chemistry A, 2017, 5, 6399-6404.	5.2	70
46	Boosting Bifunctional Oxygen Electrolysis for Nâ€Doped Carbon via Bimetal Addition. Small, 2017, 13, 1604103.	5.2	118
47	H 2 O 2 Treated La 0.8 Sr 0.2 CoO 3-Î´ as an Efficient Catalyst for Oxygen Evolution Reaction. Electrochimica Acta, 2017, 244, 139-145.	2.6	33
48	Low temperature pulsed laser deposition of garnet Li 6.4 La 3 Zr 1.4 Ta 0.6 O 12 films as all solid-state lithium battery electrolytes. Journal of Power Sources, 2017, 365, 43-52.	4.0	65
49	A bi-functional catalyst for oxygen reduction and oxygen evolution reactions from used baby diapers: Î±-Fe₂O₃ wrapped in P and S dual doped graphitic carbon. RSC Advances, 2016, 6, 64258-64265.	1.7	18
50	Ca and In co-doped BaFeO 3â^Î´ as a cobalt-free cathode material for intermediate-temperature solid oxide fuel cells. Journal of Power Sources, 2016, 324, 224-232.	4.0	79
51	Ba0.5Sr0.5Co0.8Fe0.2O3â^Î´ on N-doped mesoporous carbon derived from organic waste as a bi-functional oxygen catalyst. International Journal of Hydrogen Energy, 2016, 41, 10744-10754.	3.8	52
52	Boosting oxygen reduction/evolution reaction activities with layered perovskite catalysts. Chemical Communications, 2016, 52, 10739-10742.	2.2	83
53	Egg yolk-derived phosphorus and nitrogen dual doped nano carbon capsules for high-performance lithium ion batteries. Materials Letters, 2016, 167, 93-97.	1.3	38
54	Visualizing electronic interactions between iron and carbon by X-ray chemical imaging and spectroscopy. Chemical Science, 2015, 6, 3262-3267.	3.7	68

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55	Ba0.95La0.05FeO3â^'â€“multi-layer graphene as a low-cost and synergistic catalyst for oxygen evolution reaction. Carbon, 2015, 90, 122-129.	5.4	29
56	The effect of A-site and B-site substitution on BaFeO3â^'Î´: An investigation as a cathode material for intermediate-temperature solid oxide fuel cells. Journal of Power Sources, 2015, 297, 511-518.	4.0	102
57	Highly active and durable methanol oxidation electrocatalyst based on the synergy of platinumâ€“nickel hydroxideâ€“graphene. Nature Communications, 2015, 6, 10035.	5.8	466
58	An Advanced Niâ€“Fe Layered Double Hydroxide Electrocatalyst for Water Oxidation. Journal of the American Chemical Society, 2013, 135, 8452-8455.	6.6	2,498
59	Co3O4 nanocrystals on graphene as a synergistic catalyst for oxygen reduction reaction. Nature Materials, 2011, 10, 780-786.	13.3	5,120