

Jian Wang

List of Publications by Year in descending order

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59
papers

11,786
citations

117453

34
h-index

133063

59
g-index

59
all docs

59
docs citations

59
times ranked

14921
citing authors

#	ARTICLE	IF	CITATIONS
1	Co ₃ O ₄ nanocrystals on graphene as a synergistic catalyst for oxygen reduction reaction. <i>Nature Materials</i> , 2011, 10, 780-786.	13.3	5,120
2	An Advanced Ni-Fe Layered Double Hydroxide Electrocatalyst for Water Oxidation. <i>Journal of the American Chemical Society</i> , 2013, 135, 8452-8455.	6.6	2,498
3	Highly active and durable methanol oxidation electrocatalyst based on the synergy of platinum-nickel hydroxide-graphene. <i>Nature Communications</i> , 2015, 6, 10035.	5.8	466
4	Non-precious-metal catalysts for alkaline water electrolysis: <i>operando</i> characterizations, theoretical calculations, and recent advances. <i>Chemical Society Reviews</i> , 2020, 49, 9154-9196.	18.7	448
5	Pt/Fe ₂ O ₃ with Pt-Fe pair sites as a catalyst for oxygen reduction with ultralow Pt loading. <i>Nature Energy</i> , 2021, 6, 614-623.	19.8	274
6	Redirecting dynamic surface restructuring of a layered transition metal oxide catalyst for superior water oxidation. <i>Nature Catalysis</i> , 2021, 4, 212-222.	16.1	266
7	Carbon-based electrocatalysts for sustainable energy applications. <i>Progress in Materials Science</i> , 2021, 116, 100717.	16.0	216
8	Water Splitting with an Enhanced Bifunctional Double Perovskite. <i>ACS Catalysis</i> , 2018, 8, 364-371.	5.5	186
9	In-situ synthesis of bimetallic phosphide with carbon tubes as an active electrocatalyst for oxygen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2019, 254, 292-299.	10.8	141
10	Boosting Bifunctional Oxygen Electrolysis for N-Doped Carbon via Bimetal Addition. <i>Small</i> , 2017, 13, 1604103.	5.2	118
11	Single-atom catalyst for high-performance methanol oxidation. <i>Nature Communications</i> , 2021, 12, 5235.	5.8	113
12	Formation of FeOOH Nanosheets Induces Substitutional Doping of CeO ₂ with High-Valence Ni for Efficient Water Oxidation. <i>Advanced Energy Materials</i> , 2021, 11, 2002731.	10.2	110
13	The effect of A-site and B-site substitution on BaFeO ₃ : An investigation as a cathode material for intermediate-temperature solid oxide fuel cells. <i>Journal of Power Sources</i> , 2015, 297, 511-518.	4.0	102
14	Restructuring highly electron-deficient metal-metal oxides for boosting stability in acidic oxygen evolution reaction. <i>Nature Communications</i> , 2021, 12, 5676.	5.8	92
15	Stable and High-Power Calcium-Ion Batteries Enabled by Calcium Intercalation into Graphite. <i>Advanced Materials</i> , 2020, 32, e1904411.	11.1	87
16	Boosting oxygen reduction/evolution reaction activities with layered perovskite catalysts. <i>Chemical Communications</i> , 2016, 52, 10739-10742.	2.2	83
17	Ca and In co-doped BaFeO ₃ as a cobalt-free cathode material for intermediate-temperature solid oxide fuel cells. <i>Journal of Power Sources</i> , 2016, 324, 224-232.	4.0	79
18	A Review of Carbon-Supported Nonprecious Metals as Energy-Related Electrocatalysts. <i>Small Methods</i> , 2020, 4, 2000621.	4.6	76

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19	In situ growth of Pt ₃ Ni nanoparticles on an A-site deficient perovskite with enhanced activity for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 6399-6404.	5.2	70
20	Experimental investigation of heat transfer and flow characteristics in finned copper foam heat sinks subjected to jet impingement cooling. <i>Applied Energy</i> , 2019, 241, 433-443.	5.1	70
21	Pd/Fe ₂ O ₃ with Electronic Coupling Single-Site Pd-Fe Pair Sites for Low-Temperature Semihydrogenation of Alkynes. <i>Journal of the American Chemical Society</i> , 2022, 144, 573-581.	6.6	69
22	Visualizing electronic interactions between iron and carbon by X-ray chemical imaging and spectroscopy. <i>Chemical Science</i> , 2015, 6, 3262-3267.	3.7	68
23	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. <i>Journal of Power Sources</i> , 2017, 365, 43-52.	4.0	65
24	Energetics of Nanoparticle Exsolution from Perovskite Oxides. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3772-3778.	2.1	65
25	A new high-voltage calcium intercalation host for ultra-stable and high-power calcium rechargeable batteries. <i>Nature Communications</i> , 2021, 12, 3369.	5.8	59
26	Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ on N-doped mesoporous carbon derived from organic waste as a bi-functional oxygen catalyst. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 10744-10754.	3.8	52
27	In situ formation of a 3D core-shell and triple-conducting oxygen reduction reaction electrode for proton-conducting SOFCs. <i>Journal of Power Sources</i> , 2018, 385, 76-83.	4.0	51
28	Bridging the Charge Accumulation and High Reaction Order for High-Rate Oxygen Evolution and Long Stable Zn-Air Batteries. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	49
29	Bimetal-decorated nanocarbon as a superior electrocatalyst for overall water splitting. <i>Journal of Power Sources</i> , 2018, 401, 312-321.	4.0	41
30	Unlocking the Potential of Mechanochemical Coupling: Boosting the Oxygen Evolution Reaction by Mating Proton Acceptors with Electron Donors. <i>Advanced Functional Materials</i> , 2021, 31, 2008077.	7.8	40
31	Egg yolk-derived phosphorus and nitrogen dual doped nano carbon capsules for high-performance lithium ion batteries. <i>Materials Letters</i> , 2016, 167, 93-97.	1.3	38
32	A strategy for optimizing efficiencies of solar thermochemical fuel production based on nonstoichiometric oxides. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 19585-19594.	3.8	38
33	P-Substituted Ba _{0.95} La _{0.05} FeO ₃ as a Cathode Material for SOFCs. <i>ACS Applied Energy Materials</i> , 2019, 2, 5472-5480.	2.5	36
34	The Role of Ceria in a Hybrid Catalyst toward Alkaline Water Oxidation. <i>ChemSusChem</i> , 2020, 13, 5273-5279.	3.6	36
35	Engineering the electronic structure of perovskite oxide surface with ionic liquid for enhanced oxygen reduction reaction. <i>Applied Catalysis B: Environmental</i> , 2021, 282, 119593.	10.8	35
36	Highly Active and Stable Cobalt-Free Hafnium-doped SrFe _{0.9} Hf _{0.1} O ₃ Perovskite Cathode for Solid Oxide Fuel Cells. <i>ACS Applied Energy Materials</i> , 2018, 1, 2134-2142.	2.5	34

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37	H ₂ O ₂ Treated La _{0.8} Sr _{0.2} CoO _{3-δ} as an Efficient Catalyst for Oxygen Evolution Reaction. <i>Electrochimica Acta</i> , 2017, 244, 139-145.	2.6	33
38	Mechanochemical Coupling of MoS ₂ and Perovskites for Hydrogen Generation. <i>ACS Applied Energy Materials</i> , 2018, 1, 6409-6416.	2.5	33
39	Boosting the anchoring and catalytic capability of MoS ₂ for high-loading lithium sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 17646-17656.	5.2	33
40	Ba _{0.95} La _{0.05} FeO ₃ multi-layer graphene as a low-cost and synergistic catalyst for oxygen evolution reaction. <i>Carbon</i> , 2015, 90, 122-129.	5.4	29
41	Recent Advances of First d-Block Metal-Based Perovskite Oxide Electrocatalysts for Alkaline Water Splitting. <i>Catalysts</i> , 2020, 10, 770.	1.6	28
42	Construction of Single-Phase Nickel Disulfide Microflowers as High-Performance Electrodes for Hybrid Supercapacitors. <i>Energy & Fuels</i> , 2020, 34, 10178-10187.	2.5	27
43	In Situ Anchoring Co-Ni Nanoparticles on Co ₄ N Nanosheets toward Ultrastable Flexible Self-Supported Bifunctional Oxygen Electrocatalyst Enables Recyclable Zn-Air Batteries Over 10 000 Cycles and Fast Charging. <i>Small</i> , 2022, 18, e2105887.	5.2	22
44	Innovative non-oxidative methane dehydroaromatization via solar membrane reactor. <i>Energy</i> , 2021, 216, 119265.	4.5	21
45	Thermodynamic analysis of a solar thermochemical cycle-based direct coal liquefaction system for oil production. <i>Energy</i> , 2019, 179, 1279-1287.	4.5	20
46	Novel synthesis of Silicon/Carbon nanotubes microspheres as anode additives through chemical vapor deposition in fluidized bed reactors. <i>Scripta Materialia</i> , 2021, 192, 49-54.	2.6	19
47	Effects of cathode thickness and microstructural properties on the performance of protonic ceramic fuel cell (PCFC): A 3D modelling study. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 4047-4061.	3.8	19
48	A bi-functional catalyst for oxygen reduction and oxygen evolution reactions from used baby diapers: Fe ₂ O ₃ wrapped in P and S dual doped graphitic carbon. <i>RSC Advances</i> , 2016, 6, 64258-64265.	1.7	18
49	Probing and Resolving the Heterogeneous Degradation of Nickel-Rich Layered Oxide Cathodes across Multi-Length Scales. <i>Small Methods</i> , 2020, 4, 2000551.	4.6	18
50	A mid/low-temperature solar-driven integrated membrane reactor for the dehydrogenation of propane: A thermodynamic assessment. <i>Applied Thermal Engineering</i> , 2021, 193, 116952.	3.0	11
51	Manipulating the Conversion Kinetics of Polysulfides by Engineering Oxygen Band of Halloysite for Improved Li-S Batteries. <i>Small</i> , 2021, , 2105661.	5.2	11
52	Perspective of CIGS-BIPV's Product Competitiveness in China. <i>International Journal of Photoenergy</i> , 2020, 2020, 1-10.	1.4	9
53	One-Pot Heterointerfacial Metamorphosis for Synthesis and Control of Widely Varying Heterostructured Nanoparticles. <i>Journal of the American Chemical Society</i> , 2021, 143, 3383-3392.	6.6	9
54	Novel battery thermal management system with different shapes of pin fins. <i>International Journal of Energy Research</i> , 2022, 46, 5997-6011.	2.2	9

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55	Techno-economic analysis of a solar thermochemical cycle-based direct coal liquefaction system for low-carbon oil production. <i>Energy</i> , 2022, 239, 122167.	4.5	7
56	Environmental and economic multi-objective optimization of comprehensive energy industry: A case study. <i>Energy</i> , 2021, 237, 121534.	4.5	7
57	Introducing Ag in Ba _{0.9} La _{0.1} FeO ₃ :- Combining cationic substitution with metal particle decoration. <i>Materials Reports Energy</i> , 2021, 1, 100018.	1.7	6
58	Theoretical Thermodynamic Efficiency Limit of Isothermal Solar Fuel Generation from H ₂ O/CO ₂ Splitting in Membrane Reactors. <i>Molecules</i> , 2021, 26, 7047.	1.7	4
59	Thermodynamic Assessment of a Solar-Driven Integrated Membrane Reactor for Ethanol Steam Reforming. <i>Molecules</i> , 2021, 26, 6921.	1.7	2