Jianjun Liu

List of Publications by Year
in descending order

57 papers	2,285 citations	218592 26 h-index	223716 46 g-index
57 all docs	57 docs citations	57 times ranked	2749 citing authors

#	Article	IF	Citations
1	A Novel Ultraâ€Sensitive Semiconductor SERS Substrate Boosted by the Coupled Resonance Effect. Advanced Science, 2019, 6, 1900310.	5.6	183
2	Unraveling the Catalytic Mechanism of Co₃O₄ for the Oxygen Evolution Reaction in a Liâ€"O₂ Battery. ACS Catalysis, 2015, 5, 73-81.	5.5	140
3	Adsorption-energy-based activity descriptors for electrocatalysts in energy storage applications. National Science Review, 2018, 5, 327-341.	4.6	129
4	Enhanced performance of in-plane transition metal dichalcogenides monolayers by configuring local atomic structures. Nature Communications, 2020, 11, 2253.	5.8	112
5	Auto-optimizing Hydrogen Evolution Catalytic Activity of ReS₂ through Intrinsic Charge Engineering. ACS Nano, 2018, 12, 4486-4493.	7.3	111
6	Engineering Metallic Heterostructure Based on Ni₃N and 2Mâ€MoS₂ for Alkaline Water Electrolysis with Industryâ€Compatible Current Density and Stability. Advanced Materials, 2022, 34, e2108505.	11.1	104
7	Facet-Dependent Electrocatalytic Performance of Co₃O₄ for Rechargeable Liâ€"O₂ Battery. Journal of Physical Chemistry C, 2015, 119, 4516-4523.	1.5	99
8	Surface Acidity as Descriptor of Catalytic Activity for Oxygen Evolution Reaction in Li-O₂ Battery. Journal of the American Chemical Society, 2015, 137, 13572-13579.	6.6	92
9	Manipulation on active electronic states of metastable phase Î²-NiMoO4 for large current density hydrogen evolution. Nature Communications, 2021, 12, 5960.	5.8	86
10	Partialâ€Singleâ€Atom, Partialâ€Nanoparticle Composites Enhance Water Dissociation for Hydrogen Evolution. Advanced Science, 2021, 8, 2001881.	5.6	85
11	Ultrathin Defective Câ€"N Coating to Enable Nanostructured Li Plating for Li Metal Batteries. ACS Nano, 2020, 14, 1866-1878.	7.3	83
12	Activating Aromatic Rings as Na-Ion Storage Sites to Achieve High Capacity. CheM, 2018, 4, 2463-2478.	5.8	82
13	B-Doped Graphene as Catalyst To Improve Charge Rate of Lithiumâ€"Air Battery. Journal of Physical Chemistry C, 2014, 118, 22412-22418.	1.5	81
14	Defectâ€Concentrationâ€Mediated Tâ€Nb₂O₅ Anodes for Durable and Fastâ€Charging Liâ€Ion Batteries. Advanced Functional Materials, 2022, 32, 2107060.	7.8	68
15	Green and Sensitive Flexible Semiconductor SERS Substrates: Hydrogenated Black TiO₂ Nanowires. ACS Applied Nano Materials, 2018, 1, 4516-4527.	2.4	60
16	Shallow-layer pillaring of a conductive polymer in monolithic grains to drive superior zinc storage <i>via</i> a cascading effect. Energy and Environmental Science, 2020, 13, 3149-3163.	15.6	57
17	Nonâ€Conjugated Dicarboxylate Anode Materials for Electrochemical Cells. Angewandte Chemie - International Edition, 2018, 57, 8865-8870.	7.2	52
18	Bond Electronegativity as Hydrogen Evolution Reaction Catalyst Descriptor for Transition Metal (TM) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.2	45

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19	Theoretical and Experimental Studies of Ti₃C₂ MXene for Surface-Enhanced Raman Spectroscopy-Based Sensing. ACS Omega, 2020, 5, 26486-26496.	1.6	44
20	Identifying Metallic Transition-Metal Dichalcogenides for Hydrogen Evolution through Multilevel High-Throughput Calculations and Machine Learning. Journal of Physical Chemistry Letters, 2021, 12, 2102-2111.	2.1	43
21	Cyclic Etherâ€“Water Hybrid Electrolyte-Guided Dendrite-Free Lamellar Zinc Deposition by Tuning the Solvation Structure for High-Performance Aqueous Zinc-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 40638-40647.	4.0	40
22	Enhancing ionic conductivity in solid electrolyte by relocating diffusion ions to under-coordination sites. Science Advances, 2022, 8, eabj7698.	4.7	37
23	Three-Dimensional Fast Na-Ion Transport in Sodium Titanate Nanoarchitectures via Engineering of Oxygen Vacancies and Bismuth Substitution. ACS Nano, 2021, 15, 13604-13615.	7.3	36
24	Dynamic coordination transformation of active sites in single-atom MoS₂ catalysts for boosted oxygen evolution catalysis. Energy and Environmental Science, 2022, 15, 2071-2083.	15.6	33
25	Triple Conductive Wiring by Electron Doping, Chelation Coating and Electrochemical Conversion in Fluffy Nb₂O₅ Anodes for Fastâ€Charging Liâ€Ion Batteries. Advanced Science, 2022, 9, .	5.6	33
26	Reducing the charge overpotential of Liâ€“O₂ batteries through band-alignment cathode design. Energy and Environmental Science, 2020, 13, 2540-2548.	15.6	30
27	Robustness-Heterogeneity-Induced Ultrathin 2D Structure in Li Plating for Highly Reversible Liâ€“Metal Batteries. ACS Applied Materials & Interfaces, 2020, 12, 46132-46145.	4.0	29
28	Immobilizing an organic electrode material through Ï€â€“Ï€ interaction for high-performance Li-organic batteries. Journal of Materials Chemistry A, 2019, 7, 22398-22404.	5.2	23
29	Niobium pentoxide ultra-thin nanosheets: A photocatalytic degradation and recyclable surface-enhanced Raman scattering substrate. Applied Surface Science, 2020, 509, 145376.	3.1	21
30	Secondary Bonding Channel Design Induces Intercalation Pseudocapacitance toward Ultrahighâ€Capacity and Highâ€Rate Organic Electrodes. Advanced Materials, 2021, 33, e2104039.	11.1	18
31	Tight bonding and high-efficiency utilization of Sâ€“S moieties to enable ultra-stable and high-capacity alkali-metal conversion batteries. Journal of Materials Chemistry A, 2021, 9, 6160-6171.	5.2	17
32	How inactive d0 transition metal controls anionic redox in disordered Li-rich oxyfluoride cathodes. Energy Storage Materials, 2020, 32, 253-260.	9.5	16
33	Surface Stability and Morphology of Calcium Phosphate Tuned by pH Values and Lactic Acid Additives: Theoretical and Experimental Study. ACS Applied Materials & Interfaces, 2022, 14, 4836-4851.	4.0	16
34	Relieving the â€œSudden Deathâ€• of Liâ€“O₂ Batteries by Grafting an Antifouling Film on Cathode Surfaces. ACS Applied Materials & Interfaces, 2019, 11, 14753-14758.	4.0	15
35	Influence of Cu²⁺ doping concentration on the catalytic activity of Cu_xCo_{3âˆ’x}O₄ for rechargeable Liâ€“O₂ batteries. Journal of Materials Chemistry A, 2017, 5, 18569-18576.	5.2	13
36	Stabilizing Low-Coordinated O Ions To Operate Cationic and Anionic Redox Chemistry of Li-Ion Battery Materials. ACS Applied Materials & Interfaces, 2019, 11, 37768-37778.	4.0	13

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37	Maximizing ionic transport of Li1+xAlxTi2-xP3O12 electrolytes for all-solid-state lithium-ion storage: A theoretical study. Journal of Materials Science and Technology, 2021, 73, 45-51.	5.6	12
38	Surface Electronegativity as an Activity Descriptor to Screen Oxygen Evolution Reaction Catalysts of Liâ€“O₂ Battery. ACS Applied Materials & Interfaces, 2020, 12, 27166-27175.	4.0	12
39	Tailoring the redox-active transition metal content to enhance cycling stability in cation-disordered rock-salt oxides. Energy Storage Materials, 2021, 43, 275-283.	9.5	11
40	Cooperative Effect of Multiple Active Sites and Hierarchical Chemical Bonds in Metalâ€“Organic Compounds for Improving Cathode Performance. ACS Energy Letters, 2020, 5, 477-485.	8.8	10
41	Alkaline-earth metal substitution stabilizes the anionic redox of Li-rich oxides. Journal of Materials Chemistry A, 2021, 9, 10364-10373.	5.2	10
42	Boosting the transport kinetics of free-standing SnS₂@Carbon nanofibers by electronic structure modulation for advanced lithium storage. Journal of Materials Chemistry A, 2022, 10, 9468-9481.	5.2	9
43	The critical role of oxygen-evolution kinetics in the electrochemical stability of oxide superionic conductors. Journal of Materials Chemistry A, 2019, 7, 17008-17013.	5.2	8
44	Vacancy-induced anion and cation redox chemistry in cation-deficient F-doped anatase TiO2. Journal of Materials Chemistry A, 2020, 8, 20393-20401.	5.2	8
45	Bambooâ€Based Biomaterials for Cell Transportation and Bone Integration. Advanced Healthcare Materials, 2022, 11, e2200287.	3.9	8
46	Theoretical Study of Fast Calculation of Damping Loss Factors for Rubber Polymers. Journal of Physical Chemistry Letters, 2020, 11, 6025-6031.	2.1	7
47	Optimized electron occupancy of solid-solution transition metals for suppressing the oxygen evolution of Li₂MnO₃. Journal of Materials Chemistry A, 2021, 9, 9337-9346.	5.2	7
48	Programmed self-assembly of enzyme activity-inhibited nanomedicine for augmenting chemodynamic tumor nanotherapy. Nanoscale, 2022, 14, 6171-6183.	2.8	6
49	Multiscale computations and artificial intelligent models of electrochemical performance in Liâ€ion battery materials. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2022, 12, .	6.2	6
50	Predicting Li-Rich Layered Oxide Compounds as High-Conductivity and Stable Solid Electrolytes. ACS Energy Letters, 2021, 6, 3793-3800.	8.8	5
51	Origin of multiple voltage plateaus in P2-type sodium layered oxides. Materials Horizons, 2022, 9, 1460-1467.	6.4	5
52	Effect of Coolant Crossflow on Film Cooling Effectiveness of Diffusion Slot Hole With and Without Ribs. Journal of Turbomachinery, 2022, 144, .	0.9	5
53	Theoretical studies of a 3D-to-planar structural transition in SinAl5â^'n+1,0,â^'1(n = 0â€“5) clusters. RSC Advances, 2015, 5, 13923-13929.	1.7	3
54	Electrochemical Activity of Positive Electrode Material of P2-Na<i>_x</i>[Mg_{0.33}Mn_{0.67}]O₂ Sodium Ion Battery. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2021, 36, 623.	0.6	3

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55	Achieving fast ionic conductivity and high electrochemical stability through polyhedral structure design. Energy Storage Materials, 2022, 47, 70-78.	9.5	2
56	Assembling organicâ€"inorganic building blocks for high-capacity electrode design. Materials Horizons, 2021, 8, 1825-1834.	6.4	1
57	Critical Role of Interfacial Charge Transfer in Reducing Charge Potential of Liâ€"O2 Battery. Journal of Physical Chemistry C, 0, , .	1.5	1