Kaiming Liao

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3472632/publications.pdf

Version: 2024-02-01

54 papers	3,471 citations	126907 33 h-index	161849 54 g-index
55 all docs	55 docs citations	55 times ranked	4434 citing authors

#	Article	IF	Citations
1	Porous cuprous oxide microcubes for non-enzymatic amperometric hydrogen peroxide and glucose sensing. Electrochemistry Communications, 2009, 11, 812-815.	4.7	231
2	Recent advances in the interface engineering of solid-state Li-ion batteries with artificial buffer layers: challenges, materials, construction, and characterization. Energy and Environmental Science, 2019, 12, 1780-1804.	30.8	230
3	A self-defense redox mediator for efficient lithiumâ€“O₂ batteries. Energy and Environmental Science, 2016, 9, 1024-1030.	30.8	224
4	Selfâ€Catalyzed Growth of Co, Nâ€Codoped CNTs on Carbonâ€Encased CoS_x Surface: A Nobleâ€Metalâ€Free Bifunctional Oxygen Electrocatalyst for Flexible Solid Znâ€“Air Batteries. Advanced Functional Materials, 2019, 29, 1904481.	14.9	217
5	Developing a â€œWaterâ€Defendableâ€•and â€œDendriteâ€Freeâ€•Lithiumâ€Metal Anode Using a Simple and Promising GeCl₄ Pretreatment Method. Advanced Materials, 2018, 30, e1705711.	21.0	186
6	Reducing the charging voltage of a Liâ€“O₂battery to 1.9 V by incorporating a photocatalyst. Energy and Environmental Science, 2015, 8, 2664-2667.	30.8	147
7	Superior Performance of a Liâ€“O₂ Battery with Metallic RuO₂ Hollow Spheres as the Carbonâ€Free Cathode. Advanced Energy Materials, 2015, 5, 1500294.	19.5	139
8	An oxygen cathode with stable full dischargeâ€“charge capability based on 2D conducting oxide. Energy and Environmental Science, 2015, 8, 1992-1997.	30.8	113
9	Flexible, Flameâ€Resistant, and Dendriteâ€Impermeable Gelâ€Polymer Electrolyte for Liâ€“O₂/Air Batteries Workable Under Hurdle Conditions. Small, 2018, 14, e1801798.	10.0	113
10	Stabilization of polysulfides via lithium bonds for Liâ€“S batteries. Journal of Materials Chemistry A, 2016, 4, 5406-5409.	10.3	105
11	Nanoporous Ru as a Carbonâ€•and Binderâ€Free Cathode for Liâ€“O₂ Batteries. ChemSusChem, 2015, 8, 1429-1434.	6.8	104
12	Smart Construction of an Intimate Lithium | Garnet Interface for Allâ€Solidâ€State Batteries by Tuning the Tension of Molten Lithium. Advanced Functional Materials, 2021, 31, 2101556.	14.9	97
13	A long-life lithium ion oxygen battery based on commercial silicon particles as the anode. Energy and Environmental Science, 2016, 9, 3262-3271.	30.8	89
14	Recent Advances in Filler Engineering of Polymer Electrolytes for Solid-State Li-Ion Batteries: A Review. Energy & Fuels, 2020, 34, 9189-9207.	5.1	89
15	Rich atomic interfaces between sub-1 nm RuOx clusters and porous Co3O4 nanosheets boost oxygen electrocatalysis bifunctionality for advanced Zn-air batteries. Energy Storage Materials, 2020, 32, 20-29.	18.0	84
16	Facile in Situ Preparation of Graphitic-C₃N₄@carbon Paper As an Efficient Metal-Free Cathode for Nonaqueous Liâ€“O₂ Battery. ACS Applied Materials & Interfaces, 2015, 7, 10823-10827.	8.0	75
17	Water-proof, electrolyte-nonvolatile, and flexible Li-Air batteries via O2-Permeable silica-aerogel-reinforced polydimethylsiloxane external membranes. Energy Storage Materials, 2020, 27, 297-306.	18.0	69
18	Recent Advances in Emerging Metalâ€“ and Covalentâ€“Organic Frameworks for Enzyme Encapsulation. ACS Applied Materials & Interfaces, 2021, 13, 56752-56776.	8.0	67

#	Article	IF	Citations
19	Spongeâ€Like Cathode Material Selfâ€Assembled from Twoâ€Dimensional V₂O₅ Nanosheets for Sodiumâ€Ion Batteries. ChemElectroChem, 2015, 2, 1660-1664.	3.4	65
20	Direct growth of ordered Nâ€doped carbon nanotube arrays on carbon fiber cloth as a freeâ€standing and binderâ€free air electrode for flexible quasiâ€solidâ€state rechargeable Znâ€Air batteries. , 2020, 2, 461-471.		64
21	Lowering the charge voltage of Liâ€“O₂ batteries via an unmediated photoelectrochemical oxidation approach. Journal of Materials Chemistry A, 2016, 4, 12411-12415.	10.3	59
22	A smart lithiophilic polymer filler in gel polymer electrolyte enables stable and dendrite-free Li metal anode. Journal of Materials Chemistry A, 2020, 8, 9733-9742.	10.3	53
23	Realizing fourfold enhancement in conductivity of perovskite Li0.33La0.557TiO3 electrolyte membrane via a Sr and Ta co-doping strategy. Journal of Membrane Science, 2019, 582, 194-202.	8.2	51
24	An â€œelectronegativeâ€•bifunctional coating layer: simultaneous regulation of polysulfide and Li-ion adsorption sites for long-cycling and â€œdendrite-freeâ€•Liâ€“S batteries. Journal of Materials Chemistry A, 2019, 7, 22463-22474.	10.3	49
25	Ultralong Cycle Life Liâ€“O₂ Battery Enabled by a MOF-Derived Rutheniumâ€“Carbon Composite Catalyst with a Durable Regenerative Surface. ACS Applied Materials & Interfaces, 2019, 11, 20091-20097.	8.0	46
26	Tailoring charge and mass transport in cation/anion-codoped Ni3N / N-doped CNT integrated electrode toward rapid oxygen evolution for fast-charging zinc-air batteries. Energy Storage Materials, 2021, 39, 11-20.	18.0	44
27	Rational design of strontium antimony co-doped Li7La3Zr2O12 electrolyte membrane for solid-state lithium batteries. Journal of Alloys and Compounds, 2019, 794, 347-357.	5.5	42
28	Co2P nanostructures constructed by nanorods: hydrothermal synthesis and applications in the removal of heavy metal ions. New Journal of Chemistry, 2009, 33, 2055.	2.8	40
29	In situ template route for synthesis of porous Ni12P5 superstructures and their applications in environmental treatments. CrystEngComm, 2010, 12, 1568.	2.6	40
30	A simple strategy that may effectively tackle the anode-electrolyte interface issues in solid-state lithium metal batteries. Chemical Engineering Journal, 2022, 427, 131001.	12.7	38
31	Hydrothermal synthesis of Ni12P5 hollow microspheres, characterization and photocatalytic degradation property. Journal of Colloid and Interface Science, 2009, 332, 231-236.	9.4	36
32	A cobalt and nickel co-modified layered P2-Na2/3Mn1/2Fe1/2O2 with excellent cycle stability for high-energy density sodium-ion batteries. Journal of Alloys and Compounds, 2019, 775, 383-392.	5.5	36
33	A promising method for fabricating Ag nanoparticle modified nonenzyme hydrogen peroxide sensors. Sensors and Actuators B: Chemical, 2013, 181, 125-129.	7.8	35
34	Optimal synthesis and new understanding of P2-type Na2/3Mn1/2Fe1/4Co1/4O2 as an advanced cathode material in sodium-ion batteries with improved cycle stability. Ceramics International, 2018, 44, 5184-5192.	4.8	34
35	Towards practically accessible aprotic Li-air batteries: Progress and challenges related to oxygen-permeable membranes and cathodes. Energy Storage Materials, 2022, 45, 869-902.	18.0	32
36	High-power splitting of expanded graphite to produce few-layer graphene sheets. Carbon, 2011, 49, 2862-2868.	10.3	28

#	Article	IF	Citations
37	Controllable synthesis of polyhedral YF3 microcrystals via a potassium sodium tartrate-assisted hydrothermal route. CrystEngComm, 2008, 10, 1681.	2.6	27
38	Ni2+ ions assisted hydrothermal synthesis of flowerlike Co11(HPO3)8(OH)6 superstructures and shape control. CrystEngComm, 2009, 11, 570.	2.6	27
39	Reduced air sensitivity and improved electrochemical stability of P2â€“Na2/3Mn1/2Fe1/4Co1/4O2 through atomic layer deposition-assisted Al2O3 coating. Composites Part B: Engineering, 2019, 173, 106913.	12.0	26
40	Pd nanoparticle-modified electrodes for nonenzymatic hydrogen peroxide detection. Nanoscale Research Letters, 2015, 10, 1021.	5.7	24
41	Enhancing the cycle life of Li-S batteries by designing a free-standing cathode with excellent flexible, conductive, and catalytic properties. Electrochimica Acta, 2019, 298, 421-429.	5.2	22
42	Dodecylamineâ€Induced Synthesis of a Nitrogenâ€Doped Carbon Comb for Advanced Lithiumâ€“Sulfur Battery Cathodes. Advanced Materials Interfaces, 2018, 5, 1701659.	3.7	21
43	Tuning Nitrogen in Graphitic Carbon Nitride Enabling Enhanced Performance for Polysulfide Confinement in Liâ€“S Batteries. Energy & Fuels, 2020, 34, 11557-11564.	5.1	19
44	Achieving Safe and Dendrite-Suppressed Solid-State Li Batteries via a Novel Self-Extinguished Trimethyl Phosphate-Based Wetting Agent. Energy & Fuels, 2020, 34, 11547-11556.	5.1	19
45	A Controllable Dual Interface Engineering Concept for Rational Design of Efficient Bifunctional Electrocatalyst for Zincâ€“Air Batteries. Small, 2022, 18, e2105604.	10.0	18
46	Synthesis of hierarchical Ni11(HPO3)8(OH)6 superstructures based on nanorods through a soft hydrothermal route. Materials Research Bulletin, 2010, 45, 205-209.	5.2	16
47	Electrospinning of a PMA-co-PAA/FP biopolymer nanofiber: enhanced capability for immobilized horseradish peroxidase and its consequence for p-nitrophenol disposal. RSC Advances, 2015, 5, 41994-41998.	3.6	15
48	Layered Co/Ni-free oxides for sodium-ion battery cathode materials. Current Opinion in Green and Sustainable Chemistry, 2019, 17, 29-34.	5.9	14
49	Large-Scale Synthesis of Single Crystalline NiHPO₃Â·H₂O Nanoneedle Bundles Based on the Dismutation of NaH₂PO₂. Crystal Growth and Design, 2008, 8, 3636-3640.	3.0	12
50	Stabilizing Li Anodes in I₂ Steam to Tackle the Shuttling-Induced Depletion of an Iodide/Triiodide Redox Mediator in Liâ€“O₂ Batteries with Suppressed Li Dendrite Growth. ACS Applied Materials & Interfaces, 2021, 13, 53859-53867.	8.0	12
51	Oneâ€dimensional metalâ€“organic frameworkâ€reinforced gel polymer electrolyte enables a stable Li metal battery. Asia-Pacific Journal of Chemical Engineering, 2022, 17, .	1.5	10
52	Anisotropy antireflection TiO₂ nanoparticle films fabricated with directed cluster beam deposition. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 2366-2369.	0.8	6
53	Photoelectrochemical response of Ag-graphene heterostructures: insight into the localized surface plasmon enhanced photocurrent generation process. Nanotechnology, 2019, 30, 495203.	2.6	5
54	Kirkendall synthesis and characterization of nanotubular (Bi2)m(Bi2Te3)n series. Materials Research Bulletin, 2022, 152, 111827.	5.2	2