Chao Lai

List of Publications by Year
in descending order

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76 papers	4,598 citations	101543 36 h-index	102487 66 g-index
77 all docs	77 docs citations	77 times ranked	5738 citing authors

#	Article	IF	Citations
1	Highly Aligned Ultraâ€Thick Gelâ€Based Cathodes Unlocking Ultraâ€High Energy Density Batteries. Energy and Environmental Materials, 2022, 5, 1332-1339.	12.8	13
2	Enhancing the reversible capacity and cycle stability of lithium-ion batteries with Li-compensation material Li6CoO4. Science China Materials, 2022, 65, 620-628.	6.3	7
3	Ionâ€Conductive Polytitanosiloxane Networks Enable a Robust Solidâ€Electrolyte Interface for Longâ€Cycling Lithium Metal Anodes. Advanced Functional Materials, 2022, 32, 2110347.	14.9	23
4	Polyoxometalate Ionic Sponge Enabled Dendriteâ€'Free and Highly Stable Lithium Metal Anode. Small Methods, 2022, 6, e2101613.	8.6	17
5	Electrolyte Salts and Additives Regulation Enables High Performance Aqueous Zinc Ion Batteries: A Mini Review. Small, 2022, 18, e2104640.	10.0	69
6	CuCl₂â€Modified Lithium Metal Anode via Dynamic Protection Mechanisms for Dendriteâ€Free Longâ€Life Charging/Discharge Processes (Adv. Energy Mater. 15/2022). Advanced Energy Materials, 2022, 12, .	19.5	0
7	Cyclohexanedodecol-Assisted Interfacial Engineering for Robust and High-Performance Zinc Metal Anode. Nano-Micro Letters, 2022, 14, 110.	27.0	42
8	Ultralowâ€Expansion Lithium Metal Composite Anode via Gradient Framework Design. Advanced Functional Materials, 2022, 32, .	14.9	18
9	Designer uniform Li plating/stripping through lithiumâ€“cobalt alloying hierarchical scaffolds for scalable high-performance lithium-metal anodes. Journal of Energy Chemistry, 2021, 52, 385-392.	12.9	29
10	Self-assembly synthesis of SnNb2O6/amino-functionalized graphene nanocomposite as high-rate anode materials for sodium-ion batteries. Rare Metals, 2021, 40, 425-432.	7.1	26
11	Amylopectin from Glutinous Rice as a Sustainable Binder for Highâ€Performance Silicon Anodes. Energy and Environmental Materials, 2021, 4, 263-268.	12.8	24
12	Liâ€containing alloys beneficial for stabilizing lithium anode: A review. Engineering Reports, 2021, 3, e12339.	1.7	26
13	Polysiloxane Crossâ€Linked Mechanically Stable MXeneâ€Based Lithium Host for Ultrastable Lithium Metal Anodes with Ultrahigh Current Densities and Capacities. Advanced Functional Materials, 2021, 31, 2008044.	14.9	57
14	Polyoxometalate driven dendrite-free zinc electrodes with synergistic effects of cation and anion cluster regulation. Journal of Materials Chemistry A, 2021, 9, 7025-7033.	10.3	42
15	Functional lithiophilic polymer modified separator for dendrite-free and pulverization-free lithium metal batteries. Journal of Energy Chemistry, 2021, 52, 262-268.	12.9	41
16	Oligomerized imide and thioimide organic cathode materials via a H-transfer mechanism for high capacity lithium ion batteries. Journal of Materials Chemistry A, 2021, 9, 18306-18312.	10.3	4
17	Sol Electrolyte: Pathway to Longâ€Term Stable Lithium Metal Anode. Advanced Functional Materials, 2021, 31, 2100594.	14.9	19
18	Water Reducer: A Highly Dispersing Binder for <scp>Highâ€Performance Lithiumâ€Sulfur</scp> Batteries^{â€}. Chinese Journal of Chemistry, 2021, 39, 1523-1530.	4.9	8

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19	Cobaltâ€Phthalocyanineâ€Derived Molecular Isolation Layer for Highly Stable Lithium Anode. Angewandte Chemie, 2021, 133, 20005-20012.	2.0	10
20	Cobaltâ€Phthalocyanineâ€Derived Molecular Isolation Layer for Highly Stable Lithium Anode. Angewandte Chemie - International Edition, 2021, 60, 19852-19859.	13.8	62
21	Tunable Graphene Oxide Nanofiltration Membrane for Effective Dye/Salt Separation and Desalination. ACS Applied Materials & Interfaces, 2021, 13, 55339-55348.	8.0	34
22	Grafting polymeric sulfur onto carbon nanotubes as highly-active cathode for lithiumâ€“sulfur batteries. Journal of Energy Chemistry, 2020, 42, 27-33.	12.9	38
23	3D printing nanocomposite gel-based thick electrode enabling both high areal capacity and rate performance for lithium-ion battery. Chemical Engineering Journal, 2020, 381, 122641.	12.7	89
24	Ti₃C₂T_x MXene Interface Layer Driving Ultra-Stable Lithium-Iodine Batteries with Both High Iodine Content and Mass Loading. ACS Nano, 2020, 14, 1176-1184.	14.6	105
25	Hierarchical Co₃O₄@N-Doped Carbon Composite as an Advanced Anode Material for Ultrastable Potassium Storage. ACS Nano, 2020, 14, 5027-5035.	14.6	121
26	Honeycombâ€like carbon materials derived from coffee extract via a â€œsaltyâ€•thermal treatment for highâ€performance Liâ€₂ batteries. , 2020, 2, 265-275.		24
27	Stabilizing lithium metal anode by octaphenyl polyoxyethylene-lithium complexation. Nature Communications, 2020, 11, 643.	12.8	161
28	From double-helix structured seaweed to S-doped carbon aerogel with ultra-high surface area for energy storage. Energy Storage Materials, 2019, 17, 22-30.	18.0	72
29	Superlithiophilic Amorphous SiO₂â€“TiO₂ Distributed into Porous Carbon Skeleton Enabling Uniform Lithium Deposition for Stable Lithium Metal Batteries. Advanced Science, 2019, 6, 1900943.	11.2	96
30	Uniform lithium deposition driven by vertical magnetic field for stable lithium anodes. Solid State Ionics, 2019, 341, 115033.	2.7	19
31	Conductive carbon nanofiber interpenetrated graphene architecture for ultra-stable sodium ion battery. Nature Communications, 2019, 10, 3917.	12.8	250
32	Grain refining mechanisms: Initial levelling stage during nucleation for high-stability lithium anodes. Nano Energy, 2019, 66, 104128.	16.0	55
33	One dimensional nanostructures contribute better Liâ€“S and Liâ€“Se batteries: Progress, challenges and perspectives. Energy Storage Materials, 2019, 23, 190-224.	18.0	86
34	Housing Sulfur in Polymer Composite Frameworks for Liâ€“S Batteries. Nano-Micro Letters, 2019, 11, 17.	27.0	102
35	Enhanced Sulfur Transformation by Multifunctional FeS₂/FeS/S Composites for Highâ€Volumetric Capacity Cathodes in Lithiumâ€“Sulfur Batteries. Advanced Science, 2019, 6, 1800815.	11.2	178
36	Single crystal polyoxoniobate derived NbO/Cu nanocrystalline@N-doped carbon loaded onto reduced graphene oxide enabling high rate and high capacity Li/Na storage. Journal of Materials Chemistry A, 2019, 7, 26513-26523.	10.3	10

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37	Communicationâ€"Trace Montmorillonite Electrolyte Additive Producing Stable Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2019, 166, A3886-A3888.	2.9	10
38	Designing Li-protective layer via SOCl2 additive for stabilizing lithium-sulfur battery. Energy Storage Materials, 2019, 18, 222-228.	18.0	84
39	In Situâ€Derived Porous SiO 2 /Carbon Nanocomposite from Lichens for Lithiumâ€Ion Batteries. Energy Technology, 2019, 7, 1800840.	3.8	4
40	Robust pseudo-capacitive Li-I2 battery enabled by catalytic, adsorptive N-doped graphene interlayer. Energy Storage Materials, 2018, 14, 129-135.	18.0	67
41	Recent development of metal compound applications in lithiumâ€"sulphur batteries. Journal of Materials Research, 2018, 33, 16-31.	2.6	41
42	LiI embedded meso-micro porous carbon polyhedrons for lithium iodine battery with superior lithium storage properties. Energy Storage Materials, 2018, 10, 62-68.	18.0	59
43	Cationic Surfactant-Based Electrolyte Additives for Uniform Lithium Deposition via Lithiophobic Repulsion Mechanisms. Journal of the American Chemical Society, 2018, 140, 17515-17521.	13.7	211
44	A Hierarchical Silverâ€Nanowireâ€"Graphene Host Enabling Ultrahigh Rates and Superior Longâ€Term Cycling of Lithiumâ€Metal Composite Anodes. Advanced Materials, 2018, 30, e1804165.	21.0	221
45	Carbon Nitride Nanofibres with Exceptional Lithium Storage Capacity: From Theoretical Prediction to Experimental Implementation. Advanced Functional Materials, 2018, 28, 1803972.	14.9	77
46	Communicationâ€"Direct Observation of the Shuttle Phenomenon in Lithium-Sulfur Batteries via the Digital Holographic Method. Journal of the Electrochemical Society, 2018, 165, A2866-A2868.	2.9	7
47	Tri-Functional Copper Sulfide as Sulfur Carrier for High-Performance Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2017, 164, A1499-A1502.	2.9	20
48	Online Digital Holographic Method for Interface Reaction Monitoring in Lithium-Ion Batteries. Journal of Physical Chemistry C, 2017, 121, 24733-24739.	3.1	13
49	Two nanoscale Nb containing polyoxometalates based on {P₂W₁₅Nb₃O₆₂} clusters and chromium cations. Dalton Transactions, 2017, 46, 13345-13348.	3.3	12
50	Ultra-small B₂O₃ nanocrystals grown in situ on highly porous carbon microtubes for lithiumâ€"iodine and lithiumâ€"sulfur batteries. Journal of Materials Chemistry A, 2016, 4, 8541-8547.	10.3	74
51	A hybrid carbon aerogel with both aligned and interconnected pores as interlayer for high-performance lithiumâ€"sulfur batteries. Nano Research, 2016, 9, 3735-3746.	10.4	140
52	Ball-milling synthesis of ZnO@sulphur/carbon nanotubes and Ni(OH)2@sulphur/carbon nanotubes composites for high-performance lithium-sulphur batteries. Electrochimica Acta, 2016, 196, 369-376.	5.2	77
53	Nitrogen, sulfur-codoped graphene sponge as electroactive carbon interlayer for high-energy and -power lithiumâ€"sulfur batteries. Journal of Power Sources, 2016, 303, 22-28.	7.8	180
54	Substrate-induced assembly of PtAu alloy nanostructures at choline functionalized monolayer interface for nitrite sensing. Journal of Electroanalytical Chemistry, 2015, 750, 36-42.	3.8	22

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55	A conductive interwoven bamboo carbon fiber membrane for Liâ€“S batteries. Journal of Materials Chemistry A, 2015, 3, 9502-9509.	10.3	131
56	Facile fabrication of three-dimensional hierarchical CuO nanostructures with enhanced lithium storage capability. RSC Advances, 2015, 5, 68061-68066.	3.6	10
57	Producing hierarchical porous carbon monoliths from hydrometallurgical recycling of spent lead acid battery for application in lithium ion batteries. Green Chemistry, 2015, 17, 4637-4646.	9.0	22
58	A new lithium-ion battery with LiNi0.80Co0.15Al0.05O2 cathode and lithium pre-doping hard carbon anode. Materials Letters, 2015, 160, 250-254.	2.6	10
59	Enhanced cycling performance of the Li4Ti5O12anode in an ethers electrolyte induced by a solidâ€“electrolyte interphase film. RSC Advances, 2015, 5, 56908-56912.	3.6	4
60	A porous nitrogen and phosphorous dual doped graphene blocking layer for high performance Liâ€“S batteries. Journal of Materials Chemistry A, 2015, 3, 16670-16678.	10.3	241
61	Reinforced Conductive Confinement of Sulfur for Robust and High-Performance Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2015, 7, 23885-23892.	8.0	35
62	Crystalline TiO2@C nanosheet anode with enhanced rate capability for lithium-ion batteries. RSC Advances, 2015, 5, 98717-98720.	3.6	6
63	A type of sodium-ion full-cell with a layered NaNi_{0.5}Ti_{0.5}O₂ cathode and a pre-sodiated hard carbon anode. RSC Advances, 2015, 5, 106519-106522.	3.6	82
64	Microporous bamboo biochar for lithium-sulfur batteries. Nano Research, 2015, 8, 129-139.	10.4	284
65	High-performance amorphous carbonâ€“graphene nanocomposite anode for lithium-ion batteries. RSC Advances, 2014, 4, 18899.	3.6	16
66	Blue hydrogenated lithium titanate as a high-rate anode material for lithium-ion batteries. Journal of Materials Chemistry A, 2014, 2, 6353.	10.3	58
67	Wet ball-milling synthesis of high performance sulfur-based composite cathodes: The influences of solvents and ball-milling speed. Electrochimica Acta, 2014, 149, 136-143.	5.2	12
68	Introduction of â€˜lattice-voidsâ€™ in high tap density TiO₂-B nanowires for enhanced high-rate and high volumetric capacity lithium storage. RSC Advances, 2014, 4, 22989-22994.	3.6	8
69	Resilient mesoporous TiO2/graphene nanocomposite for high rate performance lithium-ion batteries. Chemical Engineering Journal, 2014, 256, 247-254.	12.7	107
70	Graphene-wrapped sulfur-based composite cathodes: ball-milling synthesis and high discharge capacity. RSC Advances, 2014, 4, 48438-48442.	3.6	4
71	Directional synthesis of tin oxide@graphene nanocomposites via a one-step up-scalable wet-mechanochemical route for lithium ion batteries. Journal of Materials Chemistry A, 2014, 2, 10211-10217.	10.3	54
72	Hydrogenation Synthesis of Blue TiO₂ for High-Performance Lithium-Ion Batteries. Journal of Physical Chemistry C, 2014, 118, 8824-8830.	3.1	167

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73	Titanium pyrophosphate hexagonal nanoplates for electrochemical lithium storage. RSC Advances, 2013, 3, 13137.	3.6	6
74	One-Dimensional<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="M1"><mml:mtext>T</mml:mtext><mml:mtext>i</mml:mtext><mml:msub><mml:mrow><mml:mtext>O</mml:mtext></mml:mrow as Photoanodes for Dye-Sensitized Solar Cells. Journal of Nanomaterials, 2013, 2013, 1-11.	2.7	23
75	Enhanced Highâ€Rate Performance of Doubleâ€Walled TiO₂â€B Nanotubes as Anodes in Lithiumâ€Ion Batteries. Chemistry - an Asian Journal, 2012, 7, 2516-2518.	3.3	22
76	Highly stable and scalable lithium metal anodes enabled by a lithiophilic SnO2@graphite fiber framework design. Batteries and Supercaps, 0, , .	4.7	0