Chengdu Liang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/11274832/publications.pdf

Version: 2024-02-01

120	17,190	20759 60	16127 124
papers	citations	h-index	g-index

129	129	129	17367
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Regulating Electronic Structure of Singleâ€Atom Catalysts toward Efficient Bifunctional Oxygen Electrocatalysis. Small Methods, 2022, 6, e2101511.	4.6	14
2	Exploring the concordant solid-state electrolytes for all-solid-state lithium-sulfur batteries. Nano Energy, 2022, 96, 107093.	8.2	28
3	An Ionâ€Conductive Grafted Polymeric Binder with Practical Loading for Silicon Anode with High Interfacial Stability in Lithiumâ€Ion Batteries. Advanced Energy Materials, 2022, 12, .	10.2	67
4	MoP@NC/S cathode with multiple synergistic effect contributes to Li-S battery. Separation and Purification Technology, 2022, 300, 121684.	3.9	5
5	A robust network binder via localized linking by small molecules for high-areal-capacity silicon anodes in lithium-ion batteries. Nano Energy, 2021, 79, 105430.	8.2	85
6	Epoxy and amide crosslinked polarity enhanced polysaccharides binder for silicon anode in lithium-ion batteries. Electrochimica Acta, 2021, 368, 137580.	2.6	11
7	Fundamental air stability in solid-state electrolytes: principles and solutions. Materials Chemistry Frontiers, 2021, 5, 7452-7466.	3.2	22
8	9,10-Anthraquinone/K₂CuFe(CN)₆: A Highly Compatible Aqueous Aluminum-Ion Full-Battery Configuration. ACS Applied Materials & Interfaces, 2021, 13, 8353-8360.	4.0	40
9	In-situ constructing polyacrylamide interphase enables dendrite-free zinc anode in aqueous batteries. Electrochimica Acta, 2021, 378, 138106.	2.6	40
10	An Aqueous Binder for High-Areal-Capacity Fe₃O₄-Based Anodes in Lithium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 7201-7208.	2.5	23
11	Epoxy Cross-Linking Enhanced the Toughness of Polysaccharides as a Silicon Anode Binder for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 37704-37712.	4.0	13
12	Controllably Electrodepositing ZIF-8 Protective Layer for Highly Reversible Zinc Anode with Ultralong Lifespan. Journal of Physical Chemistry Letters, 2021, 12, 9055-9059.	2.1	17
13	Peach gum as an efficient binder for high-areal-capacity lithiumâ€“sulfur batteries. Sustainable Materials and Technologies, 2021, 30, e00334.	1.7	3
14	A biopolymer network for lean binder in silicon nanoparticle anodes for lithium-ion batteries. Sustainable Materials and Technologies, 2021, 30, e00333.	1.7	18
15	A new battery process technology inspired by partially carbonized polymer binders. Nano Energy, 2020, 67, 104234.	8.2	52
16	Atomic Platinum Anchored on Fe-N-C Material for High Performance Oxygen Reduction Reaction. European Journal of Inorganic Chemistry, 2020, 2020, 165-168.	1.0	4
17	Millimeter Silicon-Derived Secondary Submicron Materials as High-Initial Coulombic Efficiency Anode for Lithium-Ion Batteries. ACS Applied Energy Materials, 2020, 3, 10255-10260.	2.5	14
18	Electrospinning MoS2-Decorated Porous Carbon Nanofibers for High-Performance Lithiumâ€“Sulfur Batteries. ACS Applied Energy Materials, 2020, 3, 11893-11899.	2.5	20

#	Article	IF	Citations
19	Preâ€activation and Defects Introduced via Citric Acid to Mitigate Capacity and Voltage Fading in Liâ€rich Cathode. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2020, 646, 1285-1291.	0.6	6
20	3D porous carbon nanofibers with CeO2-decorated as cathode matrix for high performance lithium-sulfur batteries. Journal of Power Sources, 2020, 473, 228588.	4.0	56
21	Platinum Atomic Clusters Embedded in Defects of Anatase/Graphene for Efficient Electro- and Photocatalytic Hydrogen Evolution. ACS Applied Materials & Interfaces, 2020, 12, 40204-40212.	4.0	27
22	Anchoring Polyiodide to Conductive Polymers as Cathode for High-Performance Aqueous Zincâ€“Iodine Batteries. ACS Sustainable Chemistry and Engineering, 2020, 8, 14280-14285.	3.2	64
23	Chitosan oligosaccharide derived polar host for lithium deposition in lithium metal batteries. Sustainable Materials and Technologies, 2020, 24, e00158.	1.7	10
24	Abnormally Low Activation Energy in Cubic Na₃SbS₄ Superionic Conductors. Chemistry of Materials, 2020, 32, 2264-2271.	3.2	35
25	Silicon Anode with High Initial Coulombic Efficiency by Modulated Trifunctional Binder for Highâ€Arealâ€Capacity Lithiumâ€Ion Batteries. Advanced Energy Materials, 2020, 10, 1903110.	10.2	221
26	Electrochemical redox behavior of organic quinone compounds in aqueous metal ion electrolytes. Nano Energy, 2020, 73, 104766.	8.2	46
27	Stable Lithium Metal Anode Enabled by a Lithiophilic and Electron/Ion Conductive Framework. ACS Nano, 2020, 14, 5618-5627.	7.3	81
28	Selective Adsorption and Electrocatalysis of Polysulfides through Hexatomic Nickel Clusters Embedded in N-Doped Graphene toward High-Performance Li-S Batteries. Research, 2020, 2020, 5714349.	2.8	16
29	An innovation: Dendrite free quinone paired with ZnMn2O4 for zinc ion storage. Materials Today Energy, 2019, 13, 323-330.	2.5	73
30	Nitrogen-doped porous carbon sponge-confined ZnO quantum dots for metal collector-free lithium ion battery. Journal of Electroanalytical Chemistry, 2019, 848, 113275.	1.9	10
31	Overwhelming the Performance of Single Atoms with Atomic Clusters for Platinum-Catalyzed Hydrogen Evolution. ACS Catalysis, 2019, 9, 8213-8223.	5.5	68
32	Polyisoprene Captured Sulfur Nanocomposite Materials for High-Areal-Capacity Lithium Sulfur Battery. ACS Applied Polymer Materials, 2019, 1, 1965-1970.	2.0	37
33	Platinum single-atom and cluster anchored on functionalized MWCNTs with ultrahigh mass efficiency for electrocatalytic hydrogen evolution. Nano Energy, 2019, 63, 103849.	8.2	106
34	Exploring competitive features of stationary sodium ion batteries for electrochemical energy storage. Energy and Environmental Science, 2019, 12, 1512-1533.	15.6	402
35	A new ether-based electrolyte for lithium sulfur batteries using a S@pPAN cathode. Chemical Communications, 2018, 54, 5478-5481.	2.2	44
36	Metal-organic framework nanosheets-guided uniform lithium deposition for metallic lithium batteries. Energy Storage Materials, 2018, 11, 267-273.	9.5	80

#	Article	IF	Citations
37	Aligning academia and industry for unified battery performance metrics. Nature Communications, 2018, 9, 5262.	5.8	244
38	Revealing the Structural Stability and Na-Ion Mobility of 3D Superionic Conductor Na₃SbS₄ at Extremely Low Temperatures. ACS Applied Energy Materials, 2018, 1, 7028-7034.	2.5	20
39	In-situ investigation of pressure effect on structural evolution and conductivity of Na3SbS4 superionic conductor. Journal of Power Sources, 2018, 401, 111-116.	4.0	26
40	Fabrication of Subâ€Micrometerâ€Thick Solid Electrolyte Membranes of Î²â€Li₃PS₄ via Tiled Assembly of Nanoscale, Plateâ€Like Building Blocks. Advanced Energy Materials, 2018, 8, 1800014.	10.2	47
41	Blocking Polysulfides and Facilitating Lithium-Ion Transport: Polystyrene Sulfonate@HKUST-1 Membrane for Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 30451-30459.	4.0	69
42	A compatible carbonate electrolyte with lithium anode for high performance lithium sulfur battery. Electrochimica Acta, 2018, 282, 555-562.	2.6	37
43	Foldable interpenetrated metal-organic frameworks/carbon nanotubes thin film for lithiumâ€“sulfur batteries. Nature Communications, 2017, 8, 14628.	5.8	436
44	Exploiting a robust biopolymer network binder for an ultrahigh-areal-capacity Liâ€“S battery. Energy and Environmental Science, 2017, 10, 750-755.	15.6	286
45	In Situ Wrapping Si Nanoparticles with 2D Carbon Nanosheets as High-Areal-Capacity Anode for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 38159-38164.	4.0	83
46	Latticeâ€Cell Orientation Disorder in Complex Spinel Oxides. Advanced Energy Materials, 2017, 7, 1601950.	10.2	21
47	An Airâ€Stable Na₃SbS₄ Superionic Conductor Prepared by a Rapid and Economic Synthetic Procedure. Angewandte Chemie, 2016, 128, 8693-8697.	1.6	44
48	An Airâ€Stable Na₃SbS₄ Superionic Conductor Prepared by a Rapid and Economic Synthetic Procedure. Angewandte Chemie - International Edition, 2016, 55, 8551-8555.	7.2	183
49	Hierarchical NiCo₂O₄ Hollow Microcuboids as Bifunctional Electrocatalysts for Overall Waterâ€Splitting. Angewandte Chemie - International Edition, 2016, 55, 6290-6294.	7.2	722
50	Fabrication of ultrathin solid electrolyte membranes of Î²-Li₃PS₄ nanoflakes by evaporation-induced self-assembly for all-solid-state batteries. Journal of Materials Chemistry A, 2016, 4, 8091-8096.	5.2	128
51	Niâ€“Co sulfide nanoboxes with tunable compositions for high-performance electrochemical pseudocapacitors. Journal of Materials Chemistry A, 2016, 4, 10248-10253.	5.2	81
52	Sodium Ion Transport Mechanisms in Antiperovskite Electrolytes Na₃OBr and Na₄OI₂: An in Situ Neutron Diffraction Study. Inorganic Chemistry, 2016, 55, 5993-5998.	1.9	68
53	Li₂OHCl Crystalline Electrolyte for Stable Metallic Lithium Anodes. Journal of the American Chemical Society, 2016, 138, 1768-1771.	6.6	147
54	Structural and electrolyte properties of Li4P2S6. Solid State Ionics, 2016, 284, 61-70.	1.3	59

#	Article	IF	Citations
55	Correlation of anisotropy and directional conduction in Î²-Li3PS4 fast Li+ conductor. Applied Physics Letters, 2015, 107, .	1.5	26
56	Highâ€Performance Lithium Solidâ€State Batteries Operating at Elevated Temperature. Advanced Materials Interfaces, 2015, 2, 1500268.	1.9	7
57	TiO₂ Microboxes with Controlled Internal Porosity for Highâ€Performance Lithium Storage. Angewandte Chemie - International Edition, 2015, 54, 14331-14335.	7.2	75
58	An Iodide-Based Li₇P₂S₈I Superionic Conductor. Journal of the American Chemical Society, 2015, 137, 1384-1387.	6.6	298
59	Origin of High Li⁺ Conduction in Doped Li₇La₃Zr₂O₁₂ Garnets. Chemistry of Materials, 2015, 27, 5491-5494.	3.2	100
60	Highly dispersed buckybowls as model carbocatalysts for Câ€“H bond activation. Journal of Materials Chemistry A, 2015, 3, 8667-8675.	5.2	2
61	The â€œfiller effectâ€• A study of solid oxide fillers with Î²-Li3PS4 for lithium conducting electrolytes. Solid State Ionics, 2015, 283, 75-80.	1.3	41
62	Unravelling the Impact of Reaction Paths on Mechanical Degradation of Intercalation Cathodes for Lithium-Ion Batteries. Journal of the American Chemical Society, 2015, 137, 13732-13735.	6.6	61
63	A study of suppressed formation of low-conductivity phases in doped Li₇La₃Zr₂O₁₂ garnets by in situ neutron diffraction. Journal of Materials Chemistry A, 2015, 3, 22868-22876.	5.2	54
64	Lithiumâ€“sulfur batteries: from liquid to solid cells. Journal of Materials Chemistry A, 2015, 3, 936-958.	5.2	343
65	Asymmetric Rate Behavior of Si Anodes for Lithiumâ€Ion Batteries: Ultrafast Deâ€Lithiation versus Sluggish Lithiation at High Current Densities. Advanced Energy Materials, 2015, 5, 1401627.	10.2	50
66	Solid Electrolyte: the Key for Highâ€Voltage Lithium Batteries. Advanced Energy Materials, 2015, 5, 1401408.	10.2	544
67	Identifying Active Functionalities on Fewâ€Layered Graphene Catalysts for Oxidative Dehydrogenation of Isobutane. ChemSusChem, 2014, 7, 483-491.	3.6	56
68	Air-stable, high-conduction solid electrolytes of arsenic-substituted Li₄SnS₄. Energy and Environmental Science, 2014, 7, 1053-1058.	15.6	326
69	Structural Evolution and Li Dynamics in Nanophase Li₃PS₄ by Solid-State and Pulsed-Field Gradient NMR. Chemistry of Materials, 2014, 26, 3558-3564.	3.2	60
70	A high conductivity oxideâ€“sulfide composite lithium superionic conductor. Journal of Materials Chemistry A, 2014, 2, 4111-4116.	5.2	77
71	Pushing the Theoretical Limit of Li-CF_x Batteries: A Tale of Bifunctional Electrolyte. Journal of the American Chemical Society, 2014, 136, 6874-6877.	6.6	70
72	Artificial Solid Electrolyte Interphase To Address the Electrochemical Degradation of Silicon Electrodes. ACS Applied Materials & Interfaces, 2014, 6, 10083-10088.	4.0	141

#	Article	IF	Citations
73	A high-conduction Ge substituted Li₃AsS₄ solid electrolyte with exceptional low activation energy. Journal of Materials Chemistry A, 2014, 2, 10396-10403.	5.2	67
74	Phosphorous Pentasulfide as a Novel Additive for Highâ€Performance Lithiumâ€Sulfur Batteries. Advanced Functional Materials, 2013, 23, 1064-1069.	7.8	397
75	An Artificial Solid Electrolyte Interphase Enables the Use of a LiNi_{0.5} Mn_{1.5} O₄ 5 V Cathode with Conventional Electrolytes. Advanced Energy Materials, 2013, 3, 1275-1278.	10.2	75
76	Anomalous High Ionic Conductivity of Nanoporous Î²-Li₃PS₄. Journal of the American Chemical Society, 2013, 135, 975-978.	6.6	709
77	Carbon-Mediated Catalysis: Oxidative Dehydrogenation on Graphitic Carbon. ACS Symposium Series, 2013, , 247-258.	0.5	7
78	Lithium Superionic Sulfide Cathode for All-Solid Lithiumâ€“Sulfur Batteries. ACS Nano, 2013, 7, 2829-2833.	7.3	333
79	Oxygenâ€Functionalized Fewâ€Layer Graphene Sheets as Active Catalysts for Oxidative Dehydrogenation Reactions. ChemSusChem, 2013, 6, 840-846.	3.6	61
80	In-situ observation of inhomogeneous degradation in large format Li-ion cells by neutron diffraction. Journal of Power Sources, 2013, 236, 163-168.	4.0	107
81	Lithium Polysulfidophosphates: A Family of Lithiumâ€Conducting Sulfurâ€Rich Compounds for Lithiumâ€“Sulfur Batteries. Angewandte Chemie - International Edition, 2013, 52, 7460-7463.	7.2	263
82	Unraveling structural evolution of LiNi0.5Mn1.5O4 by in situ neutron diffraction. Journal of Materials Chemistry A, 2013, 1, 6908.	5.2	50
83	A Perspective on Coatings to Stabilize High-Voltage Cathodes: LiMn_{1.5}Ni_{0.5}O₄with Sub-Nanometer Lipon Cycled with LiPF₆Electrolyte. Journal of the Electrochemical Society, 2013, 160, A3113-A3125.	1.3	51
84	Probing Li-Ni Cation Disorder in Li_{1â^'x}Ni_{1+xâ^'y}Al_yO₂Cathode Materials by Neutron Diffraction. Journal of the Electrochemical Society, 2012, 159, A924-A928.	1.3	42
85	Visualizing the chemistry and structure dynamics in lithium-ion batteries by in-situ neutron diffraction. Scientific Reports, 2012, 2, 747.	1.6	134
86	Vacuum-tight sample transfer stage for a scanning electron microscopic study of stabilized lithium metal particles. Journal of Materials Science, 2012, 47, 1572-1577.	1.7	19
87	Synthesis of LiNiO2 cathode materials with homogeneous Al doping at the atomic level. Journal of Power Sources, 2011, 196, 10201-10206.	4.0	50
88	Oxidative dehydrogenation of isobutane on phosphorous-modified graphitic mesoporous carbon. Carbon, 2011, 49, 659-668.	5.4	56
89	Preparation of free-standing high quality mesoporous carbon membranes. Carbon, 2010, 48, 557-560.	5.4	46
90	Selective gas adsorption within a five-connected porous metalâ€“organic framework. Journal of Materials Chemistry, 2010, 20, 3984.	6.7	58

#	Article	IF	Citations
91	Investigation of the selective sites on graphitic carbons for oxidative dehydrogenation of isobutane. Journal of Catalysis, 2009, 267, 158-166.	3.1	42
92	Mesoporous Carbon Materials with Ultra-Thin Pore Walls and Highly Dispersed Nickel Nanoparticles. European Journal of Inorganic Chemistry, 2009, 2009, 605-612.	1.0	21
93	Dual Phase Separation for Synthesis of Bimodal Meso-/Macroporous Carbon Monoliths. Chemistry of Materials, 2009, 21, 2115-2124.	3.2	97
94	Open-Cage Fullerene-like Graphitic Carbons as Catalysts for Oxidative Dehydrogenation of Isobutane. Journal of the American Chemical Society, 2009, 131, 7735-7741.	6.6	81
95	Hierarchically Structured Sulfur/Carbon Nanocomposite Material for High-Energy Lithium Battery. Chemistry of Materials, 2009, 21, 4724-4730.	3.2	815
96	Mesoporous Carbon Materials: Synthesis and Modification. Angewandte Chemie - International Edition, 2008, 47, 3696-3717.	7.2	1,727
97	Graphitic mesoporous carbon as a durable fuel cell catalyst support. Journal of Power Sources, 2008, 185, 423-427.	4.0	143
98	Facile Synthesis of Ordered Mesoporous Carbons with High Thermal Stability by Self-Assembly of Resorcinolâ^'Formaldehyde and Block Copolymers under Highly Acidic Conditions. Langmuir, 2008, 24, 7500-7505.	1.6	291
99	Polypyrrole-Based Nitrogen-Doped Carbon Replicas of SBA-15 and SBA-16 Containing Magnetic Nanoparticles. Journal of Physical Chemistry C, 2008, 112, 13126-13133.	1.5	66
100	Metalâ^'Organic Framework with Rationally Tuned Micropores for Selective Adsorption of Water over Methanol. Inorganic Chemistry, 2008, 47, 5543-5545.	1.9	91
101	Advanced Liquid Membranes Based on Novel Ionic Liquids for Selective Separation of Olefin/Paraffin via Olefin-Facilitated Transport. Industrial & Engineering Chemistry Research, 2008, 47, 881-888.	1.8	94
102	Molecular-Sieving Capabilities of Mesoporous Carbon Membranes. Journal of Physical Chemistry B, 2008, 112, 8563-8570.	1.2	28
103	Selective Gas Sorption within a Dynamic Metal-Organic Framework. Inorganic Chemistry, 2007, 46, 8705-8709.	1.9	122
104	Direct Synthesis of Mesoporous Carbon Microwires and Nanowires. Chemistry of Materials, 2007, 19, 2383-2385.	3.2	87
105	Mesoporous Carbon Materials as Electrodes for Electrochemical Double-Layer Capacitor. Materials Research Society Symposia Proceedings, 2006, 973, 1.	0.1	2
106	Electrosorption capacitance of nanostructured carbon-based materials. Journal of Colloid and Interface Science, 2006, 302, 54-61.	5.0	149
107	Synthesis of Mesoporous Carbon Materials via Enhanced Hydrogen-Bonding Interaction. Journal of the American Chemical Society, 2006, 128, 5316-5317.	6.6	704
108	A Microporous Metalâ€“Organic Framework for Gas-Chromatographic Separation of Alkanes. Angewandte Chemie - International Edition, 2006, 45, 1390-1393.	7.2	1,128

#	Article	IF	Citations
109	A Diazonium Salt-Based Ionic Liquid for Solvent-Free Modification of Carbon. European Journal of Organic Chemistry, 2006, 2006, 586-589.	1.2	40
110	Hydrophobic BrÃ¸nsted Acidâ^'Base Ionic Liquids Based on PAMAM Dendrimers with High Proton Conductivity and Blue Photoluminescence. Journal of the American Chemical Society, 2005, 127, 12784-12785.	6.6	157
111	Synthesis of a Large-Scale Highly Ordered Porous Carbon Film by Self-Assembly of Block Copolymers. Angewandte Chemie - International Edition, 2004, 43, 5785-5789.	7.2	770
112	Fluorinated Carbon with Ordered Mesoporous Structure. Journal of the American Chemical Society, 2004, 126, 12782-12783.	6.6	93
113	A Graphitized-Carbon Monolithic Column. Analytical Chemistry, 2003, 75, 4904-4912.	3.2	146
114	Use of gel-casting to prepare HPLC monolithic silica columns with uniform mesopores and tunable macrochannels. Chemical Communications, 2002, , 2680-2681.	2.2	34
115	Ionic Liquids:Â A New Class of Sensing Materials for Detection of Organic Vapors Based on the Use of a Quartz Crystal Microbalance. Analytical Chemistry, 2002, 74, 2172-2176.	3.2	133
116	Biomimetic Bulk Acoustic Wave Sensor for Determination of Trimethoprim in the Organic Phase Based on a Molecular Imprinting Polymer.. Analytical Sciences, 2000, 16, 211-215.	0.8	12
117	Development of a new atropine sulfate bulk acoustic wave sensor based on a molecularly imprinted electrosynthesized copolymer of aniline with o-phenylenediamine. Analytica Chimica Acta, 2000, 423, 221-228.	2.6	102
118	Molecular imprinting polymer coated BAW bio-mimic sensor for direct determination of epinephrine. Analytica Chimica Acta, 2000, 415, 135-141.	2.6	46
119	Bulk acoustic wave sensor for herbicide assay based on molecularly imprinted polymer. Fresenius' Journal of Analytical Chemistry, 2000, 367, 551-555.	1.5	33
120	Study of a molecular imprinting polymer coated BAW bio-mimic sensor and its application to the determination of caffeine in human serum and urine. Analyst, The, 1999, 124, 1781-1785.	1.7	69