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	Mesoporous Carbon Materials: Synthesis and Modification. Angewandte Chemie - International Edition, 2008, 47, 3696-3717.	7.2	1,727
2	A Microporous Metalâ€“Organic Framework for Gas-Chromatographic Separation of Alkanes. Angewandte Chemie - International Edition, 2006, 45, 1390-1393.	7.2	1,128
3	Hierarchically Structured Sulfur/Carbon Nanocomposite Material for High-Energy Lithium Battery. Chemistry of Materials, 2009, 21, 4724-4730.	3.2	815
4	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
5	Hierarchical NiCo₂O₄ Hollow Microcuboids as Bifunctional Electrocatalysts for Overall Waterâ€Splitting. Angewandte Chemie - International Edition, 2016, 55, 6290-6294.	7.2	722
6	Anomalous High Ionic Conductivity of Nanoporous Î²-Li₃PS₄. Journal of the American Chemical Society, 2013, 135, 975-978.	6.6	709
7	Synthesis of Mesoporous Carbon Materials via Enhanced Hydrogen-Bonding Interaction. Journal of the American Chemical Society, 2006, 128, 5316-5317.	6.6	704
8	Solid Electrolyte: the Key for Highâ€Voltage Lithium Batteries. Advanced Energy Materials, 2015, 5, 1401408.	10.2	544
9	Foldable interpenetrated metal-organic frameworks/carbon nanotubes thin film for lithiumâ€“sulfur batteries. Nature Communications, 2017, 8, 14628.	5.8	436
10	Exploring competitive features of stationary sodium ion batteries for electrochemical energy storage. Energy and Environmental Science, 2019, 12, 1512-1533.	15.6	402
11	Phosphorous Pentasulfide as a Novel Additive for Highâ€Performance Lithiumâ€Sulfur Batteries. Advanced Functional Materials, 2013, 23, 1064-1069.	7.8	397
12	Lithiumâ€“sulfur batteries: from liquid to solid cells. Journal of Materials Chemistry A, 2015, 3, 936-958.	5.2	343
13	Lithium Superionic Sulfide Cathode for All-Solid Lithiumâ€“Sulfur Batteries. ACS Nano, 2013, 7, 2829-2833.	7.3	333
14	Air-stable, high-conduction solid electrolytes of arsenic-substituted Li₄SnS₄. Energy and Environmental Science, 2014, 7, 1053-1058.	15.6	326
15	An Iodide-Based Li₇P₂S₈I Superionic Conductor. Journal of the American Chemical Society, 2015, 137, 1384-1387.	6.6	298
16	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
17	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
18	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

#	Article	IF	Citations
19	Aligning academia and industry for unified battery performance metrics. Nature Communications, 2018, 9, 5262.	5.8	244
20	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
21	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
22	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
23	Electrosorption capacitance of nanostructured carbon-based materials. Journal of Colloid and Interface Science, 2006, 302, 54-61.	5.0	149
24	Li₂OHCl Crystalline Electrolyte for Stable Metallic Lithium Anodes. Journal of the American Chemical Society, 2016, 138, 1768-1771.	6.6	147
25	A Graphitized-Carbon Monolithic Column. Analytical Chemistry, 2003, 75, 4904-4912.	3.2	146
26	Graphitic mesoporous carbon as a durable fuel cell catalyst support. Journal of Power Sources, 2008, 185, 423-427.	4.0	143
27	Artificial Solid Electrolyte Interphase To Address the Electrochemical Degradation of Silicon Electrodes. ACS Applied Materials & Interfaces, 2014, 6, 10083-10088.	4.0	141
28	Visualizing the chemistry and structure dynamics in lithium-ion batteries by in-situ neutron diffraction. Scientific Reports, 2012, 2, 747.	1.6	134
29	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
30	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
31	Selective Gas Sorption within a Dynamic Metal-Organic Framework. Inorganic Chemistry, 2007, 46, 8705-8709.	1.9	122
32	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
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	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
35	Origin of High Li⁺ Conduction in Doped Li₇La₃Zr₂O₁₂ Garnets. Chemistry of Materials, 2015, 27, 5491-5494.	3.2	100
36	Dual Phase Separation for Synthesis of Bimodal Meso-/Macroporous Carbon Monoliths. Chemistry of Materials, 2009, 21, 2115-2124.	3.2	97

#	Article	IF	Citations
37	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
38	Fluorinated Carbon with Ordered Mesoporous Structure. Journal of the American Chemical Society, 2004, 126, 12782-12783.	6.6	93
39	Metalâ^'Organic Framework with Rationally Tuned Micropores for Selective Adsorption of Water over Methanol. Inorganic Chemistry, 2008, 47, 5543-5545.	1.9	91
40	Direct Synthesis of Mesoporous Carbon Microwires and Nanowires. Chemistry of Materials, 2007, 19, 2383-2385.	3.2	87
41	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
42	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
43	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
44	Niâ€“Co sulfide nanoboxes with tunable compositions for high-performance electrochemical pseudocapacitors. Journal of Materials Chemistry A, 2016, 4, 10248-10253.	5.2	81
45	Stable Lithium Metal Anode Enabled by a Lithiophilic and Electron/Ion Conductive Framework. ACS Nano, 2020, 14, 5618-5627.	7.3	81
46	Metal-organic framework nanosheets-guided uniform lithium deposition for metallic lithium batteries. Energy Storage Materials, 2018, 11, 267-273.	9.5	80
47	A high conductivity oxideâ€“sulfide composite lithium superionic conductor. Journal of Materials Chemistry A, 2014, 2, 4111-4116.	5.2	77
48	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
49	TiO₂ Microboxes with Controlled Internal Porosity for Highâ€Performance Lithium Storage. Angewandte Chemie - International Edition, 2015, 54, 14331-14335.	7.2	75
50	An innovation: Dendrite free quinone paired with ZnMn2O4 for zinc ion storage. Materials Today Energy, 2019, 13, 323-330.	2.5	73
51	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
52	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
53	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
54	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

#	Article	IF	Citations
55	Overwhelming the Performance of Single Atoms with Atomic Clusters for Platinum-Catalyzed Hydrogen Evolution. ACS Catalysis, 2019, 9, 8213-8223.	5.5	68
56	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
57	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
58	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
59	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
60	Oxygenâ€Functionalized Fewâ€Layer Graphene Sheets as Active Catalysts for Oxidative Dehydrogenation Reactions. ChemSusChem, 2013, 6, 840-846.	3.6	61
61	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
62	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
63	Structural and electrolyte properties of Li4P2S6. Solid State Ionics, 2016, 284, 61-70.	1.3	59
64	Selective gas adsorption within a five-connected porous metalâ€“organic framework. Journal of Materials Chemistry, 2010, 20, 3984.	6.7	58
65	Oxidative dehydrogenation of isobutane on phosphorous-modified graphitic mesoporous carbon. Carbon, 2011, 49, 659-668.	5.4	56
66	Identifying Active Functionalities on Fewâ€Layered Graphene Catalysts for Oxidative Dehydrogenation of Isobutane. ChemSusChem, 2014, 7, 483-491.	3.6	56
67	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
68	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
69	A new battery process technology inspired by partially carbonized polymer binders. Nano Energy, 2020, 67, 104234.	8.2	52
70	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
71	Synthesis of LiNiO2 cathode materials with homogeneous Al doping at the atomic level. Journal of Power Sources, 2011, 196, 10201-10206.	4.0	50
72	Unraveling structural evolution of LiNi0.5Mn1.5O4 by in situ neutron diffraction. Journal of Materials Chemistry A, 2013, 1, 6908.	5.2	50

#	Article	IF	Citations
73	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
74	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
75	Molecular imprinting polymer coated BAW bio-mimic sensor for direct determination of epinephrine. Analytica Chimica Acta, 2000, 415, 135-141.	2.6	46
76	Preparation of free-standing high quality mesoporous carbon membranes. Carbon, 2010, 48, 557-560.	5.4	46
77	Electrochemical redox behavior of organic quinone compounds in aqueous metal ion electrolytes. Nano Energy, 2020, 73, 104766.	8.2	46
78	An Airâ€Stable Na₃SbS₄ Superionic Conductor Prepared by a Rapid and Economic Synthetic Procedure. Angewandte Chemie, 2016, 128, 8693-8697.	1.6	44
79	A new ether-based electrolyte for lithium sulfur batteries using a S@pPAN cathode. Chemical Communications, 2018, 54, 5478-5481.	2.2	44
80	Investigation of the selective sites on graphitic carbons for oxidative dehydrogenation of isobutane. Journal of Catalysis, 2009, 267, 158-166.	3.1	42
81	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
82	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
83	A Diazonium Salt-Based Ionic Liquid for Solvent-Free Modification of Carbon. European Journal of Organic Chemistry, 2006, 2006, 586-589.	1.2	40
84	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
85	In-situ constructing polyacrylamide interphase enables dendrite-free zinc anode in aqueous batteries. Electrochimica Acta, 2021, 378, 138106.	2.6	40
86	A compatible carbonate electrolyte with lithium anode for high performance lithium sulfur battery. Electrochimica Acta, 2018, 282, 555-562.	2.6	37
87	Polyisoprene Captured Sulfur Nanocomposite Materials for High-Areal-Capacity Lithium Sulfur Battery. ACS Applied Polymer Materials, 2019, 1, 1965-1970.	2.0	37
88	Abnormally Low Activation Energy in Cubic Na₃SbS₄ Superionic Conductors. Chemistry of Materials, 2020, 32, 2264-2271.	3.2	35
89	Use of gel-casting to prepare HPLC monolithic silica columns with uniform mesopores and tunable macrochannels. Chemical Communications, 2002, , 2680-2681.	2.2	34
90	Bulk acoustic wave sensor for herbicide assay based on molecularly imprinted polymer. Fresenius' Journal of Analytical Chemistry, 2000, 367, 551-555.	1.5	33

#	Article	IF	Citations
91	Molecular-Sieving Capabilities of Mesoporous Carbon Membranes. Journal of Physical Chemistry B, 2008, 112, 8563-8570.	1.2	28
92	Exploring the concordant solid-state electrolytes for all-solid-state lithium-sulfur batteries. Nano Energy, 2022, 96, 107093.	8.2	28
93	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
94	Correlation of anisotropy and directional conduction in Î²-Li3PS4 fast Li+ conductor. Applied Physics Letters, 2015, 107, .	1.5	26
95	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
96	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
97	Fundamental air stability in solid-state electrolytes: principles and solutions. Materials Chemistry Frontiers, 2021, 5, 7452-7466.	3.2	22
98	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
99	Latticeâ€Cell Orientation Disorder in Complex Spinel Oxides. Advanced Energy Materials, 2017, 7, 1601950.	10.2	21
100	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
101	Electrospinning MoS2-Decorated Porous Carbon Nanofibers for High-Performance Lithiumâ€“Sulfur Batteries. ACS Applied Energy Materials, 2020, 3, 11893-11899.	2.5	20
102	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
103	A biopolymer network for lean binder in silicon nanoparticle anodes for lithium-ion batteries. Sustainable Materials and Technologies, 2021, 30, e00333.	1.7	18
104	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
105	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
106	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
107	Regulating Electronic Structure of Singleâ€Atom Catalysts toward Efficient Bifunctional Oxygen Electrocatalysis. Small Methods, 2022, 6, e2101511.	4.6	14
108	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

#	Article	IF	Citations
109	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
110	Epoxy and amide crosslinked polarity enhanced polysaccharides binder for silicon anode in lithium-ion batteries. Electrochimica Acta, 2021, 368, 137580.	2.6	11
111	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
112	Chitosan oligosaccharide derived polar host for lithium deposition in lithium metal batteries. Sustainable Materials and Technologies, 2020, 24, e00158.	1.7	10
113	Carbon-Mediated Catalysis: Oxidative Dehydrogenation on Graphitic Carbon. ACS Symposium Series, 2013, , 247-258.	0.5	7
114	Highâ€Performance Lithium Solidâ€State Batteries Operating at Elevated Temperature. Advanced Materials Interfaces, 2015, 2, 1500268.	1.9	7
115	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
116	MoP@NC/S cathode with multiple synergistic effect contributes to Li-S battery. Separation and Purification Technology, 2022, 300, 121684.	3.9	5
117	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
118	Peach gum as an efficient binder for high-areal-capacity lithiumâ€“sulfur batteries. Sustainable Materials and Technologies, 2021, 30, e00334.	1.7	3
119	Mesoporous Carbon Materials as Electrodes for Electrochemical Double-Layer Capacitor. Materials Research Society Symposia Proceedings, 2006, 973, 1.	0.1	2
120	Highly dispersed buckybowls as model carbocatalysts for Câ€“H bond activation. Journal of Materials Chemistry A, 2015, 3, 8667-8675.	5.2	2