Chengdu Liang

List of Publications by Citations

123 papers	13,995 citations	54 h-index	118 g-index
129 ext. papers	15,446 ext. citations	10.6 avg, IF	6.76 L-index

#	Paper	IF	Citations
123	Mesoporous carbon materials: synthesis and modification. *Angewandte Chemie - International Edition*, **2008**, 47, 3696-717	16.4	1551
122	A microporous metal-organic framework for gas-chromatographic separation of alkanes. *Angewandte Chemie - International Edition*, **2006**, 45, 1390-3	16.4	1060
121	Hierarchically Structured Sulfur/Carbon Nanocomposite Material for High-Energy Lithium Battery. *Chemistry of Materials*, **2009**, 21, 4724-4730	9.6	766
120	Synthesis of a large-scale highly ordered porous carbon film by self-assembly of block copolymers. *Angewandte Chemie - International Edition*, **2004**, 43, 5785-9	16.4	711
119	Synthesis of mesoporous carbon materials via enhanced hydrogen-bonding interaction. *Journal of the American Chemical Society*, **2006**, 128, 5316-7	16.4	659
118	Hierarchical NiCo2 O4 Hollow Microcuboids as Bifunctional Electrocatalysts for Overall Water-Splitting. *Angewandte Chemie - International Edition*, **2016**, 55, 6290-4	16.4	592
117	Anomalous high ionic conductivity of nanoporous β-Li3PS4. *Journal of the American Chemical Society*, **2013**, 135, 975-8	16.4	537
116	Solid Electrolyte: the Key for High-Voltage Lithium Batteries. *Advanced Energy Materials*, **2015**, 5, 1401408	18.8	419
115	Phosphorous Pentasulfide as a Novel Additive for High-Performance Lithium-Sulfur Batteries. *Advanced Functional Materials*, **2013**, 23, 1064-1069	15.6	363
114	Foldable interpenetrated metal-organic frameworks/carbon nanotubes thin film for lithium-sulfur batteries. *Nature Communications*, **2017**, 8, 14628	17.4	359
113	Lithium–sulfur batteries: from liquid to solid cells. *Journal of Materials Chemistry A*, **2015**, 3, 936-958	13	300
112	Lithium superionic sulfide cathode for all-solid lithium-sulfur batteries. *ACS Nano*, **2013**, 7, 2829-33	16.7	284
111	Facile synthesis of ordered mesoporous carbons with high thermal stability by self-assembly of resorcinol-formaldehyde and block copolymers under highly acidic conditions. *Langmuir*, **2008**, 24, 7500-5	4	268
110	Exploring competitive features of stationary sodium ion batteries for electrochemical energy storage. *Energy and Environmental Science*, **2019**, 12, 1512-1533	35.4	258
109	Lithium polysulfidophosphates: a family of lithium-conducting sulfur-rich compounds for lithium-sulfur batteries. *Angewandte Chemie - International Edition*, **2013**, 52, 7460-3	16.4	233
108	Air-stable, high-conduction solid electrolytes of arsenic-substituted Li4SnS4. *Energy and Environmental Science*, **2014**, 7, 1053-1058	35.4	228
107	An iodide-based Li7P2S8I superionic conductor. *Journal of the American Chemical Society*, **2015**, 137, 1384-7	16.4	228

106	Exploiting a robust biopolymer network binder for an ultrahigh-areal-capacity Li□ battery. *Energy and Environmental Science*, **2017**, 10, 750-755	35.4	221
105	Aligning academia and industry for unified battery performance metrics. *Nature Communications*, **2018**, 9, 5262	17.4	156
104	Hydrophobic Br□sted acid-base ionic liquids based on PAMAM dendrimers with high proton conductivity and blue photoluminescence. *Journal of the American Chemical Society*, **2005**, 127, 12784-5	16.4	150
103	Mesopor□e Kohlenstoffmaterialien: Synthese und Modifizierung. *Angewandte Chemie*, **2008**, 120, 3754-3776	3.6	142
102	A graphitized-carbon monolithic column. *Analytical Chemistry*, **2003**, 75, 4904-12	7.8	139
101	Graphitic mesoporous carbon as a durable fuel cell catalyst support. *Journal of Power Sources*, **2008**, 185, 423-427	8.9	133
100	Electrosorption capacitance of nanostructured carbon-based materials. *Journal of Colloid and Interface Science*, **2006**, 302, 54-61	9.3	125
99	An Air-Stable Na3 SbS4 Superionic Conductor Prepared by a Rapid and Economic Synthetic Procedure. *Angewandte Chemie - International Edition*, **2016**, 55, 8551-5	16.4	125
98	Visualizing the chemistry and structure dynamics in lithium-ion batteries by in-situ neutron diffraction. *Scientific Reports*, **2012**, 2, 747	4.9	118
97	Selective gas sorption within a dynamic metal-organic framework. *Inorganic Chemistry*, **2007**, 46, 8705-9	5.1	118
96	Artificial solid electrolyte interphase to address the electrochemical degradation of silicon electrodes. *ACS Applied Materials & Interfaces*, **2014**, 6, 10083-8	9.5	115
95	Silicon Anode with High Initial Coulombic Efficiency by Modulated Trifunctional Binder for High-Areal-Capacity Lithium-Ion Batteries. *Advanced Energy Materials*, **2020**, 10, 1903110	21.8	113
94	Ionic liquids: a new class of sensing materials for detection of organic vapors based on the use of a quartz crystal microbalance. *Analytical Chemistry*, **2002**, 74, 2172-6	7.8	110
93	Li2OHCl Crystalline Electrolyte for Stable Metallic Lithium Anodes. *Journal of the American Chemical Society*, **2016**, 138, 1768-71	16.4	109
92	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	6.6	92
91	In-situ observation of inhomogeneous degradation in large format Li-ion cells by neutron diffraction. *Journal of Power Sources*, **2013**, 236, 163-168	8.9	90
90	Fabrication of ultrathin solid electrolyte membranes of □Li3PS4 nanoflakes by evaporation-induced self-assembly for all-solid-state batteries. *Journal of Materials Chemistry A*, **2016**, 4, 8091-8096	13	89
89	Dual Phase Separation for Synthesis of Bimodal Meso-/Macroporous Carbon Monoliths. *Chemistry of Materials*, **2009**, 21, 2115-2124	9.6	86

88	Metal-organic framework with rationally tuned micropores for selective adsorption of water over methanol. *Inorganic Chemistry*, **2008**, 47, 5543-5	5.1	86
87	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	3.9	85
86	Direct Synthesis of Mesoporous Carbon Microwires and Nanowires. *Chemistry of Materials*, **2007**, 19, 2383-2385	9.6	80
85	Origin of High Li+ Conduction in Doped Li7La3Zr2O12 Garnets. *Chemistry of Materials*, **2015**, 27, 5491-5494	9.6	78
84	Open-cage fullerene-like graphitic carbons as catalysts for oxidative dehydrogenation of isobutane. *Journal of the American Chemical Society*, **2009**, 131, 7735-41	16.4	77
83	Fluorinated carbon with ordered mesoporous structure. *Journal of the American Chemical Society*, **2004**, 126, 12782-3	16.4	77
82	Synthesis of a Large-Scale Highly Ordered Porous Carbon Film by Self-Assembly of Block Copolymers. *Angewandte Chemie*, **2004**, 116, 5909-5913	3.6	75
81	TiO2 Microboxes with Controlled Internal Porosity for High-Performance Lithium Storage. *Angewandte Chemie - International Edition*, **2015**, 54, 14331-5	16.4	71
80	An Artificial Solid Electrolyte Interphase Enables the Use of a LiNi0.5 Mn1.5 O4 5 V Cathode with Conventional Electrolytes. *Advanced Energy Materials*, **2013**, 3, 1275-1278	21.8	66
79	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, 1781-5	5	65
78	NiCo sulfide nanoboxes with tunable compositions for high-performance electrochemical pseudocapacitors. *Journal of Materials Chemistry A*, **2016**, 4, 10248-10253	13	64
77	Lithium Polysulfidophosphates: A Family of Lithium-Conducting Sulfur-Rich Compounds for Lithium–Sulfur Batteries. *Angewandte Chemie*, **2013**, 125, 7608-7611	3.6	64
76	A high conductivity oxide–sulfide composite lithium superionic conductor. *Journal of Materials Chemistry A*, **2014**, 2, 4111-4116	13	63
75	Polypyrrole-Based Nitrogen-Doped Carbon Replicas of SBA-15 and SBA-16 Containing Magnetic Nanoparticles. *Journal of Physical Chemistry C*, **2008**, 112, 13126-13133	3.8	63
74	Metal-organic framework nanosheets-guided uniform lithium deposition for metallic lithium batteries. *Energy Storage Materials*, **2018**, 11, 267-273	19.4	61
73	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	9.5	59
72	Selective gas adsorption within a five-connected porous metal–organic framework. *Journal of Materials Chemistry*, **2010**, 20, 3984		58
71	Platinum single-atom and cluster anchored on functionalized MWCNTs with ultrahigh mass efficiency for electrocatalytic hydrogen evolution. *Nano Energy*, **2019**, 63, 103849	17.1	57

70	Oxygen-functionalized few-layer graphene sheets as active catalysts for oxidative dehydrogenation reactions. *ChemSusChem*, **2013**, 6, 840-6	8.3	56
69	Oxidative dehydrogenation of isobutane on phosphorous-modified graphitic mesoporous carbon. *Carbon*, **2011**, 49, 659-668	10.4	53
68	Blocking Polysulfides and Facilitating Lithium-Ion Transport: Polystyrene Sulfonate@HKUST-1 Membrane for Lithium-Sulfur Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 30451-30459	9.5	51
67	Identifying active functionalities on few-layered graphene catalysts for oxidative dehydrogenation of isobutane. *ChemSusChem*, **2014**, 7, 483-91	8.3	51
66	Pushing the theoretical limit of Li-CF(x) batteries: a tale of bifunctional electrolyte. *Journal of the American Chemical Society*, **2014**, 136, 6874-7	16.4	51
65	A high-conduction Ge substituted Li3AsS4 solid electrolyte with exceptional low activation energy. *Journal of Materials Chemistry A*, **2014**, 2, 10396-10403	13	51
64	Unravelling the Impact of Reaction Paths on Mechanical Degradation of Intercalation Cathodes for Lithium-Ion Batteries. *Journal of the American Chemical Society*, **2015**, 137, 13732-5	16.4	48
63	Sodium Ion Transport Mechanisms in Antiperovskite Electrolytes Na3OBr and Na4OI2: An in Situ Neutron Diffraction Study. *Inorganic Chemistry*, **2016**, 55, 5993-8	5.1	48
62	Structural Evolution and Li Dynamics in Nanophase Li3PS4 by Solid-State and Pulsed-Field Gradient NMR. *Chemistry of Materials*, **2014**, 26, 3558-3564	9.6	46
61	A Perspective on Coatings to Stabilize High-Voltage Cathodes: LiMn1.5Ni0.5O4with Sub-Nanometer Lipon Cycled with LiPF6Electrolyte. *Journal of the Electrochemical Society*, **2013**, 160, A3113-A3125	3.9	45
60	Asymmetric Rate Behavior of Si Anodes for Lithium-Ion Batteries: Ultrafast De-Lithiation versus Sluggish Lithiation at High Current Densities. *Advanced Energy Materials*, **2015**, 5, 1401627	21.8	44
59	Structural and electrolyte properties of Li4P2S6. *Solid State Ionics*, **2016**, 284, 61-70	3.3	43
58	Unraveling structural evolution of LiNi0.5Mn1.5O4 by in situ neutron diffraction. *Journal of Materials Chemistry A*, **2013**, 1, 6908	13	43
57	Synthesis of LiNiO2 cathode materials with homogeneous Al doping at the atomic level. *Journal of Power Sources*, **2011**, 196, 10201-10206	8.9	43
56	Preparation of free-standing high quality mesoporous carbon membranes. *Carbon*, **2010**, 48, 557-560	10.4	43
55	Molecular imprinting polymer coated BAW bio-mimic sensor for direct determination of epinephrine. *Analytica Chimica Acta*, **2000**, 415, 135-141	6.6	43
54	Stable Lithium Metal Anode Enabled by a Lithiophilic and Electron/Ion Conductive Framework. *ACS Nano*, **2020**, 14, 5618-5627	16.7	43
53	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	13	42

52	An innovation: Dendrite free quinone paired with ZnMn2O4 for zinc ion storage. *Materials Today Energy*, **2019**, 13, 323-330	7	42
51	3D porous carbon nanofibers with CeO2-decorated as cathode matrix for high performance lithium-sulfur batteries. *Journal of Power Sources*, **2020**, 473, 228588	8.9	40
50	Investigation of the selective sites on graphitic carbons for oxidative dehydrogenation of isobutane. *Journal of Catalysis*, **2009**, 267, 158-166	7.3	37
49	A Diazonium Salt-Based Ionic Liquid for Solvent-Free Modification of Carbon. *European Journal of Organic Chemistry*, **2006**, 2006, 586-589	3.2	37
48	Overwhelming the Performance of Single Atoms with Atomic Clusters for Platinum-Catalyzed Hydrogen Evolution. *ACS Catalysis*, **2019**, 9, 8213-8223	13.1	36
47	Probing Li-Ni Cation Disorder in Li1−xNi1+xAlyO2Cathode Materials by Neutron Diffraction. *Journal of the Electrochemical Society*, **2012**, 159, A924-A928	3.9	36
46	Fabrication of Sub-Micrometer-Thick Solid Electrolyte Membranes of β-Li3PS4 via Tiled Assembly of Nanoscale, Plate-Like Building Blocks. *Advanced Energy Materials*, **2018**, 8, 1800014	21.8	34
45	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	17.1	32
44	The filler effect: A study of solid oxide fillers with β-Li3PS4 for lithium conducting electrolytes. *Solid State Ionics*, **2015**, 283, 75-80	3.3	31
43	A new ether-based electrolyte for lithium sulfur batteries using a S@pPAN cathode. *Chemical Communications*, **2018**, 54, 5478-5481	5.8	31
42	Use of gel-casting to prepare HPLC monolithic silica columns with uniform mesopores and tunable macrochannels. *Chemical Communications*, **2002**, 2680-1	5.8	31
41	A new battery process technology inspired by partially carbonized polymer binders. *Nano Energy*, **2020**, 67, 104234	17.1	31
40	Bulk acoustic wave sensor for herbicide assay based on molecularly imprinted polymer. *Freseniusr Journal of Analytical Chemistry*, **2000**, 367, 551-5		28
39	Polyisoprene Captured Sulfur Nanocomposite Materials for High-Areal-Capacity Lithium Sulfur Battery. *ACS Applied Polymer Materials*, **2019**, 1, 1965-1970	4.3	27
38	A compatible carbonate electrolyte with lithium anode for high performance lithium sulfur battery. *Electrochimica Acta*, **2018**, 282, 555-562	6.7	27
37	Molecular-sieving capabilities of mesoporous carbon membranes. *Journal of Physical Chemistry B*, **2008**, 112, 8563-70	3.4	27
36	Electrochemical redox behavior of organic quinone compounds in aqueous metal ion electrolytes. *Nano Energy*, **2020**, 73, 104766	17.1	24
35	Correlation of anisotropy and directional conduction in β-Li3PS4 fast Li+ conductor. *Applied Physics Letters*, **2015**, 107, 013904	3.4	22

34	Anchoring Polyiodide to Conductive Polymers as Cathode for High-Performance Aqueous Zinc–Iodine Batteries. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 14280-14285	8.3	22
33	An Air-Stable Na3SbS4 Superionic Conductor Prepared by a Rapid and Economic Synthetic Procedure. *Angewandte Chemie*, **2016**, 128, 8693-8697	3.6	22
32	Mesoporous Carbon Materials with Ultra-Thin Pore Walls and Highly Dispersed Nickel Nanoparticles. *European Journal of Inorganic Chemistry*, **2009**, 2009, 605-612	2.3	21
31	Lattice-Cell Orientation Disorder in Complex Spinel Oxides. *Advanced Energy Materials*, **2017**, 7, 1601950	21.8	16
30	Vacuum-tight sample transfer stage for a scanning electron microscopic study of stabilized lithium metal particles. *Journal of Materials Science*, **2012**, 47, 1572-1577	4.3	15
29	Abnormally Low Activation Energy in Cubic Na3SbS4 Superionic Conductors. *Chemistry of Materials*, **2020**, 32, 2264-2271	9.6	13
28	Platinum Atomic Clusters Embedded in Defects of Anatase/Graphene for Efficient Electro- and Photocatalytic Hydrogen Evolution. *ACS Applied Materials & Interfaces*, **2020**, 12, 40204-40212	9.5	13
27	In-situ constructing polyacrylamide interphase enables dendrite-free zinc anode in aqueous batteries. *Electrochimica Acta*, **2021**, 378, 138106	6.7	13
26	In-situ investigation of pressure effect on structural evolution and conductivity of Na3SbS4 superionic conductor. *Journal of Power Sources*, **2018**, 401, 111-116	8.9	13
25	Electrospinning MoS2-Decorated Porous Carbon Nanofibers for High-Performance Lithium–Sulfur Batteries. *ACS Applied Energy Materials*, **2020**, 3, 11893-11899	6.1	12
24	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	7.8	11
23	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	1.7	10
22	9,10-Anthraquinone/KCuFe(CN): A Highly Compatible Aqueous Aluminum-Ion Full-Battery Configuration. *ACS Applied Materials & Interfaces*, **2021**, 13, 8353-8360	9.5	10
21	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	6.1	9
20	A biopolymer network for lean binder in silicon nanoparticle anodes for lithium-ion batteries. *Sustainable Materials and Technologies*, **2021**, 30, e00333	5.3	7
19	Nitrogen-doped porous carbon sponge-confined ZnO quantum dots for metal collector-free lithium ion battery. *Journal of Electroanalytical Chemistry*, **2019**, 848, 113275	4.1	6
18	TiO2 Microboxes with Controlled Internal Porosity for High-Performance Lithium Storage. *Angewandte Chemie*, **2015**, 127, 14539-14543	3.6	6
17	High-Performance Lithium Solid-State Batteries Operating at Elevated Temperature. *Advanced Materials Interfaces*, **2015**, 2, 1500268	4.6	6

16	Millimeter Silicon-Derived Secondary Submicron Materials as High-Initial Coulombic Efficiency Anode for Lithium-Ion Batteries. *ACS Applied Energy Materials*, **2020**, 3, 10255-10260	6.1	6
15	An Aqueous Binder for High-Areal-Capacity Fe3O4-Based Anodes in Lithium-Ion Batteries. *ACS Applied Energy Materials*, **2021**, 4, 7201-7208	6.1	6
14	Carbon-Mediated Catalysis: Oxidative Dehydrogenation on Graphitic Carbon. *ACS Symposium Series*, **2013**, 247-258	0.4	5
13	Regulating Electronic Structure of Single-Atom Catalysts toward Efficient Bifunctional Oxygen Electrocatalysis.. *Small Methods*, **2022**, e2101511	12.8	5
12	Chitosan oligosaccharide derived polar host for lithium deposition in lithium metal batteries. *Sustainable Materials and Technologies*, **2020**, 24, e00158	5.3	4
11	Epoxy and amide crosslinked polarity enhanced polysaccharides binder for silicon anode in lithium-ion batteries. *Electrochimica Acta*, **2021**, 368, 137580	6.7	4
10	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	9.5	4
9	Fundamental air stability in solid-state electrolytes: principles and solutions. *Materials Chemistry Frontiers*,	7.8	3
8	Exploring the concordant solid-state electrolytes for all-solid-state lithium-sulfur batteries. *Nano Energy*, **2022**, 96, 107093	17.1	3
7	Highly dispersed buckybowls as model carbocatalysts for C–H bond activation. *Journal of Materials Chemistry A*, **2015**, 3, 8667-8675	13	2
6	Mesoporous Carbon Materials as Electrodes for Electrochemical Double-Layer Capacitor. *Materials Research Society Symposia Proceedings*, **2006**, 973, 1		2
5	Pre-activation and Defects Introduced via Citric Acid to Mitigate Capacity and Voltage Fading in Li-rich Cathode. *Zeitschrift Fur Anorganische Und Allgemeine Chemie*, **2020**, 646, 1285-1291	1.3	2
4	Controllably Electrodepositing ZIF-8 Protective Layer for Highly Reversible Zinc Anode with Ultralong Lifespan. *Journal of Physical Chemistry Letters*, **2021**, 12, 9055-9059	6.4	2
3	Atomic Platinum Anchored on Fe-N-C Material for High Performance Oxygen Reduction Reaction. *European Journal of Inorganic Chemistry*, **2020**, 2020, 165-168	2.3	1
2	Peach gum as an efficient binder for high-areal-capacity lithium–sulfur batteries. *Sustainable Materials and Technologies*, **2021**, 30, e00334	5.3	0
1	Lithium–Sulfur Batteries **2011**, 811-840		