Xiao-Guang Sun

List of Publications by Year
in descending order

95 papers	6,288 citations	57631 44 h-index	66788 78 g-index
100 all docs	100 docs citations	100 times ranked	8525 citing authors

#	Article	IF	Citations
1	Facile Surface Coatings for Performance Improvement of NMC811 Battery Cathode Material. Journal of the Electrochemical Society, 2022, 169, 020565.	1.3	15
2	Design of a multi-functional gel polymer electrolyte with a 3D compact stacked polymer micro-sphere matrix for high-performance lithium metal batteries. Journal of Materials Chemistry A, 2022, 10, 12563-12574.	5.2	31
3	Organic Cathode Materials for Lithiumâ€Ion Batteries: Past, Present, and Future. Advanced Energy and Sustainability Research, 2021, 2, 2000044.	2.8	61
4	Insight into the Solid Electrolyte Interphase Formation in Bis(fluorosulfonyl)Imide Based Ionic Liquid Electrolytes. Advanced Functional Materials, 2021, 31, 2008708.	7.8	30
5	Supramolecular Selfâ€Assembled Multiâ€Electronâ€Acceptor Organic Molecule as Highâ€Performance Cathode Material for Liâ€Ion Batteries. Advanced Energy Materials, 2021, 11, 2100330.	10.2	48
6	Dynamics of Emim⁺ in [Emim][TFSI]/LiTFSI Solutions as Bulk and under Confinement in a Quasi-liquid Solid Electrolyte. Journal of Physical Chemistry B, 2021, 125, 5443-5450.	1.2	8
7	Polypeptide-based batteries toward sustainable and cyclic manufacturing. CheM, 2021, 7, 1705-1707.	5.8	4
8	The surface triple-coupling on single crystalline cathode for lithium ion batteries. Nano Energy, 2021, 86, 106096.	8.2	22
9	Quantifying the chemical, electrochemical heterogeneity and spatial distribution of (poly) sulfide species using Operando SANS. Energy Storage Materials, 2021, 40, 219-228.	9.5	7
10	Operando Analysis of Gas Evolution in TiNb₂O₇ (TNO)-Based Anodes for Advanced High-Energy Lithium-Ion Batteries under Fast Charging. ACS Applied Materials & Interfaces, 2021, 13, 55145-55155.	4.0	15
11	In situ polymerized succinonitrile-based solid polymer electrolytes for lithium ion batteries. Solid State Ionics, 2020, 345, 115159.	1.3	24
12	Carbon Coated Porous Titanium Niobium Oxides as Anode Materials of Lithium-Ion Batteries for Extreme Fast Charge Applications. ACS Applied Energy Materials, 2020, 3, 5657-5665.	2.5	53
13	A Multidimensional Operando Study Showing the Importance of the Electrode Macrostructure in Lithium Sulfur Batteries. ACS Applied Energy Materials, 2020, 3, 6965-6976.	2.5	11
14	Ionic Liquidâ€Directed Nanoporous TiNb₂O₇ Anodes with Superior Performance for Fastâ€Rechargeable Lithiumâ€Ion Batteries. Small, 2020, 16, e2001884.	5.2	69
15	Insights into the Enhanced Cycle and Rate Performances of the Fâ€Substituted P2â€Type Oxide Cathodes for Sodiumâ€Ion Batteries. Advanced Energy Materials, 2020, 10, 2000135.	10.2	57
16	A dicyanobenzoquinone based cathode material for rechargeable lithium and sodium ion batteries. Journal of Materials Chemistry A, 2019, 7, 17888-17895.	5.2	35
17	Simultaneously Boosting the Ionic Conductivity and Mechanical Strength of Polymer Gel Electrolyte Membranes by Confining Ionic Liquids into Hollow Silica Nanocavities. Batteries and Supercaps, 2019, 2, 985-991.	2.4	21
18	Probing microstructure and electrolyte concentration dependent cell chemistry <i>via operando</i> small angle neutron scattering. Energy and Environmental Science, 2019, 12, 1866-1877.	15.6	36

#	Article	IF	Citations
19	Fluorination of MXene by Elemental F 2 as Electrode Material for Lithiumâ€Ion Batteries. ChemSusChem, 2019, 12, 1271-1271.	3.6	0
20	Fluorination of MXene by Elemental F₂ as Electrode Material for Lithiumâ€Ion Batteries. ChemSusChem, 2019, 12, 1316-1324.	3.6	28
21	Deep eutectic solvents formed by quaternary ammonium salts and aprotic organic compound succinonitrile. Journal of Molecular Liquids, 2019, 274, 414-417.	2.3	23
22	Bis(trimethylsilyl) 2-fluoromalonate derivatives as electrolyte additives for high voltage lithium ion batteries. Journal of Power Sources, 2019, 412, 527-535.	4.0	47
23	Ionic liquids and derived materials for lithium and sodium batteries. Chemical Society Reviews, 2018, 47, 2020-2064.	18.7	452
24	Aromatic Polyimide/Graphene Composite Organic Cathodes for Fast and Sustainable Lithiumâ€Ion Batteries. ChemSusChem, 2018, 11, 763-772.	3.6	58
25	All-solid-state interpenetrating network polymer electrolytes for long cycle life of lithium metal batteries. Journal of Materials Chemistry A, 2018, 6, 14847-14855.	5.2	44
26	Methyl quantum tunneling in ionic liquid [DMIm][TFSI] facilitated by Bis(trifluoromethane)sulfonimide lithium salt. Scientific Reports, 2018, 8, 10354.	1.6	5
27	Ion Dynamics in Ionicâ€Liquidâ€Based Liâ€Ion Electrolytes Investigated by Neutron Scattering and Dielectric Spectroscopy. ChemSusChem, 2018, 11, 3512-3523.	3.6	22
28	Persistent Electrochemical Performance in Epitaxial VO₂(B). Nano Letters, 2017, 17, 2229-2233.	4.5	41
29	A sodiumâ€“aluminum hybrid battery. Journal of Materials Chemistry A, 2017, 5, 6589-6596.	5.2	25
30	New promising lithium malonatoborate salts for high voltage lithium ion batteries. Journal of Materials Chemistry A, 2017, 5, 1233-1241.	5.2	25
31	Polythiophene coated aromatic polyimide enabled ultrafast and sustainable lithium ion batteries. Journal of Materials Chemistry A, 2017, 5, 24083-24090.	5.2	29
32	Aqueous solution of [EMIM][OAc]: Property formulations for use in air conditioning equipment design. Applied Thermal Engineering, 2017, 124, 271-278.	3.0	44
33	Lithium malonatoborate additives enabled stable cycling of 5 V lithium metal and lithium ion batteries. Nano Energy, 2017, 40, 9-19.	8.2	72
34	Observing Framework Expansion of Ordered Mesoporous Hard Carbon Anodes with Ionic Liquid Electrolytes via in Situ Small-Angle Neutron Scattering. ACS Energy Letters, 2017, 2, 1698-1704.	8.8	16
35	Membraneâ€Based Gas Separation Accelerated by Hollow Nanosphere Architectures. Advanced Materials, 2017, 29, 1603797.	11.1	48
36	A Novel Electrolyte Salt Additive for Lithiumâ€Ion Batteries with Voltages Greater than 4.7 V. Advanced Energy Materials, 2017, 7, 1601397.	10.2	103

#	Article	IF	Citations
37	Tandem dissolution of UO₃in amide-based acidic ionic liquid and in situ electrodeposition of UO₂with regeneration of the ionic liquid: a closed cycle. Dalton Transactions, 2016, 45, 10151-10154.	1.6	14
38	A high performance hybrid battery based on aluminum anode and LiFePO₄ cathode. Chemical Communications, 2016, 52, 1713-1716.	2.2	48
39	Polymer gel electrolytes for application in aluminum deposition and rechargeable aluminum ion batteries. Chemical Communications, 2016, 52, 292-295.	2.2	101
40	Polymerized Ionic Networks with High Charge Density: Quasiâ€Solid Electrolytes in Lithiumâ€Metal Batteries. Advanced Materials, 2015, 27, 8088-8094.	11.1	110
41	An AlCl3 based ionic liquid with a neutral substituted pyridine ligand for electrochemical deposition of aluminum. Electrochimica Acta, 2015, 160, 82-88.	2.6	108
42	New ionic liquids based on the complexation of dipropyl sulfide and AlCl₃for electrodeposition of aluminum. Chemical Communications, 2015, 51, 13286-13289.	2.2	42
43	A stable fluorinated and alkylated lithium malonatoborate salt for lithium ion battery application. Chemical Communications, 2015, 51, 9817-9820.	2.2	21
44	Superior Conductive Solid-like Electrolytes: Nanoconfining Liquids within the Hollow Structures. Nano Letters, 2015, 15, 3398-3402.	4.5	115
45	Synergistic Effects of Mixing Sulfone and Ionic Liquid as Safe Electrolytes for Lithium Sulfur Batteries. ChemSusChem, 2015, 8, 353-360.	3.6	28
46	Direct Visualization of Solid Electrolyte Interphase Formation in Lithium-Ion Batteries with <i>In Situ</i> Electrochemical Transmission Electron Microscopy. Microscopy and Microanalysis, 2014, 20, 1029-1037.	0.2	83
47	Ambient Lithiumâ€"SO₂ Batteries with Ionic Liquids as Electrolytes. Angewandte Chemie - International Edition, 2014, 53, 2099-2103.	7.2	62
48	Synthesis and Characterization of Lithium Bis(fluoromalonato)borate for Lithiumâ€Ion Battery Applications. Advanced Energy Materials, 2014, 4, 1301368.	10.2	43
49	Easy synthesis of poly(ionic liquid) for use as a porous carbon precursor. New Carbon Materials, 2014, 29, 78-80.	2.9	7
50	High performance Cr, N-codoped mesoporous TiO₂microspheres for lithium-ion batteries. Journal of Materials Chemistry A, 2014, 2, 1818-1824.	5.2	58
51	Bis(fluoromalonato)borate (BFMB) anion based ionic liquid as an additive for lithium-ion battery electrolytes. Journal of Materials Chemistry A, 2014, 2, 7606-7614.	5.2	31
52	Highly soluble alkoxide magnesium salts for rechargeable magnesium batteries. Journal of Materials Chemistry A, 2014, 2, 581-584.	5.2	66
53	A long-life lithium-ion battery with a highly porous TiNb₂O₇ anode for large-scale electrical energy storage. Energy and Environmental Science, 2014, 7, 2220-2226.	15.6	312
54	Direct Electrodeposition of UO2 from Uranyl Bis(trifluoromethanesulfonyl)imide Dissolved in 1-Ethyl-3-methylimidazolium Bis(trifluoromethanesulfonyl)imide Room Temperature Ionic Liquid System. Electrochimica Acta, 2014, 115, 630-638.	2.6	17

#	Article	IF	Citations
55	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>Li</mml:mi><mml:mo>+</mml:mo></mml:msup></mml:math>Transport in Poly(Ethylene Oxide) Based Electrolytes: Neutron Scattering, Dielectric Spectroscopy, and Molecular Dynamics Simulations. Physical Review Letters, 2013, 111, 018301.	2.9	71
56	Bicyclic imidazolium ionic liquids as potential electrolytes for rechargeable lithium ion batteries. Journal of Power Sources, 2013, 237, 5-12.	4.0	37
57	Seawater Uranium Sorbents: Preparation from a Mesoporous Copolymer Initiator by Atomâ€Transfer Radical Polymerization. Angewandte Chemie - International Edition, 2013, 52, 13458-13462.	7.2	222
58	Fluorination of â€œbrick and mortarâ€• soft-templated graphitic ordered mesoporous carbons for high power lithium-ion battery. Journal of Materials Chemistry A, 2013, 1, 9414.	5.2	23
59	Self-organized amorphous TiO2 nanotube arrays on porous Ti foam for rechargeable lithium and sodium ion batteries. Journal of Power Sources, 2013, 222, 461-466.	4.0	235
60	Nitrogenâ€Enriched Carbons from Alkali Salts with High Coulombic Efficiency for Energy Storage Applications. Advanced Energy Materials, 2013, 3, 708-712.	10.2	51
61	Highly dispersed sulfur in a porous aromatic framework as a cathode for lithiumâ€“sulfur batteries. Chemical Communications, 2013, 49, 4905.	2.2	103
62	Electrochemical and Solid-State Lithiation of Graphitic C₃N₄. Chemistry of Materials, 2013, 25, 503-508.	3.2	141
63	Crosslinked gel polymer electrolytes based on polyethylene glycol methacrylate and ionic liquid for lithium ion battery applications. Electrochimica Acta, 2013, 87, 889-894.	2.6	83
64	Lithiumâ€“Sulfur Batteries Based on Nitrogenâ€Doped Carbon and an Ionicâ€Liquid Electrolyte. ChemSusChem, 2012, 5, 2079-2085.	3.6	187
65	Conductive surface modification of LiFePO4 with nitrogen-doped carbon layers for lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 4611.	6.7	76
66	Oxidation Potentials of Functionalized Sulfone Solvents for High-Voltage Li-Ion Batteries: A Computational Study. Journal of Physical Chemistry B, 2012, 116, 3235-3238.	1.2	63
67	In Situ Observation of Solid Electrolyte Interphase Formation in Ordered Mesoporous Hard Carbon by Small-Angle Neutron Scattering. Journal of Physical Chemistry C, 2012, 116, 7701-7711.	1.5	92
68	Mesoporous carbonâ€“Cr2O3 composite as an anode material for lithium ion batteries. Journal of Power Sources, 2012, 205, 495-499.	4.0	62
69	Electrochemical Windows of Sulfone-Based Electrolytes for High-Voltage Li-Ion Batteries. Journal of Physical Chemistry B, 2011, 115, 12120-12125.	1.2	113
70	Physicochemical properties of imidazolium-derived ionic liquids with different C-2 substitutions. Physical Chemistry Chemical Physics, 2011, 13, 21503.	1.3	48
71	Low-Temperature Fluorination of Soft-Templated Mesoporous Carbons for a High-Power Lithium/Carbon Fluoride Battery. Chemistry of Materials, 2011, 23, 4420-4427.	3.2	102
72	Investigation of carbon-2 substituted imidazoles and their corresponding ionic liquids. Tetrahedron Letters, 2011, 52, 5308-5310.	0.7	12

#	Article	IF	Citations
73	Mesoporous TiO₂â€“B Microspheres with Superior Rate Performance for Lithium Ion Batteries. Advanced Materials, 2011, 23, 3450-3454.	11.1	361
74	Softâ€Templated Mesoporous Carbonâ€Carbon Nanotube Composites for High Performance Lithiumâ€ion Batteries. Advanced Materials, 2011, 23, 4661-4666.	11.1	352
75	Decoupling charge transport from the structural dynamics in room temperature ionic liquids. Journal of Chemical Physics, 2011, 135, 114509.	1.2	67
76	Electrochemical and impedance investigation of the effect of lithium malonate on the performance of natural graphite electrodes in lithium-ion batteries. Journal of Power Sources, 2010, 195, 4266-4271.	4.0	14
77	Electrochemical investigations of ionic liquids with vinylene carbonate for applications in rechargeable lithium ion batteries. Electrochimica Acta, 2010, 55, 4618-4626.	2.6	85
78	Doped sulfone electrolytes for high voltage Li-ion cell applications. Electrochemistry Communications, 2009, 11, 1418-1421.	2.3	118
79	Synthesis and Characterization of Network Single Ion Conductors Based on Comb-Branched Polyepoxide Ethers and Lithium Bis(allylmalonato)borate. Macromolecules, 2006, 39, 362-372.	2.2	129
80	New sulfone electrolytes for rechargeable lithium batteries.. Electrochemistry Communications, 2005, 7, 261-266.	2.3	101
81	Comb-shaped single ion conductors based on polyacrylate ethers and lithium alkyl sulfonate. Electrochimica Acta, 2005, 50, 1139-1147.	2.6	53
82	New sulfone electrolytesPart II. Cyclo alkyl group containing sulfones. Solid State Ionics, 2004, 175, 257-260.	1.3	28
83	Diffusion coefficients in trimethyleneoxide containing comb branch polymer electrolytes. Solid State Ionics, 2004, 175, 781-783.	1.3	9
84	New gel polyelectrolytes for rechargeable lithium batteries. Solid State Ionics, 2004, 175, 713-716.	1.3	39
85	New single ion conductors (?polyBOP? and analogs) for rechargeable lithium batteries. Solid State Ionics, 2004, 175, 743-746.	1.3	36
86	Interfacial behavior of polymer electrolytes. Electrochimica Acta, 2004, 50, 235-242.	2.6	23
87	Synthesis and Characterization of Network Type Single Ion Conductors. Macromolecules, 2004, 37, 2219-2227.	2.2	94
88	Network Single Ion Conductors Based on Comb-Branched Polyepoxide Ethers and Lithium Bis(allylmalonato)borate. Macromolecules, 2004, 37, 5133-5135.	2.2	31
89	Anion-trapping and polyanion electrolytes based on acid-in-chain borate polymers. Electrochimica Acta, 2003, 48, 2255-2266.	2.6	29
90	â€œAcid-in-chainâ€•versus â€œbase-in-chainâ€•anionic polymer electrolytes for electrochemical devices. Electrochimica Acta, 2001, 46, 1467-1473.	2.6	45

#	Article	IF	Citations
91	Polyanionic electrolytes with high alkali ion conductivity. Journal of Physics Condensed Matter, 2001, 13, 8235-8243.	0.7	9
92	Ionic conductivity of polymer gel electrolytes based on poly(polyethylene glycol dimethacrylate). Electrochimica Acta, 1996, 41, 1573-1575.	2.6	11
93	Ionic conductivity of gel electrolyte based on polydiethylene glycol dimethacrylate and its copolymer. European Polymer Journal, 1996, 32, 801-803.	2.6	5
94	An investigation on ion solvation and ion association in a gel-type solid state polymer electrolyte. Solid State Ionics, 1996, 83, 79-85.	1.3	9
95	Fluorination of MXene by Elemental F ₂ as Electrode Material for Lithiumâ€Ion Batteries. ChemSusChem, 0, , .	3.6	0