Heng Zhang

List of Publications by Year
in descending order

83	6,630	76326 40	64796 79
papers	citations	h-index	g-index

84	84	84	5268
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Single lithium-ion conducting solid polymer electrolytes: advances and perspectives. Chemical Society Reviews, 2017, 46, 797-815.	38.1	862
2	Electrolyte Additives for Lithium Metal Anodes and Rechargeable Lithium Metal Batteries: Progress and Perspectives. Angewandte Chemie - International Edition, 2018, 57, 15002-15027.	13.8	551
3	Single Lithiumâ€Ion Conducting Polymer Electrolytes Based on a Superâ€Delocalized Polyanion. Angewandte Chemie - International Edition, 2016, 55, 2521-2525.	13.8	411
4	Lithium-ion batteries â€“ Current state of the art and anticipated developments. Journal of Power Sources, 2020, 479, 228708.	7.8	401
5	Lithium bis(fluorosulfonyl)imide/poly(ethylene oxide) polymer electrolyte. Electrochimica Acta, 2014, 133, 529-538.	5.2	273
6	Ultrahigh Performance All Solid-State Lithium Sulfur Batteries: Salt Anionâ€™s Chemistry-Induced Anomalous Synergistic Effect. Journal of the American Chemical Society, 2018, 140, 9921-9933.	13.7	249
7	Lithium Azide as an Electrolyte Additive for Allâ€Solidâ€State Lithiumâ€“Sulfur Batteries. Angewandte Chemie - International Edition, 2017, 56, 15368-15372.	13.8	213
8	Production of high-energy Li-ion batteries comprising silicon-containing anodes and insertion-type cathodes. Nature Communications, 2021, 12, 5459.	12.8	190
9	Lithium Bis(fluorosulfonyl)imide/Poly(ethylene oxide) Polymer Electrolyte for All Solid-State Liâ€“S Cell. Journal of Physical Chemistry Letters, 2017, 8, 1956-1960.	4.6	166
10	Opportunities for Rechargeable Solid-State Batteries Based on Li-Intercalation Cathodes. Joule, 2018, 2, 2208-2224.	24.0	153
11	Reviewâ€”Solid Electrolytes for Safe and High Energy Density Lithium-Sulfur Batteries: Promises and Challenges. Journal of the Electrochemical Society, 2018, 165, A6008-A6016.	2.9	146
12	Reviewâ€”Polymer Electrolytes for Rechargeable Batteries: From Nanocomposite to Nanohybrid. Journal of the Electrochemical Society, 2020, 167, 070524.	2.9	135
13	From Solidâ€Solution Electrodes and the Rockingâ€Chair Concept to Today's Batteries. Angewandte Chemie - International Edition, 2020, 59, 534-538.	13.8	124
14	Polymeric ionic liquids for lithium-based rechargeable batteries. Molecular Systems Design and Engineering, 2019, 4, 294-309.	3.4	114
15	Lowering the operational temperature of all-solid-state lithium polymer cell with highly conductive and interfacially robust solid polymer electrolytes. Journal of Power Sources, 2018, 383, 144-149.	7.8	113
16	Designer Anion Enabling Solid-State Lithium-Sulfur Batteries. Joule, 2019, 3, 1689-1702.	24.0	108
17	Polymer-Rich Composite Electrolytes for All-Solid-State Liâ€“S Cells. Journal of Physical Chemistry Letters, 2017, 8, 3473-3477.	4.6	106
18	Ionic liquid electrolyte of lithium bis(fluorosulfonyl)imide/N-methyl-N-propylpiperidinium bis(fluorosulfonyl)imide for Li/natural graphite cells: Effect of concentration of lithium salt on the physicochemical and electrochemical properties. Electrochimica Acta, 2014, 149, 370-385.	5.2	91

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19	Estimation of energy density of Li-S batteries with liquid and solid electrolytes. Journal of Power Sources, 2016, 326, 1-5.	7.8	88
20	Reviewâ€"Polymer Electrolytes for Sodium Batteries. Journal of the Electrochemical Society, 2020, 167, 070534.	2.9	86
21	Li[(FSO2)(n-C4F9SO2)N] versus LiPF6 for graphite/LiCoO2 lithium-ion cells at both room and elevated temperatures: A comprehensive understanding with chemical, electrochemical and XPS analysis. Electrochimica Acta, 2016, 196, 169-188.	5.2	79
22	Stable non-corrosive sulfonimide salt for 4-V-class lithium metal batteries. Nature Materials, 2022, 21, 455-462.	27.5	78
23	JeffamineÂ® based polymers as highly conductive polymer electrolytes and cathode binder materials for battery application. Journal of Power Sources, 2017, 347, 37-46.	7.8	74
24	Electrolyte and anodeâ€electrolyte interphase in solidâ€state lithium metal polymer batteries: A perspective. SusMat, 2021, 1, 24-37.	14.9	74
25	Quasi-solid-state electrolytes for lithium sulfur batteries: Advances and perspectives. Journal of Power Sources, 2019, 438, 226985.	7.8	73
26	Fluorineâ€Free Noble Salt Anion for Highâ€Performance Allâ€Solidâ€State Lithiumâ€"Sulfur Batteries. Advanced Energy Materials, 2019, 9, 1900763.	19.5	66
27	Safe, Flexible, and High-Performing Gel-Polymer Electrolyte for Rechargeable Lithium Metal Batteries. Chemistry of Materials, 2021, 33, 8812-8821.	6.7	66
28	Recent progresses on electrolytes of fluorosulfonimide anions for improving the performances of rechargeable Li and Li-ion battery. Journal of Fluorine Chemistry, 2015, 174, 49-61.	1.7	63
29	Unprecedented Improvement of Single Liâ€Ion Conductive Solid Polymer Electrolyte Through Salt Additive. Advanced Functional Materials, 2020, 30, 2000455.	14.9	63
30	Suppressed Mobility of Negative Charges in Polymer Electrolytes with an Etherâ€Functionalized Anion. Angewandte Chemie - International Edition, 2019, 58, 12070-12075.	13.8	61
31	Sulfurâ€containing compounds as electrolyte additives for lithiumâ€ion batteries. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 1364-1392.	17.3	60
32	Enhanced Lithiumâ€Ion Conductivity of Polymer Electrolytes by Selective Introduction of Hydrogen into the Anion. Angewandte Chemie - International Edition, 2019, 58, 7829-7834.	13.8	59
33	Elektrolytadditive fÃ¼r Lithiummetallanoden und wiederaufladbare Lithiummetallbatterien: Fortschritte und Perspektiven. Angewandte Chemie, 2018, 130, 15220-15246.	2.0	54
34	Solid polymer electrolyte comprised of lithium salt/ether functionalized ammonium-based polymeric ionic liquid with bis(fluorosulfonyl)imide. Electrochimica Acta, 2015, 159, 93-101.	5.2	53
35	Electrolyte Additives for Roomâ€Temperature, Sodiumâ€Based, Rechargeable Batteries. Chemistry - an Asian Journal, 2018, 13, 2770-2780.	3.3	53
36	Enhanced Lithiumâ€Ion Conductivity of Polymer Electrolytes by Selective Introduction of Hydrogen into the Anion. Angewandte Chemie, 2019, 131, 7911-7916.	2.0	51

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37	Flowable polymer electrolytes for lithium metal batteries. Journal of Power Sources, 2019, 423, 218-226.	7.8	50
38	Stable cycling of lithium metal electrode in nanocomposite solid polymer electrolytes with lithium bis (fluorosulfonyl)imide. Solid State Ionics, 2018, 318, 95-101.	2.7	44
39	Polymeric ionic liquids based on ether functionalized ammoniums and perfluorinated sulfonimides. Polymer, 2014, 55, 3339-3348.	3.8	43
40	S-containing copolymer as cathode material in poly(ethylene oxide)-based all-solid-state Li-S batteries. Journal of Power Sources, 2018, 390, 148-152.	7.8	43
41	Trifluoromethyl-free anion for highly stable lithium metal polymer batteries. Energy Storage Materials, 2020, 32, 225-233.	18.0	42
42	Selfâ€Standing Highly Conductive Solid Electrolytes Based on Block Copolymers for Rechargeable Allâ€Solidâ€State Lithiumâ€Metal Batteries. Batteries and Supercaps, 2018, 1, 149-159.	4.7	41
43	Insight into the Ionic Transport of Solid Polymer Electrolytes in Polyether and Polyester Blends. Journal of Physical Chemistry C, 2020, 124, 17981-17991.	3.1	37
44	Composite electrolytes of lithium salt/polymeric ionic liquid with bis(fluorosulfonyl)imide. Solid State Ionics, 2014, 256, 61-67.	2.7	36
45	Editors' Choiceâ€”Reviewâ€”Innovative Polymeric Materials for Better Rechargeable Batteries: Strategies from CIC Energigune. Journal of the Electrochemical Society, 2019, 166, A679-A686.	2.9	36
46	Nanofiber-reinforced polymer electrolytes toward room temperature solid-state lithium batteries. Journal of Power Sources, 2020, 448, 227424.	7.8	34
47	History of Solid Polymer Electrolyteâ€Based Solidâ€State Lithium Metal Batteries: A Personal Account. Israel Journal of Chemistry, 2021, 61, 94-100.	2.3	33
48	Diagnosing the SEI Layer in a Potassium Ion Battery Using Distribution of Relaxation Time. Journal of Physical Chemistry Letters, 2021, 12, 2064-2071.	4.6	33
49	Lithium salt with a super-delocalized perfluorinated sulfonimide anion as conducting salt for lithium-ion cells: Physicochemical and electrochemical properties. Journal of Power Sources, 2015, 296, 142-149.	7.8	30
50	Improvement of the Cationic Transport in Polymer Electrolytes with (Difluoromethanesulfonyl)(trifluoromethanesulfonyl)imide Salts. ChemElectroChem, 2019, 6, 1019-1022.	3.4	29
51	Understanding the Role of Nanoâ€Aluminum Oxide in Allâ€Solidâ€State Lithiumâ€Sulfur Batteries. ChemElectroChem, 2019, 6, 326-330.	3.4	28
52	From Solidâ€Solution Electrodes and the Rockingâ€Chair Concept to Today's Batteries. Angewandte Chemie, 2020, 132, 542-546.	2.0	28
53	Anion Ï€â€“Ï€ Stacking for Improved Lithium Transport in Polymer Electrolytes. Journal of the American Chemical Society, 2022, 144, 9806-9816.	13.7	28
54	Jeffamineâ€Based Polymers for Rechargeable Batteries. Batteries and Supercaps, 2020, 3, 30-46.	4.7	27

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55	Single Lithiumâ€Ion Conducting Polymer Electrolytes Based on a Superâ€Delocalized Polyanion. Angewandte Chemie, 2016, 128, 2567-2571.	2.0	26
56	Role of asymmetry in the physiochemical and electrochemical behaviors of perfluorinated sulfonimide anions for lithium batteries: A DFT study. Electrochimica Acta, 2018, 280, 290-299.	5.2	26
57	Energy Density Assessment of Organic Batteries. ACS Applied Energy Materials, 2019, 2, 4008-4015.	5.1	26
58	Improvement of Lithium Metal Polymer Batteries through a Small Dose of Fluorinated Salt. Journal of Physical Chemistry Letters, 2020, 11, 6133-6138.	4.6	24
59	Suppressed Mobility of Negative Charges in Polymer Electrolytes with an Etherâ€Functionalized Anion. Angewandte Chemie, 2019, 131, 12198-12203.	2.0	22
60	Taming the chemical instability of lithium hexafluorophosphate-based electrolyte with lithium fluorosulfonimide salts. Journal of Power Sources, 2022, 526, 231105.	7.8	20
61	New hydrophobic ionic liquids based on (fluorosulfonyl)(polyfluorooxaalkanesulfonyl)imides with various oniums. Electrochimica Acta, 2013, 99, 262-272.	5.2	19
62	Bis(fluorosulfonyl)imide-based electrolyte for rechargeable lithium batteries: A perspective. Journal of Power Sources Advances, 2022, 14, 100088.	5.1	19
63	Salt Additives for Improving Cyclability of Polymer-Based All-Solid-State Lithiumâ€“Sulfur Batteries. ACS Applied Energy Materials, 2021, 4, 4459-4464.	5.1	18
64	New ionic liquids based on a super-delocalized perfluorinated sulfonimide anion: physical and electrochemical properties. Electrochimica Acta, 2016, 207, 66-75.	5.2	17
65	Highly salt-concentrated electrolyte comprising lithium bis(fluorosulfonyl)imide and 1,3-dioxolane-based ether solvents for 4-V-class rechargeable lithium metal cell. Electrochimica Acta, 2020, 363, 137198.	5.2	17
66	Lithium fluorinated sulfonimide-based solid polymer electrolytes for Li | | LiFePO4 cell: The impact of anionic structure. Solid State Ionics, 2020, 358, 115519.	2.7	16
67	Lithium (fluorosulfonyl)(pentafluoroethylsulfonyl)imide/poly (ethylene oxide) polymer electrolyte: Physical and electrochemical properties. Solid State Ionics, 2019, 338, 161-167.	2.7	14
68	Weakly Coordinating Fluorineâ€Free Polysalt for Single Lithiumâ€Ion Conductive Solid Polymer Electrolytes. Batteries and Supercaps, 2020, 3, 738-746.	4.7	14
69	Nanoscale modelling of polymer electrolytes for rechargeable batteries. Energy Storage Materials, 2021, 36, 77-90.	18.0	14
70	Impact of Negative Charge Delocalization on the Properties of Solid Polymer Electrolytes. ChemElectroChem, 2021, 8, 1322-1328.	3.4	13
71	Lithium Azide as an Electrolyte Additive for Allâ€Solidâ€State Lithiumâ€“Sulfur Batteries. Angewandte Chemie, 2017, 129, 15570-15574.	2.0	12
72	Anions with a Dipole: Toward High Transport Numbers in Solid Polymer Electrolytes. Chemistry of Materials, 2022, 34, 3451-3460.	6.7	11

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73	Unprecedented Impact of Main Chain on Comb Polymer Electrolytes Performances. ChemElectroChem, 2022, 9, .	3.4	9
74	Vibrational spectroscopic studies combined with viscosity analysis and VTF calculation for hybrid polymer electrolytes. Solid State Ionics, 2017, 303, 78-88.	2.7	7
75	Solid Electrolytes for Lithium Metal and Future Lithium-ion Batteries. , 2019, , 72-101.		7
76	Anion-cation interactions in novel ionic liquids based on an asymmetric sulfonimide anion observed by NMR and MD simulations. Journal of Molecular Liquids, 2021, 327, 114879.	4.9	6
77	Single Lithium Ion Conducting â€œBinderlyteâ€•for Highâ€Performing Lithium Metal Batteries. Small, 2022, 18, .	10.0	6
78	Purification of Flavonoids from Mulberry Leaves via High-Speed Counter-Current Chromatography. Processes, 2019, 7, 91.	2.8	5
79	Li[(FSO 2)(n â€‹ 4 F 9 SO 2)N]: A Difunctional Salt for Ethyleneâ€Carbonateâ€•and Additiveâ€Free Electrolyte for Liâ€•ion Cells. ChemElectroChem, 2021, 8, 1807-1816.	3.4	4
80	Unraveling Ion Dynamics and Interactions in an Ionic Liquid Electrolyte with a Protonated Anion for Lithium Batteries. Journal of Physical Chemistry C, 2021, 125, 14818-14826.	3.1	2
81	Characterization and properties of the electrolyte using Li[N(SO₂OCH(CF₃)₂)₂] as conductive salt. Chinese Science Bulletin, 2012, 57, 2623-2631.		2
82	Solid Polymer Electrolytes Comprising Camphor-Derived Chiral Salts for Solid-State Batteries. Journal of the Electrochemical Society, 2020, 167, 120541.	2.9	1
83	Innentitelbild: Suppressed Mobility of Negative Charges in Polymer Electrolytes with an Etherâ€Functionalized Anion (Angew. Chem. 35/2019). Angewandte Chemie, 2019, 131, 12052-12052.	2.0	0