Adam S Best

List of Publications by Year
in descending order

70 papers	7,938 citations	109137 35 h-index	88477 70 g-index
71 all docs	71 docs citations	71 times ranked	10610 citing authors

#	Article	IF	Citations
1	Conducting-polymer-based supercapacitor devices and electrodes. Journal of Power Sources, 2011, 196, 1-12.	4.0	3,182
2	In situ NMR observation of the formation of metallic lithium microstructures in lithium batteries. Nature Materials, 2010, 9, 504-510.	13.3	650
3	Lithiumâ€"sulfur batteriesâ€"the solution is in the electrolyte, but is the electrolyte a solution?. Energy and Environmental Science, 2014, 7, 3902-3920.	15.6	289
4	Lithiumâ€Ion Battery Separators for Ionicâ€Liquid Electrolytes: A Review. Advanced Materials, 2020, 32, e1904205.	11.1	287
5	Fast Charge/Discharge of Li Metal Batteries Using an Ionic Liquid Electrolyte. Journal of the Electrochemical Society, 2013, 160, A1629-A1637.	1.3	208
6	Study of the Initial Stage of Solid Electrolyte Interphase Formation upon Chemical Reaction of Lithium Metal and <i>N</i>-Methyl-<i>N</i>-Propyl-Pyrrolidinium-Bis(Fluorosulfonyl)Imide. Journal of Physical Chemistry C, 2012, 116, 19789-19797.	1.5	178
7	Physical properties of high Li-ion content N-propyl-N-methylpyrrolidinium bis(fluorosulfonyl)imide based ionic liquid electrolytes. Physical Chemistry Chemical Physics, 2015, 17, 4656-4663.	1.3	159
8	Lithium electrochemistry and cycling behaviour of ionic liquids using cyano based anions. Energy and Environmental Science, 2013, 6, 979.	15.6	146
9	Suppressed Polysulfide Crossover in Liâ€"S Batteries through a High-Flux Graphene Oxide Membrane Supported on a Sulfur Cathode. ACS Nano, 2016, 10, 7768-7779.	7.3	144
10	The effect of nano-particle TiO2 fillers on structure and transport in polymer electrolytes. Solid State Ionics, 2002, 147, 203-211.	1.3	140
11	Evaluation of a Agâˆ£Ag+ reference electrode for use in room temperature ionic liquids. Electrochemistry Communications, 2006, 8, 1405-1411.	2.3	132
12	Chemical Bonding and Physical Trapping of Sulfur in Mesoporous MagnÃ©li Ti₄O₇ Microspheres for Highâ€Performance Liâ€"S Battery. Advanced Energy Materials, 2017, 7, 1601616.	10.2	130
13	Ionic Liquids with the Bis(fluorosulfonyl)imide Anion: Electrochemical Properties and Applications in Battery Technology. Journal of the Electrochemical Society, 2010, 157, A903.	1.3	123
14	Microscopic Interactions in Nanocomposite Electrolytes. Macromolecules, 2001, 34, 4549-4555.	2.2	121
15	Application of the N-propyl-N-methyl-pyrrolidinium Bis(fluorosulfonyl)imide RTIL Containing Lithium Bis(fluorosulfonyl)imide in Ionic Liquid Based Lithium Batteries. Journal of the Electrochemical Society, 2010, 157, A66.	1.3	112
16	Conductivity in amorphous polyether nanocomposite materials. Solid State Ionics, 1999, 126, 269-276.	1.3	103
17	Transport properties of ionic liquid electrolytes with organic diluents. Physical Chemistry Chemical Physics, 2009, 11, 7202.	1.3	93
18	Structure of aluminum fluoride coated Li[Li1/9Ni1/3Mn5/9]O2 cathodes for secondary lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 20602.	6.7	93

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19	Ionic Liquid Electrolyte for Lithium Metal Batteries: Physical, Electrochemical, and Interfacial Studies of <i>N</i>-Methyl-<i>N</i>-butylmorpholinium Bis(fluorosulfonyl)imide. Journal of Physical Chemistry C, 2010, 114, 21775-21785.	1.5	92
20	Effect of LiNO3 additive and pyrrolidinium ionic liquid on the solid electrolyte interphase in the lithiumâ€“sulfur battery. Journal of Power Sources, 2015, 295, 212-220.	4.0	92
21	Ion transport in polymer electrolytes containing nanoparticulate TiO2: The influence of polymer morphology. Physical Chemistry Chemical Physics, 2003, 5, 720-725.	1.3	78
22	Transport Properties and Phase Behaviour in Binary and Ternary Ionic Liquid Electrolyte Systems of Interest in Lithium Batteries. ChemPhysChem, 2011, 12, 823-827.	1.0	78
23	Energy Storage Structural Composites with Integrated Lithiumâ€Ion Batteries: A Review. Advanced Materials Technologies, 2021, 6, 2001059.	3.0	71
24	The electrochemistry of lithium in ionic liquid/organic diluent mixtures. Electrochimica Acta, 2010, 55, 8947-8952.	2.6	62
25	Electrolytes for Lithium (Sodium) Batteries Based on Ionic Liquids: Highlighting the Key Role Played by the Anion. Batteries and Supercaps, 2020, 3, 793-827.	2.4	62
26	NMR studies of modified nasicon-like, lithium conducting solid electrolytes. Solid State Ionics, 1999, 124, 213-219.	1.3	58
27	Towards elucidating microscopic structural changes in Li-ion conductors Li1+yTi2âˆ’yAly[PO4]3 and Li1+yTi2âˆ’yAly[PO4]3âˆ’x [MO4]x(M=V and Nb): X-ray and27Al and31P NMR studies. Journal of Materials Chemistry, 1998, 8, 2199-2203.	6.7	56
28	Cycling and rate performance of Liâ€“LiFePO4 cells in mixed FSIâ€“TFSI room temperature ionic liquids. Journal of Power Sources, 2010, 195, 2029-2035.	4.0	49
29	Purification or contamination? The effect of sorbents on ionic liquids. Chemical Communications, 2008, , 2689.	2.2	47
30	The effect of coordinating and non-coordinating additives on the transport properties in ionic liquid electrolytes for lithium batteries. Physical Chemistry Chemical Physics, 2011, 13, 4632.	1.3	46
31	Ceramic-polymer interface in composite electrolytes of lithium aluminium titanium phosphate and polyetherurethane polymer electrolyte. Solid State Ionics, 1999, 121, 115-119.	1.3	44
32	On the role of cyclic unsaturated additives on the behaviour of lithium metal electrodes in ionic liquid electrolytes. Electrochimica Acta, 2010, 55, 2210-2215.	2.6	44
33	Characterisation and impedance spectroscopy of substituted Li1.3Al0.3Ti1.7(PO4)3âˆ’x(ZO4)x (Z=V, Nb) ceramics. Solid State Ionics, 1999, 126, 191-196.	1.3	43
34	Understanding the Morphological Changes of Lithium Surfaces during Cycling in Electrolyte Solutions of Lithium Salts in an Ionic Liquid. Journal of the Electrochemical Society, 2013, 160, A1171-A1180.	1.3	41
35	A comparative study of the electrodeposition of polyaniline from a protic ionic liquid, an aprotic ionic liquid and neutral aqueous solution using anilinium nitrate. Journal of Materials Chemistry, 2011, 21, 7622.	6.7	38
36	Co-deposition of conducting polymers in a room temperature ionic liquid. Journal of Materials Chemistry, 2009, 19, 4248.	6.7	36

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37	Effect of Anion on Behaviour of Li-S Battery Electrolyte Solutions Based on N-Methyl-N-Butyl-Pyrrolidinium Ionic Liquids. Electrochimica Acta, 2015, 180, 636-644.	2.6	35
38	A supramolecular nematic phase in sulfonated polyaramides. Chemical Communications, 2004, , 1596.	2.2	34
39	Ordered Mesoporous Graphitic Carbon/Iron Carbide Composites with High Porosity as a Sulfur Host for Liâ€“S Batteries. ACS Applied Materials & Interfaces, 2019, 11, 13194-13204.	4.0	34
40	Re-evaluation of experimental measurements for the validation of electronic band structure calculations for LiFePO₄ and FePO₄. RSC Advances, 2019, 9, 1134-1146.	1.7	33
41	Is the Cation Innocent? An Analytical Approach on the Cationic Decomposition Behavior of <i>N</i>-Butyl-<i>N</i>-methylpyrrolidinium Bis(trifluoromethanesulfonyl)imide in Contact with Lithium Metal. Chemistry of Materials, 2020, 32, 2389-2398.	3.2	31
42	Rapid SECM probing of dissolution of LiCoO2 battery materials in an ionic liquid. Journal of Electroanalytical Chemistry, 2012, 687, 30-34.	1.9	29
43	Compression properties of multifunctional composite structures with embedded lithium-ion polymer batteries. Composite Structures, 2020, 237, 111937.	3.1	29
44	Polymer dynamics in 3PEGâ€“LiClO4â€“TiO2 nanocomposite polymer electrolytes. Journal of Chemical Physics, 2003, 118, 4206-4212.	1.2	28
45	Observation of Preferential Cation Doping on the Surface of LiFePO₄ Particles and Its Effect on Properties. ACS Applied Energy Materials, 2020, 3, 9158-9167.	2.5	28
46	Synthesis and Formation of a Supramolecular Nematic Liquid Crystal in Poly(p-phenyleneâˆ'sulfoterephthalamide)âˆ'H2O. Macromolecules, 2005, 38, 3647-3652.	2.2	26
47	Surface Reactions of Ethylene Carbonate and Propylene Carbonate on the Li(001) Surface. Electrochimica Acta, 2017, 243, 320-330.	2.6	26
48	An Azo-Spiro Mixed Ionic Liquid Electrolyte for Lithium Metalâ€“LiFePO[sub 4] Batteries. Journal of the Electrochemical Society, 2010, 157, A876.	1.3	25
49	The importance of transport property studies for battery electrolytes: revisiting the transport properties of lithiumâ€“N-methyl-N-propylpyrrolidinium bis(fluorosulfonyl)imide mixtures. Physical Chemistry Chemical Physics, 2017, 19, 10527-10542.	1.3	21
50	A SANS Study of 3PEGâˆ'LiClO4âˆ'TiO2Nanocomposite Polymer Electrolytes. Macromolecules, 2005, 38, 6666-6671.	2.2	20
51	Optimising the concentration of LiNO3 additive in C4mpyr-TFSI electrolyte-based Li-S battery. Electrochimica Acta, 2016, 222, 257-263.	2.6	20
52	The interaction of ethylammonium tetrafluoroborate [EtNH₃⁺][BF₄^{âˆ'}] ionic liquid on the Li(001) surface: towards understanding early SEI formation on Li metal. Physical Chemistry Chemical Physics, 2019, 21, 10028-10037.	1.3	20
53	Thermal Stability of Pyrrolidinium-FSI Ionic Liquid Electrolyte and Lithium-Ion Electrodes at Elevated Temperatures. Journal of the Electrochemical Society, 2018, 165, A1204-A1221.	1.3	19
54	Role of H+ in Polypyrrole and Poly(3,4-ethylenedioxythiophene) Formation Using FeCl3Â·6H2O in the Room Temperature Ionic Liquid, C4mpyrTFSI. Australian Journal of Chemistry, 2012, 65, 1513.	0.5	16

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55	A Hybrid Anion for Ionic Liquid and Battery Electrolyte Applications: Half Triflamide, Half Carbonate. Angewandte Chemie - International Edition, 2019, 58, 4390-4394.	7.2	16
56	Spectroscopic Evidence of Surface Li-Depletion of Lithium Transition-Metal Phosphates. ACS Applied Energy Materials, 2020, 3, 2856-2866.	2.5	12
57	Nanoscale characteristics of practical LiFePO4 materials - Effects on electrical, magnetic and electrochemical properties. Materials Characterization, 2020, 162, 110171.	1.9	12
58	Improving the Rate Capability of LiFePO₄ Electrode by Controlling Particle Size Distribution. Journal of the Electrochemical Society, 2019, 166, A4128-A4135.	1.3	11
59	Predicting properties of new ionic liquids: density functional theory and experimental studies of tetra-alkylammonium salts of (thio)carboxylate anions, RCO2âˆ’, RCOSâˆ’ and RCS2âˆ’. Physical Chemistry Chemical Physics, 2011, 13, 10729.	1.3	10
60	Localized Relaxational Dynamics of Succinonitrile. Journal of Physical Chemistry C, 2009, 113, 15007-15013.	1.5	9
61	Effect of <i>Pseudomonas fluorescens</i> on Buried Steel Pipeline Corrosion. Environmental Science & Technology, 2017, 51, 8501-8509.	4.6	9
62	Softening of the potential-energy surface in polymer electrolytes on the addition of nanoparticles. Chemical Physics, 2005, 317, 282-288.	0.9	8
63	Composite cell components for elevated temperature all-solid-state Li-ion batteries. Solid State Ionics, 2001, 143, 57-66.	1.3	7
64	Effect of Nanocrystalline Materials on Ionic Interactions in Polymer Electrolytes. Macromolecules, 2004, 37, 9591-9595.	2.2	7
65	Electrospun Poly(vinylidene fluoride)-Lithium Bistrifluoromethanesulfonamide Separators for Applications in Ionic Liquid Batteries. Australian Journal of Chemistry, 2013, 66, 252.	0.5	7
66	Dynamics and Lithium Binding Energies of Polyelectrolytes Based on Functionalized Poly(para-phenylene terephthalamide). Journal of Physical Chemistry B, 2005, 109, 7705-7712.	1.2	6
67	Towards Li-Air and Li-S Batteries: Understanding the Morphological Changes of Lithium Surfaces during Cycling at a Range of Current Densities in an Ionic Liquid Electrolyte. ECS Transactions, 2013, 50, 383-401.	0.3	5
68	Effects of Nanoscale Surface Lithium Depletion on the Optical Properties and Electronic Band Structures of Lithium Transition-Metal Phosphates. Journal of Physical Chemistry C, 2020, 124, 19969-19979.	1.5	5
69	In Situ Synchrotron XRD and sXAS Studies on Li-S Batteries with Ionic-Liquid and Organic Electrolytes. Journal of the Electrochemical Society, 2020, 167, 100526.	1.3	5
70	Catching TFSI: A Computationalâ€"Experimental Approach to Î²â€Cyclodextrinâ€Based Hostâ€"Guest Systems as electrolytes for Liâ€Ion Batteries. ChemSusChem, 2018, 11, 1942-1949.	3.6	3