Anthony F Hollenkamp

List of Publications by Year
in descending order

115 papers	9,410 citations	81900 39 h-index	37204 96 g-index
117 all docs	117 docs citations	117 times ranked	11877 citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon properties and their role in supercapacitors. Journal of Power Sources, 2006, 157, 11-27.	7.8	3,593
2	In situ NMR observation of the formation of metallic lithium microstructures in lithium batteries. Nature Materials, 2010, 9, 504-510.	27.5	650
3	High Lithium Metal Cycling Efficiency in a Room-Temperature Ionic Liquid. Electrochemical and Solid-State Letters, 2004, 7, A97.	2.2	454
4	Emerging electrochemical energy conversion and storage technologies. Frontiers in Chemistry, 2014, 2, 79.	3.6	304
5	Lithiumâ€“sulfur batteriesâ€"the solution is in the electrolyte, but is the electrolyte a solution?. Energy and Environmental Science, 2014, 7, 3902-3920.	30.8	289
6	A Review on Battery Market Trends, Second-Life Reuse, and Recycling. Sustainable Chemistry, 2021, 2, 167-205.	4.7	197
7	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.	3.1	178
8	Expansion-tolerant architectures for stable cycling of ultrahigh-loading sulfur cathodes in lithium-sulfur batteries. Science Advances, 2020, 6, eaay2757.	10.3	152
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.	14.6	144
10	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.	19.5	130
11	Thermal Behavior of Ionic Liquids Containing the FSI Anion and the Li⁺ Cation. Journal of Physical Chemistry C, 2010, 114, 21840-21847.	3.1	126
12	Ionic Liquids with the Bis(fluorosulfonyl)imide Anion: Electrochemical Properties and Applications in Battery Technology. Journal of the Electrochemical Society, 2010, 157, A903.	2.9	123
13	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.	2.9	112
14	Voltammetric Determination of the Iodide/Iodine Formal Potential and Triiodide Stability Constant in Conventional and Ionic Liquid Media. Journal of Physical Chemistry C, 2015, 119, 22392-22403.	3.1	102
15	High Reversible Pseudocapacity in Mesoporous Yolkâ€“Shell Anatase TiO₂/TiO₂(B) Microspheres Used as Anodes for Liâ€Ion Batteries. Advanced Functional Materials, 2017, 27, 1703270.	14.9	99
16	Enhanced manganese dioxide supercapacitor electrodes produced by electrodeposition. Journal of Power Sources, 2011, 196, 7847-7853.	7.8	93
17	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.	3.1	92
18	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.	7.8	92

#	Article	IF	Citations
19	A Comparative Testing Study of Commercial 18650-Format Lithium-Ion Battery Cells. Journal of the Electrochemical Society, 2015, 162, A1592-A1600.	2.9	84
20	Extensive chargeâ€“discharge cycling of lithium metal electrodes achieved using ionic liquid electrolytes. Electrochemistry Communications, 2013, 27, 69-72.	4.7	70
21	Conduction in ionic organic plastic crystals: The role of defects. Solid State Ionics, 2006, 177, 2569-2573.	2.7	62
22	The electrochemistry of lithium in ionic liquid/organic diluent mixtures. Electrochimica Acta, 2010, 55, 8947-8952.	5.2	62
23	The Influence of Conductive Additives and Interâ€Particle Voids in Carbon EDLC Electrodes. Fuel Cells, 2010, 10, 856-864.	2.4	62
24	Structure, morphology and electrochemical behaviour of manganese oxides prepared by controlled decomposition of permanganate. Journal of Power Sources, 2010, 195, 367-373.	7.8	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.	4.7	62
26	Optimising organic ionic plastic crystal electrolyte for all solid-state and higher than ambient temperature lithium batteries. Journal of Solid State Electrochemistry, 2012, 16, 1841-1848.	2.5	59
27	Premature capacity loss in lead/acid batteries: a discussion of the antimony-free effect and related phenomena. Journal of Power Sources, 1991, 36, 567-585.	7.8	58
28	A molecular dynamics simulation study of LiFePO4/electrolyte interfaces: structure and Li+ transport in carbonate and ionic liquid electrolytes. Physical Chemistry Chemical Physics, 2009, 11, 9884.	2.8	55
29	Prospects for a widely applicable reference potential scale in ionic liquids based on ideal reversible reduction of the cobaltocenium cation. Electrochemistry Communications, 2008, 10, 250-254.	4.7	54
30	Electrochemically active surface area effects on the performance of manganese dioxide for electrochemical capacitor applications. Electrochimica Acta, 2013, 104, 140-147.	5.2	53
31	When is capacity loss in lead/acid batteries â€˜prematureâ€™?. Journal of Power Sources, 1996, 59, 87-98.	7.8	51
32	Cycling and rate performance of Liâ€“LiFePO4 cells in mixed FSIâ€“TFSI room temperature ionic liquids. Journal of Power Sources, 2010, 195, 2029-2035.	7.8	49
33	Ionic transport through a composite structure of N-ethyl-N-methylpyrrolidinium tetrafluoroborate organic ionic plastic crystals reinforced with polymer nanofibres. Journal of Materials Chemistry A, 2015, 3, 6038-6052.	10.3	47
34	Effect of zwitterion on the lithium solid electrolyte interphase in ionic liquid electrolytes. Journal of Power Sources, 2008, 184, 288-296.	7.8	45
35	On the role of cyclic unsaturated additives on the behaviour of lithium metal electrodes in ionic liquid electrolytes. Electrochimica Acta, 2010, 55, 2210-2215.	5.2	44
36	Realisation of an all solid state lithium battery using solid high temperature plastic crystal electrolytes exhibiting liquid like conductivity. Physical Chemistry Chemical Physics, 2012, 14, 4597.	2.8	43

#	Article	IF	Citations
37	Applications of Convolution Voltammetry in Electroanalytical Chemistry. Analytical Chemistry, 2014, 86, 2073-2081.	6.5	42
38	Framework-mediated synthesis of highly microporous onion-like carbon: energy enhancement in supercapacitors without compromising power. Journal of Materials Chemistry A, 2017, 5, 2519-2529.	10.3	42
39	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.	2.9	41
40	N-doped Li₄Ti₅O₁₂ nanoflakes derived from 2D protonated titanate for high performing anodes in lithium ion batteries. Journal of Materials Chemistry A, 2016, 4, 7772-7780.	10.3	39
41	Stable Cycling of Lithium Batteries Using Novel Boronium-Cation-Based Ionic Liquid Electrolytes. Chemistry of Materials, 2010, 22, 1038-1045.	6.7	38
42	Cycle stability of birnessite manganese dioxide for electrochemical capacitors. Electrochimica Acta, 2010, 55, 7470-7478.	5.2	37
43	Voltammetric, coulometric, mercury-199 NMR, and other studies characterizing new and unusual mercury complexes produced by electrochemical oxidation of mercury(II) diethyldithiocarbamate. Crystal and molecular structure of octakis(N,N-diethyldithiocarbamato)pentamercury(II) perchlorate. Journal of the American Chemical Society, 1987, 109, 1969-1980.	13.7	35
44	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.	5.2	35
45	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.	8.0	34
46	Electrode Reaction and Mass-Transport Mechanisms Associated with the Iodide/Triiodide Couple in the Ionic Liquid 1-Ethyl-3-methylimidazolium Bis(trifluoromethanesulfonyl)imide. Journal of Physical Chemistry C, 2014, 118, 22439-22449.	3.1	33
47	Ionic liquids and plastic crystals with a symmetrical pyrrolidinium cation. Materials Chemistry Frontiers, 2018, 2, 1207-1214.	5.9	33
48	Electrochemistry of Iodide, Iodine, and Iodine Monochloride in Chloride Containing Nonhaloaluminate Ionic Liquids. Analytical Chemistry, 2016, 88, 1915-1921.	6.5	32
49	Plastic Crystals Utilising Small Ammonium Cations and Sulfonylimide Anions as Electrolytes for Lithium Batteries. Journal of the Electrochemical Society, 2020, 167, 070529.	2.9	31
50	A new family of ionic liquids based on N,N-dialkyl-3-azabicyclo[3.2.2]nonanium cations: organic plastic crystal behaviour and highly reversible lithium metal electrodeposition. Chemical Communications, 2007, , 5226.	4.1	29
51	Rapid SECM probing of dissolution of LiCoO2 battery materials in an ionic liquid. Journal of Electroanalytical Chemistry, 2012, 687, 30-34.	3.8	29
52	Effect of secondary phase on thermal behaviour and solid-state ion conduction in lithium doped <i>N</i>-ethyl-<i>N</i>-methylpyrrolidinium tetrafluoroborate organic ionic plastic crystal. Journal of Materials Chemistry A, 2017, 5, 24909-24919.	10.3	28
53	Synthesis of monodispersed CoMoO4 nanoclusters on the ordered mesoporous carbons for environment-friendly supercapacitors. Journal of Alloys and Compounds, 2019, 810, 151841.	5.5	28
54	Organic salts utilising the hexamethylguanidinium cation: the influence of the anion on the structural, physical and thermal properties. Physical Chemistry Chemical Physics, 2019, 21, 12288-12300.	2.8	28

#	Article	IF	Citations
55	Electrochemical investigation of corrosion in CO2 capture plantsâ€”Influence of amines. Electrochimica Acta, 2013, 110, 511-516.	5.2	27
56	Investigating discharge performance and Mg interphase properties of an Ionic Liquid electrolyte based Mg-air battery. Electrochimica Acta, 2017, 235, 270-279.	5.2	27
57	Separator Design Variables and Recommended Characterization Methods for Viable Lithiumâ€"Sulfur Batteries. Advanced Materials Technologies, 2021, 6, 2001136.	5.8	26
58	An Azo-Spiro Mixed Ionic Liquid Electrolyte for Lithium Metalâ€"LiFePO[sub 4] Batteries. Journal of the Electrochemical Society, 2010, 157, A876.	2.9	25
59	A new approach to very high lithium salt content quasi-solid state electrolytes for lithium metal batteries using plastic crystals. Journal of Materials Chemistry A, 2019, 7, 25389-25398.	10.3	25
60	Concentration and electrode material dependence of the voltammetric response of iodide on platinum, glassy carbon and boron-doped diamond in the room temperature ionic liquid 1-ethyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide. Electrochimica Acta, 2013, 109, 554-561.	5.2	24
61	Mass Transport Studies and Hydrogen Evolution at a Platinum Electrode Using Bis(trifluoromethanesulfonyl)imide as the Proton Source in Ionic Liquids and Conventional Solvents. Journal of Physical Chemistry C, 2014, 118, 29663-29673.	3.1	24
62	A comparative AFM study of the interfacial nanostructure in imidazolium or pyrrolidinium ionic liquid electrolytes for zinc electrochemical systems. Physical Chemistry Chemical Physics, 2016, 18, 29337-29347.	2.8	24
63	A symmetrical ionic liquid/Li salt system for rapid ion transport and stable lithium electrochemistry. Chemical Communications, 2018, 54, 3660-3663.	4.1	24
64	Comparison of Diffusivity Data Derived from Electrochemical and NMR Investigations of the SeCNÂ¯/(SeCN)₂/(SeCN)₃Â¯ System in Ionic Liquids. Journal of Physical Chemistry B, 2011, 115, 6843-6852.	2.6	23
65	Active mass analysis on thin films of electrodeposited manganese dioxide for electrochemical capacitors. Electrochimica Acta, 2013, 87, 133-139.	5.2	23
66	Electrochemical Proton Reduction and Equilibrium Acidity (p<i>K</i>_a) in Aprotic Ionic Liquids: Protonated Amines and Sulfonamide Acids. Journal of Physical Chemistry C, 2015, 119, 21828-21839.	3.1	23
67	Advantages Available in the Application of the Semi-Integral Electroanalysis Technique for the Determination of Diffusion Coefficients in the Highly Viscous Ionic Liquid 1-Methyl-3-Octylimidazolium Hexafluorophosphate. Analytical Chemistry, 2013, 85, 2239-2245.	6.5	22
68	An unexpected stoichiometric effect in both solution and solid state in mercury-rich dithiocarbamate cation chemistry: crystal and molecular structure of polymeric tris(piperidinecarbodithioato)dimercury(II) perchlorate. Inorganic Chemistry, 1991, 30, 192-197.	4.0	21
69	Unexpected Complexity in the Electro-Oxidation of Iodide on Gold in the Ionic Liquid 1-Ethyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide. Analytical Chemistry, 2013, 85, 11319-11325.	6.5	21
70	Monodisperse mesoporous anatase beads as high performance and safer anodes for lithium ion batteries. Nanoscale, 2015, 7, 17947-17956.	5.6	21
71	Optimising the concentration of LiNO3 additive in C4mpyr-TFSI electrolyte-based Li-S battery. Electrochimica Acta, 2016, 222, 257-263.	5.2	20
72	Permselective membranes in lithiumâ€"sulfur batteries. Current Opinion in Chemical Engineering, 2017, 16, 31-38.	7.8	20

#	ARTICLE	IF	CITATIONS
73	Electrolyte stratification in lead/acid batteries: Effect of grid antimony and relationship to capacity loss. Journal of Power Sources, 1993, 46, 239-250.	7.8	19
74	47-Electron Organometallic Clusters Derived by Chemical and Electrochemical Oxidation of Trihydrido(alkylidyne)triruthenium and -triosmium Clusters. Ligand Additivity in Metal Clusters. Organometallics, 1998, 17, 872-886.	2.3	19
75	Chronoamperometric Versus Galvanostatic Preparation of Manganese Oxides for Electrochemical Capacitors. Journal of the Electrochemical Society, 2011, 158, A1160.	2.9	19
76	Development of new solid-state electrolytes based on a hexamethylguanidinium plastic crystal and lithium salts. Electrochimica Acta, 2020, 357, 136863.	5.2	19
77	Mass Transport Properties of Manganese Dioxide Phases for Use in Electrochemical Capacitors: Structural Effects on Solid State Diffusion. Journal of the Electrochemical Society, 2013, 160, A1219-A1231.	2.9	18
78	Roles of Additives in the Trihexyl(tetradecyl) Phosphonium Chloride Ionic Liquid Electrolyte for Primary Mg-Air Cells. Journal of the Electrochemical Society, 2014, 161, A974-A980.	2.9	17
79	The influence of alkyl chain branching on the properties of pyrrolidinium-based ionic electrolytes. Physical Chemistry Chemical Physics, 2020, 22, 18102-18113.	2.8	17
80	Electrochemical generation of soluble and reactive cadmium, lead, and thallium cations in noncoordinating solvents. Relative strengths of perchlorate, tetrafluoroborate, and hexafluorophosphate ligation in dichloromethane and benzene. Journal of the American Chemical Society, 1988, 110, 5293-5297.	13.7	16
81	Large Amplitude Electrochemical Impedance Spectroscopy for Characterizing the Performance of Electrochemical Capacitors. Journal of the Electrochemical Society, 2014, 161, A648-A656.	2.9	16
82	Electrochemical Proton Reduction and Equilibrium Acidity (p<i>K</i>_a) in Aprotic Ionic Liquids: Phenols, Carboxylic Acids, and Sulfonic Acids. Journal of Physical Chemistry C, 2015, 119, 21840-21851.	3.1	16
83	A Hybrid Anion for Ionic Liquid and Battery Electrolyte Applications: Half Triflamide, Half Carbonate. Angewandte Chemie - International Edition, 2019, 58, 4390-4394.	13.8	16
84	Analytical and mechanistic aspects of the electrochemical oxidation of keto steroids derivatized with phenylhydrazine, (4-nitrophenyl)hydrazine, and (2,4-dinitrophenyl)hydrazine. Analytical Chemistry, 1988, 60, 1023-1027.	6.5	15
85	Ultrasonication during the Synthesis of Manganese Oxides for Electrochemical Capacitors. Journal of the Electrochemical Society, 2010, 157, A551.	2.9	15
86	Energy harvesting from amine-based CO2 capture: proof-of-concept based on mono-ethanolamine. Fuel, 2020, 263, 116661.	6.4	15
87	CO2 regenerative battery for energy harvesting from ammonia-based post-combustion CO2 capture. Applied Energy, 2019, 247, 417-425.	10.1	14
88	Performance of lead/acid batteries in remote-area power-supply applications. Journal of Power Sources, 1991, 35, 385-394.	7.8	12
89	Benefits of controlling plate-group expansion: opening the door to advanced lead/acid batteries. Journal of Power Sources, 1997, 67, 27-32.	7.8	12
90	N-alkylation of N-heterocyclic ionic liquid precursors in ionic liquids. Green Chemistry, 2009, 11, 804.	9.0	12

#	Article	IF	Citations
91	Effects of alternating current on Li-ion battery performance: Monitoring degradative processes with in-situ characterization techniques. Applied Energy, 2021, 284, 116192.	10.1	11
92	Reversible electrode processes involving multistep mechanisms for cadmium dithiocarbamates and diselenocarbamates at mercury electrodes. Inorganic Chemistry, 1985, 24, 1591-1597.	4.0	10
93	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.	2.8	10
94	Designing Solidâ€State Electrolytes through the Structural Modification of a Highâ€Performing Ionic Liquid. ChemElectroChem, 2020, 7, 4118-4123.	3.4	10
95	Molecular weight and mercury-199 NMR studies on mercury-rich cations produced from mercury(II) dithiocarbamates. Inorganica Chimica Acta, 1990, 168, 233-236.	2.4	9
96	High capacity polycarbazole-sulfur cathode for use in lithium-sulfur batteries. Electrochimica Acta, 2021, 391, 138898.	5.2	9
97	Examination of mercury dithiocarbamate-trialkylphosphine mixed-ligand complexes by electrochemical techniques at mercury electrodes and multinuclear magnetic resonance spectroscopy. Inorganic Chemistry, 1986, 25, 1519-1526.	4.0	7
98	Aging Effects of Twice Line Frequency Ripple on Lithium Iron Phosphate (LiFePO₄) Batteries. , 2019, , .		7
99	NMR and electrochemical investigation of the redox and exchange reactions of tellurium(II) and tellurium(IV) dithiocarbamate complexes. Inorganic Chemistry, 1989, 28, 1510-1515.	4.0	6
100	Comparing the Physicochemical, Electrochemical, and Structural Properties of Boronium versus Pyrrolidinium Cation-Based Ionic Liquids and Their Performance as Li-Ion Battery Electrolytes. Journal of Physical Chemistry C, 2021, 125, 8055-8067.	3.1	6
101	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.	0.5	5
102	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.	2.9	5
103	Impact of high-amplitude alternating current on LiFePO4 battery life performance: Investigation of AC-preheating and microcycling effects. Applied Energy, 2022, 314, 118940.	10.1	5
104	Lead-207 NMR, mass spectrometric, and electrochemical studies on labile lead(II) dithiocarbamate complexes: formation of mixed mercury-lead complexes at a mercury electrode in dichloromethane solution. Inorganic Chemistry, 1990, 29, 1991-1995.	4.0	4
105	Comment on â€œA Comparative Testing Study of Commercial 18650-Format Lithium-Ion Battery Cellsâ€• [<i>J. Electrochem. Soc.</i>, 162, A1592 (2015)]. Journal of the Electrochemical Society, 2015, 162, Y11-Y12.	2.9	4
106	Tellurium-125 nuclear magnetic resonance and electrochemical investigation of exchange and redox reactions of organotellurium(IV) dithiolate and organotellurium(II) complexes occurring in solution and at electrode surfaces. Organometallics, 1991, 10, 3310-3319.	2.3	3
107	Fabrication and electrochemical properties of well-dispersed molybdenum oxide nanoparticles into nitrogen-doped ordered mesoporous carbons for supercapacitors. Materials Research Express, 2019, 6, 105088.	1.6	3
108	Electrochemically Controlled Deposition of Ultrathin Polymer Electrolyte on Complex Microbattery Electrode Architectures. Journal of the Electrochemical Society, 2019, 166, A5462-A5469.	2.9	3

#	Article	IF	Citations
109	The phase definition and electrochemical property of cobalt-oxide nanoclusters supported on structured carbons. Materials Letters, 2020, 271, 127788.	2.6	3
110	Sustainable cyanide-C60 fullerene cathode to suppress the lithium polysulfides in a lithium-sulfur battery. Sustainable Materials and Technologies, 2022, 32, e00403.	3.3	3
111	Mounting of lead/acid battery positive-plate materials in epoxy matrices: an investigation of instances of excessive heating. Journal of Power Sources, 1992, 40, 365-369.	7.8	2
112	Conjugated Microporous Polycarbazole-Sulfur Cathode Used in a Lithium-Sulfur Battery. Journal of the Electrochemical Society, 2021, 168, 110542.	2.9	2
113	Electroanalytical Applications of Semiintegral and Convolution Voltammetry in Room-Temperature Ionic Liquids. , 2015, , 143-167.		1
114	Ein Hybridâ€Anion fÃ¼r ionische FlÃ¼ssigkeiten und Batterieelektrolytanwendungen: Halb Triflamid, halb Carbonat. Angewandte Chemie, 2019, 131, 4435-4439.	2.0	0
115	Electrochemically Mediated Energy Harvesting from Ammonia Based Post-Combustion CO2 Capture Process. SSRN Electronic Journal, 0, , .	0.4	0