David S Hall

List of Publications by Year
in descending order

51 papers	3,042 citations	304368 22 h-index	243296 44 g-index
55 all docs	55 docs citations	55 times ranked	4089 citing authors

#	Article	IF	Citations
1	Effect of Lithiation upon the Shear Strength of NMC811 Single Crystals. Journal of the Electrochemical Society, 2022, 169, 040511.	1.3	9
2	The 3-phenyl-1,4,2-dioxazol-5-one (PDO) Electrolyte Additive for Li(Ni_{0.6}Mn_{0.2}Co_{0.2})O₂ and Li(Ni_{0.8}Mn_{0.1}Co_{0.1})O₂ Lithium-Ion Cells. Journal of the Electrochemical Society, 2022, 169, 040565.	1.3	2
3	Single-Source Deposition of Mixed-Metal Oxide Films Containing Zirconium and 3d Transition Metals for (Photo)electrocatalytic Water Oxidation. Inorganic Chemistry, 2022, 61, 6223-6233.	1.9	4
4	Battery Degradation and Lifetime â€“ Studies within the Faraday Institution on NMC811/Graphite Full Cells. ECS Meeting Abstracts, 2022, MA2022-01, 341-341.	0.0	0
5	The Effect of Annealing on the Structure, Composition and Electrochemistry of NMC811 Coated with Al₂O₃ Using an Alkoxide Precursor. ECS Meeting Abstracts, 2022, MA2022-01, 295-295.	0.0	0
6	An evaluation of corrosion processes affecting copper-coated nuclear waste containers in a deep geological repository. Progress in Materials Science, 2021, 118, 100766.	16.0	59
7	A one-pot method for the synthesis of 3-(hetero-)aryl-1,4,2-dioxazol-5-ones. Canadian Journal of Chemistry, 2020, 98, 158-163.	0.6	2
8	Electrolyte Oxidation Pathways in Lithium-Ion Batteries. Journal of the American Chemical Society, 2020, 142, 15058-15074.	6.6	160
9	Prospects for lithium-ion batteries and beyondâ€”a 2030 vision. Nature Communications, 2020, 11, 6279.	5.8	369
10	Impact of Functionalization and Co-Additives on Dioxazolone Electrolyte Additives. Journal of the Electrochemical Society, 2020, 167, 080540.	1.3	8
11	Ester-Based Electrolytes for Fast Charging of Energy Dense Lithium-Ion Batteries. Journal of Physical Chemistry C, 2020, 124, 12269-12280.	1.5	50
12	Synthesis and Evaluation of Difluorophosphate Salt Electrolyte Additives for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2020, 167, 100538.	1.3	3
13	Solution NMR Studies of Electrolyte Decomposition Pathways. ECS Meeting Abstracts, 2020, MA2020-02, 783-783.	0.0	0
14	(Battery Division Postdoctoral Associate Research Award Address Sponsored by MTI Corporation and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf NMC811/Graphite Full Cells. ECS Meeting Abstracts, 2020, MA2020-02, 788-788.	0.0	0
15	A Guide to Full Coin Cell Making for Academic Researchers. Journal of the Electrochemical Society, 2019, 166, A329-A333.	1.3	96
16	New Chemical Insights into the Beneficial Role of Al₂O₃ Cathode Coatings in Lithium-ion Cells. ACS Applied Materials & Interfaces, 2019, 11, 14095-14100.	4.0	108
17	Editors' Choiceâ€”Hindering Rollover Failure of Li[Ni_{0.5}Mn_{0.3}Co_{0.2}]O₂/Graphite Pouch Cells during Long-Term Cycling. Journal of the Electrochemical Society, 2019, 166, A711-A724.	1.3	76
18	A Tale of Two Additives: Effects of Glutaric and Citraconic Anhydrides on Lithium-Ion Cell Performance. Journal of the Electrochemical Society, 2019, 166, A793-A801.	1.3	14

#	Article	IF	Citations
19	A Joint DFT and Experimental Study of an Imidazolidinone Additive in Lithium-Ion Cells. Journal of the Electrochemical Society, 2019, 166, A3707-A3715.	1.3	12
20	Communicationâ€"A Method to Measure Extremely Low Corrosion Rates of Copper Metal in Anoxic Aqueous Media. Journal of the Electrochemical Society, 2019, 166, C3015-C3017.	1.3	13
21	Studies of Rollover Failure in Lithium-Ion Cells. ECS Meeting Abstracts, 2019, MA2019-03, 210-210.	0.0	1
22	Working Toward Faster Charging Lithium-Ion Cells through Electrolyte Chemistry. ECS Meeting Abstracts, 2019, , .	0.0	0
23	The Effect of Functional Groups and Co-Additives on the Performance of an Electrolyte Additive for Li-Ion Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
24	Corrosion of copper-coated used nuclear fuel containers due to oxygen trapped in a Canadian deep geological repository. Corrosion Engineering Science and Technology, 2018, 53, 309-315.	0.7	15
25	A New Method for Determining the Concentration of Electrolyte Components in Lithium-Ion Cells, Using Fourier Transform Infrared Spectroscopy and Machine Learning. Journal of the Electrochemical Society, 2018, 165, A256-A262.	1.3	35
26	Some Physical Properties of Ethylene Carbonate-Free Electrolytes. Journal of the Electrochemical Society, 2018, 165, A126-A131.	1.3	38
27	Dioxazolone and Nitrile Sulfite Electrolyte Additives for Lithium-Ion Cells. Journal of the Electrochemical Society, 2018, 165, A2961-A2967.	1.3	18
28	Exploring Classes of Co-Solvents for Fast-Charging Lithium-Ion Cells. Journal of the Electrochemical Society, 2018, 165, A2365-A2373.	1.3	62
29	Measuring Oxygen Release from Delithiated LiNi_xMn_yCo_{1-x-y}O₂and Its Effects on the Performance of High Voltage Li-Ion Cells. Journal of the Electrochemical Society, 2017, 164, A3025-A3037.	1.3	34
30	Nature of the near-field environment in a deep geological repository and the implications for the corrosion behaviour of the container. Corrosion Engineering Science and Technology, 2017, 52, 25-30.	0.7	38
31	The corrosion behaviour of candidate container materials for the disposal of high-level waste and spent fuel â€" a summary of the state of the art and opportunities for synergies in future R&D. Corrosion Engineering Science and Technology, 2017, 52, 227-231.	0.7	17
32	An overview of the Canadian corrosion program for the long-term management of nuclear waste. Corrosion Engineering Science and Technology, 2017, 52, 2-5.	0.7	44
33	¹⁹F and³¹P Solid-State NMR Characterization of a Pyridine Pentafluorophosphate-Derived Solid-Electrolyte Interphase. Journal of the Electrochemical Society, 2017, 164, A2171-A2175.	1.3	8
34	The Solid-Electrolyte Interphase Formation Reactions of Ethylene Sulfate and Its Synergistic Chemistry with Prop-1-ene-1,3-Sultone in Lithium-Ion Cells. Journal of the Electrochemical Society, 2017, 164, A3445-A3453.	1.3	30
35	Modelling of radiolytic production of HNO₃ relevant to corrosion of a used fuel container in deep geologic repository environments. Corrosion Engineering Science and Technology, 2017, 52, 141-147.	0.7	19
36	Some Effects of Intentionally Added Water on LiCoO₂/Graphite Pouch Cells. Journal of the Electrochemical Society, 2016, 163, A1678-A1685.	1.3	17

#	Article	IF	Citations
37	Isothermal microcalorimetry as a tool to study solidâ€“electrolyte interphase formation in lithium-ion cells. Physical Chemistry Chemical Physics, 2016, 18, 11383-11390.	1.3	17
38	Studies of the Capacity Fade Mechanisms of LiCoO₂/Si-Alloy: Graphite Cells. Journal of the Electrochemical Society, 2016, 163, A1146-A1156.	1.3	115
39	Some Lewis acid-base adducts involving boron trifluoride as electrolyte additives for lithium ion cells. Journal of Power Sources, 2016, 328, 433-442.	4.0	21
40	Surface-Electrolyte Interphase Formation in Lithium-Ion Cells Containing Pyridine Adduct Additives. Journal of the Electrochemical Society, 2016, 163, A773-A780.	1.3	22
41	(Invited) Investigations into the Chemical Role of Additives in Li-Ion Cells. ECS Meeting Abstracts, 2016, , .	0.0	0
42	Nickel hydroxides and related materials: a review of their structures, synthesis and properties. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140792.	1.0	610
43	The role of prop-1-ene-1,3-sultone as an additive in lithium-ion cells. Journal of Power Sources, 2015, 298, 369-378.	4.0	58
44	Dielectric Constants for Quantum Chemistry and Li-Ion Batteries: Solvent Blends of Ethylene Carbonate and Ethyl Methyl Carbonate. Journal of Physical Chemistry C, 2015, 119, 22322-22330.	1.5	154
45	Applications of in Situ Raman Spectroscopy for Identifying Nickel Hydroxide Materials and Surface Layers during Chemical Aging. ACS Applied Materials & Interfaces, 2014, 6, 3141-3149.	4.0	90
46	An Oxalate Method for Measuring the Surface Area of Nickel Electrodes. Journal of the Electrochemical Society, 2014, 161, H787-H795.	1.3	48
47	The Electrochemistry of Metallic Nickel: Oxides, Hydroxides, Hydrides and Alkaline Hydrogen Evolution. Journal of the Electrochemical Society, 2013, 160, F235-F243.	1.3	226
48	Surface Layers in Alkaline Media: Nickel Hydrides on Metallic Nickel Electrodes. ECS Transactions, 2013, 50, 165-179.	0.3	9
49	Surface Electrochemistry of Uranium Dioxide in Acidic Hydrogen Peroxide Solutions. Materials Research Society Symposia Proceedings, 2012, 1475, 299.	0.1	0
50	Electrochemical reduction of hydrogen peroxide on SIMFUEL (UO2) in acidic pH conditions. Electrochimica Acta, 2012, 83, 410-419.	2.6	17
51	Raman and Infrared Spectroscopy of Î± and Î² Phases of Thin Nickel Hydroxide Films Electrochemically Formed on Nickel. Journal of Physical Chemistry A, 2012, 116, 6771-6784.	1.1	293