Dennis W Dees

List of Publications by Year
in descending order

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48 papers	3,562 citations	136950 32 h-index	206112 48 g-index
49 all docs	49 docs citations	49 times ranked	4002 citing authors

#	Article	IF	Citations
1	Optimizing Areal Capacities through Understanding the Limitations of Lithium-Ion Electrodes. Journal of the Electrochemical Society, 2016, 163, A138-A149.	2.9	472
2	Examining Hysteresis in Composite xLi₂MnO₃Â·(1â€“x)LiMO₂ Cathode Structures. Journal of Physical Chemistry C, 2013, 117, 6525-6536.	3.1	234
3	Analysis of the Galvanostatic Intermittent Titration Technique (GITT) as applied to a lithium-ion porous electrode. Journal of Power Sources, 2009, 189, 263-268.	7.8	232
4	Modeling thermal management of lithium-ion PNGV batteries. Journal of Power Sources, 2002, 110, 349-356.	7.8	182
5	Application of a lithiumâ€“tin reference electrode to determine electrode contributions to impedance rise in high-power lithium-ion cells. Electrochimica Acta, 2004, 49, 4763-4775.	5.2	158
6	Morphological Transitions on Lithium Metal Anodes. Journal of the Electrochemical Society, 2009, 156, A726.	2.9	136
7	Alternating Current Impedance Electrochemical Modeling of Lithium-Ion Positive Electrodes. Journal of the Electrochemical Society, 2005, 152, A1409.	2.9	129
8	Cost and energy demand of producing nickel manganese cobalt cathode material for lithium ion batteries. Journal of Power Sources, 2017, 342, 733-740.	7.8	129
9	Electrochemical modeling of lithium polymer batteries. Journal of Power Sources, 2002, 110, 310-320.	7.8	126
10	Electrode Behavior RE-Visited: Monitoring Potential Windows, Capacity Loss, and Impedance Changes in Li_{1.03}(Ni_{0.5}Co_{0.2}Mn_{0.3})_{0.97}O₂/Silicon-Graphite Full Cells. Journal of the Electrochemical Society, 2016, 163, A875-A887.	2.9	112
11	Low-temperature study of lithium-ion cells using a LiySn micro-reference electrode. Journal of Power Sources, 2007, 174, 373-379.	7.8	98
12	Electrochemical Modeling of Lithium-Ion Positive Electrodes during Hybrid Pulse Power Characterization Tests. Journal of the Electrochemical Society, 2008, 155, A603.	2.9	98
13	Enabling High-Energy, High-Voltage Lithium-Ion Cells: Standardization of Coin-Cell Assembly, Electrochemical Testing, and Evaluation of Full Cells. Journal of the Electrochemical Society, 2016, 163, A2999-A3009.	2.9	95
14	A Volume Averaged Approach to the Numerical Modeling of Phase-Transition Intercalation Electrodes Presented for Li_xC₆. Journal of the Electrochemical Society, 2012, 159, A2029-A2037.	2.9	86
15	Energy impact of cathode drying and solvent recovery during lithium-ion battery manufacturing. Journal of Power Sources, 2016, 322, 169-178.	7.8	84
16	Fast Charging of Li-Ion Cells: Part I. Using Li/Cu Reference Electrodes to Probe Individual Electrode Potentials. Journal of the Electrochemical Society, 2019, 166, A996-A1003.	2.9	79
17	High-energy electrode investigation for plug-in hybrid electric vehicles. Journal of Power Sources, 2011, 196, 1537-1540.	7.8	71
18	Theoretical examination of reference electrodes for lithium-ion cells. Journal of Power Sources, 2007, 174, 1001-1006.	7.8	65

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19	Modeling and analysis of solvent removal during Li-ion battery electrode drying. Journal of Power Sources, 2018, 378, 660-670.	7.8	62
20	Study of a dry room in a battery manufacturing plant using a process model. Journal of Power Sources, 2016, 326, 490-497.	7.8	57
21	Simplified calculation of the area specific impedance for battery design. Journal of Power Sources, 2011, 196, 2289-2297.	7.8	53
22	Effects of lithium difluoro(oxalate)borate on the performance of Li-rich composite cathode in Li-ion battery. Electrochemistry Communications, 2012, 24, 78-81.	4.7	53
23	Cost of automotive lithium-ion batteries operating at high upper cutoff voltages. Journal of Power Sources, 2018, 403, 56-65.	7.8	51
24	Enhanced representations of lithium-ion batteries in power systems models and their effect on the valuation of energy arbitrage applications. Journal of Power Sources, 2017, 342, 279-291.	7.8	50
25	Investigations on high energy lithium-ion batteries with aqueous binder. Electrochimica Acta, 2013, 114, 1-6.	5.2	49
26	Electrochemical Modeling and Performance of a Lithium- and Manganese-Rich Layered Transition-Metal Oxide Positive Electrode. Journal of the Electrochemical Society, 2015, 162, A559-A572.	2.9	44
27	On Leakage Current Measured at High Cell Voltages in Lithium-Ion Batteries. Journal of the Electrochemical Society, 2017, 164, A508-A517.	2.9	44
28	Investigations of Si Thin Films as Anode of Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 3487-3494.	8.0	40
29	A Raman-Based Investigation of the Fate of Li₂MnO₃in Lithium- and Manganese-Rich Cathode Materials for Lithium Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A1255-A1264.	2.9	38
30	Insights into the Role of Interphasial Morphology on the Electrochemical Performance of Lithium Electrodes. Journal of the Electrochemical Society, 2012, 159, A873-A886.	2.9	36
31	Cost savings for manufacturing lithium batteries in a flexible plant. Journal of Power Sources, 2015, 283, 506-516.	7.8	34
32	Apparent Increasing Lithium Diffusion Coefficient with Applied Current in Graphite. Journal of the Electrochemical Society, 2020, 167, 120528.	2.9	34
33	Physical Theory of Voltage Fade in Lithium- and Manganese-Rich Transition Metal Oxides. Journal of the Electrochemical Society, 2015, 162, A897-A904.	2.9	27
34	Electrochemical Modeling the Impedance of a Lithium-Ion Positive Electrode Single Particle. Journal of the Electrochemical Society, 2013, 160, A478-A486.	2.9	25
35	In situ X-ray spatial profiling reveals uneven compression of electrode assemblies and steep lateral gradients in lithium-ion coin cells. Physical Chemistry Chemical Physics, 2020, 22, 21977-21987.	2.8	25
36	Fast Charging of Li-Ion Cells: Part II. Nonlinear Contributions to Cell and Electrode Polarization. Journal of the Electrochemical Society, 2019, 166, A3305-A3313.	2.9	24

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37	Insight into the Structural Evolution of a High-Voltage Spinel for Lithium-Ion Batteries. Chemistry of Materials, 2014, 26, 4750-4756.	6.7	23
38	Examining the Electrochemical Impedance at Low States of Charge in Lithium- and Manganese-Rich Layered Transition-Metal Oxide Electrodes. Journal of the Electrochemical Society, 2015, 162, A1374-A1381.	2.9	22
39	Experimental Observations of Freeâ€Convection Mass Transfer to a Horizontal Surface with a Micromosaic Electrode. Journal of the Electrochemical Society, 1987, 134, 369-377.	2.9	18
40	Graphite Lithiation under Fast Charging Conditions: Atomistic Modeling Insights. Journal of Physical Chemistry C, 2020, 124, 8162-8169.	3.1	18
41	Olivine electrode engineering impact on the electrochemical performance of lithium-ion batteries. Journal of Materials Research, 2010, 25, 1656-1660.	2.6	16
42	Pathways towards managing cost and degradation risk of fast charging cells with electrical and thermal controls. Energy and Environmental Science, 2021, 14, 6564-6573.	30.8	16
43	Mass Transfer at Gas Evolving Surfaces: A Microscopic Study. Journal of the Electrochemical Society, 1987, 134, 1702-1713.	2.9	13
44	Toward standardizing the measurement of electrochemical properties of solid-state electrolytes in lithium batteries. Journal of Power Sources, 2000, 89, 249-255.	7.8	12
45	Estimating the Diffusion Coefficient of Lithium in Graphite: Extremely Fast Charging and a Comparison of Data Analysis Techniques. Journal of the Electrochemical Society, 2021, 168, 070506.	2.9	12
46	Electrochemical Characterization of Lithium and Manganese Rich Composite Material for Lithium Ion Batteries. Journal of the Electrochemical Society, 2013, 160, A950-A954.	2.9	9
47	Nonlinear Conductivities and Electrochemical Performances of LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂Electrodes. Journal of the Electrochemical Society, 2016, 163, A2720-A2724.	2.9	8
48	Theoretical Analysis of a Blockingâ€Electrode Oxygen Sensor for Combustionâ€Gas Streams. Journal of the Electrochemical Society, 1993, 140, 2001-2010.	2.9	5