Gregory J Offer

List of Publications by Year
in descending order

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47	3,179	159585	223800
papers	citations	30 h-index	46 g-index

51	51	51	3066
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Composite Single Particle Lithium-Ion Battery Model Through System Identification. IEEE Transactions on Control Systems Technology, 2022, 30, 1-13.	5.2	8
2	From Atoms to Cells: Multiscale Modeling of LiNi_xMn_yCo_zO₂ Cathodes for Li-Ion Batteries. ACS Energy Letters, 2022, 7, 108-122.	17.4	16
3	Meta-analysis of experimental results for heat capacity and thermal conductivity in lithium-ion batteries: A critical review. Journal of Power Sources, 2022, 522, 230829.	7.8	28
4	Insights into the Role of Silicon and Graphite in the Electrochemical Performance of Silicon/Graphite Blended Electrodes with a Multi-Material Porous Electrode Model. Journal of the Electrochemical Society, 2022, 169, 020568.	2.9	11
5	Lithium-ion battery degradation: how to model it. Physical Chemistry Chemical Physics, 2022, 24, 7909-7922.	2.8	73
6	The Effects of Temperature and Cell Parameters on Lithium-Ion Battery Fast Charging Protocols: A Model-Driven Investigation. Journal of the Electrochemical Society, 2022, 169, 060542.	2.9	7
7	Lithium ion battery degradation: what you need to know. Physical Chemistry Chemical Physics, 2021, 23, 8200-8221.	2.8	330
8	Optimal cell tab design and cooling strategy for cylindrical lithium-ion batteries. Journal of Power Sources, 2021, 492, 229594.	7.8	51
9	Interactions are important: Linking multi-physics mechanisms to the performance and degradation of solid-state batteries. Materials Today, 2021, 49, 145-183.	14.2	51
10	The role of cell geometry when selecting tab or surface cooling to minimise cell degradation. ETransportation, 2020, 5, 100073.	14.8	20
11	Physical Origin of the Differential Voltage Minimum Associated with Lithium Plating in Li-Ion Batteries. Journal of the Electrochemical Society, 2020, 167, 090540.	2.9	33
12	Large-Format Bipolar and Parallel Solid-State Lithium-Metal Cell Stacks: A Thermally Coupled Model-Based Comparative Study. Journal of the Electrochemical Society, 2020, 167, 160555.	2.9	6
13	How to Cool Lithium Ion Batteries: Optimising Cell Design using a Thermally Coupled Model. Journal of the Electrochemical Society, 2019, 166, A2849-A2859.	2.9	39
14	Experimental and numerical analysis to identify the performance limiting mechanisms in solid-state lithium cells under pulse operating conditions. Physical Chemistry Chemical Physics, 2019, 21, 22740-22755.	2.8	14
15	Towards online tracking of the shuttle effect in lithium sulfur batteries using differential thermal voltammetry. Journal of Energy Storage, 2019, 21, 765-772.	8.1	12
16	Localized Swelling Inhomogeneity Detection in Lithium Ion Cells Using Multi-Dimensional Laser Scanning. Journal of the Electrochemical Society, 2019, 166, A27-A34.	2.9	21
17	How Observable Is Lithium Plating? Differential Voltage Analysis to Identify and Quantify Lithium Plating Following Fast Charging of Cold Lithium-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A725-A739.	2.9	131
18	Optimising lithium-ion cell design for plug-in hybrid and battery electric vehicles. Journal of Energy Storage, 2019, 22, 228-238.	8.1	52

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19	Irreversible vs Reversible Capacity Fade of Lithium-Sulfur Batteries during Cycling: The Effects of Precipitation and Shuttle. Journal of the Electrochemical Society, 2018, 165, A6107-A6118.	2.9	45
20	Degradation of thin-film lithium batteries characterised by improved potentiometric measurement of entropy change. Physical Chemistry Chemical Physics, 2018, 20, 11378-11385.	2.8	5
21	An easy-to-parameterise physics-informed battery model and its application towards lithium-ion battery cell design, diagnosis, and degradation. Journal of Power Sources, 2018, 384, 66-79.	7.8	45
22	Tracking degradation in lithium iron phosphate batteries using differential thermal voltammetry. Journal of Power Sources, 2018, 374, 188-195.	7.8	46
23	Modeling the Effects of Thermal Gradients Induced by Tab and Surface Cooling on Lithium Ion Cell Performance. Journal of the Electrochemical Society, 2018, 165, A3169-A3178.	2.9	82
24	Potentiometric measurement of entropy change for lithium batteries. Physical Chemistry Chemical Physics, 2017, 19, 9833-9842.	2.8	48
25	Preventing lithium ion battery failure during high temperatures by externally applied compression. Journal of Energy Storage, 2017, 13, 296-303.	8.1	41
26	Modelling transport-limited discharge capacity of lithium-sulfur cells. Electrochimica Acta, 2016, 219, 502-508.	5.2	58
27	Multi-temperature state-dependent equivalent circuit discharge model for lithium-sulfur batteries. Journal of Power Sources, 2016, 328, 289-299.	7.8	66
28	Extending battery life: A low-cost practical diagnostic technique for lithium-ion batteries. Journal of Power Sources, 2016, 331, 224-231.	7.8	47
29	Real-time monitoring of proton exchange membrane fuel cell stack failure. Journal of Applied Electrochemistry, 2016, 46, 1157-1162.	2.9	9
30	The atomistic structure of yttria stabilised zirconia at 6.7 mol%: an ab initio study. Physical Chemistry Chemical Physics, 2016, 18, 31277-31285.	2.8	15
31	Modelling of Supercapacitors: Factors Influencing Performance. Journal of the Electrochemical Society, 2016, 163, A2475-A2487.	2.9	40
32	A physically meaningful equivalent circuit network model of a lithium-ion battery accounting for local electrochemical and thermal behaviour, variable double layer capacitance and degradation. Journal of Power Sources, 2016, 325, 171-184.	7.8	55
33	A zero dimensional model of lithiumâ€“sulfur batteries during charge and discharge. Physical Chemistry Chemical Physics, 2016, 18, 584-593.	2.8	67
34	Novel application of differential thermal voltammetry as an in-depth state-of-health diagnosis method for lithium-ion batteries. Journal of Power Sources, 2016, 307, 308-319.	7.8	109
35	Understanding the drivers of fleet emission reduction activities of the German car manufacturers. Environmental Innovation and Societal Transitions, 2015, 16, 3-21.	5.5	16
36	Chemical Descriptors of Yttria-Stabilized Zirconia at Low Defect Concentration: An ab Initio Study. Journal of Physical Chemistry A, 2015, 119, 6412-6420.	2.5	16

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37	Lithium sulfur battery nail penetration test under load. Journal of Energy Storage, 2015, 2, 25-29.	8.1	26
38	In-operando high-speed tomography of lithium-ion batteries during thermal runaway. Nature Communications, 2015, 6, 6924.	12.8	494
39	Assessing and comparing German and UK transition policies for electric mobility. Environmental Innovation and Societal Transitions, 2015, 14, 84-100.	5.5	76
40	Differential thermal voltammetry for tracking of degradation in lithium-ion batteries. Journal of Power Sources, 2015, 273, 495-501.	7.8	104
41	Design and testing of a 9.5ÂkWe proton exchange membrane fuel cellâ€“supercapacitor passive hybrid system. International Journal of Hydrogen Energy, 2014, 39, 7885-7896.	7.1	46
42	The effect of thermal gradients on the performance of lithium-ion batteries. Journal of Power Sources, 2014, 247, 1018-1025.	7.8	160
43	Online Measurement of Battery Impedance Using Motor Controller Excitation. IEEE Transactions on Vehicular Technology, 2014, 63, 2557-2566.	6.3	161
44	Coupled thermalâ€“electrochemical modelling of uneven heat generation in lithium-ion battery packs. Journal of Power Sources, 2013, 243, 544-554.	7.8	206
45	Control and energy management strategies for a novel series hybrid. , 2013, , .		0
46	Hydrogen PEMFC system for automotive applications. International Journal of Low-Carbon Technologies, 2012, 7, 28-37.	2.6	33
47	Module design and fault diagnosis in electric vehicle batteries. Journal of Power Sources, 2012, 206, 383-392.	7.8	157