Jianbo Zhang

List of Publications by Year
in descending order

53	4,269	147726 31	189801 50
papers	citations	h-index	g-index

55	55	55	3972
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A review of lithium deposition in lithium-ion and lithium metal secondary batteries. Journal of Power Sources, 2014, 254, 168-182.	4.0	731
2	Electrochemical impedance spectroscopy. Nature Reviews Methods Primers, 2021, 1, .	11.8	308
3	In situ diagnostic of two-phase flow phenomena in polymer electrolyte fuel cells by neutron imaging. Electrochimica Acta, 2005, 50, 2603-2614.	2.6	306
4	On state-of-charge determination for lithium-ion batteries. Journal of Power Sources, 2017, 348, 281-301.	4.0	210
5	Graphical analysis of electrochemical impedance spectroscopy data in Bode and Nyquist representations. Journal of Power Sources, 2016, 309, 82-98.	4.0	207
6	Internal heating of lithium-ion batteries using alternating current based on the heat generation model in frequency domain. Journal of Power Sources, 2015, 273, 1030-1037.	4.0	194
7	Identifying main factors of capacity fading in lithium ion cells using orthogonal design of experiments. Applied Energy, 2016, 163, 201-210.	5.1	174
8	In situ diagnostic of two-phase flow phenomena in polymer electrolyte fuel cells by neutron imaging. Electrochimica Acta, 2006, 51, 2715-2727.	2.6	158
9	Examining temporal and spatial variations of internal temperature in large-format laminated battery with embedded thermocouples. Journal of Power Sources, 2013, 241, 536-553.	4.0	136
10	Simultaneous estimation of thermal parameters for large-format laminated lithium-ion batteries. Journal of Power Sources, 2014, 259, 106-116.	4.0	117
11	Theory of Impedance Response of Porous Electrodes: Simplifications, Inhomogeneities, Non-Stationarities and Applications. Journal of the Electrochemical Society, 2016, 163, A1983-A2000.	1.3	116
12	Non-monotonic Surface Charging Behavior of Platinum: A Paradigm Change. Journal of Physical Chemistry C, 2016, 120, 13587-13595.	1.5	113
13	Editorsâ€™ Choiceâ€”Reviewâ€”Impedance Response of Porous Electrodes: Theoretical Framework, Physical Models and Applications. Journal of the Electrochemical Society, 2020, 167, 166503.	1.3	107
14	Thermal Design for the Pouch-Type Large-Format Lithium-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A181-A191.	1.3	105
15	Temperature-Adaptive Alternating Current Preheating of Lithium-Ion Batteries with Lithium Deposition Prevention. Journal of the Electrochemical Society, 2016, 163, A290-A299.	1.3	101
16	Review of characterization and modeling of polymer electrolyte fuel cell catalyst layer: The blessing and curse of ionomer. Frontiers in Energy, 2017, 11, 334-364.	1.2	85
17	Comparison and validation of methods for estimating heat generation rate of large-format lithium-ion batteries. Journal of Thermal Analysis and Calorimetry, 2014, 117, 447-461.	2.0	79
18	Unifying theoretical framework for deciphering the oxygen reduction reaction on platinum. Physical Chemistry Chemical Physics, 2018, 20, 11776-11786.	1.3	77

#	Article	IF	Citations
19	Dynamic electrochemical impedance spectroscopy reconstructed from continuous impedance measurement of single frequency during charging/discharging. Journal of Power Sources, 2015, 273, 1098-1102.	4.0	64
20	Cycle life prediction of lithium-ion batteries based on data-driven methods. ETransportation, 2021, 10, 100137.	6.8	62
21	An Analytical Three-Scale Impedance Model for Porous Electrode with Agglomerates in Lithium-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A585-A595.	1.3	59
22	Dynamic Electrochemical Impedance Spectroscopy of a Three-Electrode Lithium-Ion Battery during Pulse Charge and Discharge. Electrochimica Acta, 2015, 176, 311-320.	2.6	58
23	Path dependence of lithium ion cells aging under storage conditions. Journal of Power Sources, 2016, 315, 35-46.	4.0	57
24	Exploring Differences between Charge and Discharge of LiMn2O4/Li Half-cell with Dynamic Electrochemical Impedance Spectroscopy. Electrochimica Acta, 2014, 131, 228-235.	2.6	51
25	Accurate and Efficient Estimation of Lithium-Ion Battery State of Charge with Alternate Adaptive Extended Kalman Filter and Ampere-Hour Counting Methods. Energies, 2019, 12, 757.	1.6	50
26	An Agglomerate Model for the Impedance of Secondary Particle in Lithium-Ion Battery Electrode. Journal of the Electrochemical Society, 2014, 161, E3202-E3215.	1.3	47
27	Cell sorting for parallel lithium-ion battery systems: Evaluation based on an electric circuit model. Journal of Energy Storage, 2016, 6, 195-203.	3.9	47
28	Double layer of platinum electrodes: Non-monotonic surface charging phenomena and negative double layer capacitance. Journal of Chemical Physics, 2018, 148, 044704.	1.2	40
29	Potential-Dependent Volcano Plot for Oxygen Reduction: Mathematical Origin and Implications for Catalyst Design. Journal of Physical Chemistry Letters, 2019, 10, 7037-7043.	2.1	40
30	Analytical Solution to the Impedance of Electrode/Electrolyte Interface in Lithium-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A7037-A7048.	1.3	36
31	The Evolution of Lithium-Ion Cell Thermal Safety with Aging Examined in a Battery Testing Calorimeter. Batteries, 2016, 2, 12.	2.1	34
32	Rate dependence of cell-to-cell variations of lithium-ion cells. Scientific Reports, 2016, 6, 35051.	1.6	34
33	Water management characteristics of electrospun micro-porous layer in PEMFC under normal temperature and cold start conditions. International Journal of Hydrogen Energy, 2021, 46, 11150-11159.	3.8	33
34	Probing the Reaction Interface in Liâ€“Oxygen Batteries Using Dynamic Electrochemical Impedance Spectroscopy: Dischargeâ€“Charge Asymmetry in Reaction Sites and Electronic Conductivity. Journal of Physical Chemistry Letters, 2018, 9, 3403-3408.	2.1	24
35	Entropy Coefficient of a Blended Electrode in a Lithium-Ion Cell. Journal of the Electrochemical Society, 2015, 162, A2367-A2371.	1.3	23
36	Theory of electrostatic phenomena in water-filled Pt nanopores. Faraday Discussions, 2016, 193, 427-446.	1.6	23

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37	Particle Proximity Effect in Nanoparticle Electrocatalysis: Surface Charging and Electrostatic Interactions. Journal of Physical Chemistry C, 2017, 121, 4806-4815.	1.5	23
38	Lithium Plating Detection and Quantification in Li-Ion Cells from Degradation Behaviors. ECS Transactions, 2017, 75, 37-50.	0.3	20
39	Freezing Site of Super-Cooled Water and Failure Mechanism of Cold Start of PEFC. Journal of the Electrochemical Society, 2019, 166, F860-F864.	1.3	17
40	Cold start capability and durability of electrospun catalyst layer for proton exchange membrane fuel cell. International Journal of Hydrogen Energy, 2021, 46, 11140-11149.	3.8	16
41	Capacity plunge of lithium-ion batteries induced by electrolyte drying-out: Experimental and Modeling Study. Journal of Energy Storage, 2021, 42, 103013.	3.9	16
42	A comparative degradation study of commercial lithium-ion cells under low-temperature cycling. RSC Advances, 2017, 7, 23157-23163.	1.7	15
43	Alternate Hydrogen Pump Method Enables Start-Up from â^'30Â°C for Graphite-Bipolar-Plate Proton Exchange Membrane Fuel Cells. Journal of the Electrochemical Society, 2019, 166, F1112-F1116.	1.3	11
44	Reliable and Early Warning of Lithium-Ion Battery Thermal Runaway Based on Electrochemical Impedance Spectrum. Journal of the Electrochemical Society, 2021, 168, 090529.	1.3	9
45	An adiabatic cell as a model for stack in PEFC cold start study. International Journal of Hydrogen Energy, 2021, 46, 31391-31399.	3.8	7
46	Thermal management of parallel cells â€" Methodology based on non-linear dynamics. ETransportation, 2022, 13, 100187.	6.8	6
47	Impedance Model of a Water-Filled Pt Nanopore: Interfacial Charging and Chemisorption Effects. Journal of the Electrochemical Society, 2020, 167, 066519.	1.3	4
48	Thermal modelling of large-format laminated Li-ion battery and experimental validation using embedded thermocouples. , 2013, , .		3
49	Rapid and depositionâ€free preheating of lithiumâ€ion cell with square wave current. International Journal of Energy Research, 2022, 46, 13986-14004.	2.2	3
50	Simultaneous Estimation of Multiple Thermal Parameters of Large-Format Laminated Lithium-Ion Batteries. , 2013, , .		2
51	Cold Start of PEMFC using Alternating Hydrogen Pump: Part I. Mechanistic Modeling. Journal of the Electrochemical Society, 0, , .	1.3	2
52	The Study of Resistance Variation between Charging and Discharging Process by Current-Interrupt Technique and Dynamic Electrochemical Impedance Spectroscopy (DEIS). , 2013, , .		0
53	Analysis and proposition of limiting current density measurement protocol. International Journal of Hydrogen Energy, 2022, , .	3.8	0