Haifeng Dai

List of Publications by Citations

115 papers	2,282 citations	27 h-index	45 g-index
145 ext. papers	3,544 ext. citations	7.3 avg, IF	5.86 L-index

#	Paper	IF	Citations
115	Online cell SOC estimation of Li-ion battery packs using a dual time-scale Kalman filtering for EV applications. *Applied Energy*, **2012**, 95, 227-237	10.7	233
114	Building Safe Lithium-Ion Batteries for Electric Vehicles: A Review. *Electrochemical Energy Reviews*, **2020**, 3, 1-42	29.3	182
113	A Critical Review of Wireless Power Transfer via Strongly Coupled Magnetic Resonances. *Energies*, **2014**, 7, 4316-4341	3.1	121
112	A new lithium-ion battery internal temperature on-line estimate method based on electrochemical impedance spectroscopy measurement. *Journal of Power Sources*, **2015**, 274, 990-1004	8.9	99
111	Adaptive model parameter identification for large capacity Li-ion batteries on separated time scales. *Applied Energy*, **2016**, 184, 119-131	10.7	72
110	Estimation of state of health of lithium-ion batteries based on charge transfer resistance considering different temperature and state of charge. *Journal of Energy Storage*, **2019**, 21, 618-631	7.8	65
109	Experimental investigations of an AC pulse heating method for vehicular high power lithium-ion batteries at subzero temperatures. *Journal of Power Sources*, **2017**, 367, 145-157	8.9	64
108	Investigation of lithium-ion battery degradation mechanisms by combining differential voltage analysis and alternating current impedance. *Journal of Power Sources*, **2020**, 448, 227575	8.9	64
107	A review of modeling, acquisition, and application of lithium-ion battery impedance for onboard battery management. *ETransportation*, **2021**, 7, 100093	12.7	62
106	ANFIS (adaptive neuro-fuzzy inference system) based online SOC (State of Charge) correction considering cell divergence for the EV (electric vehicle) traction batteries. *Energy*, **2015**, 80, 350-360	7.9	61
105	Advanced battery management strategies for a sustainable energy future: Multilayer design concepts and research trends. *Renewable and Sustainable Energy Reviews*, **2021**, 138, 110480	16.2	57
104	Adaptive Kalman filtering based internal temperature estimation with an equivalent electrical network thermal model for hard-cased batteries. *Journal of Power Sources*, **2015**, 293, 351-365	8.9	54
103	An alternating current heating method for lithium-ion batteries from subzero temperatures. *International Journal of Energy Research*, **2016**, 40, 1869-1883	4.5	54
102	Impedance Characterization and Modeling of Lithium-Ion Batteries Considering the Internal Temperature Gradient. *Energies*, **2018**, 11, 220	3.1	50
101	An online SOC and capacity estimation method for aged lithium-ion battery pack considering cell inconsistency. *Journal of Energy Storage*, **2020**, 29, 101250	7.8	41
100	Studies on the medium-frequency impedance arc for Lithium-ion batteries considering various alternating current amplitudes. *Journal of Applied Electrochemistry*, **2016**, 46, 157-167	2.6	41
99	Joint estimation of lithium-ion battery state of charge and capacity within an adaptive variable multi-timescale framework considering current measurement offset. *Applied Energy*, **2019**, 253, 113619	10.7	41

98	A novel modeling methodology of open circuit voltage hysteresis for LiFePO4 batteries based on an adaptive discrete Preisach model. *Applied Energy*, **2015**, 155, 91-109	10.7	40
97	A new method of accelerated life testing based on the Grey System Theory for a model-based lithium-ion battery life evaluation system. *Journal of Power Sources*, **2014**, 267, 366-379	8.9	40
96	Cell-BMS validation with a hardware-in-the-loop simulation of lithium-ion battery cells for electric vehicles. *International Journal of Electrical Power and Energy Systems*, **2013**, 52, 174-184	5.1	40
95	Model-based observers for internal states estimation and control of proton exchange membrane fuel cell system: A review. *Journal of Power Sources*, **2020**, 468, 228376	8.9	39
94	A Capacity Fading Model of Lithium-Ion Battery Cycle Life Based on the Kinetics of Side Reactions for Electric Vehicle Applications. *Electrochimica Acta*, **2014**, 133, 107-116	6.7	39
93	Incremental capacity analysis based adaptive capacity estimation for lithium-ion battery considering charging condition. *Applied Energy*, **2020**, 269, 115074	10.7	38
92	Design and Control of a 3 kW Wireless Power Transfer System for Electric Vehicles. *Energies*, **2016**, 9, 10	3.1	35
91	An improved electro-thermal battery model complemented by current dependent parameters for vehicular low temperature application. *Applied Energy*, **2019**, 248, 149-161	10.7	33
90	Online SOC Estimation of High-power Lithium-ion Batteries Used on HEVs **2006**,		33
89	State of charge estimation for lithium-ion pouch batteries based on stress measurement. *Energy*, **2017**, 129, 16-27	7.9	31
88	A new electrochemical impedance spectroscopy model of a high-power lithium-ion battery. *RSC Advances*, **2014**, 4, 29988-29998	3.7	25
87	Deep reinforcement learning-based energy management of hybrid battery systems in electric vehicles. *Journal of Energy Storage*, **2021**, 36, 102355	7.8	23
86	Internal short circuit mechanisms, experimental approaches and detection methods of lithium-ion batteries for electric vehicles: A review. *Renewable and Sustainable Energy Reviews*, **2021**, 141, 110790	16.2	23
85	A novel model-based internal state observer of a fuel cell system for electric vehicles using improved Kalman filter approach. *Applied Energy*, **2020**, 268, 115009	10.7	22
84	Battery Internal Temperature Estimation for LiFePO4 Battery Based on Impedance Phase Shift under Operating Conditions. *Energies*, **2017**, 10, 60	3.1	22
83	Practical On-Board Measurement of Lithium Ion Battery Impedance Based on Distributed Voltage and Current Sampling. *Energies*, **2018**, 11, 64	3.1	19
82	Lithium-ion battery temperature on-line estimation based on fast impedance calculation. *Journal of Energy Storage*, **2019**, 26, 100952	7.8	18
81	Lithium plating on the anode for lithium-ion batteries during long-term low temperature cycling. *Journal of Power Sources*, **2021**, 484, 229312	8.9	18

80	Cloud-based health-conscious energy management of hybrid battery systems in electric vehicles with deep reinforcement learning. *Applied Energy*, **2021**, 293, 116977	10.7	16
79	A novel dual-inductor based charge equalizer for traction battery cells of electric vehicles. *International Journal of Electrical Power and Energy Systems*, **2015**, 67, 627-638	5.1	15
78	Online Reliable Peak Charge/Discharge Power Estimation of Series-Connected Lithium-Ion Battery Packs. *Energies*, **2017**, 10, 390	3.1	14
77	State and Parameter Estimation of a HEV Li-ion Battery Pack Using Adaptive Kalman Filter with a New SOC-OCV Concept **2009**,		14
76	Estimate state of charge of power lithium-ion batteries used on fuel cell hybrid vehicle with method based on extended Kalman filtering. *Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering*, **2007**, 43, 92	1.3	14
75	Investigation of capacity fade for 18650-type lithium-ion batteries cycled in different state of charge (SoC) ranges. *Journal of Power Sources*, **2021**, 489, 229422	8.9	13
74	Recursive Parameter Identification of Lithium-Ion Battery for EVs Based on Equivalent Circuit Model. *Journal of Computational and Theoretical Nanoscience*, **2013**, 10, 2813-2818	0.3	12
73	State Estimation of Lithium Ion Battery Based on Electrochemical Impedance Spectroscopy with On-Board Impedance Measurement System **2015**,		11
72	Internal polarization process revelation of electrochemical impedance spectroscopy of proton exchange membrane fuel cell by an impedance dimension model and distribution of relaxation times. *Chemical Engineering Journal*, **2021**, 418, 129358	14.7	11
71	Remaining discharge energy estimation for lithium-ion batteries based on future load prediction considering temperature and ageing effects. *Energy*, **2022**, 238, 121754	7.9	11
70	A Semi-Empirical Capacity Degradation Model of EV Li-Ion Batteries Based on Eyring Equation **2013** ,		10
69	Multi-objective optimization design for a double-direction liquid heating system-based Cell-to-Chassis battery module. *International Journal of Heat and Mass Transfer*, **2022**, 183, 122184	4.9	10
68	Comprehensive Investigation of a Slight Overcharge on Degradation and Thermal Runaway Behavior of Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2021**, 13, 35054-35068	9.5	10
67	Estimation of Internal States of Power Lithium-ion Batteries Used on Electric Vehicles by Dual Extended Kalman Filter. *Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering*, **2009**, 45, 95	1.3	9
66	A simplification of the time-domain equivalent circuit model for lithium-ion batteries based on low-frequency electrochemical impedance spectra. *Journal of Power Sources*, **2021**, 489, 229505	8.9	9
65	A State of Health Estimation Method for Lithium-Ion Batteries Based on Voltage Relaxation Model. *Energies*, **2019**, 12, 1349	3.1	8
64	A Remaining Discharge Energy Prediction Method for Lithium-Ion Battery Pack Considering SOC and Parameter Inconsistency. *Energies*, **2019**, 12, 987	3.1	8
63	Nested three-layer optimisation method for magnetic coils used in 3 kW vehicle-mounted wireless power transfer system. *IET Power Electronics*, **2016**, 9, 2562-2570	2.2	8

62	Online quantitative diagnosis of internal short circuit for lithium-ion batteries using incremental capacity method. *Energy*, **2022**, 243, 123082	7.9	8
61	A fuzzy extend state observer-based cascade decoupling controller of air supply for vehicular fuel cell system. *Energy Conversion and Management*, **2021**, 236, 114080	10.6	8
60	A fuzzy logic PI control with feedforward compensation for hydrogen pressure in vehicular fuel cell system. *International Journal of Hydrogen Energy*, **2021**, 46, 5714-5728	6.7	8
59	Research on Novel Flexible High-Saturation Nanocrystalline Cores for Wireless Charging Systems of Electric Vehicles. *IEEE Transactions on Industrial Electronics*, **2021**, 68, 8310-8320	8.9	8
58	Understanding dynamic behavior of proton exchange membrane fuel cell in the view of internal dynamics based on impedance. *Chemical Engineering Journal*, **2022**, 431, 134035	14.7	7
57	Research progress of heat transfer inside proton exchange membrane fuel cells. *Journal of Power Sources*, **2021**, 492, 229613	8.9	7
56	A Novel System for Measuring Alternating Current Impedance Spectra of Series-Connected Lithium-Ion Batteries With a High-Power Dual Active Bridge Converter and Distributed Sampling Units. *IEEE Transactions on Industrial Electronics*, **2021**, 68, 7380-7390	8.9	7
55	Principle Elaboration and System Structure Validation of Wireless Power Transfer via Strongly Coupled Magnetic Resonances **2013**,		6
54	A novel classification method of commercial lithium-ion battery cells based on fast and economic detection of self-discharge rate. *Journal of Power Sources*, **2020**, 478, 229039	8.9	6
53	A Self-Tuning LCC/LCC System Based on Switch-Controlled Capacitors for Constant-Power Wireless Electric Vehicle Charging. *IEEE Transactions on Industrial Electronics*, **2022**, 1-1	8.9	6
52	Low-Temperature Separating Lithium-Ion Battery Interfacial Polarization Based on Distribution of Relaxation Times (DRT) of Impedance. *IEEE Transactions on Transportation Electrification*, **2021**, 7, 410-421	7.6	5
51	Online impedance spectrum measurement of fuel cells based on Morlet wavelet transform. *International Journal of Hydrogen Energy*, **2021**, 46, 24339-24352	6.7	5
50	Quantitative analysis of internal polarization dynamics for polymer electrolyte membrane fuel cell by distribution of relaxation times of impedance. *Applied Energy*, **2021**, 303, 117640	10.7	5
49	Design of the LCC-SP Topology With a Current Doubler for 11-kW Wireless Charging System of Electric Vehicles. *IEEE Transactions on Transportation Electrification*, **2021**, 7, 2128-2142	7.6	5
48	Revealing the Impact of Slight Electrical Abuse on the Thermal Safety Characteristics for Lithium-Ion Batteries. *ACS Applied Energy Materials*,	6.1	4
47	Numerical analysis of static and dynamic heat transfer behaviors inside proton exchange membrane fuel cell. *Journal of Power Sources*, **2021**, 488, 229419	8.9	4
46	Study on Power Ratio Between the Front Motor and Rear Motor of Distributed Drive Electric Vehicle Based on Energy Efficiency Optimization **2016**,		4
45	Fault Identification and Quantitative Diagnosis Method for Series-Connected Lithium-Ion Battery Packs Based on Capacity Estimation. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	4

44	Unlocking the thermal safety evolution of lithium-ion batteries under shallow over-discharge. *Journal of Power Sources*, **2022**, 521, 230990	8.9	3
43	Multi-kernel Relevance Vector Machine with Parameter Optimization for Cycling Aging Prediction of Lithium-ion Batteries. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2021**, 1-1	5.6	3
42	The Aging Law of Low Temperature Charging of Lithium-Ion Battery		3
41	A Hardware-in-the-Loop System for Development of Automotive Battery Management System. *Lecture Notes in Electrical Engineering*, **2012**, 27-36	0.2	3
40	Multi-objective optimization design and experimental investigation for a parallel liquid cooling-based Lithium-ion battery module under fast charging. *Applied Thermal Engineering*, **2022**, 211, 118503	5.8	3
39	Data-driven capacity estimation of commercial lithium-ion batteries from voltage relaxation.. *Nature Communications*, **2022**, 13, 2261	17.4	3
38	A Method for Remaining Discharge Energy Prediction of Lithium-Ion Batteries Based on Terminal Voltage Prediction Model **2017**,		2
37	Lithium-Ion Battery Internal Resistance Model Based on the Porous Electrode Theory **2014**,		2
36	Research on 11kW Wireless Charging System for Electric Vehicle Based on LCC-SP Topology and Current Doubler **2020**,		2
35	Impedance Modeling and Aging Research of the Lithium-Ion Batteries Using the EIS Technique		2
34	Study on the Constant Voltage, Current and Current Ramping Cold Start Modes of Proton Exchange Membrane Fuel Cell		2
33	Determination of Optimal Indicators Based on Statistical Analysis for the State of Health Estimation of a Lithium-Ion Battery. *Frontiers in Energy Research*, **2021**, 9,	3.8	2
32	Fast Calculation of Broadband Battery Impedance Spectra based on S Transform of Step Disturbance and Response. *IEEE Transactions on Transportation Electrification*, **2022**, 1-1	7.6	2
31	Multiscale investigation of discharge rate dependence of capacity fade for lithium-ion battery. *Journal of Power Sources*, **2022**, 536, 231516	8.9	2
30	Parameter Identification of Battery Pack Considering Cell Inconsistency **2017**,		1
29	A Simulation of Lithium-Ion Battery Ohmic Resistance Identification **2013**,		1
28	Preliminary Study on the Influence of Internal Temperature Gradient on EIS Measurement and Characterization for Li-Ion Batteries **2015**,		1
27	A Lithium-Ion Battery Optimized Equivalent Circuit Model based on Electrochemical Impedance Spectroscopy **2015**,		1

26	A Novel ZSB-PAM Power Regulation Method Applied in Wireless Charging System for Vehicular Power Batteries. *SAE International Journal of Alternative Powertrains*, **2015**, 4, 326-335	2	1
25	Analysis on the Influence of Measurement Precision of the Battery Management System on the State of Charge Estimation **2010**,		1
24	Design and implementation of RLS identification algorithm based on FPGA **2009**,		1
23	A Comparative Study of Equivalent Circuit Models for Electro-Chemical Impedance Spectroscopy Analysis of Proton Exchange Membrane Fuel Cells. *Energies*, **2022**, 15, 386	3.1	1
22	Voltammetric and galvanostatic methods for measuring hydrogen crossover in fuel cell.. *IScience*, **2022**, 25, 103576	6.1	1
21	Lithium-ion battery capacity estimation based on open circuit voltage identification using the iteratively reweighted least squares at different aging levels. *Journal of Energy Storage*, **2021**, 44, 103487	7.8	1
20	Study on the thermal transient of cathode catalyst layer in proton exchange membrane fuel cell under dynamic loading with a two-dimensional model. *Chemical Engineering Journal*, **2021**, 133667	14.7	1
19	Investigation of the thermal responses under gas channel and land inside proton exchange membrane fuel cell with assembly pressure. *Applied Energy*, **2022**, 308, 118377	10.7	1
18	Parameter Identification for a Proton Exchange Membrane Fuel Cell Model		1
17	A fault diagnosis model for proton exchange membrane fuel cell based on impedance identification with differential evolution algorithm. *International Journal of Hydrogen Energy*, **2021**, 46, 38795-38808	6.7	1
16	A novel dual time scale life prediction method for lithium-ion batteries considering effects of temperature and state of charge. *International Journal of Energy Research*, **2021**, 45, 14692-14709	4.5	1
15	State of Charge Estimation for Lithium-Ion Batteries Based on Stress Measurement **2016**,		1
14	Quantitative Analysis of Degradation Modes of Lithium-Ion Battery under Different Operating Conditions. *Energies*, **2021**, 14, 350	3.1	1
13	Charging Strategy Optimization at Low Temperatures for Li-ion Batteries Based on Multi-Factor Coupling Aging Model. *IEEE Transactions on Vehicular Technology*, **2021**, 1-1	6.8	1
12	Experimental and modeling analysis of thermal runaway for LiNi0.5Mn0.3Co0.2O2/graphite pouch cell under adiabatic condition. *International Journal of Energy Research*, **2021**, 45, 10667-10681	4.5	1
11	Experimental investigations on the performance of mini-channel evaporator refrigeration system for thermal management of power batteries. *International Journal of Refrigeration*, **2021**, 130, 117-127	3.8	1
10	Investigating the critical characteristics of thermal runaway process for LiFePO/graphite batteries by a ceased segmented method. *IScience*, **2021**, 24, 103088	6.1	1
9	Intelligent health states recognition of fuel cell by cell voltage consistency under typical operating parameters. *Applied Energy*, **2022**, 305, 117735	10.7	1

8	Accurate state of charge prediction for real-world battery systems using a novel dual-dropout-based neural network. *Energy*, **2022**, 250, 123853	7.9	1
7	Toward safe carbon-neutral transportation: Battery internal short circuit diagnosis based on cloud data for electric vehicles. *Applied Energy*, **2022**, 317, 119168	10.7	1
6	Battery Capacity Estimation Based on Incremental Capacity Analysis Considering Charging Current Rate. *World Electric Vehicle Journal*, **2021**, 12, 224	2.5	0
5	Investigation on Cell Performance and Inconsistency Evolution of Series and Parallel Lithium-Ion Battery Modules. *Energy Technology*, **2021**, 9, 2100072	3.5	0
4	A cell-to-pack state estimation extension method based on a multilayer difference model for series-connected battery packs. *IEEE Transactions on Transportation Electrification*, **2021**, 1-1	7.6	0
3	A new insight into the effects of agglomerate parameters on internal dynamics of proton exchange membrane fuel cell by an advanced impedance dimension model. *Energy*, **2022**, 253, 124202	7.9	0
2	Advanced Online Broadband Impedance Spectrum Acquisition of Fuel Cells by S-transform. *IEEE Transactions on Industrial Electronics*, **2022**, 1-1	8.9	0
1	A Self-Tuning LCC/SP System for Electric Vehicle Wireless Charging against Large Self- and Mutual Inductance Variations. *Energies*, **2022**, 15, 3980	3.1	