

Daniel Ioan Stroe

List of Publications by Year in descending order

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143
papers

5,335
citations

101543

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times ranked

3430
citing authors

#	ARTICLE	IF	CITATIONS
1	Lifetime Extension of Lithium-Ion Batteries With Low-Frequency Pulsed Current Charging. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2023, 11, 57-66.	5.4	14
2	An Enhanced Equivalent Circuit Model With Real-Time Parameter Identification for Battery State-of-Charge Estimation. IEEE Transactions on Industrial Electronics, 2022, 69, 3743-3751.	7.9	91
3	An Automatic Weak Learner Formulation for Lithium-Ion Battery State of Health Estimation. IEEE Transactions on Industrial Electronics, 2022, 69, 2659-2668.	7.9	40
4	Improved covariance matching electrical equivalent modeling for accurate internal state characterization of packing lithium-ion batteries. International Journal of Energy Research, 2022, 46, 3602-3620.	4.5	6
5	Effect of Pulsed Current on Charging Performance of Lithium-Ion Batteries. IEEE Transactions on Industrial Electronics, 2022, 69, 10144-10153.	7.9	24
6	A novel collaborative multiscale weighting factor adaptive Kalman filtering method for the time-varying whole-life-cycle state of charge estimation of lithium-ion batteries. International Journal of Energy Research, 2022, 46, 7704-7721.	4.5	7
7	Literature Review, Recycling of Lithium-Ion Batteries from Electric Vehicles, Part I: Recycling Technology. Energies, 2022, 15, 1086.	3.1	25
8	A novel feedback correction-adaptive Kalman filtering method for the whole-life-cycle state of charge and closed-circuit voltage prediction of lithium-ion batteries based on the second-order electrical equivalent circuit model. International Journal of Electrical Power and Energy Systems, 2022, 139, 108020.	5.5	34
9	Transfer Learning for Adapting Battery State-of-Health Estimation From Laboratory to Field Operation. IEEE Access, 2022, 10, 26514-26528.	4.2	9
10	Capacity State-of-Health Estimation of Electric Vehicle Batteries Using Machine Learning and Impedance Measurements. Electronics (Switzerland), 2022, 11, 1414.	3.1	4
11	Analysis of 3.4 Ah lithium-sulfur pouch cells by electrochemical impedance spectroscopy. Journal of Energy Chemistry, 2022, 72, 318-325.	12.9	23
12	Understanding the mechanism of capacity increase during early cycling of commercial NMC/graphite lithium-ion batteries. Journal of Energy Chemistry, 2022, 74, 34-44.	12.9	45
13	Recent Health Diagnosis Methods for Lithium-Ion Batteries. Batteries, 2022, 8, 72.	4.5	7
14	Data efficient health prognostic for batteries based on sequential information-driven probabilistic neural network. Applied Energy, 2022, 323, 119663.	10.1	43
15	Novel Fitting Algorithm for Parametrization of Equivalent Circuit Model of Li-Ion Battery From Broadband Impedance Measurements. IEEE Transactions on Industrial Electronics, 2021, 68, 4916-4926.	7.9	37
16	On the feature selection for battery state of health estimation based on charging-discharging profiles. Journal of Energy Storage, 2021, 33, 102122.	8.1	77
17	Battery state-of-energy prediction methods. , 2021, , 199-226.		1
18	Electrical equivalent circuit modeling. , 2021, , 47-94.		2

#	ARTICLE	IF	CITATIONS
19	Battery state-of-charge estimation methods. , 2021, , 157-198.		0
20	Battery system active control strategies. , 2021, , 313-340.		2
21	Battery state-of-health estimation methods. , 2021, , 255-311.		0
22	Battery state-of-health modelling by multiple linear regression. Journal of Cleaner Production, 2021, 290, 125700.	9.3	50
23	Incremental Capacity Analysis Applied on Electric Vehicles for Battery State-of-Health Estimation. IEEE Transactions on Industry Applications, 2021, 57, 1810-1817.	4.9	50
24	The Degradation Behavior of LiFePO ₄ /C Batteries during Long-Term Calendar Aging. Energies, 2021, 14, 1732.	3.1	31
25	An auto-regressive model for battery voltage prediction. , 2021, , .		0
26	Effects of open-circuit voltage tests and models on state-of-charge estimation for batteries in highly variable temperature environments: Study case nano-satellites. Journal of Power Sources, 2021, 498, 229913.	7.8	25
27	An improved coulomb counting method based on dual open-circuit voltage and real-time evaluation of battery dischargeable capacity considering temperature and battery aging. International Journal of Energy Research, 2021, 45, 17609-17621.	4.5	31
28	Lithium-Ion Battery Operation, Degradation, and Aging Mechanism in Electric Vehicles: An Overview. Energies, 2021, 14, 5220.	3.1	33
29	Fuzzy Entropy-Based State of Health Estimation for Li-Ion Batteries. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 5125-5137.	5.4	29
30	A review of non-probabilistic machine learning-based state of health estimation techniques for Lithium-ion battery. Applied Energy, 2021, 300, 117346.	10.1	158
31	Electrochemical Nernst modeling. , 2021, , 95-124.		1
32	Battery state-of-power evaluation methods. , 2021, , 227-254.		0
33	Fast and Robust Estimation of Lithium-ion Batteries State of Health Using Ensemble Learning. , 2021, , .		4
34	Calendar Degradation and Self-Discharge Occurring During Short- and Long-Term Storage of NMC Based Lithium-Ion Batteries. ECS Transactions, 2021, 105, 3-11.	0.5	3
35	Overview of Machine Learning Methods for Lithium-Ion Battery Remaining Useful Lifetime Prediction. Electronics (Switzerland), 2021, 10, 3126.	3.1	27
36	Overview of Methods for Battery Lifetime Extension. , 2021, , .		1

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37	A novel power state evaluation method for the lithium battery packs based on the improved external measurable parameter coupling model. <i>Journal of Cleaner Production</i> , 2020, 242, 118506.	9.3	14
38	Fast Approach for Battery Impedance Identification Using Pseudo-Random Sequence Signals. <i>IEEE Transactions on Power Electronics</i> , 2020, 35, 2548-2557.	7.9	81
39	A novel energy management strategy for the ternary lithium batteries based on the dynamic equivalent circuit modeling and differential Kalman filtering under time-varying conditions. <i>Journal of Power Sources</i> , 2020, 450, 227652.	7.8	28
40	Lithium-Ion Battery State-of-Health Estimation Using the Incremental Capacity Analysis Technique. <i>IEEE Transactions on Industry Applications</i> , 2020, 56, 678-685.	4.9	114
41	Lithium-ion Battery State of Health Estimation Using Empirical Mode Decomposition Sample Entropy and Support Vector Machine. , 2020, , .		5
42	State-of-health estimation of lithium-ion batteries based on semi-supervised transfer component analysis. <i>Applied Energy</i> , 2020, 277, 115504.	10.1	85
43	Log-Linear Model for Predicting the Lithium-ion Battery Age Based on Resistance Extraction from Dynamic Aging Profiles. <i>IEEE Transactions on Industry Applications</i> , 2020, 56, 6937-6948.	4.9	9
44	A Review of Battery Technology in CubeSats and Small Satellite Solutions. <i>Energies</i> , 2020, 13, 4097.	3.1	34
45	Wireless Smart Battery Management System for Electric Vehicles. , 2020, , .		22
46	Comparative Study of State of Charge Estimation Under Different Open Circuit Voltage Test Conditions for Lithium-Ion Batteries. , 2020, , .		1
47	Multiobjective Optimization of Data-Driven Model for Lithium-Ion Battery SOH Estimation With Short-Term Feature. <i>IEEE Transactions on Power Electronics</i> , 2020, 35, 11855-11864.	7.9	100
48	A Review of Pulsed Current Technique for Lithium-ion Batteries. <i>Energies</i> , 2020, 13, 2458.	3.1	45
49	An optimized ensemble learning framework for lithium-ion Battery State of Health estimation in energy storage system. <i>Energy</i> , 2020, 206, 118140.	8.8	75
50	An Improved State of Charge and State of Power Estimation Method Based on Genetic Particle Filter for Lithium-ion Batteries. <i>Energies</i> , 2020, 13, 478.	3.1	30
51	Recursive State of Charge and State of Health Estimation Method for Lithium-Ion Batteries Based on Coulomb Counting and Open Circuit Voltage. <i>Energies</i> , 2020, 13, 1811.	3.1	54
52	An Accurate Time Constant Parameter Determination Method for the Varying Condition Equivalent Circuit Model of Lithium Batteries. <i>Energies</i> , 2020, 13, 2057.	3.1	21
53	The Effect of Pulsed Current on the Performance of Lithium-ion Batteries. , 2020, , .		9
54	Broadband Impedance Measurement of Lithium-Ion Battery in the Presence of Nonlinear Distortions. <i>Energies</i> , 2020, 13, 2493.	3.1	17

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55	Development of a Model-Based Approach to Capture Battery Parameter Degradation in Satellites. ECS Transactions, 2020, 99, 341-349.	0.5	0
56	Fuzzy Entropy-Based State of Health Estimation of LiFePO4 Batteries Considering Temperature Variation. , 2020, , .		1
57	Data smoothing in Fuzzy Entropy-based Battery State of Health Estimation. , 2020, , .		1
58	SOH analysis of Li-ion battery based on ECM parameters and broadband impedance measurements. , 2020, , .		6
59	A Time-Varying Log-linear Model for Predicting the Resistance of Lithium-ion Batteries. , 2020, , .		0
60	State of Health Estimation for Lithium-ion Battery Using Fuzzy Entropy and Support Vector Machine. , 2020, , .		1
61	Electrochemical Impedance Spectroscopy-Based Electric Circuit Modeling of Lithium-Sulfur Batteries During a Discharging State. IEEE Transactions on Industry Applications, 2019, 55, 631-637.	4.9	23
62	A review of sliding mode observers based on equivalent circuit model for battery SoC estimation. , 2019, , .		7
63	Lithium-ion battery state-of-health estimation in electric vehicle using optimized partial charging voltage profiles. Energy, 2019, 185, 1054-1062.	8.8	63
64	The Effect of Voltage Dataset Selection on the Accuracy of Entropy-Based Capacity Estimation Methods for Lithium-Ion Batteries. Applied Sciences (Switzerland), 2019, 9, 4170.	2.5	11
65	Calendar Aging Lifetime Model for NMC-based Lithium-ion Batteries Based on EIS Measurements. , 2019, , .		5
66	Partial Charging Method for Lithium-Ion Battery State-of-Health Estimation. , 2019, , .		6
67	Incremental Capacity Analysis for Electric Vehicle Battery State-of-Health Estimation. , 2019, , .		4
68	Comparative Study of Ramp-Rate Control Algorithms for PV with Energy Storage Systems. Energies, 2019, 12, 1342.	3.1	78
69	A Novel Control Architecture for Hybrid Power Plants to Provide Coordinated Frequency Reserves. Energies, 2019, 12, 919.	3.1	12
70	Novel online fitting algorithm for impedance-based state estimation of Li-ion batteries. , 2019, , .		7
71	Optimization of the discharge cut-off voltage in LiFePO4 battery packs. , 2019, , .		0
72	Validating Performance Models for Hybrid Power Plant Control Assessment. Energies, 2019, 12, 4330.	3.1	9

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73	Battery Lifetime Analysis for Residential PV-Battery System used to Optimize the Self Consumption - A Danish Scenario. , 2019, , .		12
74	An evolutionary framework for lithium-ion battery state of health estimation. Journal of Power Sources, 2019, 412, 615-622.	7.8	80
75	A Novel Multiple Correction Approach for Fast Open Circuit Voltage Prediction of Lithium-Ion Battery. IEEE Transactions on Energy Conversion, 2019, 34, 1115-1123.	5.2	37
76	A Simplified Model-Based State-of-Charge Estimation Approach for Lithium-Ion Battery With Dynamic Linear Model. IEEE Transactions on Industrial Electronics, 2019, 66, 7717-7727.	7.9	140
77	An Overview and Comparison of Online Implementable SOC Estimation Methods for Lithium-Ion Battery. IEEE Transactions on Industry Applications, 2018, 54, 1583-1591.	4.9	237
78	Technical Viability of Battery Second Life: A Study From the Ageing Perspective. IEEE Transactions on Industry Applications, 2018, 54, 2703-2713.	4.9	145
79	Degradation Behavior of Lithium-Ion Batteries During Calendar Ageingâ€”The Case of the Internal Resistance Increase. IEEE Transactions on Industry Applications, 2018, 54, 517-525.	4.9	88
80	Battery Storage-Based Frequency Containment Reserves in Large Wind Penetrated Scenarios: A Practical Approach to Sizing. Energies, 2018, 11, 3065.	3.1	22
81	Test Platform for Photovoltaic Systems with Integrated Battery Energy Storage Applications. , 2018, , .		2
82	Power and Energy Management with Battery Storage for a Hybrid Residential PV-Wind System â€” A Case Study for Denmark. Energy Procedia, 2018, 155, 464-477.	1.8	50
83	SOH Estimation of LMO/NMC-based Electric Vehicle Lithium-Ion Batteries Using the Incremental Capacity Analysis Technique. , 2018, , .		12
84	Comparison of lithium-ion battery performance at beginning-of-life and end-of-life. Microelectronics Reliability, 2018, 88-90, 1251-1255.	1.7	36
85	Lithium-ion battery state of health estimation with short-term current pulse test and support vector machine. Microelectronics Reliability, 2018, 88-90, 1216-1220.	1.7	104
86	Reference Performance Test Methodology for Degradation Assessment of Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2018, 165, A1601-A1609.	2.9	14
87	Battery second life: Hype, hope or reality? A critical review of the state of the art. Renewable and Sustainable Energy Reviews, 2018, 93, 701-718.	16.4	242
88	Overview of Lithium-Ion Battery Modeling Methods for State-of-Charge Estimation in Electrical Vehicles. Applied Sciences (Switzerland), 2018, 8, 659.	2.5	194
89	Influence of Battery Parametric Uncertainties on the State-of-Charge Estimation of Lithium Titanate Oxide-Based Batteries. Energies, 2018, 11, 795.	3.1	14
90	State-of-Health Estimation of Lithium-Ion Batteries Based on Partial Charging Voltage Profiles. ECS Transactions, 2018, 85, 379-386.	0.5	10

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91	Experimental Study on Calendaristic Degradation and Self-Discharge of 3.4 Ah Lithium-Sulfur Pouch Cells. ECS Transactions, 2018, 85, 267-273.	0.5	2
92	Concurrent Real-Time Estimation of State of Health and Maximum Available Power in Lithium-Sulfur Batteries. Energies, 2018, 11, 2133.	3.1	11
93	Low-complexity online estimation for LiFePO ₄ battery state of charge in electric vehicles. Journal of Power Sources, 2018, 395, 280-288.	7.8	55
94	Methodology for Assessing the Lithium-Sulfur Battery Degradation for Practical Applications. ECS Transactions, 2017, 77, 479-490.	0.5	7
95	Incremental Capacity Analysis of a Lithium-Ion Battery Pack for Different Charging Rates. ECS Transactions, 2017, 77, 403-412.	0.5	19
96	Lithium-ion battery dynamic model for wide range of operating conditions. , 2017, , .		23
97	An overview of online implementable SOC estimation methods for Lithium-ion batteries. , 2017, , .		14
98	Self-balancing feature of Lithium-Sulfur batteries. Journal of Power Sources, 2017, 372, 245-251.	7.8	10
99	Thermal Behavior and Heat Generation Modeling of Lithium Sulfur Batteries. ECS Transactions, 2017, 77, 467-476.	0.5	5
100	Lithium-ion battery power degradation modelling by electrochemical impedance spectroscopy. IET Renewable Power Generation, 2017, 11, 1136-1141.	3.1	33
101	Operation of a Grid-Connected Lithium-Ion Battery Energy Storage System for Primary Frequency Regulation: A Battery Lifetime Perspective. IEEE Transactions on Industry Applications, 2017, 53, 430-438.	4.9	257
102	Electrothermal impedance spectroscopy as a cost efficient method for determining thermal parameters of lithium ion batteries: Prospects, measurement methods and the state of knowledge. Journal of Cleaner Production, 2017, 155, 63-71.	9.3	25
103	Accelerated aging of Lithium-ion batteries based on electric vehicle mission profile. , 2017, , .		19
104	Functional assessment of battery management system tested on hardware-in-the-loop simulator. , 2017, , .		0
105	Calendar ageing of LiFePO ₄ /C batteries in the second life applications. , 2017, , .		5
106	Electric circuit modeling of lithium-sulfur batteries during discharging state. , 2017, , .		3
107	Transferring the Incremental Capacity Analysis to Lithium-Sulfur Batteries. ECS Transactions, 2017, 77, 1919-1927.	0.5	2
108	Generalized Characterization Methodology for Performance Modelling of Lithium-Ion Batteries. Batteries, 2016, 2, 37.	4.5	71

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109	A comprehensive study on the degradation of lithium-ion batteries during calendar ageing: The internal resistance increase. , 2016, , .		13
110	Performance degradation of thermal parameters during cycle ageing of high energy density Ni-Mn-Co based Lithium-Ion battery cells. , 2016, , .		2
111	Evaluation of lithium-ion battery second life performance and degradation. , 2016, , .		31
112	The Second Life Ageing of the NMC/C Electric Vehicle Retired Li-Ion Batteries in the Stationary Applications. ECS Transactions, 2016, 74, 55-62.	0.5	11
113	Degradation Behavior of Lithium-Ion Batteries Based on Lifetime Models and Field Measured Frequency Regulation Mission Profile. IEEE Transactions on Industry Applications, 2016, 52, 5009-5018.	4.9	77
114	Sizing Study of Second Life Li-ion Batteries for Enhancing Renewable Energy Grid Integration. IEEE Transactions on Industry Applications, 2016, 52, 4999-5008.	4.9	91
115	Batteries 2020 " Lithium-ion battery first and second life ageing, validated battery models, lifetime modelling and ageing assessment of thermal parameters. , 2016, , .		29
116	A self-discharge model of Lithium-Sulfur batteries based on direct shuttle current measurement. Journal of Power Sources, 2016, 336, 325-331.	7.8	29
117	Investigation of the Self-Discharge Behavior of Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2016, 163, A911-A916.	2.9	80
118	Sizing of an Energy Storage System for Grid Inertial Response and Primary Frequency Reserve. IEEE Transactions on Power Systems, 2016, 31, 3447-3456.	6.5	286
119	Performance model for high-power lithium titanate oxide batteries based on extended characterization tests. , 2015, , .		10
120	Extensive EIS characterization of commercially available lithium polymer battery cell for performance modelling. , 2015, , .		7
121	Suggested operation of grid-connected lithium-ion battery energy storage system for primary frequency regulation: Lifetime perspective. , 2015, , .		7
122	Electrothermal impedance spectroscopy measurement on high power $\text{LiMO}_2/\text{Li}_4\text{Ti}_5\text{O}_{12}$ battery cell with low bandwidth test setup. , 2015, , .		0
123	Degradation behaviour of Lithium-ion batteries based on field measured frequency regulation mission profile. , 2015, , .		23
124	Evaluation of different methods for measuring the impedance of Lithium-ion batteries during ageing. , 2015, , .		10
125	Electrical circuit models for performance modeling of Lithium-Sulfur batteries. , 2015, , .		13
126	Lifetime and economic analyses of lithium-ion batteries for balancing wind power forecast error. International Journal of Energy Research, 2015, 39, 760-770.	4.5	22

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127	Lifetime Estimation of the Nanophosphate LiFePO_4 Battery Chemistry Used in Fully Electric Vehicles. IEEE Transactions on Industry Applications, 2015, 51, 3453-3461.	4.9	81
128	Second life battery energy storage system for residential demand response service. , 2015, , .		30
129	Second life battery energy storage system for enhancing renewable energy grid integration. , 2015, , .		23
130	Comparison of parametrization techniques for an electrical circuit model of Lithium-Sulfur batteries. , 2015, , .		6
131	Accelerated Lifetime Testing Methodology for Lifetime Estimation of Lithium-Ion Batteries Used in Augmented Wind Power Plants. IEEE Transactions on Industry Applications, 2014, 50, 4006-4017.	4.9	127
132	A comparative study of lithium ion to lead acid batteries for use in UPS applications. , 2014, , .		27
133	Suitability of the nanophosphate LiFePO_4 battery chemistry for the fully electric vehicle: Lifetime perspective. , 2014, , .		1
134	Investigation on the Self-discharge of the LiFePO_4 nanophosphate battery chemistry at different conditions. , 2014, , .		7
135	Grid inertial response with Lithium-ion battery energy storage systems. , 2014, , .		39
136	Selection and Performance-Degradation Modeling of LiMO_2 and LiFePO_4 Battery Cells as Suitable Energy Storage Systems for Grid Integration With Wind Power Plants: An Example for the Primary Frequency Regulation Service. IEEE Transactions on Sustainable Energy, 2014, 5, 90-101.	8.8	115
137	Lithium ion battery chemistries from renewable energy storage to automotive and back-up power applications – An overview. , 2014, , .		85
138	Primary frequency regulation with Li-ion battery energy storage system: A case study for Denmark. , 2013, , .		31
139	Selection and impedance based model of a lithium ion battery technology for integration with virtual power plant. , 2013, , .		7
140	Field tests experience from 1.6MW/400kWh Li-ion battery energy storage system providing primary frequency regulation service. , 2013, , .		22
141	Short term energy storage for grid support in wind power applications. , 2012, , .		18
142	Control strategies for VSC-based HVDC transmission system. , 2011, , .		12
143	Control of Permanent Magnet Synchronous Generator for large wind turbines. , 2010, , .		51