Dirk U Sauer

List of Publications by Year
in descending order

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336 papers	19,152 citations	15001 68 h-index	17891 125 g-index
346 all docs	346 docs citations	346 times ranked	12444 citing authors

#	Article	IF	Citations
1	A Review on Aging-Aware System Simulation for Plug-In Hybrids. IEEE Transactions on Transportation Electrification, 2022, 8, 1524-1540.	5.3	3
2	Estimation of Potentials in Lithium-Ion Batteries Using Machine Learning Models. IEEE Transactions on Control Systems Technology, 2022, 30, 680-695.	3.2	8
3	Fast-charging capability of lithium-ion cells: Influence of electrode aging and electrolyte consumption. Applied Energy, 2022, 305, 117747.	5.1	20
4	Unlocking electrochemical model-based online power prediction for lithium-ion batteries via Gaussian process regression. Applied Energy, 2022, 306, 118114.	5.1	26
5	Data-driven systematic parameter identification of an electrochemical model for lithium-ion batteries with artificial intelligence. Energy Storage Materials, 2022, 44, 557-570.	9.5	62
6	Hierarchical soft measurement of load current and state of charge for future smart lithium-ion batteries. Applied Energy, 2022, 307, 118246.	5.1	31
7	Optimal pool composition of commercial electric vehicles in V2G fleet operation of various electricity markets. Applied Energy, 2022, 308, 118351.	5.1	30
8	Spatially resolving lithium-ion battery aging by open-hardware scanning acoustic imaging. Journal of Power Sources, 2022, 521, 230825.	4.0	10
9	Multiperspective Optimization of Cell and Module Dimensioning for Different Lithiumâ€ion Cell Formats on Geometric and Generic Assumptions. Energy Technology, 2022, 10, .	1.8	3
10	Battery Thermal Runaway Fault Prognosis in Electric Vehicles Based on Abnormal Heat Generation and Deep Learning Algorithms. IEEE Transactions on Power Electronics, 2022, 37, 8513-8525.	5.4	60
11	Modeling of the temporal evolution of polysulfide chains within the lithium-sulfur battery. Energy Storage Materials, 2022, 47, 249-261.	9.5	8
12	Selection of Electrolyte Additive Quantities for Lithiumâ€ion Batteries Using Bayesian Optimization. Batteries and Supercaps, 2022, 5, .	2.4	6
13	Erratum to â€œCharacterization of high-power lithium-ion batteries by electrochemical impedance spectroscopy. I. Experimental investigationâ€•[J. Power Sources 196 (2011) 5334â€“5341]. Journal of Power Sources, 2022, 529, 230976.	4.0	1
14	State of charge dependent degradation effects of lithium titanate oxide batteries at elevated temperatures: An in-situ and ex-situ analysis. Journal of Energy Storage, 2022, 51, 104201.	3.9	5
15	Energy management of stationary hybrid battery energy storage systems using the example of a real-world 5ÂMW hybrid battery storage project in Germany. Journal of Energy Storage, 2022, 51, 104257.	3.9	15
16	The Influence of Frequency Containment Reserve on the Operational Data and the State of Health of the Hybrid Stationary Large-Scale Storage System. Energies, 2022, 15, 1342.	1.6	12
17	Nonlinear health evaluation for lithium-ion battery within full-lifespan. Journal of Energy Chemistry, 2022, 72, 333-341.	7.1	69
18	Volume and thickness change of NMC811<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e243" altimg="si6.svg"><mml:mo>|</mml:mo></mml:math>SiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e248" altimg="si108.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>-graphite large-format lithi	4.0	31

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19	Self-sufficiency and charger constraints of prosumer households with vehicle-to-home strategies. Applied Energy, 2022, 317, 119060.	5.1	9
20	Public Charging Infrastructure in Germanyâ€“A Utilization and Profitability Analysis. Journal of Modern Power Systems and Clean Energy, 2022, 10, 1750-1760.	3.3	4
21	Electric Vehicle Public Charging Infrastructure Planning Using Real-World Charging Data. World Electric Vehicle Journal, 2022, 13, 94.	1.6	14
22	Holistic battery system design optimization for electric vehicles using a multiphysically coupled lithium-ion battery design tool. Journal of Energy Storage, 2022, 52, 104854.	3.9	7
23	Balancing group deviation & balancing energy costs due to the provision of frequency containment reserve with a battery storage system in Germany. International Journal of Electrical Power and Energy Systems, 2022, 142, 108327.	3.3	8
24	Optimization strategy for coupled battery system design models using Gaussian Process Regression and Classification. Journal of Energy Storage, 2022, 52, 104998.	3.9	2
25	A Comprehensive Electric Vehicle Model for Vehicle-to-Grid Strategy Development. Energies, 2022, 15, 4186.	1.6	6
26	The influence of frequency containment reserve on the cycles of a hybrid stationary large-scale storage system. Journal of Energy Storage, 2022, 52, 105040.	3.9	3
27	The influence of frequency containment reserve on the efficiency of a hybrid stationary large-scale storage system. Journal of Energy Storage, 2022, 52, 104961.	3.9	2
28	Development of an intelligent real-time capable energy management strategy for a hybrid maritime propulsion system considering component aging. , 2022, , .		0
29	Battery Thermal- and Health-Constrained Energy Management for Hybrid Electric Bus Based on Soft Actor-Critic DRL Algorithm. IEEE Transactions on Industrial Informatics, 2021, 17, 3751-3761.	7.2	169
30	The development of stationary battery storage systems in Germany â€“ status 2020. Journal of Energy Storage, 2021, 33, 101982.	3.9	49
31	Modeling long-term capacity degradation of lithium-ion batteries. Journal of Energy Storage, 2021, 34, 102011.	3.9	25
32	Online capacity estimation of lithium-ion batteries with deep long short-term memory networks. Journal of Power Sources, 2021, 482, 228863.	4.0	180
33	State-of-Health Estimation of Lithium-ion Batteries by Fusing an Open-Circuit-Voltage Model and Incremental Capacity Analysis. IEEE Transactions on Power Electronics, 2021, , 1-1.	5.4	32
34	Circular E-Cars â€“ Kreislaufkonzepte fÃ¼r die MobilitÃt der Zukunft. , 2021, , 445-456.		0
35	Concept of a Cloud State Modeling System for Lead-Acid Batteries: Theory and Prototyping. , 2021, , .		1
36	Series overview. , 2021, , xiii.		0

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37	Validation of robustness and fuel efficiency of a universal model-based energy management strategy for fuel cell hybrid trains: From analytical derivation via simulation to measurement on test bench. Energy Conversion and Management, 2021, 229, 113734.	4.4	15
38	Performance benchmark of state-of-the-art high-power lithium-ion cells and implications for their usability in low-voltage applications. Journal of Energy Storage, 2021, 36, 102383.	3.9	7
39	Deep reinforcement learning-based energy management of hybrid battery systems in electric vehicles. Journal of Energy Storage, 2021, 36, 102355.	3.9	67
40	A New In Situ and Operando Measurement Method to Determine the Electrical Conductivity of the Negative Active Material in Lead-Acid Batteries during Operation. Journal of the Electrochemical Society, 2021, 168, 050537.	1.3	0
41	A review of the internal short circuit mechanism in lithiumâ€ion batteries: Inducement, detection and prevention. International Journal of Energy Research, 2021, 45, 15797-15831.	2.2	60
42	ENPOLITE: Comparing Lithium-Ion Cells across Energy, Power, Lifetime, and Temperature. ACS Energy Letters, 2021, 6, 2351-2355.	8.8	21
43	Inhomogeneities and Cell-to-Cell Variations in Lithium-Ion Batteries, a Review. Energies, 2021, 14, 3276.	1.6	50
44	Cloud-based health-conscious energy management of hybrid battery systems in electric vehicles with deep reinforcement learning. Applied Energy, 2021, 293, 116977.	5.1	47
45	A comparison of various universally applicable power distribution strategies for fuel cell hybrid trains utilizing component modeling at different levels of detail: From simulation to test bench measurement. ETransportation, 2021, 9, 100120.	6.8	11
46	Estimation of Liâ€ion Degradation Test Sample Sizes Required to Understand Cellâ€toâ€Cell Variability**. Batteries and Supercaps, 2021, 4, 1821-1829.	2.4	23
47	Physics-informed neural networks for electrode-level state estimation in lithium-ion batteries. Journal of Power Sources, 2021, 506, 230034.	4.0	49
48	One-shot battery degradation trajectory prediction with deep learning. Journal of Power Sources, 2021, 506, 230024.	4.0	89
49	Internal short circuit evaluation and corresponding failure mode analysis for lithium-ion batteries. Journal of Energy Chemistry, 2021, 61, 269-280.	7.1	48
50	Non-invasive identification of calendar and cyclic ageing mechanisms for lithium-titanate-oxide batteries. Energy Storage Materials, 2021, 42, 794-805.	9.5	15
51	Transferring the internal processes of the leadâ€“acid battery to the lithiumâ€“sulfur battery by verification with electrochemical impedance spectroscopy. Journal of Energy Storage, 2021, 43, 103148.	3.9	5
52	Electric vehicle route planning using real-world charging infrastructure in Germany. ETransportation, 2021, 10, 100143.	6.8	27
53	Predicting Electric Vehicle Charging Station Availability Using Ensemble Machine Learning. Energies, 2021, 14, 7834.	1.6	11
54	Providing frequency control reserve with photovoltaic battery energy storage systems and power-to-heat coupling. Energy, 2020, 194, 116923.	4.5	32

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55	Non-invasive yet separate investigation of anode/cathode degradation of lithium-ion batteries (nickelâ€“cobaltâ€“manganese vs. graphite) due to accelerated aging. Journal of Power Sources, 2020, 449, 227369.	4.0	41
56	Evaluation of the effects of frequency restoration reserves market participation with photovoltaic battery energy storage systems and power-to-heat coupling. Applied Energy, 2020, 260, 114186.	5.1	22
57	Representative, empirical, real-world charging station usage characteristics and data in Germany. ETransportation, 2020, 6, 100079.	6.8	39
58	Adaptive modeling in the frequency and time domain of high-power lithium titanate oxide cells in battery management systems. Journal of Energy Storage, 2020, 32, 101966.	3.9	12
59	Battery heating for lithium-ion batteries based on multi-stage alternative currents. Journal of Energy Storage, 2020, 32, 101885.	3.9	84
60	Electrochemical model-based state estimation for lithium-ion batteries with adaptive unscented Kalman filter. Journal of Power Sources, 2020, 476, 228534.	4.0	123
61	Technical and economic comparison of different electric bus concepts based on actual demonstrations in European cities. IET Electrical Systems in Transportation, 2020, 10, 144-153.	1.5	34
62	Lithium titanate oxide battery cells for high-power automotive applications â€“ Electro-thermal properties, aging behavior and cost considerations. Journal of Energy Storage, 2020, 31, 101656.	3.9	49
63	Non-invasive investigation of predominant processes in the impedance spectra of high energy lithium-ion batteries with nickelâ€“cobaltâ€“aluminum cathodes. Journal of Power Sources, 2020, 472, 228189.	4.0	26
64	Extensive aging analysis of high-power lithium titanate oxide batteries: Impact of the passive electrode effect. Journal of Power Sources, 2020, 473, 228566.	4.0	26
65	Impact of battery degradation models on energy management of a grid-connected DC microgrid. Energy, 2020, 207, 118228.	4.5	77
66	Identification of Lithium Plating in Lithium-Ion Batteries by Electrical and Optical Methods. Journal of the Electrochemical Society, 2020, 167, 090536.	1.3	23
67	Parameter sensitivity analysis of electrochemical model-based battery management systems for lithium-ion batteries. Applied Energy, 2020, 269, 115104.	5.1	114
68	Evaluation of shallow cycling on two types of uncompressed automotive Li(Ni1/3Mn1/3Co1/3)O2-Graphite pouch cells. Journal of Energy Storage, 2020, 30, 101529.	3.9	8
69	Local degradation and differential voltage analysis of aged lithium-ion pouch cells. Journal of Energy Storage, 2020, 30, 101582.	3.9	47
70	Digital twin for battery systems: Cloud battery management system with online state-of-charge and state-of-health estimation. Journal of Energy Storage, 2020, 30, 101557.	3.9	271
71	Uncertainty-aware state estimation for electrochemical model-based fast charging control of lithium-ion batteries. Journal of Power Sources, 2020, 470, 228221.	4.0	29
72	The development of stationary battery storage systems in Germany â€“ AÂmarket review. Journal of Energy Storage, 2020, 29, 101153.	3.9	148

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73	Evaluation of the Effects of Smart Charging Strategies and Frequency Restoration Reserves Market Participation of an Electric Vehicle. Energies, 2020, 13, 3112.	1.6	11
74	Ante-mortem analysis, electrical, thermal, and ageing testing of state-of-the-art cylindrical lithium-ion cells. Elektrotechnik Und Informationstechnik, 2020, 137, 169-176.	0.7	29
75	Automatic frequency restoration reserve market prediction: Methodology and comparison of various approaches. Applied Energy, 2020, 268, 114978.	5.1	18
76	Empirical approach to determine open-circuit voltage of a vanadium-redox-flow battery for models, based on published data for anion-exchange and cation-exchange membranes and temperature dependency. Journal of Energy Storage, 2020, 28, 101109.	3.9	12
77	High-Precision Monitoring of Volume Change of Commercial Lithium-Ion Batteries by Using Strain Gauges. Sustainability, 2020, 12, 557.	1.6	66
78	Challenges in modeling high power lithium titanate oxide cells in battery management systems. Journal of Energy Storage, 2020, 28, 101189.	3.9	19
79	Optimization of a hybrid storage system and evaluation of operation strategies. International Journal of Electrical Power and Energy Systems, 2020, 119, 105887.	3.3	24
80	Lithium-ion cell requirements in a real-world 48ÂV system and implications for an extensive aging analysis. Journal of Energy Storage, 2020, 30, 101465.	3.9	9
81	Electrical Modelling and Investigation of Laser Beam Welded Joints for Lithium-Ion Batteries. Batteries, 2020, 6, 24.	2.1	14
82	In-Operando Impedance Spectroscopy and Ultrasonic Measurements during High-Temperature Abuse Experiments on Lithium-Ion Batteries. Batteries, 2020, 6, 25.	2.1	28
83	Modeling transient processes in lead-acid batteries in the time domain. Journal of Energy Storage, 2020, 29, 101430.	3.9	14
84	Bidding strategy for battery storage systems in the secondary control reserve market. Applied Energy, 2020, 268, 114951.	5.1	43
85	An Algorithm for an Online Electrochemical Impedance Spectroscopy and Battery Parameter Estimation: Development, Verification and Validation. Journal of Energy Storage, 2020, 30, 101517.	3.9	28
86	The Development of Jelly Roll Deformation in 18650 Lithium-Ion Batteries at Low State of Charge. Journal of the Electrochemical Society, 2020, 167, 120502.	1.3	36
87	Parametrization of Lithium Ion Intercalation in Graphite for Battery Modelling. ECS Meeting Abstracts, 2020, MA2020-01, 523-523.	0.0	0
88	Optimized Operation of a Hybrid Energy Storage System with LTO Batteries for High Power Electrified Vehicles. , 2019, , .		3
89	Identification of load dependent cell voltage model parameters from sparse input data using the Mixed Integer Distributed Ant Colony Optimization solver. Journal of Power Sources, 2019, 437, 226880.	4.0	11
90	Wayside energy recovery systems in DC urban railway grids. ETransportation, 2019, 1, 100001.	6.8	39

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91	Geometrical Inhomogeneities as Cause of Mechanical Failure in Commercial 18650ÂLithium Ion Cells. Journal of the Electrochemical Society, 2019, 166, A3745-A3752.	1.3	24
92	Analysis and evaluation of operations strategies based on a large scale 5 MW and 5 MWh battery storage system. Journal of Energy Storage, 2019, 24, 100778.	3.9	23
93	Nanoscale X-ray imaging of ageing in automotive lithium ion battery cells. Journal of Power Sources, 2019, 433, 126631.	4.0	42
94	Fast charging of an electric vehicle lithium-ion battery at the limit of the lithium deposition process. Journal of Power Sources, 2019, 427, 260-270.	4.0	84
95	Market and technology development of PV home storage systems in Germany. Journal of Energy Storage, 2019, 23, 416-424.	3.9	33
96	Lifetime and Performance Assessment of Commercial Electric Double-Layer Capacitors Based on Cover Layer Formation. ACS Applied Materials & Interfaces, 2019, 11, 18313-18322.	4.0	13
97	Optimization and operation of integrated homes with photovoltaic battery energy storage systems and power-to-heat coupling. Energy Conversion and Management: X, 2019, 1, 100005.	0.9	13
98	A model for direct-coupled PV systems with batteries depending on solar radiation, temperature and number of serial connected PV cells. Solar Energy, 2019, 183, 120-131.	2.9	60
99	Separation of predominant processes in electrochemical impedance spectra of lithium-ion batteries with nickel-manganese-cobalt cathodes. Journal of Power Sources, 2019, 425, 121-129.	4.0	107
100	Analysis of cyclic aging performance of commercial Li4Ti5O12-based batteries at room temperature. Energy, 2019, 173, 1041-1053.	4.5	32
101	Bidding strategy for a battery storage in the German secondary balancing power market. Journal of Energy Storage, 2019, 21, 787-800.	3.9	23
102	Small Case Study on the Effect of a Wayside Energy Storage in an Urban Railway Grid. , 2019, , .		0
103	Empirical Study of Electric Vehicle Charging Infrastructure Usage in Ireland. , 2019, , .		2
104	InFIS - Integrated Research Infrastructure. , 2019, , .		1
105	Simulation Model with an Optimal Operation Strategy for a Hybrid Train Powered by a Battery and a Fuel Cell. , 2019, , .		2
106	An Efficient Optimum Energy Management Strategy Using Parallel Dynamic Programming for a Hybrid Train Powered by Fuel-Cells and Batteries. , 2019, , .		12
107	Post-Mortem Analysis of Inhomogeneous Induced Pressure on Commercial Lithium-Ion Pouch Cells and Their Effects. Sustainability, 2019, 11, 6738.	1.6	28
108	Customizable Battery Power System for Marine and Offshore Applications: Trends, Configurations, and Challenges. IEEE Electrification Magazine, 2019, 7, 46-55.	1.8	19

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109	Investigation of capacity recovery during rest period at different states-of-charge after cycle life test for prismatic Li(Ni1/3Mn1/3Co1/3)O2-graphite cells. Journal of Energy Storage, 2019, 21, 680-690.	3.9	44
110	Investigation of the influence of different bracing of automotive pouch cells on cyclic liefetime and impedance spectra. Journal of Energy Storage, 2019, 21, 149-155.	3.9	44
111	Improving Aging Prediction for Electric Vehicle Operation with Combined Electrical, Thermal and Aging Model for Lithium-Ion Battery Packs Using Quantitative Cell Data. ECS Meeting Abstracts, 2019, MA2019-04, 104-104.	0.0	2
112	Speicherung der elektrischen Energie. , 2019, , 61-98.		0
113	Comparison of off-grid power supply systems using lead-acid and lithium-ion batteries. Solar Energy, 2018, 162, 140-152.	2.9	68
114	Long-term cycling induced jelly roll deformation in commercial 18650 cells. Journal of Power Sources, 2018, 392, 168-175.	4.0	66
115	Techno-economic evaluation of battery energy storage systems on the primary control reserve market under consideration of price trends and bidding strategies. Journal of Energy Storage, 2018, 17, 345-356.	3.9	32
116	Thermal Fault-Detection method and analysis of peripheral systems for large battery packs. Measurement: Journal of the International Measurement Confederation, 2018, 114, 484-491.	2.5	12
117	Advantages in energy efficiency of flooded lead-acid batteries when using partial state of charge operation. Journal of Power Sources, 2018, 375, 53-58.	4.0	24
118	Electric bus fleet size and mix problem with optimization of charging infrastructure. Applied Energy, 2018, 211, 282-295.	5.1	229
119	Application of Time-Resolved Multi-Sine Impedance Spectroscopy for Lithium-Ion Battery Characterization. Batteries, 2018, 4, 64.	2.1	53
120	Prognosis-Based Operating Strategies for Smart Homes with Power-to-Heat Applications. Energy Procedia, 2018, 155, 136-148.	1.8	7
121	Influence of the settling behavior on the measurement uncertainty of EIS and how to decrease the measurement duration. , 2018, , 65-70.		0
122	Full Cell Parameterization of a High-Power Lithium-Ion Battery for a Physico-Chemical Model: Part II. Thermal Parameters and Validation. Journal of the Electrochemical Society, 2018, 165, A3811-A3819.	1.3	30
123	Reliability Assessment of PV Inverters with Battery Systems Considering PV Self-Consumption and Battery Sizing. , 2018, , .		5
124	Energy Consumption and Life Cycle Costs of Overhead Catenary Heavy-Duty Trucks for Long-Haul Transportation. Energies, 2018, 11, 3446.	1.6	31
125	Full Cell Parameterization of a High-Power Lithium-Ion Battery for a Physico-Chemical Model: Part I. Physical and Electrochemical Parameters. Journal of the Electrochemical Society, 2018, 165, A3799-A3810.	1.3	99
126	Metrological examination of an impedance model for a porous electrode in cyclic aging using a 3-electrode lithium-ion cell with NMC111 | Graphite. Journal of Energy Storage, 2018, 20, 196-203.	3.9	9

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127	Variation of Impedance in Lead-Acid Batteries in the Presence of Acid Stratification. Applied Sciences (Switzerland), 2018, 8, 1018.	1.3	6
128	Establishing an expert advisory commission to assist the G20â€™s energy transformation processes. Economics, 2018, 12, .	0.2	1
129	A Simulation Platform for Optimization of Electric Vehicles With Modular Drivetrain Topologies. IEEE Transactions on Transportation Electrification, 2018, 4, 888-900.	5.3	49
130	High-voltage Lithium-ion Batteries â€" Methods for On-board State Estimation. ATZelektronik Worldwide, 2018, 13, 58-63.	0.1	1
131	Assessing the potential of an electric vehicle hybrid battery system comprising solid-state lithium metal polymer high energy and lithium-ion high power batteries. Journal of Energy Storage, 2018, 18, 175-184.	3.9	23
132	Comparative study of reduced order equivalent circuit models for on-board state-of-available-power prediction of lithium-ion batteries in electric vehicles. Applied Energy, 2018, 225, 1102-1122.	5.1	121
133	Assessing the potential of a hybrid battery system to reduce battery aging in an electric vehicle by studying the cycle life of a graphiteâˆ£NCA high energy and a LTOâˆ£metal oxide high power battery cell considering realistic test profiles. Applied Energy, 2018, 226, 197-212.	5.1	32
134	Correct processing of impedance spectra for lead-acid batteries to parameterize the charge-transfer process. Journal of Applied Electrochemistry, 2018, 48, 885-900.	1.5	12
135	Comparison of long-term wind and photovoltaic power capacity factor datasets with open-license. Applied Energy, 2018, 225, 209-220.	5.1	35
136	Evaluation of cyclic aging tests of prismatic automotive LiNiMnCoO2-Graphite cells considering influence of homogeneity and anode overhang. Journal of Energy Storage, 2018, 18, 421-434.	3.9	54
137	Determination of SoH of Lead-Acid Batteries by Electrochemical Impedance Spectroscopy. Applied Sciences (Switzerland), 2018, 8, 873.	1.3	48
138	Battery Dimensioning and Life Cycle Costs Analysis for a Heavy-Duty Truck Considering the Requirements of Long-Haul Transportation. Energies, 2018, 11, 55.	1.6	67
139	Dimensioning and Optimization of Hybrid Li-Ion Battery Systems for EVs. World Electric Vehicle Journal, 2018, 9, 19.	1.6	38
140	Battery Management System Hardware Concepts: An Overview. Applied Sciences (Switzerland), 2018, 8, 534.	1.3	144
141	Irreversible calendar aging and quantification of the reversible capacity loss caused by anode overhang. Journal of Energy Storage, 2018, 18, 149-159.	3.9	85
142	Battery State Estimation for Lead-Acid Batteries under Float Charge Conditions by Impedance: Benchmark of Common Detection Methods. Applied Sciences (Switzerland), 2018, 8, 1308.	1.3	23
143	Enhancing PV Inverter Reliability With Battery System Control Strategy. CPSS Transactions on Power Electronics and Applications, 2018, 3, 93-101.	2.9	36
144	Comparison of different operation strategies for PV battery home storage systems including forecast-based operation strategies. Applied Energy, 2018, 229, 884-899.	5.1	82

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145	A study on the dependency of the open-circuit voltage on temperature and actual aging state of lithium-ion batteries. Journal of Power Sources, 2017, 347, 1-13.	4.0	129
146	Systematic aging of commercial LiFePO 4 | Graphite cylindrical cells including a theory explaining rise of capacity during aging. Journal of Power Sources, 2017, 345, 254-263.	4.0	126
147	Introduction of capacity difference analysis (CDA) for analyzing lateral lithium-ion flow to determine the state of covering layer evolution. Journal of Power Sources, 2017, 354, 157-166.	4.0	31
148	Elucidation and Comparison of the Effect of LiTFSI and LiNO₃ Salts on Discharge Chemistry in Nonaqueous Liâ€“O₂ Batteries. ACS Applied Materials & Interfaces, 2017, 9, 19319-19325.	4.0	24
149	Basics of leadâ€“acid battery modelling and simulation. , 2017, , 463-507.		13
150	New method evaluating currents keeping the voltage constant for fast and highly resolved measurement of Arrhenius relation and capacity fade. Journal of Power Sources, 2017, 353, 144-151.	4.0	27
151	Optimized operation of hybrid battery systems for electric vehicles using deterministic and stochastic dynamic programming. Journal of Energy Storage, 2017, 14, 22-38.	3.9	46
152	Differential voltage analysis as a tool for analyzing inhomogeneous aging: A case study for LiFePO4 | Graphite cylindrical cells. Journal of Power Sources, 2017, 368, 57-67.	4.0	103
153	Are PV Battery Systems Causing Ramping Problems in the German Power Grid?. Energy Procedia, 2017, 135, 424-433.	1.8	8
154	Post-mortem analysis on LiFePO4 | Graphite cells describing the evolution & composition of covering layer on anode and their impact on cell performance. Journal of Power Sources, 2017, 369, 122-132.	4.0	44
155	Impedance spectra of enhanced flooded batteries for micro-hybrid applications. Journal of Energy Storage, 2017, 13, 457-462.	3.9	4
156	Influence of operational condition on lithium plating for commercial lithium-ion batteries â€“ Electrochemical experiments and post-mortem-analysis. Applied Energy, 2017, 206, 934-946.	5.1	124
157	Real-world operating strategy and sensitivity analysis of frequency containment reserve provision with battery energy storage systems in the german market. Journal of Energy Storage, 2017, 13, 143-163.	3.9	72
158	Adaptive battery steering and management system for the optimized operation of stationary battery energy storage systems in multi-use applications. , 2017, , .		4
159	Price development and bidding strategies for battery energy storage systems on the primary control reserve market. Energy Procedia, 2017, 135, 143-157.	1.8	27
160	The Long-Term Power System Evolution â€“ First Optimisation Results. Energy Procedia, 2017, 135, 347-357.	1.8	3
161	Current research topics for leadâ€“acid batteries. , 2017, , 133-146.		6
162	Consideration on primary control reserve provision by industrial microgrids in grid-coupled operation. , 2017, , .		1

#	Article	IF	Citations
163	Planning, building, efficiency measurement and determination of forecast data of a grid-scale hybrid 5 MW / 5 MWh battery storage system. , 2017, , .		1
164	Battery Electric Buses in European Cities: Economic Comparison of Different Technological Concepts Based on Actual Demonstrations. , 2017, , .		4
165	Parametric Study of Spot Welding between Li-ion Battery Cells and Sheet Metal Connectors. Engineering Journal, 2017, 21, 457-473.	0.5	10
166	Energy Optimal Operation of Hybrid Battery Systems and Comparison to a Single-Cell Reference System for Electric Vehicles Including the Aged State of High Energy Cells. World Electric Vehicle Journal, 2016, 8, 315-326.	1.6	5
167	An Advanced HIL Simulation Battery Model for Battery Management System Testing. IEEE Transactions on Industry Applications, 2016, 52, 5086-5099.	3.3	76
168	Evaluating the value of concentrated solar power in electricity systems with fluctuating energy sources. AIP Conference Proceedings, 2016, , .	0.3	6
169	Real-Life Load Profiles of PV Battery Systems from Field Measurements. Energy Procedia, 2016, 99, 401-410.	1.8	7
170	Optimal Dispatch Scheduling of a Wind-battery-System in German Power Market. Energy Procedia, 2016, 99, 137-146.	1.8	8
171	Development and Evaluation of a Battery Lifetime Extending Charging Algorithm for an Electric Vehicle Fleet. Energy Procedia, 2016, 99, 285-291.	1.8	15
172	Optimization of PV Battery Systems Using Genetic Algorithms. Energy Procedia, 2016, 99, 332-340.	1.8	39
173	Model-based Economic Assessment of Stationary Battery Systems Providing Primary Control Reserve. Energy Procedia, 2016, 99, 11-24.	1.8	35
174	Enhancing Battery Lifetime in PV Battery Home Storage System Using Forecast Based Operating Strategies. Energy Procedia, 2016, 99, 80-88.	1.8	45
175	Potential and Optimal Sizing of Combined Heat and Electrical Storage in Private Households. Energy Procedia, 2016, 99, 174-181.	1.8	4
176	On-board capacity estimation of lithium iron phosphate batteries by means of half-cell curves. Journal of Power Sources, 2016, 324, 158-169.	4.0	50
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