

# Dirk U Sauer

## List of Publications by Citations

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316  
papers

12,538  
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58  
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102  
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345  
ext. papers

15,914  
ext. citations

7  
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#	Paper	IF	Citations
316	Critical review of the methods for monitoring of lithium-ion batteries in electric and hybrid vehicles. <i>Journal of Power Sources</i> , <b>2014</b> , 258, 321-339	8.9	594
315	Experimental investigation of the lithium-ion battery impedance characteristic at various conditions and aging states and its influence on the application. <i>Applied Energy</i> , <b>2013</b> , 102, 885-897	10.7	546
314	Calendar and cycle life study of Li(NiMnCo)O <sub>2</sub> -based 18650 lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2014</b> , 248, 839-851	8.9	413
313	Characterization of high-power lithium-ion batteries by electrochemical impedance spectroscopy. I. Experimental investigation. <i>Journal of Power Sources</i> , <b>2011</b> , 196, 5334-5341	8.9	394
312	A holistic aging model for Li(NiMnCo)O <sub>2</sub> based 18650 lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2014</b> , 257, 325-334	8.9	343
311	Development of a lifetime prediction model for lithium-ion batteries based on extended accelerated aging test data. <i>Journal of Power Sources</i> , <b>2012</b> , 215, 248-257	8.9	329
310	Characterization of high-power lithium-ion batteries by electrochemical impedance spectroscopy. II: Modelling. <i>Journal of Power Sources</i> , <b>2011</b> , 196, 5349-5356	8.9	298
309	Dynamic electric behavior and open-circuit-voltage modeling of LiFePO <sub>4</sub> -based lithium ion secondary batteries. <i>Journal of Power Sources</i> , <b>2011</b> , 196, 331-336	8.9	236
308	Advanced mathematical methods of SOC and SOH estimation for lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2013</b> , 224, 20-27	8.9	234
307	Critical review of on-board capacity estimation techniques for lithium-ion batteries in electric and hybrid electric vehicles. <i>Journal of Power Sources</i> , <b>2015</b> , 281, 114-130	8.9	229
306	Optimization of an off-grid hybrid PV/Wind/Diesel system with different battery technologies using genetic algorithm. <i>Solar Energy</i> , <b>2013</b> , 97, 460-473	6.8	207
305	Ageing behaviour of electrochemical double layer capacitors. <i>Journal of Power Sources</i> , <b>2007</b> , 172, 468-485		202
304	Production caused variation in capacity aging trend and correlation to initial cell performance. <i>Journal of Power Sources</i> , <b>2014</b> , 247, 332-338	8.9	200
303	Comparison of different approaches for lifetime prediction of electrochemical systems Using lead-acid batteries as example. <i>Journal of Power Sources</i> , <b>2008</b> , 176, 534-546	8.9	181
302	Model prediction for ranking lead-acid batteries according to expected lifetime in renewable energy systems and autonomous power-supply systems. <i>Journal of Power Sources</i> , <b>2007</b> , 168, 66-78	8.9	178
301	Impedance measurements on lead-acid batteries for state-of-charge, state-of-health and cranking capability prognosis in electric and hybrid electric vehicles. <i>Journal of Power Sources</i> , <b>2005</b> , 144, 418-425	8.9	168
300	Modelling the effects of charge redistribution during self-discharge of supercapacitors. <i>Electrochimica Acta</i> , <b>2010</b> , 55, 7516-7523	6.7	159

299	Cycle and calendar life study of a graphite LiNi <sub>1/3</sub> Mn <sub>1/3</sub> Co <sub>1/3</sub> O <sub>2</sub> Li-ion high energy system. Part A: Full cell characterization. <i>Journal of Power Sources</i> , <b>2013</b> , 239, 572-583	8.9	146
298	Optimization of self-consumption and techno-economic analysis of PV-battery systems in commercial applications. <i>Applied Energy</i> , <b>2016</b> , 168, 171-178	10.7	144
297	Analysis of the maximal possible grid relief from PV-peak-power impacts by using storage systems for increased self-consumption. <i>Applied Energy</i> , <b>2015</b> , 137, 567-575	10.7	143
296	Modeling mechanical degradation in lithium ion batteries during cycling: Solid electrolyte interphase fracture. <i>Journal of Power Sources</i> , <b>2015</b> , 300, 112-122	8.9	139
295	Influence of plug-in hybrid electric vehicle charging strategies on charging and battery degradation costs. <i>Energy Policy</i> , <b>2012</b> , 46, 511-519	7.2	133
294	A review of current automotive battery technology and future prospects. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , <b>2013</b> , 227, 761-776	1.4	127
293	Adaptive estimation of the electromotive force of the lithium-ion battery after current interruption for an accurate state-of-charge and capacity determination. <i>Applied Energy</i> , <b>2013</b> , 111, 416-427	10.7	126
292	Detailed analysis of the self-discharge of supercapacitors. <i>Journal of Power Sources</i> , <b>2011</b> , 196, 573-579	8.9	126
291	Operation conditions of batteries in PV applications. <i>Solar Energy</i> , <b>2004</b> , 76, 759-769	6.8	122
290	Electric bus fleet size and mix problem with optimization of charging infrastructure. <i>Applied Energy</i> , <b>2018</b> , 211, 282-295	10.7	119
289	Heat generation in double layer capacitors. <i>Journal of Power Sources</i> , <b>2006</b> , 160, 765-772	8.9	113
288	Parameterization of a Physico-Chemical Model of a Lithium-Ion Battery. <i>Journal of the Electrochemical Society</i> , <b>2015</b> , 162, A1836-A1848	3.9	110
287	Fast Charging Battery Buses for the Electrification of Urban Public Transport: A Feasibility Study Focusing on Charging Infrastructure and Energy Storage Requirements. <i>Energies</i> , <b>2015</b> , 8, 4587-4606	3.1	110
286	On-line adaptive battery impedance parameter and state estimation considering physical principles in reduced order equivalent circuit battery models. <i>Journal of Power Sources</i> , <b>2014</b> , 260, 276-291	8.9	109
285	Comparative study of a structured neural network and an extended Kalman filter for state of health determination of lithium-ion batteries in hybrid electric vehicles. <i>Engineering Applications of Artificial Intelligence</i> , <b>2013</b> , 26, 951-961	7.2	107
284	Ageing behaviour of electrochemical double layer capacitors: Part II. Lifetime simulation model for dynamic applications. <i>Journal of Power Sources</i> , <b>2007</b> , 173, 626-632	8.9	105
283	A comprehensive review of on-board State-of-Available-Power prediction techniques for lithium-ion batteries in electric vehicles. <i>Journal of Power Sources</i> , <b>2016</b> , 329, 123-137	8.9	102
282	Digital twin for battery systems: Cloud battery management system with online state-of-charge and state-of-health estimation. <i>Journal of Energy Storage</i> , <b>2020</b> , 30, 101557	7.8	100

281	Large-scale integration of renewable energies and impact on storage demand in a European renewable power system of 2050 sensitivity study. <i>Journal of Energy Storage</i> , <b>2016</b> , 6, 1-10	7.8	95
280	Selection and Performance-Degradation Modeling of $\text{LiMO}_2/\text{Li}_4\text{Ti}_5\text{O}_{12}$ and $\text{LiFePO}_4/\text{C}$ Battery Cells as Suitable Energy Storage Systems for Grid Integration With. <i>IEEE Transactions on Sustainable Energy</i> , <b>2014</b> , 5, 90-101	8.2	91
279	Systematic aging of commercial $\text{LiFePO}_4$ /Graphite cylindrical cells including a theory explaining rise of capacity during aging. <i>Journal of Power Sources</i> , <b>2017</b> , 345, 254-263	8.9	90
278	Development of a voltage-behavior model for NiMH batteries using an impedance-based modeling concept. <i>Journal of Power Sources</i> , <b>2008</b> , 175, 635-643	8.9	90
277	On-line adaptive battery impedance parameter and state estimation considering physical principles in reduced order equivalent circuit battery models part 2. Parameter and state estimation. <i>Journal of Power Sources</i> , <b>2014</b> , 262, 457-482	8.9	89
276	Reliable State Estimation of Multicell Lithium-Ion Battery Systems. <i>IEEE Transactions on Energy Conversion</i> , <b>2011</b> , 26, 737-743	5.4	84
275	Influence of operational condition on lithium plating for commercial lithium-ion batteries □ Electrochemical experiments and post-mortem-analysis. <i>Applied Energy</i> , <b>2017</b> , 206, 934-946	10.7	81
274	Battery Sizing for Serial Plug-in Hybrid Vehicles: A Model-Based Economic Analysis for Germany. <i>SSRN Electronic Journal</i> ,	1	79
273	The development of stationary battery storage systems in Germany □ A market review. <i>Journal of Energy Storage</i> , <b>2020</b> , 29, 101153	7.8	75
272	Influence of the vehicle-to-grid strategy on the aging behavior of lithium battery electric vehicles. <i>Applied Energy</i> , <b>2015</b> , 137, 899-912	10.7	75
271	A study on the dependency of the open-circuit voltage on temperature and actual aging state of lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2017</b> , 347, 1-13	8.9	74
270	. <i>IEEE Transactions on Industrial Informatics</i> , <b>2021</b> , 17, 3751-3761	11.9	73
269	Comparative study of reduced order equivalent circuit models for on-board state-of-available-power prediction of lithium-ion batteries in electric vehicles. <i>Applied Energy</i> , <b>2018</b> , 225, 1102-1122	10.7	73
268	Battery Management System Hardware Concepts: An Overview. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 534	2.6	71
267	Optimal Allocation and Capacity of Energy Storage Systems in a Future European Power System with 100% Renewable Energy Generation. <i>Energy Procedia</i> , <b>2014</b> , 46, 40-47	2.3	69
266	Operating conditions of batteries in off-grid renewable energy systems. <i>Solar Energy</i> , <b>2007</b> , 81, 1409-1425	5.8	66
265	Adaptive on-line prediction of the available power of lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2013</b> , 242, 548-559	8.9	65
264	Irreversible calendar aging and quantification of the reversible capacity loss caused by anode overhang. <i>Journal of Energy Storage</i> , <b>2018</b> , 18, 149-159	7.8	64

263	On-line estimation of lithium-ion battery impedance parameters using a novel varied-parameters approach. <i>Journal of Power Sources</i> , <b>2013</b> , 237, 260-269	8.9	64
262	Differential voltage analysis as a tool for analyzing inhomogeneous aging: A case study for LiFePO <sub>4</sub>  Graphite cylindrical cells. <i>Journal of Power Sources</i> , <b>2017</b> , 368, 57-67	8.9	63
261	Parameterization of a Physico-Chemical Model of a Lithium-Ion Battery. <i>Journal of the Electrochemical Society</i> , <b>2015</b> , 162, A1849-A1857	3.9	61
260	Combined local current distribution measurements and high resolution neutron radiography of operating Direct Methanol Fuel Cells. <i>Electrochemistry Communications</i> , <b>2009</b> , 11, 1606-1609	5.1	60
259	Online capacity estimation of lithium-ion batteries with deep long short-term memory networks. <i>Journal of Power Sources</i> , <b>2021</b> , 482, 228863	8.9	59
258	A critical overview of definitions and determination techniques of the internal resistance using lithium-ion, lead-acid, nickel metal-hydride batteries and electrochemical double-layer capacitors as examples. <i>Journal of Power Sources</i> , <b>2015</b> , 296, 365-376	8.9	58
257	Modular battery design for reliable, flexible and multi-technology energy storage systems. <i>Applied Energy</i> , <b>2015</b> , 137, 931-937	10.7	54
256	Separation of predominant processes in electrochemical impedance spectra of lithium-ion batteries with nickel-manganese-cobalt cathodes. <i>Journal of Power Sources</i> , <b>2019</b> , 425, 121-129	8.9	53
255	Full Cell Parameterization of a High-Power Lithium-Ion Battery for a Physico-Chemical Model: Part I. Physical and Electrochemical Parameters. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, A3799-A3810	3.9	52
254	Electrochemical model-based state estimation for lithium-ion batteries with adaptive unscented Kalman filter. <i>Journal of Power Sources</i> , <b>2020</b> , 476, 228534	8.9	50
253	Fast charging of an electric vehicle lithium-ion battery at the limit of the lithium deposition process. <i>Journal of Power Sources</i> , <b>2019</b> , 427, 260-270	8.9	48
252	Parameter sensitivity analysis of electrochemical model-based battery management systems for lithium-ion batteries. <i>Applied Energy</i> , <b>2020</b> , 269, 115104	10.7	48
251	Comprehensive study of the influence of aging on the hysteresis behavior of a lithium iron phosphate cathode-based lithium ion battery [An experimental investigation of the hysteresis. <i>Applied Energy</i> , <b>2016</b> , 171, 629-645	10.7	48
250	Comparison of different operation strategies for PV battery home storage systems including forecast-based operation strategies. <i>Applied Energy</i> , <b>2018</b> , 229, 884-899	10.7	48
249	Analysis of battery current microcycles in autonomous renewable energy systems. <i>Journal of Power Sources</i> , <b>2002</b> , 112, 531-546	8.9	47
248	Long-term cycling induced jelly roll deformation in commercial 18650 cells. <i>Journal of Power Sources</i> , <b>2018</b> , 392, 168-175	8.9	46
247	Influence of relaxation time on the lifetime of commercial lithium-ion cells. <i>Journal of Power Sources</i> , <b>2013</b> , 239, 45-53	8.9	45
246	Real-world operating strategy and sensitivity analysis of frequency containment reserve provision with battery energy storage systems in the german market. <i>Journal of Energy Storage</i> , <b>2017</b> , 13, 143-163	7.8	44

245	Battery heating for lithium-ion batteries based on multi-stage alternative currents. <i>Journal of Energy Storage</i> , <b>2020</b> , 32, 101885	7.8	44
244	. <i>IEEE Transactions on Industry Applications</i> , <b>2016</b> , 52, 5086-5099	4.3	43
243	Charging performance of automotive batteries—An underestimated factor influencing lifetime and reliable battery operation. <i>Journal of Power Sources</i> , <b>2007</b> , 168, 22-30	8.9	42
242	Harmonic analysis for identification of nonlinearities in impedance spectroscopy. <i>Electrochimica Acta</i> , <b>2008</b> , 53, 7367-7374	6.7	42
241	Comparison of off-grid power supply systems using lead-acid and lithium-ion batteries. <i>Solar Energy</i> , <b>2018</b> , 162, 140-152	6.8	41
240	Adaptive approach for on-board impedance parameters and voltage estimation of lithium-ion batteries in electric vehicles. <i>Journal of Power Sources</i> , <b>2015</b> , 299, 176-188	8.9	40
239	Battery Dimensioning and Life Cycle Costs Analysis for a Heavy-Duty Truck Considering the Requirements of Long-Haul Transportation. <i>Energies</i> , <b>2018</b> , 11, 55	3.1	39
238	Characterisation of charge and discharge behaviour of lithium ion batteries with olivine based cathode active material. <i>Journal of Power Sources</i> , <b>2009</b> , 191, 582-590	8.9	39
237	Application-specific electrical characterization of high power batteries with lithium titanate anodes for electric vehicles. <i>Energy</i> , <b>2016</b> , 112, 294-306	7.9	38
236	Measurement of the current distribution in a direct methanol fuel cell—Confirmation of parallel galvanic and electrolytic operation within one cell. <i>Journal of Power Sources</i> , <b>2008</b> , 176, 477-483	8.9	36
235	High-Precision Monitoring of Volume Change of Commercial Lithium-Ion Batteries by Using Strain Gauges. <i>Sustainability</i> , <b>2020</b> , 12, 557	3.6	35
234	Adaptive On-line State-of-available-power Prediction of Lithium-ion Batteries. <i>Journal of Power Electronics</i> , <b>2013</b> , 13, 516-527	0.9	35
233	Modeling of the charge acceptance of lead-acid batteries. <i>Journal of Power Sources</i> , <b>2007</b> , 168, 31-39	8.9	35
232	Influential factors on oxygen reduction at La <sub>1-x</sub> CaxCoO <sub>3</sub> electrodes in alkaline electrolyte. <i>Journal of Power Sources</i> , <b>2006</b> , 153, 239-244	8.9	35
231	DMFC: Galvanic or electrolytic cell?. <i>Electrochemistry Communications</i> , <b>2006</b> , 8, 754-760	5.1	33
230	Hybrid modeling of lead-acid batteries in frequency and time domain. <i>Journal of Power Sources</i> , <b>2005</b> , 144, 461-466	8.9	33
229	Evaluation of cyclic aging tests of prismatic automotive LiNiMnCoO <sub>2</sub> -Graphite cells considering influence of homogeneity and anode overhang. <i>Journal of Energy Storage</i> , <b>2018</b> , 18, 421-434	7.8	33
228	Post-mortem analysis on LiFePO <sub>4</sub>  Graphite cells describing the evolution & composition of covering layer on anode and their impact on cell performance. <i>Journal of Power Sources</i> , <b>2017</b> , 369, 122-132	8.9	32

227	Battery sizing for serial plug-in hybrid electric vehicles: A model-based economic analysis for Germany. <i>Energy Policy</i> , <b>2011</b> , 39, 5871-5882	7.2	32
226	Enhancing Battery Lifetime in PV Battery Home Storage System Using Forecast Based Operating Strategies. <i>Energy Procedia</i> , <b>2016</b> , 99, 80-88	2.3	32
225	Investigation of capacity recovery during rest period at different states-of-charge after cycle life test for prismatic Li(Ni <sub>1/3</sub> Mn <sub>1/3</sub> Co <sub>1/3</sub> )O <sub>2</sub> -graphite cells. <i>Journal of Energy Storage</i> , <b>2019</b> , 21, 680-690	7.8	32
224	A model for direct-coupled PV systems with batteries depending on solar radiation, temperature and number of serial connected PV cells. <i>Solar Energy</i> , <b>2019</b> , 183, 120-131	6.8	31
223	On-line self-learning time forward voltage prognosis for lithium-ion batteries using adaptive neuro-fuzzy inference system. <i>Journal of Power Sources</i> , <b>2013</b> , 243, 728-749	8.9	31
222	Impact of battery degradation models on energy management of a grid-connected DC microgrid. <i>Energy</i> , <b>2020</b> , 207, 118228	7.9	31
221	Optimization of PV Battery Systems Using Genetic Algorithms. <i>Energy Procedia</i> , <b>2016</b> , 99, 332-340	2.3	30
220	Introduction of capacity difference analysis (CDA) for analyzing lateral lithium-ion flow to determine the state of covering layer evolution. <i>Journal of Power Sources</i> , <b>2017</b> , 354, 157-166	8.9	29
219	Simulation of the current distribution in lead-acid batteries to investigate the dynamic charge acceptance in flooded SLI batteries. <i>Journal of Power Sources</i> , <b>2009</b> , 191, 42-50	8.9	29
218	Analysis of the performance parameters of lead/acid batteries in photovoltaic systems. <i>Journal of Power Sources</i> , <b>1997</b> , 64, 197-201	8.9	29
217	Optimized operation of hybrid battery systems for electric vehicles using deterministic and stochastic dynamic programming. <i>Journal of Energy Storage</i> , <b>2017</b> , 14, 22-38	7.8	28
216	Battery Design for Successful Electrification in Public Transport. <i>Energies</i> , <b>2015</b> , 8, 6715-6737	3.1	28
215	On-board capacity estimation of lithium iron phosphate batteries by means of half-cell curves. <i>Journal of Power Sources</i> , <b>2016</b> , 324, 158-169	8.9	28
214	A Simulation Platform for Optimization of Electric Vehicles With Modular Drivetrain Topologies. <i>IEEE Transactions on Transportation Electrification</i> , <b>2018</b> , 4, 888-900	7.6	28
213	Large-scale Integration of Renewable Energies and Impact on Storage Demand in a European Renewable Power System of 2050. <i>Energy Procedia</i> , <b>2015</b> , 73, 145-153	2.3	27
212	Scenario-based comparative assessment of potential future electricity systems – A new methodological approach using Germany in 2050 as an example. <i>Applied Energy</i> , <b>2016</b> , 171, 555-580	10.7	27
211	Nafion Hybrid Membranes for Use in Redox Flow Batteries. <i>Journal of the Electrochemical Society</i> , <b>2010</b> , 157, A989	3.9	27
210	Model-based Economic Assessment of Stationary Battery Systems Providing Primary Control Reserve. <i>Energy Procedia</i> , <b>2016</b> , 99, 11-24	2.3	27

209	Nanoscale X-ray imaging of ageing in automotive lithium ion battery cells. <i>Journal of Power Sources</i> , <b>2019</b> , 433, 126631	8.9	26
208	Dynamic charge acceptance of lead-acid batteries: Comparison of methods for conditioning and testing. <i>Journal of Power Sources</i> , <b>2012</b> , 207, 30-36	8.9	26
207	Optimizing vehicle-to-grid charging strategies using genetic algorithms under the consideration of battery aging <b>2011</b> ,		26
206	Study on power and energy demand for sizing the energy storage systems for electrified local public transport buses <b>2012</b> ,		26
205	Modelling of local conditions in flooded lead/acid batteries in photovoltaic systems. <i>Journal of Power Sources</i> , <b>1997</b> , 64, 181-187	8.9	26
204	Lithium titanate oxide battery cells for high-power automotive applications [Electro-thermal properties, aging behavior and cost considerations. <i>Journal of Energy Storage</i> , <b>2020</b> , 31, 101656	7.8	26
203	Determination of SoH of Lead-Acid Batteries by Electrochemical Impedance Spectroscopy. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 873	2.6	25
202	The Multiple Role of Energy Storage in the Industrial Sector: Evidence from a Greek Industrial Facility. <i>Energy Procedia</i> , <b>2014</b> , 46, 178-185	2.3	25
201	Charge strategies for valve-regulated lead/acid batteries in solar power applications. <i>Journal of Power Sources</i> , <b>2001</b> , 95, 141-152	8.9	25
200	Optimum battery design for applications in photovoltaic systems [theoretical considerations. <i>Journal of Power Sources</i> , <b>2001</b> , 95, 130-134	8.9	25
199	Comparison of long-term wind and photovoltaic power capacity factor datasets with open-license. <i>Applied Energy</i> , <b>2018</b> , 225, 209-220	10.7	25
198	Application-specific parameterization of reduced order equivalent circuit battery models for improved accuracy at dynamic load. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2013</b> , 46, 4085-4093	4.6	24
197	Price development and bidding strategies for battery energy storage systems on the primary control reserve market. <i>Energy Procedia</i> , <b>2017</b> , 135, 143-157	2.3	24
196	Impedance-based overcharging and gassing model for VRLA/AGM batteries. <i>Journal of Power Sources</i> , <b>2006</b> , 158, 953-963	8.9	24
195	Scientific Measuring and Evaluation Program for Photovoltaic Battery Systems(WMEP PV-Speicher). <i>Energy Procedia</i> , <b>2015</b> , 73, 200-207	2.3	23
194	Deep reinforcement learning-based energy management of hybrid battery systems in electric vehicles. <i>Journal of Energy Storage</i> , <b>2021</b> , 36, 102355	7.8	23
193	Investigation of the influence of different bracing of automotive pouch cells on cyclic lifetime and impedance spectra. <i>Journal of Energy Storage</i> , <b>2019</b> , 21, 149-155	7.8	23
192	Application of Time-Resolved Multi-Sine Impedance Spectroscopy for Lithium-Ion Battery Characterization. <i>Batteries</i> , <b>2018</b> , 4, 64	5.7	23

191	Techno-economic evaluation of battery energy storage systems on the primary control reserve market under consideration of price trends and bidding strategies. <i>Journal of Energy Storage</i> , <b>2018</b> , 17, 345-356	7.8	22
190	Dynamic modeling of high temperature PEM fuel cell start-up process. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 19067-19078	6.7	22
189	Full Cell Parameterization of a High-Power Lithium-Ion Battery for a Physico-Chemical Model: Part II. Thermal Parameters and Validation. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, A3811-A3819	3.9	22
188	Elucidation and Comparison of the Effect of LiTFSI and LiNO Salts on Discharge Chemistry in Nonaqueous Li-O Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 19319-19325	9.5	21
187	New method evaluating currents keeping the voltage constant for fast and highly resolved measurement of Arrhenius relation and capacity fade. <i>Journal of Power Sources</i> , <b>2017</b> , 353, 144-151	8.9	21
186	Market and technology development of PV home storage systems in Germany. <i>Journal of Energy Storage</i> , <b>2019</b> , 23, 416-424	7.8	21
185	Local degradation and differential voltage analysis of aged lithium-ion pouch cells. <i>Journal of Energy Storage</i> , <b>2020</b> , 30, 101582	7.8	21
184	Analysis of cyclic aging performance of commercial Li4Ti5O12-based batteries at room temperature. <i>Energy</i> , <b>2019</b> , 173, 1041-1053	7.9	19
183	Simulation of SLI Lead-Acid Batteries for SoC, Aging and Cranking Capability Prediction in Automotive Applications. <i>Journal of the Electrochemical Society</i> , <b>2012</b> , 159, A1410-A1419	3.9	19
182	Wayside energy recovery systems in DC urban railway grids. <i>ETransportation</i> , <b>2019</b> , 1, 100001	12.7	18
181	From accelerated aging tests to a lifetime prediction model: Analyzing lithium-ion batteries <b>2013</b> ,		18
180	Providing frequency control reserve with photovoltaic battery energy storage systems and power-to-heat coupling. <i>Energy</i> , <b>2020</b> , 194, 116923	7.9	18
179	Dimensioning and Optimization of Hybrid Li-Ion Battery Systems for EVs. <i>World Electric Vehicle Journal</i> , <b>2018</b> , 9, 19	2.5	17
178	Storage System of Renewable Energy Generated Hydrogen for Chemical Industry. <i>Energy Procedia</i> , <b>2012</b> , 29, 657-667	2.3	17
177	Energy storage in photovoltaic stand-alone energy supply systems. <i>Progress in Photovoltaics: Research and Applications</i> , <b>1998</b> , 6, 271-291	6.8	17
176	Non-invasive yet separate investigation of anode/cathode degradation of lithium-ion batteries (nickel cobalt manganese vs. graphite) due to accelerated aging. <i>Journal of Power Sources</i> , <b>2020</b> , 449, 227369	8.9	17
175	Assessing the potential of a hybrid battery system to reduce battery aging in an electric vehicle by studying the cycle life of a graphite NCA high energy and a LTO metal oxide high power battery cell considering realistic test profiles. <i>Applied Energy</i> , <b>2018</b> , 226, 197-212	10.7	17
174	Enhancing PV Inverter Reliability With Battery System Control Strategy. <i>CPSS Transactions on Power Electronics and Applications</i> , <b>2018</b> , 3, 93-101	3.5	16

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62	Overview of Nonelectrochemical Storage Technologies <b>2015</b> , 89-102		3
61	Life Cycle Cost Calculation and Comparison for Different Reference Cases and Market Segments <b>2015</b> , 437-452		3
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41	Simulation Model with an Optimal Operation Strategy for a Hybrid Train Powered by a Battery and a Fuel Cell <b>2019</b> ,		2
40	Reliability Assessment of PV Inverters with Battery Systems Considering PV Self-Consumption and Battery Sizing <b>2018</b> ,		2
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34	Undersampling control of a bidirectional cascaded buck+boost dc-dc converter <b>2014</b> ,		1
33	Conceptual Design of a Battery-Powered High Lift System for Single-Aisle Aircraft <b>2014</b> ,		1
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