

Olivier Briat

List of Publications by Year in descending order

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83
papers

2,560
citations

218677

26
h-index

206112

48
g-index

83
all docs

83
docs citations

83
times ranked

2044
citing authors

#	ARTICLE	IF	CITATIONS
1	Behavior and state-of-health monitoring of Li-ion batteries using impedance spectroscopy and recurrent neural networks. International Journal of Electrical Power and Energy Systems, 2012, 42, 487-494.	5.5	332
2	Lithium battery aging model based on Dakinâ€™s degradation approach. Journal of Power Sources, 2016, 325, 273-285.	7.8	143
3	Thermal characterization of a high-power lithium-ion battery: Potentiometric and calorimetric measurement of entropy changes. Energy, 2013, 61, 432-439.	8.8	136
4	Characterization methods and modelling of ultracapacitors for use as peak power sources. Journal of Power Sources, 2007, 168, 553-560.	7.8	133
5	Performance comparison of four lithium-ion battery technologies under calendar aging. Energy, 2015, 84, 542-550.	8.8	129
6	Remaining useful life prediction of lithium batteries in calendar ageing for automotive applications. Microelectronics Reliability, 2012, 52, 2438-2442.	1.7	124
7	Impact of Calendar Life and Cycling Ageing on Supercapacitor Performance. IEEE Transactions on Vehicular Technology, 2009, 58, 3917-3929.	6.3	116
8	Determination of lithium-ion battery state-of-health based on constant-voltage charge phase. Journal of Power Sources, 2014, 258, 218-227.	7.8	112
9	Embedded Fractional Nonlinear Supercapacitor Model and Its Parametric Estimation Method. IEEE Transactions on Industrial Electronics, 2010, 57, 3991-4000.	7.9	100
10	Lithium-ion battery performance improvement based on capacity recovery exploitation. Electrochimica Acta, 2013, 114, 750-757.	5.2	68
11	Fractional non-linear modelling of ultracapacitors. Communications in Nonlinear Science and Numerical Simulation, 2010, 15, 1327-1337.	3.3	60
12	Strategy for designing accelerated aging tests to evaluate IGBT power modules lifetime in real operation mode. IEEE Transactions on Components and Packaging Technologies, 2003, 26, 429-438.	1.3	56
13	State of health assessment for lithium batteries based on voltage-time relaxation measure. Electrochimica Acta, 2016, 194, 461-472.	5.2	56
14	D-optimal design of experiments applied to lithium battery for ageing model calibration. Energy, 2017, 141, 2108-2119.	8.8	52
15	Improved Supercapacitor Floating Ageing Interpretation Through Multipore Impedance Model Parameters Evolution. IEEE Transactions on Power Electronics, 2014, 29, 3669-3678.	7.9	51
16	Online parameter identification for real-time supercapacitor performance estimation in automotive applications. International Journal of Electrical Power and Energy Systems, 2013, 51, 162-167.	5.5	45
17	Comparison of the impact of fast charging on the cycle life of three lithium-ion cells under several parameters of charge protocol and temperatures. Applied Energy, 2021, 283, 116344.	10.1	45
18	Principle, design and experimental validation of a flywheel-battery hybrid source for heavy-duty electric vehicles. IET Electric Power Applications, 2007, 1, 665.	1.8	44

#	ARTICLE	IF	CITATIONS
19	Ageing monitoring of lithium-ion cell during power cycling tests. <i>Microelectronics Reliability</i> , 2011, 51, 1968-1971.	1.7	42
20	Modeling and adaptive control for supercapacitor in automotive applications based on artificial neural networks. <i>Electric Power Systems Research</i> , 2014, 106, 134-141.	3.6	37
21	Prediction of supercapacitors floating ageing with surface electrode interface based ageing law. <i>Microelectronics Reliability</i> , 2014, 54, 1813-1817.	1.7	34
22	Comparison between changes of ultracapacitors model parameters during calendar life and power cycling ageing tests. <i>Microelectronics Reliability</i> , 2008, 48, 1473-1478.	1.7	32
23	Capacitance recovery analysis and modelling of supercapacitors during cycling ageing tests. <i>Energy Conversion and Management</i> , 2014, 82, 37-45.	9.2	32
24	Quantification of ageing of ultracapacitors during cycling tests with current profile characteristics of hybrid and electric vehicles applications. <i>IET Electric Power Applications</i> , 2007, 1, 683.	1.8	28
25	Contribution of calendar ageing modes in the performances degradation of supercapacitors during power cycling. <i>Microelectronics Reliability</i> , 2010, 50, 1796-1803.	1.7	26
26	Impact of Voltage Resets on Supercapacitors Aging. <i>IEEE Transactions on Industrial Electronics</i> , 2016, 63, 7703-7711.	7.9	26
27	Real-time SOC and SOH estimation for EV Li-ion cell using online parameters identification. , 2012, , .		25
28	Adaptive voltage estimation for EV Li-ion cell based on artificial neural networks state-of-charge meter. , 2012, , .		25
29	Efficient state of health estimation of Li-ion battery under several ageing types for aeronautic applications. <i>Microelectronics Reliability</i> , 2018, 88-90, 1231-1235.	1.7	23
30	Fast charging for electric vehicles applications: Numerical optimization of a multi-stage charging protocol for lithium-ion battery and impact on cycle life. <i>Journal of Energy Storage</i> , 2021, 40, 102756.	8.1	22
31	Electro-thermal model of lithium-ion batteries for electrified vehicles applications. , 2015, , .		21
32	How supercapacitors reach end of life criteria during calendar life and power cycling tests. <i>Microelectronics Reliability</i> , 2011, 51, 1976-1979.	1.7	20
33	Description of supercapacitor performance degradation rate during thermal cycling under constant voltage ageing test. <i>Microelectronics Reliability</i> , 2014, 54, 1944-1948.	1.7	20
34	A Systematic Hard- and Soft-Switching Performances Evaluation of 1200V Punchthrough IGBT Structures. <i>IEEE Transactions on Power Electronics</i> , 2004, 19, 231-241.	7.9	18
35	Ultracapacitors self discharge modelling using a physical description of porous electrode impedance. , 2008, , .		17
36	Analysis of the dynamic behavior changes of supercapacitors during calendar life test under several voltages and temperatures conditions. <i>Microelectronics Reliability</i> , 2009, 49, 1391-1397.	1.7	17

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37	Supercapacitors ageing prediction by neural networks. , 2013, , .		17
38	A Comprehensive Review on Energy Management Strategies for Electric Vehicles Considering Degradation Using Aging Models. IEEE Access, 2021, 9, 143922-143940.	4.2	17
39	Thermal cycling impacts on supercapacitor performances during calendar ageing. Microelectronics Reliability, 2013, 53, 1628-1631.	1.7	14
40	Study of ultracapacitors dynamic behaviour using impedance frequency analysis on a specific test bench. , 2004, , .		12
41	Power cycling tests for accelerated ageing of ultracapacitors. Microelectronics Reliability, 2006, 46, 1445-1450.	1.7	12
42	Non-isothermal Ragone plots of Li-ion cells from datasheet and galvanostatic discharge tests. Applied Energy, 2019, 247, 703-715.	10.1	12
43	Comparison of EDLC impedance models used for ageing monitoring. , 2012, , .		11
44	Ageing law for supercapacitors floating ageing. , 2014, , .		11
45	Study on specific effects of high frequency ripple currents and temperature on supercapacitors ageing. Microelectronics Reliability, 2015, 55, 2027-2031.	1.7	11
46	Specification and use of pulsed current profiles for ultracapacitors power cycling. Microelectronics Reliability, 2005, 45, 1746-1749.	1.7	10
47	Lithium-ion cell modeling from impedance spectroscopy for EV applications. , 2011, , .		10
48	Neural networks based model and voltage control for lithium polymer batteries. , 2011, , .		9
49	Impact of high frequency current ripple on supercapacitors ageing through floating ageing tests. Microelectronics Reliability, 2013, 53, 1643-1647.	1.7	9
50	Parameters evolution of an ultracapacitor impedance model with ageing during power cycling tests. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	8
51	Chemical rate phenomenon approach applied to lithium battery capacity fade estimation. Microelectronics Reliability, 2016, 64, 134-139.	1.7	8
52	Porous electrode theory for ultracapacitor modelling and experimental validation. , 2008, , .		7
53	Ageing assessment of supercapacitors during calendar life and power cycling tests. , 2009, , .		7
54	Ageing quantification of supercapacitors during power cycling using online and periodic characterization tests. , 2011, , .		7

#	ARTICLE	IF	CITATIONS
55	Influence of thermal cycling on supercapacitor performance fading during ageing test at constant voltage. , 2014, , .		7
56	Lithium-ion battery heat generation investigation based on calorimetric entropy measurements. , 2013, , .		6
57	Voltage and temperature impacts on leakage current in calendar ageing of supercapacitors. , 2013, , .		6
58	Ultracapacitor performance determination using dynamic model parameter identification. , 2013, , .		6
59	Strategy for lithium-ion battery performance improvement during power cycling. , 2013, , .		6
60	Characterization of external pressure effects on lithium-ion pouch cell. , 2018, , .		6
61	Monitoring fading rate of ultracapacitors using online characterization during power cycling. Microelectronics Reliability, 2007, 47, 1751-1755.	1.7	5
62	Impact of the ageing of supercapacitors in power cycling on the behaviour of hybrid electric vehicles applications. , 2010, , .		5
63	Study of static converters related ripple currents effects on supercapacitors ageing within DC networks. , 2015, , .		5
64	An Incremental Capacity Parametric Model Based on Logistic Equations for Battery State Estimation and Monitoring. Batteries, 2022, 8, 39.	4.5	5
65	First step in the reliability assessment of ultracapacitors used as power source in hybrid electric vehicles. Microelectronics Reliability, 2004, 44, 1769-1773.	1.7	4
66	Dynamic Battery Aging Model: Representation of Reversible Capacity Losses Using First Order Model Approach. , 2015, , .		4
67	Performance quantification of latest generation Li-ion batteries in wide temperature range. , 2017, , .		4
68	A New Non-Linear Supercapacitor Embedded Model and Its Online Time Identification Method. , 2009, , .		3
69	Li-Po batteries modeling for mail delivery electric vehicles. , 2011, , .		3
70	Interpretation of electrochemical double layer capacitors (Supercapacitors) floating ageing by multi-pore model. , 2012, , .		3
71	An Implementation Solution for Fractional Partial Differential Equations. Mathematical Problems in Engineering, 2013, 2013, 1-7.	1.1	3
72	Electrochemical Double Layer Capacitors (supercapacitors) Ageing Impacts and Comparison on Different Impedance Models. EPE Journal (European Power Electronics and Drives Journal), 2014, 24, 6-13.	0.7	3

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73	Lithium Battery Aging Model Based on Chemical Rate Approach. , 2016, , .		3
74	Lithium-Ion Battery Ageing Assessment Based on a Reduced Design of Experiments. , 2017, , .		3
75	Electro-Thermal Behavior of Four Fast Charging Protocols for a Lithium-Ion Cell at Different Temperatures. , 2018, , .		3
76	Local lifetime control IGBT structures: turn-off performances comparison for hard- and soft-switching between 1200V trench and new planar PT-IGBTs. Microelectronics Reliability, 2001, 41, 1731-1736.	1.7	2
77	Multilevel neural-network model for supercapacitor module in automotive applications. , 2013, , .		2
78	Electrosorption phenomena taken into account in a fractional model of supercapacitor. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 254-259.	0.4	2
79	Comparative Ageing Study of CC-CV Fast Charging for Commercial 18650 Li-Ion Cells: Impact of Environmental Temperature. , 2019, , .		2
80	IGBT Power modules thermal characterization : what is the optimum between a low current - high voltage or a high current - low voltage test condition for the same electrical power?. Microelectronics Reliability, 2003, 43, 1901-1906.	1.7	0
81	Feasibility and performances of BOOST converter in automotive application using silicon power transistors operating at 200°C. , 2014, , .		0
82	Impact du vieillissement cyclique des supercondensateurs sur les performances dans une application vhicule hybride. European Journal of Electrical Engineering, 2011, 14, 399-413.	0.3	0
83	Setting up the Reference Performance Tests of an Ageing Campaign for Non-Intrusive Diagnosis on Li4Ti5O12 and LiMn1-xFexPO4 Based Cells. ECS Meeting Abstracts, 2020, MA2020-02, 3437-3437.	0.0	0