

Nicolas Jäckel

List of Publications by Year in descending order

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45
papers

3,234
citations

172207

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h-index

264894

42
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47
all docs

47
docs citations

47
times ranked

4166
citing authors

#	ARTICLE	IF	CITATIONS
1	Review: carbon onions for electrochemical energy storage. <i>Journal of Materials Chemistry A</i> , 2016, 4, 3172-3196.	5.2	360
2	MXene as a novel intercalation-type pseudocapacitive cathode and anode for capacitive deionization. <i>Journal of Materials Chemistry A</i> , 2016, 4, 18265-18271.	5.2	358
3	Quantification of ion confinement and desolvation in nanoporous carbon supercapacitors with modelling and in situ X-ray scattering. <i>Nature Energy</i> , 2017, 2, .	19.8	210
4	Graphitization as a Universal Tool to Tailor the Potential-Dependent Capacitance of Carbon Supercapacitors. <i>Advanced Energy Materials</i> , 2014, 4, 1400316.	10.2	201
5	Increase in Capacitance by Subnanometer Pores in Carbon. <i>ACS Energy Letters</i> , 2016, 1, 1262-1265.	8.8	173
6	Faradaic deionization of brackish and sea water via pseudocapacitive cation and anion intercalation into few-layered molybdenum disulfide. <i>Journal of Materials Chemistry A</i> , 2017, 5, 15640-15649.	5.2	167
7	Understanding structure and porosity of nanodiamond-derived carbon onions. <i>Carbon</i> , 2015, 84, 584-598.	5.4	118
8	Anomalous or regular capacitance? The influence of pore size dispersity on double-layer formation. <i>Journal of Power Sources</i> , 2016, 326, 660-671.	4.0	115
9	Solvent-Free Mechanochemical Synthesis of Nitrogen-Doped Nanoporous Carbon for Electrochemical Energy Storage. <i>ChemSusChem</i> , 2017, 10, 2416-2424.	3.6	109
10	Polyvinylpyrrolidone as binder for castable supercapacitor electrodes with high electrochemical performance in organic electrolytes. <i>Journal of Power Sources</i> , 2014, 266, 374-383.	4.0	102
11	Comparison of carbon onions and carbon blacks as conductive additives for carbon supercapacitors in organic electrolytes. <i>Journal of Power Sources</i> , 2014, 272, 1122-1133.	4.0	99
12	Enhanced performance stability of carbon/titania hybrid electrodes during capacitive deionization of oxygen saturated saline water. <i>Electrochimica Acta</i> , 2017, 224, 314-328.	2.6	98
13	Electrochemical in Situ Tracking of Volumetric Changes in Two-Dimensional Metal Carbides (MXenes) in Ionic Liquids. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 32089-32093.	4.0	87
14	In situ hydrodynamic spectroscopy for structure characterization of porous energy storage electrodes. <i>Nature Materials</i> , 2016, 15, 570-575.	13.3	77
15	Enhanced capacitance of nitrogen-doped hierarchically porous carbide-derived carbon in matched ionic liquids. <i>Journal of Materials Chemistry A</i> , 2015, 3, 18906-18912.	5.2	69
16	Performance evaluation of conductive additives for activated carbon supercapacitors in organic electrolyte. <i>Electrochimica Acta</i> , 2016, 191, 284-298.	2.6	62
17	Improved capacitive deionization performance of mixed hydrophobic/hydrophilic activated carbon electrodes. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 114003.	0.7	61
18	Vacuum or flowing argon: What is the best synthesis atmosphere for nanodiamond-derived carbon onions for supercapacitor electrodes?. <i>Carbon</i> , 2015, 94, 507-517.	5.4	59

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19	Electrospinning and electrospraying of silicon oxycarbide-derived nanoporous carbon for supercapacitor electrodes. <i>Journal of Power Sources</i> , 2016, 313, 178-188.	4.0	53
20	Sub-micrometer Novolac-Derived Carbon Beads for High Performance Supercapacitors and Redox Electrolyte Energy Storage. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 9104-9115.	4.0	53
21	Niobium carbide nanofibers as a versatile precursor for high power supercapacitor and high energy battery electrodes. <i>Journal of Materials Chemistry A</i> , 2016, 4, 16003-16016.	5.2	51
22	Asymmetric tin-vanadium redox electrolyte for hybrid energy storage with nanoporous carbon electrodes. <i>Sustainable Energy and Fuels</i> , 2017, 1, 299-307.	2.5	49
23	Enhanced Electrochemical Energy Storage by Nanoscopic Decoration of Endohedral and Exohedral Carbon with Vanadium Oxide via Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2016, 28, 2802-2813.	3.2	44
24	Tuning pseudocapacitive and battery-like lithium intercalation in vanadium dioxide/carbon onion hybrids for asymmetric supercapacitor anodes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 13039-13051.	5.2	41
25	A carbon nanopore model to quantify structure and kinetics of ion electrosorption with in situ small-angle X-ray scattering. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 15549-15561.	1.3	39
26	Electrospinning of ultrafine metal oxide/carbon and metal carbide/carbon nanocomposite fibers. <i>RSC Advances</i> , 2015, 5, 35683-35692.	1.7	35
27	High performance stability of titania decorated carbon for desalination with capacitive deionization in oxygenated water. <i>RSC Advances</i> , 2016, 6, 106081-106089.	1.7	32
28	Non-invasive In-situ Dynamic Monitoring of Elastic Properties of Composite Battery Electrodes by EQCM. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 12353-12356.	7.2	31
29	Porous carbon as a quasi-reference electrode in aqueous electrolytes. <i>Electrochimica Acta</i> , 2016, 222, 1800-1805.	2.6	31
30	Silicon Oxycarbide Beads from Continuously Produced Polysilsesquioxane as Stable Anode Material for Lithium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2018, 1, 2961-2970.	2.5	31
31	Influence of carbon distribution on the electrochemical performance and stability of lithium titanate based energy storage devices. <i>Electrochimica Acta</i> , 2017, 247, 1006-1018.	2.6	29
32	In Situ Measurement of Electrosorption-Induced Deformation Reveals the Importance of Micropores in Hierarchical Carbons. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 23319-23324.	4.0	29
33	Carbon as Quasi-Reference Electrode in Unconventional Lithium-Salt Containing Electrolytes for Hybrid Battery/Supercapacitor Devices. <i>Journal of the Electrochemical Society</i> , 2016, 163, A2956-A2964.	1.3	28
34	In situ multi-length scale approach to understand the mechanics of soft and rigid binder in composite lithium ion battery electrodes. <i>Journal of Power Sources</i> , 2017, 371, 162-166.	4.0	24
35	Emulsion soft templating of carbide-derived carbon nanospheres with controllable porosity for capacitive electrochemical energy storage. <i>Journal of Materials Chemistry A</i> , 2015, 3, 17983-17990.	5.2	23
36	Quantitative Information about Electrosorption of Ionic Liquids in Carbon Nanopores from Electrochemical Dilatometry and Quartz Crystal Microbalance Measurements. <i>Journal of Physical Chemistry C</i> , 2017, 121, 19120-19128.	1.5	23

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37	In Situ Multilength-Scale Tracking of Dimensional and Viscoelastic Changes in Composite Battery Electrodes. ACS Applied Materials & Interfaces, 2017, 9, 27664-27675.	4.0	23
38	Mechanochemistry-assisted synthesis of hierarchical porous carbons applied as supercapacitors. Beilstein Journal of Organic Chemistry, 2017, 13, 1332-1341.	1.3	20
39	Sputtering of sub-micrometer aluminum layers as compact, high-performance, light-weight current collector for supercapacitors. Journal of Power Sources, 2016, 329, 432-440.	4.0	10
40	Non-Invasive In-Situ Dynamic Monitoring of Elastic Properties of Composite Battery Electrodes by EQCM. Angewandte Chemie, 2015, 127, 12530-12533.	1.6	5
41	Artifact-Based Analysis for the Development of Collaborative Embedded Systems. , 2021, , 315-331.		2
42	Methods for the Development of Collaborative Embedded Systems in Automated Vehicles. ATZelectronics Worldwide, 2020, 15, 58-63.	0.1	1
43	Activated Carbon Based Quasi-Reference Electrodes for Unconventional Lithium-Salt Containing Organic Electrolytes. ECS Meeting Abstracts, 2017, , .	0.0	0
44	(Invited) In Situ Monitoring of Mechanical Properties Via Multi-Length Scale Approach. ECS Meeting Abstracts, 2017, , .	0.0	0
45	Architectures for Dynamically Coupled Systems. , 2021, , 95-124.		0