

Krzysztof Fic

List of Publications by Year in descending order

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Version: 2024-02-01

66
papers

3,785
citations

212478

28
h-index

145109

60
g-index

68
all docs

68
docs citations

68
times ranked

5259
citing authors

#	ARTICLE	IF	CITATIONS
1	Novel insight into neutral medium as electrolyte for high-voltage supercapacitors. <i>Energy and Environmental Science</i> , 2012, 5, 5842-5850.	15.6	695
2	Carbon nanotubes and their composites in electrochemical applications. <i>Energy and Environmental Science</i> , 2011, 4, 1592.	15.6	535
3	Sustainable materials for electrochemical capacitors. <i>Materials Today</i> , 2018, 21, 437-454.	8.3	255
4	Ageing phenomena in high-voltage aqueous supercapacitors investigated by in situ gas analysis. <i>Energy and Environmental Science</i> , 2016, 9, 623-633.	15.6	204
5	Redox-active electrolyte for supercapacitor application. <i>Faraday Discussions</i> , 2014, 172, 179-198.	1.6	177
6	Alkali metal iodide/carbon interface as a source of pseudocapacitance. <i>Electrochemistry Communications</i> , 2011, 13, 38-41.	2.3	166
7	Electrochemistry Serving People and Nature: High-Energy Ecocapacitors based on Redox-Active Electrolytes. <i>ChemSusChem</i> , 2012, 5, 1181-1185.	3.6	148
8	Unusual energy enhancement in carbon-based electrochemical capacitors. <i>Journal of Materials Chemistry</i> , 2012, 22, 24213.	6.7	115
9	Electrochemical properties of supercapacitors operating in aqueous electrolyte with surfactants. <i>Electrochimica Acta</i> , 2010, 55, 7484-7488.	2.6	97
10	Lithium rhenium(^{vii}) oxide as a novel material for graphite pre-lithiation in high performance lithium-ion capacitors. <i>Journal of Materials Chemistry A</i> , 2016, 4, 12609-12615.	5.2	77
11	Interfacial Redox Phenomena for Enhanced Aqueous Supercapacitors. <i>Journal of the Electrochemical Society</i> , 2015, 162, A5140-A5147.	1.3	75
12	Hybrid materials for supercapacitor application. <i>Journal of Solid State Electrochemistry</i> , 2010, 14, 811-816.	1.2	70
13	Around the thermodynamic limitations of supercapacitors operating in aqueous electrolytes. <i>Electrochimica Acta</i> , 2016, 206, 496-503.	2.6	66
14	Regulating the Hidden Solvation-Ion-Exchange in Concentrated Electrolytes for Stable and Safe Lithium Metal Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 2000901.	10.2	65
15	Carbon-based electrochemical capacitors with acetate aqueous electrolytes. <i>Electrochimica Acta</i> , 2016, 215, 179-186.	2.6	57
16	Self-buffered pH at carbon surfaces in aqueous supercapacitors. <i>Carbon</i> , 2018, 129, 758-765.	5.4	56
17	Agar-based aqueous electrolytes for electrochemical capacitors with reduced self-discharge. <i>Electrochimica Acta</i> , 2020, 332, 135435.	2.6	54
18	Enhancement of the carbon electrode capacitance by brominated hydroquinones. <i>Journal of Power Sources</i> , 2016, 326, 587-594.	4.0	52

#	ARTICLE	IF	CITATIONS
19	Strategies for enhancing the performance of carbon/carbon supercapacitors in aqueous electrolytes. <i>Electrochimica Acta</i> , 2014, 128, 210-217.	2.6	48
20	Comparative operando study of degradation mechanisms in carbon-based electrochemical capacitors with Li ₂ SO ₄ and LiNO ₃ electrolytes. <i>Carbon</i> , 2017, 120, 281-293.	5.4	46
21	Effect of surfactants on capacitance properties of carbon electrodes. <i>Electrochimica Acta</i> , 2012, 60, 206-212.	2.6	45
22	Use of sacrificial lithium nickel oxide for loading graphitic anode in Li-ion capacitors. <i>Electrochimica Acta</i> , 2016, 206, 440-445.	2.6	43
23	Revisited insights into charge storage mechanisms in electrochemical capacitors with Li ₂ SO ₄ -based electrolyte. <i>Energy Storage Materials</i> , 2019, 22, 1-14.	9.5	43
24	The effect of halide ion concentration on capacitor performance. <i>Journal of Applied Electrochemistry</i> , 2014, 44, 439-445.	1.5	40
25	Influence of aqueous electrolyte concentration on parasitic reactions in high-voltage electrochemical capacitors. <i>Energy Storage Materials</i> , 2016, 5, 111-115.	9.5	39
26	Thiocyanates as attractive redox-active electrolytes for high-energy and environmentally-friendly electrochemical capacitors. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 7923-7935.	1.3	34
27	Ageing mechanisms in electrochemical capacitors with aqueous redox-active electrolytes. <i>Electrochimica Acta</i> , 2019, 311, 211-220.	2.6	30
28	Hybrid aqueous capacitors with improved energy/power performance. <i>Progress in Natural Science: Materials International</i> , 2015, 25, 642-649.	1.8	29
29	Electrochemical capacitor with water-based electrolyte operating at wide temperature range. <i>Journal of Power Sources</i> , 2019, 414, 183-191.	4.0	29
30	Electrochemical capacitors as attractive power sources. <i>Solid State Ionics</i> , 2014, 265, 61-67.	1.3	28
31	Mechanisms of the performance fading of carbon-based electrochemical capacitors operating in a LiNO ₃ electrolyte. <i>Journal of Power Sources</i> , 2019, 438, 227029.	4.0	27
32	Specific carbon/iodide interactions in electrochemical capacitors monitored by EQCM technique. <i>Energy and Environmental Science</i> , 2021, 14, 2381-2393.	15.6	25
33	Interfacial aspects induced by saturated aqueous electrolytes in electrochemical capacitor applications. <i>Electrochimica Acta</i> , 2020, 334, 135572.	2.6	23
34	Towards sustainable power sources: chitin-bound carbon electrodes for electrochemical capacitors. <i>Journal of Materials Chemistry A</i> , 2015, 3, 22923-22930.	5.2	22
35	Redox activity of selenocyanate anion in electrochemical capacitor application. <i>Synthetic Metals</i> , 2019, 253, 62-72.	2.1	22
36	Towards more Durable Electrochemical Capacitors by Elucidating the Ageing Mechanisms under Different Testing Procedures. <i>ChemElectroChem</i> , 2019, 6, 566-573.	1.7	21

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37	Electrochemical capacitors operating in aqueous electrolyte with volumetric characteristics improved by sustainable templating of electrode materials. <i>Electrochimica Acta</i> , 2020, 338, 135788.	2.6	20
38	Link between Alkali Metals in Salt Templates and in Electrolytes for Improved Carbon-Based Electrochemical Capacitors. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 2584-2599.	4.0	20
39	Peculiar role of the electrolyte viscosity in the electrochemical capacitor performance. <i>Journal of Materials Chemistry A</i> , 2021, 9, 8644-8654.	5.2	18
40	Anti-corrosive siloxane coatings for improved long-term performance of supercapacitors with an aqueous electrolyte. <i>Electrochimica Acta</i> , 2021, 372, 137840.	2.6	18
41	Continuous fast Fourier transform admittance voltammetry as a new approach for studying the change in morphology of polyaniline for supercapacitors application. <i>RSC Advances</i> , 2015, 5, 84076-84083.	1.7	15
42	Selenocyanate-based ionic liquid as redox-active electrolyte for hybrid electrochemical capacitors. <i>Electrochimica Acta</i> , 2019, 314, 1-8.	2.6	15
43	Electrochemical performance of silicon nanostructures in low-temperature ionic liquids for microelectronic applications. <i>Journal of Materials Chemistry A</i> , 2017, 5, 22708-22716.	5.2	14
44	Polypyrrole-Nickel Hydroxide Hybrid Nanowires as Future Materials for Energy Storage. <i>Nanomaterials</i> , 2019, 9, 307.	1.9	12
45	Three-Dimensional Architectures in Electrochemical Capacitor Applications – Insights, Opinions, and Perspectives. <i>Frontiers in Energy Research</i> , 2020, 8, .	1.2	10
46	Correlation of hydrogen capacity in carbon material with the parameters of electrosorption. <i>Open Chemistry</i> , 2011, 9, 20-24.	1.0	9
47	New Trends in Electrochemical Capacitors. <i>Advances in Inorganic Chemistry</i> , 2018, 72, 247-286.	0.4	9
48	Operando monitoring of activated carbon electrodes operating with aqueous electrolytes. <i>Energy Storage Materials</i> , 2022, 49, 518-528.	9.5	9
49	Deep Eutectic Solvents for High-Temperature Electrochemical Capacitors. <i>ChemElectroChem</i> , 2021, 8, 4028-4037.	1.7	8
50	Enhancing capacitor lifetime by alternate constant polarization. <i>Journal of Power Sources</i> , 2021, 506, 230131.	4.0	7
51	Effect of benzoquinone additives on the performance of symmetric carbon/carbon capacitors – electrochemical impedance study. <i>Journal of Energy Storage</i> , 2018, 18, 340-348.	3.9	6
52	Supercapacitors (electrochemical capacitors). , 2019, , 383-427.		6
53	New insight into ion dynamics in nanoporous carbon materials: An application of the step potential electrochemical spectroscopy (SPECS) technique and electrochemical dilatometry. <i>Electrochimica Acta</i> , 2021, 377, 138115.	2.6	6
54	Redox Activity of Bromides in Carbon-Based Electrochemical Capacitors. <i>Batteries and Supercaps</i> , 2020, 3, 1080-1090.	2.4	5

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55	Electrode/Electrolyte Interface with Various Redox Couples. ECS Transactions, 2014, 61, 1-8.	0.3	4
56	Performance evaluation of electrochemical capacitors with activated carbon spheres as electrode material and aqueous electrolyte. Journal of Power Sources, 2022, 542, 231714.	4.0	4
57	Quinone/hydroquinone redox couple as a source of enormous capacitance of activated carbon electrodes. Materials Research Society Symposia Proceedings, 2013, 1505, 1.	0.1	3
58	Effect of surfactants on capacitance properties of carbon electrodes. Materials Research Society Symposia Proceedings, 2011, 1333, 110701.	0.1	2
59	Advanced characterization techniques for electrochemical capacitors. Advances in Inorganic Chemistry, 2022, , 151-207.	0.4	2
60	High frequency response of adenine-derived carbon in aqueous electrochemical capacitor. Electrochimica Acta, 2022, 424, 140649.	2.6	1
61	Quinone-Decorated Carbon Materials for Capacitive Energy Storage Applications. Materials Research Society Symposia Proceedings, 2014, 1679, 12.	0.1	0
62	Novel Type of Li-Ion Capacitor with Improved Energy/Power Performance. ECS Meeting Abstracts, 2021, MA2021-02, 451-451.	0.0	0
63	(Invited) Influence of Current Collector on the Long-Term Performance of Electrochemical Capacitors. ECS Meeting Abstracts, 2020, MA2020-02, 612-612.	0.0	0
64	(Invited) Demystifying the Electrode/Electrolyte Interface in Carbon-Based Electrochemical Capacitors with Specs Technique and Electrochemical Dilatometry. ECS Meeting Abstracts, 2020, MA2020-02, 611-611.	0.0	0
65	Gold nanoparticles for power retention in electrochemical capacitors with KSCN-based aqueous electrolyte. Journal of Power Sources Advances, 2022, 14, 100087.	2.6	0
66	Redox Mediated Electrolytes in Electrochemical Capacitors. , 0, , .		0