Krzysztof Fic

List of Publications by Year
in descending order

66 papers	3,785 citations	186265 28 h-index	128289 60 g-index
68 all docs	68 docs citations	68 times ranked	4506 citing authors

#	Article	IF	Citations
1	Novel insight into neutral medium as electrolyte for high-voltage supercapacitors. Energy and Environmental Science, 2012, 5, 5842-5850.	30.8	695
2	Carbon nanotubes and their composites in electrochemical applications. Energy and Environmental Science, 2011, 4, 1592.	30.8	535
3	Sustainable materials for electrochemical capacitors. Materials Today, 2018, 21, 437-454.	14.2	255
4	Ageing phenomena in high-voltage aqueous supercapacitors investigated by in situ gas analysis. Energy and Environmental Science, 2016, 9, 623-633.	30.8	204
5	Redox-active electrolyte for supercapacitor application. Faraday Discussions, 2014, 172, 179-198.	3.2	177
6	Alkali metal iodide/carbon interface as a source of pseudocapacitance. Electrochemistry Communications, 2011, 13, 38-41.	4.7	166
7	Electrochemistry Serving People and Nature: Highâ€Energy Ecocapacitors based on Redoxâ€Active Electrolytes. ChemSusChem, 2012, 5, 1181-1185.	6.8	148
8	Unusual energy enhancement in carbon-based electrochemical capacitors. Journal of Materials Chemistry, 2012, 22, 24213.	6.7	115
9	Electrochemical properties of supercapacitors operating in aqueous electrolyte with surfactants. Electrochimica Acta, 2010, 55, 7484-7488.	5.2	97
10	Lithium rhenium(<scp>vii</scp>) oxide as a novel material for graphite pre-lithiation in high performance lithium-ion capacitors. Journal of Materials Chemistry A, 2016, 4, 12609-12615.	10.3	77
11	Interfacial Redox Phenomena for Enhanced Aqueous Supercapacitors. Journal of the Electrochemical Society, 2015, 162, A5140-A5147.	2.9	75
12	Hybrid materials for supercapacitor application. Journal of Solid State Electrochemistry, 2010, 14, 811-816.	2.5	70
13	Around the thermodynamic limitations of supercapacitors operating in aqueous electrolytes. Electrochimica Acta, 2016, 206, 496-503.	5.2	66
14	Regulating the Hidden Solvationâ€Ionâ€Exchange in Concentrated Electrolytes for Stable and Safe Lithium Metal Batteries. Advanced Energy Materials, 2020, 10, 2000901.	19.5	65
15	Carbon-based electrochemical capacitors with acetate aqueous electrolytes. Electrochimica Acta, 2016, 215, 179-186.	5.2	57
16	Self-buffered pH at carbon surfaces in aqueous supercapacitors. Carbon, 2018, 129, 758-765.	10.3	56
17	Agar-based aqueous electrolytes for electrochemical capacitors with reduced self-discharge. Electrochimica Acta, 2020, 332, 135435.	5.2	54
18	Enhancement of the carbon electrode capacitance by brominated hydroquinones. Journal of Power Sources, 2016, 326, 587-594.	7.8	52

#	Article	IF	Citations
19	Strategies for enhancing the performance of carbon/carbon supercapacitors in aqueous electrolytes. Electrochimica Acta, 2014, 128, 210-217.	5.2	48
20	Comparative operando study of degradation mechanisms in carbon-based electrochemical capacitors with Li2SO4 and LiNO3 electrolytes. Carbon, 2017, 120, 281-293.	10.3	46
21	Effect of surfactants on capacitance properties of carbon electrodes. Electrochimica Acta, 2012, 60, 206-212.	5.2	45
22	Use of sacrificial lithium nickel oxide for loading graphitic anode in Li-ion capacitors. Electrochimica Acta, 2016, 206, 440-445.	5.2	43
23	Revisited insights into charge storage mechanisms in electrochemical capacitors with Li2SO4-based electrolyte. Energy Storage Materials, 2019, 22, 1-14.	18.0	43
24	The effect of halide ion concentration on capacitor performance. Journal of Applied Electrochemistry, 2014, 44, 439-445.	2.9	40
25	Influence of aqueous electrolyte concentration on parasitic reactions in high-voltage electrochemical capacitors. Energy Storage Materials, 2016, 5, 111-115.	18.0	39
26	Thiocyanates as attractive redox-active electrolytes for high-energy and environmentally-friendly electrochemical capacitors. Physical Chemistry Chemical Physics, 2017, 19, 7923-7935.	2.8	34
27	Ageing mechanisms in electrochemical capacitors with aqueous redox-active electrolytes. Electrochimica Acta, 2019, 311, 211-220.	5.2	30
28	Hybrid aqueous capacitors with improved energy/power performance. Progress in Natural Science: Materials International, 2015, 25, 642-649.	4.4	29
29	Electrochemical capacitor with water-based electrolyte operating at wide temperature range. Journal of Power Sources, 2019, 414, 183-191.	7.8	29
30	Electrochemical capacitors as attractive power sources. Solid State Ionics, 2014, 265, 61-67.	2.7	28
31	Mechanisms of the performance fading of carbon-based electrochemical capacitors operating in a LiNO3 electrolyte. Journal of Power Sources, 2019, 438, 227029.	7.8	27
32	Specific carbon/iodide interactions in electrochemical capacitors monitored by EQCM technique. Energy and Environmental Science, 2021, 14, 2381-2393.	30.8	25
33	Interfacial aspects induced by saturated aqueous electrolytes in electrochemical capacitor applications. Electrochimica Acta, 2020, 334, 135572.	5.2	23
34	Towards sustainable power sources: chitin-bound carbon electrodes for electrochemical capacitors. Journal of Materials Chemistry A, 2015, 3, 22923-22930.	10.3	22
35	Redox activity of selenocyanate anion in electrochemical capacitor application. Synthetic Metals, 2019, 253, 62-72.	3.9	22
36	Towards more Durable Electrochemical Capacitors by Elucidating the Ageing Mechanisms under Different Testing Procedures. ChemElectroChem, 2019, 6, 566-573.	3.4	21

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37	Electrochemical capacitors operating in aqueous electrolyte with volumetric characteristics improved by sustainable templating of electrode materials. Electrochimica Acta, 2020, 338, 135788.	5.2	20
38	Link between Alkali Metals in Salt Templates and in Electrolytes for Improved Carbon-Based Electrochemical Capacitors. ACS Applied Materials & Interfaces, 2021, 13, 2584-2599.	8.0	20
39	Peculiar role of the electrolyte viscosity in the electrochemical capacitor performance. Journal of Materials Chemistry A, 2021, 9, 8644-8654.	10.3	18
40	Antiâ€“corrosive siloxane coatings for improved longâ€“term performance of supercapacitors with an aqueous electrolyte. Electrochimica Acta, 2021, 372, 137840.	5.2	18
41	Continuous fast Fourier transform admittance voltammetry as a new approach for studying the change in morphology of polyaniline for supercapacitors application. RSC Advances, 2015, 5, 84076-84083.	3.6	15
42	Selenocyanate-based ionic liquid as redox-active electrolyte for hybrid electrochemical capacitors. Electrochimica Acta, 2019, 314, 1-8.	5.2	15
43	Electrochemical performance of silicon nanostructures in low-temperature ionic liquids for microelectronic applications. Journal of Materials Chemistry A, 2017, 5, 22708-22716.	10.3	14
44	Polypyrroleâ€“Nickel Hydroxide Hybrid Nanowires as Future Materials for Energy Storage. Nanomaterials, 2019, 9, 307.	4.1	12
45	Three-Dimensional Architectures in Electrochemical Capacitor Applications â€“ Insights, Opinions, and Perspectives. Frontiers in Energy Research, 2020, 8, .	2.3	10
46	Correlation of hydrogen capacity in carbon material with the parameters of electrosorption. Open Chemistry, 2011, 9, 20-24.	1.9	9
47	New Trends in Electrochemical Capacitors. Advances in Inorganic Chemistry, 2018, 72, 247-286.	1.0	9
48	Operando monitoring of activated carbon electrodes operating with aqueous electrolytes. Energy Storage Materials, 2022, 49, 518-528.	18.0	9
49	Deep Eutectic Solvents for Highâ€Temperature Electrochemical Capacitors. ChemElectroChem, 2021, 8, 4028-4037.	3.4	8
50	Enhancing capacitor lifetime by alternate constant polarization. Journal of Power Sources, 2021, 506, 230131.	7.8	7
51	Effect of benzoquinone additives on the performance of symmetric carbon/carbon capacitors â€“ electrochemical impedance study. Journal of Energy Storage, 2018, 18, 340-348.	8.1	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. Electrochimica Acta, 2021, 377, 138115.	5.2	6
54	Redox Activity of Bromides in Carbonâ€Based Electrochemical Capacitors. Batteries and Supercaps, 2020, 3, 1080-1090.	4.7	5

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55	Electrode/Electrolyte Interface with Various Redox Couples. ECS Transactions, 2014, 61, 1-8.	0.5	4
56	Performance evaluation of electrochemical capacitors with activated carbon spheres as electrode material and aqueous electrolyte. Journal of Power Sources, 2022, 542, 231714.	7.8	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.	1.0	2
60	High frequency response of adenine-derived carbon in aqueous electrochemical capacitor. Electrochimica Acta, 2022, 424, 140649.	5.2	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.	5.1	0
66	Redox Mediated Electrolytes in Electrochemical Capacitors. , 0, , .		0