

Boris Dyatkin

List of Publications by Year in descending order

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Version: 2024-02-01

44
papers

4,196
citations

257101

24
h-index

243296

44
g-index

51
all docs

51
docs citations

51
times ranked

5942
citing authors

#	ARTICLE	IF	CITATIONS
1	MXene: a promising transition metal carbide anode for lithium-ion batteries. <i>Electrochemistry Communications</i> , 2012, 16, 61-64.	2.3	1,252
2	One-step synthesis of nanocrystalline transition metal oxides on thin sheets of disordered graphitic carbon by oxidation of MXenes. <i>Chemical Communications</i> , 2014, 50, 7420-7423.	2.2	614
3	Kinetics of aluminum extraction from Ti ₃ AlC ₂ in hydrofluoric acid. <i>Materials Chemistry and Physics</i> , 2013, 139, 147-152.	2.0	348
4	Effect of Metal Ion Intercalation on the Structure of MXene and Water Dynamics on its Internal Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 8859-8863.	4.0	225
5	Synthesis and Charge Storage Properties of Hierarchical Niobium Pentoxide/Carbon/Niobium Carbide (MXene) Hybrid Materials. <i>Chemistry of Materials</i> , 2016, 28, 3937-3943.	3.2	210
6	Ion Dynamics in Porous Carbon Electrodes in Supercapacitors Using in Situ Infrared Spectroelectrochemistry. <i>Journal of the American Chemical Society</i> , 2013, 135, 12818-12826.	6.6	174
7	Development of a Green Supercapacitor Composed Entirely of Environmentally Friendly Materials. <i>ChemSusChem</i> , 2013, 6, 2269-2280.	3.6	155
8	Highly porous carbon spheres for electrochemical capacitors and capacitive flowable suspension electrodes. <i>Carbon</i> , 2014, 77, 155-164.	5.4	148
9	Room-Temperature Carbide-Derived Carbon Synthesis by Electrochemical Etching of MAX Phases. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 4877-4880.	7.2	133
10	Synthesis of Carbon/Sulfur Nanolaminates by Electrochemical Extraction of Titanium from Ti ₂ SC. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 4810-4814.	7.2	100
11	Synthesis and electrochemical properties of niobium pentoxide deposited on layered carbide-derived carbon. <i>Journal of Power Sources</i> , 2015, 274, 121-129.	4.0	66
12	High capacitance of coarse-grained carbide derived carbon electrodes. <i>Journal of Power Sources</i> , 2016, 306, 32-41.	4.0	65
13	Effects of structural disorder and surface chemistry on electric conductivity and capacitance of porous carbon electrodes. <i>Faraday Discussions</i> , 2014, 172, 139-62.	1.6	54
14	Mixed Ionic Liquid Improves Electrolyte Dynamics in Supercapacitors. <i>Journal of Physical Chemistry C</i> , 2018, 122, 10476-10481.	1.5	53
15	Polymer Single Crystal-Decorated Superhydrophobic Buckypaper with Controlled Wetting and Conductivity. <i>ACS Nano</i> , 2012, 6, 1204-1213.	7.3	48
16	High-density freestanding graphene/carbide-derived carbon film electrodes for electrochemical capacitors. <i>Carbon</i> , 2017, 118, 642-649.	5.4	47
17	In situ synthesis of cotton-derived Ni/C catalysts with controllable structures and enhanced catalytic performance. <i>Green Chemistry</i> , 2016, 18, 3594-3599.	4.6	44
18	Influence of Surface Oxidation on Ion Dynamics and Capacitance in Porous and Nonporous Carbon Electrodes. <i>Journal of Physical Chemistry C</i> , 2016, 120, 8730-8741.	1.5	40

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19	Effect of nanostructured carbon support on copper electrocatalytic activity toward CO ₂ electroreduction to hydrocarbon fuels. <i>Catalysis Today</i> , 2017, 288, 2-10.	2.2	39
20	Ionic liquid structure, dynamics, and electrosorption in carbon electrodes with bimodal pores and heterogeneous surfaces. <i>Carbon</i> , 2018, 129, 104-118.	5.4	36
21	Synthesis of carbon core-shell pore structures and their performance as supercapacitors. <i>Microporous and Mesoporous Materials</i> , 2015, 218, 130-136.	2.2	35
22	Capacitance, charge dynamics, and electrolyte-surface interactions in functionalized carbide-derived carbon electrodes. <i>Progress in Natural Science: Materials International</i> , 2015, 25, 631-641.	1.8	29
23	Electrolyte cation length influences electrosorption and dynamics in porous carbon supercapacitors. <i>Electrochimica Acta</i> , 2018, 283, 882-893.	2.6	25
24	Molecular Investigation of Oxidized Graphene: Anatomy of the Double-Layer Structure and Ion Dynamics. <i>Journal of Physical Chemistry C</i> , 2019, 123, 12583-12591.	1.5	15
25	Influence of humidity on performance and microscopic dynamics of an ionic liquid in supercapacitor. <i>Physical Review Materials</i> , 2017, 1, .	0.9	15
26	An Atomistic Carbide-Derived Carbon Model Generated Using ReaxFF-Based Quenched Molecular Dynamics. <i>Journal of Carbon Research</i> , 2017, 3, 32.	1.4	13
27	Ionic liquid dynamics in nanoporous carbon: A pore-size- and temperature-dependent neutron spectroscopy study on supercapacitor materials. <i>Physical Review Materials</i> , 2020, 4, .	0.9	13
28	Cation Molecular Structure Affects Mobility and Transport of Electrolytes in Porous Carbons. <i>Journal of the Electrochemical Society</i> , 2019, 166, A507-A514.	1.3	12
29	Carbon electrodes for energy storage: general discussion. <i>Faraday Discussions</i> , 2014, 172, 239-260.	1.6	11
30	Side-chain effects on the capacitive behaviour of ionic liquids in microporous electrodes. <i>Molecular Physics</i> , 2019, 117, 3603-3613.	0.8	11
31	Synthesis and material properties of polymer-derived niobium carbide and niobium nitride nanocrystalline ceramics. <i>Ceramics International</i> , 2021, 47, 1163-1168.	2.3	10
32	Electrode Surface Composition of Dual-Intercalation, All-Graphite Batteries. <i>Journal of Carbon Research</i> , 2017, 3, 5.	1.4	9
33	Chemical structure and curing dynamics of bisphenol S, PEEK TM like, and resveratrol phthalonitrile thermoset resins. <i>Journal of Polymer Science</i> , 2020, 58, 3419-3431.	2.0	7
34	Microwave-assisted pressureless sintering of silicon-reinforced boron carbide composites. <i>Journal of Solid State Chemistry</i> , 2020, 292, 121659.	1.4	7
35	Influence of molecular weight on thermal and mechanical properties of bisphenol based phthalonitrile resins. <i>Journal of Applied Polymer Science</i> , 2022, 139, .	1.3	7
36	Direct formulation of nanocrystalline silicon carbide/nitride solid ceramics. <i>Journal of Materials Science</i> , 2017, 52, 9294-9307.	1.7	5

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37	Superconducting TaC nanoparticle-containing ceramic nanocomposites thermally transformed from mixed Ta and aromatic molecule precursors. <i>Journal of Materials Research</i> , 2017, 32, 3353-3361.	1.2	5
38	The many faces of carbon in electrochemistry: general discussion. <i>Faraday Discussions</i> , 2014, 172, 117-137.	1.6	4
39	Synthesis, structure, and properties of polymer-derived, metal-reinforced boron carbide cermet composites. <i>International Journal of Applied Ceramic Technology</i> , 2021, 18, 457-471.	1.1	2
40	A Combined Theoretical and Experimental Characterization of a Zirconium MOF with Potential Application to Supercapacitors. <i>Applied Magnetic Resonance</i> , 0, , 1.	0.6	2
41	Highlights from Faraday Discussion 172: Carbon in Electrochemistry, Sheffield, UK, July 2014. <i>Chemical Communications</i> , 2015, 51, 2199-2207.	2.2	1
42	Energy Focus: Novel method developed to investigate stiffness and mechanical stress in Li-ion batteries. <i>MRS Bulletin</i> , 2016, 41, 725.	1.7	0
43	Nanocrystals embedded in nanoporous carbon increase energy-storage capacity. <i>MRS Bulletin</i> , 2016, 41, 425-425.	1.7	0
44	Advocacy, public service, and outreach: Why scientists must step up. <i>MRS Bulletin</i> , 2017, 42, 333.	1.7	0