

Christian Prehal

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7493858/publications.pdf>

Version: 2024-02-01

20
papers

1,063
citations

623574

14
h-index

752573

20
g-index

28
all docs

28
docs citations

28
times ranked

1602
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Tracking the structural arrangement of ions in carbon supercapacitor nanopores using in situ small-angle X-ray scattering. <i>Energy and Environmental Science</i> , 2015, 8, 1725-1735.	15.6	126
3	Singlet oxygen from cation driven superoxide disproportionation and consequences for aprotic metal-O ₂ batteries. <i>Energy and Environmental Science</i> , 2019, 12, 2559-2568.	15.6	122
4	Current status and future perspectives of lithium metal batteries. <i>Journal of Power Sources</i> , 2020, 480, 228803.	4.0	109
5	Nanoporous activated carbon cloth as a versatile material for hydrogen adsorption, selective gas separation and electrochemical energy storage. <i>Nano Energy</i> , 2017, 40, 49-64.	8.2	101
6	Salt concentration and charging velocity determine ion charge storage mechanism in nanoporous supercapacitors. <i>Nature Communications</i> , 2018, 9, 4145.	5.8	85
7	Persistent and reversible solid iodine electrodeposition in nanoporous carbons. <i>Nature Communications</i> , 2020, 11, 4838.	5.8	52
8	Mechanism of mediated alkali peroxide oxidation and triplet versus singlet oxygen formation. <i>Nature Chemistry</i> , 2021, 13, 465-471.	6.6	41
9	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
10	Microporous novolac-derived carbon beads/sulfur hybrid cathode for lithium-sulfur batteries. <i>Journal of Power Sources</i> , 2017, 357, 198-208.	4.0	33
11	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
12	Comparing pore structure models of nanoporous carbons obtained from small angle X-ray scattering and gas adsorption. <i>Carbon</i> , 2019, 152, 416-423.	5.4	28
13	In Situ Tracking of Partial Sodium Desolvation of Materials with Capacitive, Pseudocapacitive, and Battery-like Charge/Discharge Behavior in Aqueous Electrolytes. <i>Langmuir</i> , 2018, 34, 13132-13143.	1.6	20
14	In situ small-angle X-ray scattering reveals solution phase discharge of Li-O ₂ batteries with weakly solvating electrolytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	18
15	Towards Real-Time Ion-Specific Structural Sensitivity in Nanoporous Carbon Electrodes Using In Situ Anomalous Small-Angle X-ray Scattering. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 42214-42220.	4.0	13
16	Electrical and photovoltaic properties of self-assembled Ge nanodomains on Si(001). <i>Physical Review B</i> , 2012, 86, .	1.1	11
17	Willow Bark for Sustainable Energy Storage Systems. <i>Materials</i> , 2020, 13, 1016.	1.3	9
18	Li-O ₂ Cell-Scale Energy Densities. <i>Joule</i> , 2019, 3, 321-323.	11.7	7

#	ARTICLE	IF	CITATIONS
19	Ionophobicity of carbon sub-nanometer pores enables efficient desalination at high salinity. Cell Reports Physical Science, 2022, 3, 100689.	2.8	7
20	A Facile One-Pot Synthesis of Hierarchically Organized Carbon/TiO ₂ Monoliths with Ordered Mesopores. ChemPlusChem, 2021, 86, 275-283.	1.3	3