Vibha Kalra

List of Publications by Year
in descending order

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28	1,852	394421 19	501196 28
papers	citations	h-index	g-index

28	28	28	3024
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A free-standing carbon nanofiber interlayer for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2015, 3, 4530-4538.	10.3	317
2	2D Ti3C2Tz MXene Synthesized by Water-free Etching of Ti3AlC2 in Polar Organic Solvents. CheM, 2020, 6, 616-630.	11.7	303
3	Electrochemically Stable Rechargeable Lithiumâ€“Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide. Advanced Energy Materials, 2015, 5, 1500738.	19.5	255
4	Fabrication of porous carbon nanofibers with adjustable pore sizes as electrodes for supercapacitors. Journal of Power Sources, 2013, 235, 289-296.	7.8	243
5	Ionic Liquid Dynamics in Nanoporous Carbon Nanofibers in Supercapacitors Measured with in Operando Infrared Spectroelectrochemistry. Journal of Physical Chemistry C, 2014, 118, 21846-21855.	3.1	64
6	Porous Carbon Mat as an Electrochemical Testing Platform for Investigating the Polysulfide Retention of Various Cathode Configurations in Liâ€“S Cells. Journal of Physical Chemistry Letters, 2015, 6, 2163-2169.	4.6	61
7	Electrospun nanostructures for conversion type cathode (S, Se) based lithium and sodium batteries. Journal of Materials Chemistry A, 2019, 7, 11613-11650.	10.3	60
8	Highly Durable, Self-Standing Solid-State Supercapacitor Based on an Ionic Liquid-Rich Ionogel and Porous Carbon Nanofiber Electrodes. ACS Applied Materials & Interfaces, 2017, 9, 33749-33757.	8.0	55
9	TiO Phase Stabilized into Freestanding Nanofibers as Strong Polysulfide Immobilizer in Liâ€“S Batteries: Evidence for Lewis Acidâ€“Base Interactions. ACS Applied Materials & Interfaces, 2018, 10, 37937-37947.	8.0	53
10	Polysulfide Speciation and Electrolyte Interactions in Lithiumâ€“Sulfur Batteries with in Situ Infrared Spectroelectrochemistry. Journal of Physical Chemistry C, 2018, 122, 18195-18203.	3.1	52
11	In Situ Grown Iron Oxides on Carbon Nanofibers as Freestanding Anodes in Aqueous Supercapacitors. Advanced Engineering Materials, 2018, 20, 1701116.	3.5	44
12	Dispersion and Stabilization of Alkylated 2D MXene in Nonpolar Solvents and Their Pseudocapacitive Behavior. Cell Reports Physical Science, 2020, 1, 100042.	5.6	43
13	Binder-free, freestanding cathodes fabricated with an ultra-rapid diffusion of sulfur into carbon nanofiber mat for lithium sulfur batteries. Materials Today Energy, 2018, 9, 336-344.	4.7	34
14	Engineering conformal nanoporous polyaniline via oxidative chemical vapor deposition and its potential application in supercapacitors. Chemical Engineering Science, 2019, 194, 156-164.	3.8	34
15	Effect of Base/Nucleophile Treatment on Interlayer Ion Intercalation, Surface Terminations, and Osmotic Swelling of Ti₃C₂T_z MXene Multilayers. Chemistry of Materials, 2022, 34, 678-693.	6.7	33
16	High-energy density nanofiber-based solid-state supercapacitors. Journal of Materials Chemistry A, 2016, 4, 160-166.	10.3	29
17	Binder-free three-dimensional high energy density electrodes for ionic-liquid supercapacitors. Chemical Communications, 2015, 51, 13760-13763.	4.1	25
18	Fibrous Phosphorus Quantum Dots for Cell Imaging. ACS Applied Nano Materials, 2020, 3, 752-759.	5.0	22

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19	Caffeinated Interfaces Enhance Alkaline Hydrogen Electrocatalysis. ACS Catalysis, 2020, 10, 6798-6802.	11.2	20
20	High performance aqueous asymmetric supercapacitor based on iron oxide anode and cobalt oxide cathode. Journal of Materials Research, 2018, 33, 1199-1210.	2.6	18
21	Stabilization of gamma sulfur at room temperature to enable the use of carbonate electrolyte in Li-S batteries. Communications Chemistry, 2022, 5, .	4.5	18
22	Revisiting the use of electrolyte additives in Liâ€“S batteries: the role of porosity of sulfur host materials. Sustainable Energy and Fuels, 2019, 3, 2788-2797.	4.9	13
23	Synergistic effect of sulfur-rich copolymer/S8 and carbon host porosity in Li-S batteries. Electrochimica Acta, 2021, 365, 137088.	5.2	12
24	Tuning functional two-dimensional MXene nanosheets to enable efficient sulfur utilization in lithium-sulfur batteries. Cell Reports Physical Science, 2021, 2, 100480.	5.6	10
25	Vanadium Monoxide-Based Free-Standing Nanofiber Hosts for High-Loading Lithium-Sulfur Batteries. ACS Applied Energy Materials, 2021, 4, 5649-5660.	5.1	10
26	A dual-role electrolyte additive for simultaneous polysulfide shuttle inhibition and redox mediation in sulfur batteries. Journal of Materials Chemistry A, 2021, 9, 26976-26988.	10.3	9
27	Sulfur confined MXene hosts enabling the use of carbonate-based electrolytes in alkali metal (Li/Na/K)-sulfur batteries. Materials Today Energy, 2022, 27, 101000.	4.7	9
28	Deposition Behavior of Polyaniline on Carbon Nanofibers by Oxidative Chemical Vapor Deposition. Langmuir, 2020, 36, 13079-13086.	3.5	6