Rahul Pai

List of Publications by Year
in descending order

35 papers	1,876 citations	394421 19 h-index	361022 35 g-index
36 all docs	36 docs citations	36 times ranked	3175 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	Electrochemically Stable Rechargeable Lithiumâ€“Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide. Advanced Energy Materials, 2015, 5, 1500738.	19.5	255
3	Fabrication of porous carbon nanofibers with adjustable pore sizes as electrodes for supercapacitors. Journal of Power Sources, 2013, 235, 289-296.	7.8	243
4	Supercapacitor Electrodes Based on High-Purity Electrospun Polyaniline and Polyanilineâ€“Carbon Nanotube Nanofibers. ACS Applied Materials & Interfaces, 2016, 8, 21261-21269.	8.0	242
5	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
6	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
7	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
8	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
9	Polysulfide Speciation and Electrolyte Interactions in Lithiumâ€“Sulfur Batteries with <i>in Situ</i> Infrared Spectroelectrochemistry. Journal of Physical Chemistry C, 2018, 122, 18195-18203.	3.1	52
10	Using common salt to impart pseudocapacitive functionalities to carbon nanofibers. Journal of Materials Chemistry A, 2015, 3, 377-385.	10.3	50
11	Polyaniline-based electrodes: recent application in supercapacitors and next generation rechargeable batteries. Current Opinion in Chemical Engineering, 2016, 13, 150-160.	7.8	44
12	In Situ Grown Iron Oxides on Carbon Nanofibers as Freestanding Anodes in Aqueous Supercapacitors. Advanced Engineering Materials, 2018, 20, 1701116.	3.5	44
13	Co-continuous nanoscale assembly of Nafionâ€“polyacrylonitrile blends within nanofibers: a facile route to fabrication of porous nanofibers. Soft Matter, 2013, 9, 846-852.	2.7	41
14	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
15	A review on the use of carbonate-based electrolytes in Li-S batteries: A comprehensive approach enabling solid-solid direct conversion reaction. Energy Storage Materials, 2022, 50, 197-224.	18.0	33
16	High-energy density nanofiber-based solid-state supercapacitors. Journal of Materials Chemistry A, 2016, 4, 160-166.	10.3	29
17	Cobalt Nanoparticleâ€Embedded Porous Carbon Nanofibers with Inherent Nâ€•and Fâ€Doping as Binderâ€Free Bifunctional Catalysts for Oxygen Reduction and Evolution Reactions. ChemPhysChem, 2017, 18, 223-229.	2.1	28
18	Cylindrically confined assembly of asymmetrical block copolymers with and without nanoparticles. Soft Matter, 2012, 8, 1845-1857.	2.7	25

#	Article	IF	Citations
19	Fibrous Phosphorus Quantum Dots for Cell Imaging. ACS Applied Nano Materials, 2020, 3, 752-759.	5.0	22
20	Binder-free hierarchically-porous carbon nanofibers decorated with cobalt nanoparticles as efficient cathodes for lithiumâ€“oxygen batteries. RSC Advances, 2016, 6, 103072-103080.	3.6	20
21	Caffeinated Interfaces Enhance Alkaline Hydrogen Electrocatalysis. ACS Catalysis, 2020, 10, 6798-6802.	11.2	20
22	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
23	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
24	Controlling the dispersion and orientation of nanorods in polymer melt under shear: Coarse-grained molecular dynamics simulation study. Journal of Chemical Physics, 2014, 140, 124903.	3.0	15
25	Self-assembly of fully conjugated rodâ€“rod diblock copolymers within nanofibers. Soft Matter, 2013, 9, 11014.	2.7	13
26	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
27	Role of Nanoparticle Selectivity in the Symmetry Breaking of Cylindrically Confined Block Copolymers. Journal of Physical Chemistry C, 2014, 118, 7653-7668.	3.1	12
28	Hierarchical Selfâ€Assembly in Monoaxially Electrospun P3HT/PCBM Nanofibers. Macromolecular Materials and Engineering, 2015, 300, 320-327.	3.6	12
29	Synergistic effect of sulfur-rich copolymer/S8 and carbon host porosity in Li-S batteries. Electrochimica Acta, 2021, 365, 137088.	5.2	12
30	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
31	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
32	Deposition Behavior of Polyaniline on Carbon Nanofibers by Oxidative Chemical Vapor Deposition. Langmuir, 2020, 36, 13079-13086.	3.5	6
33	Self-Assembly of Poly(3-hexylthiophene)-<i>block</i>-poly(Î³-benzyl-<scp>L</scp>-glutamate) within Solution-Cast Films and Nanofibers. Macromolecular Materials and Engineering, 2014, 299, 1484-1493.	3.6	5
34	Molecular dynamics study on effect of elongational flow on morphology of immiscible mixtures. Journal of Chemical Physics, 2014, 140, 134902.	3.0	4
35	Lithium-Sulfur Batteries: Electrochemically Stable Rechargeable Lithium-Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide (Adv. Energy Mater. 18/2015). Advanced Energy Materials, 2015, 5, n/a-n/a.	19.5	1