Rahul Pai

List of Publications by Year
in descending order

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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	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
2	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
3	Synergistic effect of sulfur-rich copolymer/S8 and carbon host porosity in Li-S batteries. Electrochimica Acta, 2021, 365, 137088.	5.2	12
4	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
5	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
6	Fibrous Phosphorus Quantum Dots for Cell Imaging. ACS Applied Nano Materials, 2020, 3, 752-759.	5.0	22
7	Deposition Behavior of Polyaniline on Carbon Nanofibers by Oxidative Chemical Vapor Deposition. Langmuir, 2020, 36, 13079-13086.	3.5	6
8	Caffeinated Interfaces Enhance Alkaline Hydrogen Electrocatalysis. ACS Catalysis, 2020, 10, 6798-6802.	11.2	20
9	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
10	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
11	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
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	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
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	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
16	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
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	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

#	Article	IF	Citations
19	Polyaniline-based electrodes: recent application in supercapacitors and next generation rechargeable batteries. Current Opinion in Chemical Engineering, 2016, 13, 150-160.	7.8	44
20	Supercapacitor Electrodes Based on High-Purity Electrospun Polyaniline and Polyanilineâ€“Carbon Nanotube Nanofibers. ACS Applied Materials & Interfaces, 2016, 8, 21261-21269.	8.0	242
21	High-energy density nanofiber-based solid-state supercapacitors. Journal of Materials Chemistry A, 2016, 4, 160-166.	10.3	29
22	Hierarchical Selfâ€Assembly in Monoaxially Electrospun P3HT/PCBM Nanofibers. Macromolecular Materials and Engineering, 2015, 300, 320-327.	3.6	12
23	Electrochemically Stable Rechargeable Lithiumâ€“Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide. Advanced Energy Materials, 2015, 5, 1500738.	19.5	255
24	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
25	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
26	A free-standing carbon nanofiber interlayer for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2015, 3, 4530-4538.	10.3	317
27	Using common salt to impart pseudocapacitive functionalities to carbon nanofibers. Journal of Materials Chemistry A, 2015, 3, 377-385.	10.3	50
28	Molecular dynamics study on effect of elongational flow on morphology of immiscible mixtures. Journal of Chemical Physics, 2014, 140, 134902.	3.0	4
29	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
30	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
31	Self-Assembly of Poly(3-hexylthiophene)-block-poly(Î³-benzyl-<scp>L</scp>-glutamate) within Solution-Cast Films and Nanofibers. Macromolecular Materials and Engineering, 2014, 299, 1484-1493.	3.6	5
32	Self-assembly of fully conjugated rodâ€“rod diblock copolymers within nanofibers. Soft Matter, 2013, 9, 11014.	2.7	13
33	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
34	Fabrication of porous carbon nanofibers with adjustable pore sizes as electrodes for supercapacitors. Journal of Power Sources, 2013, 235, 289-296.	7.8	243
35	Cylindrically confined assembly of asymmetrical block copolymers with and without nanoparticles. Soft Matter, 2012, 8, 1845-1857.	2.7	25