Sundaramurthy Jayaraman

List of Publications by Year
in descending order

69 papers	4,503 citations	117625 34 h-index	102487 66 g-index
71 all docs	71 docs citations	71 times ranked	6722 citing authors

#	Article	IF	Citations
1	Morphologically Robust NiFe₂O₄ Nanofibers as High Capacity Li-Ion Battery Anode Material. ACS Applied Materials & Interfaces, 2013, 5, 9957-9963.	8.0	278
2	Hierarchical electrospun nanofibers for energy harvesting, production and environmental remediation. Energy and Environmental Science, 2014, 7, 3192-3222.	30.8	271
3	Electrospun composite nanofibers and their multifaceted applications. Journal of Materials Chemistry, 2012, 22, 12953.	6.7	267
4	Electrospun Î±-Fe2O3 nanorods as a stable, high capacity anode material for Li-ion batteries. Journal of Materials Chemistry, 2012, 22, 12198.	6.7	249
5	Activated carbons derived from coconut shells as high energy density cathode material for Li-ion capacitors. Scientific Reports, 2013, 3, 3002.	3.3	222
6	High Aspect Ratio Electrospun CuO Nanofibers as Anode Material for Lithium-Ion Batteries with Superior Cycleability. Journal of Physical Chemistry C, 2012, 116, 18087-18092.	3.1	202
7	Electrospun TiO₂â€“Graphene Composite Nanofibers as a Highly Durable Insertion Anode for Lithium Ion Batteries. Journal of Physical Chemistry C, 2012, 116, 14780-14788.	3.1	181
8	Electrospun NiO nanofibers as high performance anode material for Li-ion batteries. Journal of Power Sources, 2013, 227, 284-290.	7.8	178
9	Synthesis and characterization of CuO nanofibers, and investigation for its suitability as blocking layer in ZnO NPs based dye sensitized solar cell and as photocatalyst in organic dye degradation. Journal of Solid State Chemistry, 2012, 186, 261-267.	2.9	168
10	Mesoporous activated carbons with enhanced porosity by optimal hydrothermal pre-treatment of biomass for supercapacitor applications. Microporous and Mesoporous Materials, 2015, 218, 55-61.	4.4	151
11	Unveiling TiNb₂O₇ as an Insertion Anode for Lithium Ion Capacitors with High Energy and Power Density. ChemSusChem, 2014, 7, 1858-1863.	6.8	147
12	Electrospun nanofibers: A prospective electro-active material for constructing high performance Li-ion batteries. Chemical Communications, 2015, 51, 2225-2234.	4.1	131
13	Exceptional Performance of TiNb₂O₇ Anode in All One-Dimensional Architecture by Electrospinning. ACS Applied Materials & Interfaces, 2014, 6, 8660-8666.	8.0	124
14	Nanostructured spinel LiNi 0.5 Mn 1.5 O 4 as new insertion anode for advanced Li-ion capacitors with high power capability. Nano Energy, 2015, 12, 69-75.	16.0	114
15	Hydrothermal pre-treatment for mesoporous carbon synthesis: enhancement of chemical activation. Journal of Materials Chemistry A, 2014, 2, 520-528.	10.3	108
16	Bio-mass derived mesoporous carbon as superior electrode in all vanadium redox flow battery with multicouple reactions. Journal of Power Sources, 2015, 274, 846-850.	7.8	97
17	Synthesis of porous LiMn2O4 hollow nanofibers by electrospinning with extraordinary lithium storage properties. Chemical Communications, 2013, 49, 6677.	4.1	90
18	Li-ion vs. Na-ion capacitors: A performance evaluation with coconut shell derived mesoporous carbon and natural plant based hard carbon. Chemical Engineering Journal, 2017, 316, 506-513.	12.7	90

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19	Synthesis of TiO2 hollow nanofibers by co-axial electrospinning and its superior lithium storage capability in full-cell assembly with olivine phosphate. Nanoscale, 2013, 5, 5973.	5.6	87
20	Enhanced super-hydrophobic and switching behavior of ZnO nanostructured surfaces prepared by simple solution â€“ Immersion successive ionic layer adsorption and reaction process. Journal of Colloid and Interface Science, 2011, 363, 51-58.	9.4	76
21	A novel strategy to construct high performance lithium-ion cells using one dimensional electrospun nanofibers, electrodes and separators. Nanoscale, 2013, 5, 10636.	5.6	68
22	Highly mesoporous carbon from Teak wood sawdust as prospective electrode for the construction of high energy Li-ion capacitors. Electrochimica Acta, 2017, 228, 131-138.	5.2	66
23	Superior photocatalytic behaviour of novel 1D nanobraid and nanoporous Î±-Fe2O3 structures. RSC Advances, 2012, 2, 8201.	3.6	60
24	Kinetics of the removal of mono-chlorobenzene vapour from waste gases using a trickle bed air biofilter. Journal of Hazardous Materials, 2006, 137, 1560-1568.	12.4	54
25	Nanostructured Î±-Fe2O3 platform for the electrochemical sensing of folic acid. Analyst, The, 2013, 138, 1779.	3.5	54
26	Tunable hierarchical TiO2 nanostructures by controlled annealing of electrospun fibers: formation mechanism, morphology, crystallographic phase and photoelectrochemical performance analysis. Journal of Materials Chemistry, 2011, 21, 9784.	6.7	52
27	Exceptional performance of a high voltage spinel LiNi_{0.5}Mn_{1.5}O₄cathode in all one dimensional architectures with an anatase TiO₂anode by electrospinning. Nanoscale, 2014, 6, 8926.	5.6	52
28	High energy Li-ion capacitor and battery using graphitic carbon spheres as an insertion host from cooking oil. Journal of Materials Chemistry A, 2018, 6, 3242-3248.	10.3	48
29	Free-standing electrospun carbon nanofibresâ€”a high performance anode material for lithium-ion batteries. Journal Physics D: Applied Physics, 2012, 45, 265302.	2.8	47
30	Does carbon coating really improves the electrochemical performance of electrospun SnO2 anodes?. Electrochimica Acta, 2014, 121, 109-115.	5.2	45
31	From Electrodes to Electrodes: Building Highâ€Performance Liâ€Ion Capacitors and Batteries from Spent Lithiumâ€Ion Battery Carbonaceous Materials. ChemElectroChem, 2019, 6, 1407-1412.	3.4	42
32	High performance lithium-ion cells using one dimensional electrospun TiO2 nanofibers with spinel cathode. RSC Advances, 2012, 2, 7983.	3.6	41
33	Overlithiated Li 1+x Ni 0.5 Mn 1.5 O 4 in all one dimensional architecture with conversion type Î±-Fe 2 O 3 : A new approach to eliminate irreversible capacity loss. Electrochimica Acta, 2016, 215, 647-651.	5.2	39
34	Perspective of electrospun nanofibers in energy and environment. Biofuel Research Journal, 0, , 44-54.	13.3	39
35	Biomass derived palygorskiteâ€“carbon nanocomposites: Synthesis, characterisation and affinity to dye compounds. Applied Clay Science, 2015, 114, 617-626.	5.2	37
36	Ultralong Durability of Porous Î±â€Fe₂O₃ Nanofibers in Practical Liâ€Ion Configuration with LiMn₂O₄ Cathode. Advanced Science, 2015, 2, 1500050.	11.2	34

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37	Electrospun ZnO Nanowire Plantations in the Electron Transport Layer for High-Efficiency Inverted Organic Solar Cells. ACS Applied Materials & Interfaces, 2013, 5, 9396-9404.	8.0	32
38	Electrospun carbon nanofibers/TiO2-PAN hybrid membranes for effective removal of metal ions and cationic dye. Environmental Nanotechnology, Monitoring and Management, 2018, 10, 366-376.	2.9	30
39	Elongated graphitic hollow nanofibers from vegetable oil as prospective insertion host for constructing advanced high energy Li-Ion capacitor and battery. Carbon, 2018, 134, 9-14.	10.3	29
40	Electrospun TiO2â^'Î´ Nanofibers as Insertion Anode for Li-Ion Battery Applications. Journal of Physical Chemistry C, 2014, 118, 16776-16781.	3.1	28
41	Superhydrophobic and antireflecting behavior of densely packed and size controlled ZnO nanorods. Journal of Alloys and Compounds, 2013, 553, 375-382.	5.5	26
42	Cellulose Acetate-Poly(N-isopropylacrylamide)-Based Functional Surfaces with Temperature-Triggered Switchable Wettability. Macromolecular Rapid Communications, 2015, 36, 1368-1373.	3.9	26
43	Antibacterial, electrospun nanofibers of novel poly(sulfobetaine) and poly(sulfabetaine)s. Journal of Materials Chemistry B, 2016, 4, 2731-2738.	5.8	26
44	Supercritical fluid immobilization of horseradish peroxidase on high surface area mesoporous activated carbon. Journal of Supercritical Fluids, 2016, 107, 513-518.	3.2	24
45	Effect of La-Doping on optical bandgap and photoelectrochemical performance of hematite nanostructures. Journal of Materials Chemistry A, 2014, 2, 19290-19297.	10.3	22
46	Stable Organic Monolayers on Oxide-Free Silicon/Germanium in a Supercritical Medium: A New Route to Molecular Electronics. Journal of Physical Chemistry Letters, 2013, 4, 1397-1403.	4.6	18
47	One-step fabrication of robust and optically transparent slippery coatings. RSC Advances, 2014, 4, 55263-55270.	3.6	18
48	Gold nanoparticle immobilization on ZnO nanorods via bi-functional monolayers: A facile method to tune interface properties. Surface Science, 2015, 641, 23-29.	1.9	17
49	Techno-economic and profitability analysis of extraction of patchouli oil using supercritical carbon dioxide. Journal of Cleaner Production, 2021, 297, 126661.	9.3	16
50	Enhanced luminescence and charge separation in polythiophene-grafted, gold nanoparticle-decorated, 1-D ZnO nanorods. RSC Advances, 2014, 4, 11288.	3.6	15
51	Exploring Anatase TiO₂ Nanofibers as New Cathode for Constructing 1.6 V Class â€œRockingâ€Chairâ€•Type Liâ€Ion Cells. Particle and Particle Systems Characterization, 2016, 33, 306-310.	2.3	13
52	Polythiopheneâ€“gold nanoparticle hybrid systems: Langmuirâ€“Blodgett assembly of nanostructured films. Nanoscale, 2013, 5, 2974.	5.6	12
53	Highly Stable Bonding of Thiol Monolayers to Hydrogen-Terminated Si via Supercritical Carbon Dioxide: Toward a Super Hydrophobic and Bioresistant Surface. ACS Applied Materials & Interfaces, 2016, 8, 24933-24945.	8.0	12
54	Single step peroxidase extraction and oxidation of highly concentrated ethanol and phenol aqueous solutions using supercritical carbon dioxide. Journal of Supercritical Fluids, 2016, 116, 209-214.	3.2	12

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55	Optimized extraction of patchouli essential oil from Pogostemon cablin Benth. with supercritical carbon dioxide. Journal of Applied Research on Medicinal and Aromatic Plants, 2020, 19, 100272.	1.5	11
56	High energy Na-Ion capacitor employing graphitic carbon fibers from waste rubber with diglyme-based electrolyte. Chemical Engineering Journal, 2021, 426, 130892.	12.7	11
57	Growth specificity of vertical ZnO nanorods on patterned seeded substrates through integrated chemical process. Materials Chemistry and Physics, 2012, 133, 126-134.	4.0	10
58	The Role of Functional End Groups of Perfluoropolyether (Z-dol and Z-03) Lubricants in Augmenting the Tribology of SU-8 Composites. Tribology Letters, 2014, 56, 423-434.	2.6	10
59	Unveiling the Fabrication of â€œRocking-Chairâ€•Type 3.2 and 1.2 V Class Cells Using Spinel LiNi_{0.5}Mn_{1.5}O₄ as Cathode with Li₄Ti₅O₁₂. Journal of Physical Chemistry C, 2015, 119, 24332-24336.	3.1	10
60	Formation of polythiophene multilayers on solid surfaces by covalent molecular assembly. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 168, 45-54.	3.5	9
61	Application of Organophosphonic Acids by One-Step Supercritical CO₂ on 1D and 2D Semiconductors: Toward Enhanced Electrical and Sensing Performances. ACS Applied Materials & Interfaces, 2015, 7, 14885-14895.	8.0	9
62	Mathematical modeling of mass transfer in supercritical fluid extraction of patchouli oil. Engineering Reports, 2019, 1, e12051.	1.7	9
63	Deposition of zwitterionic polymer brushes in a dense gas medium. Journal of Colloid and Interface Science, 2015, 448, 156-162.	9.4	8
64	A comprehensive study on the self-lubrication mechanisms of SU-8 composites. Tribology International, 2016, 95, 391-405.	5.9	7
65	In situ application of polyelectrolytes in zinc oxide nanorod synthesis: Understanding the effects on the structural and optical characteristics. Journal of Colloid and Interface Science, 2013, 394, 13-19.	9.4	5
66	Electrochemical Route to Alleviate Irreversible Capacity Loss from Conversion Type Î±-Fe₂O₃ Anodes by LiVPO₄F Prelithiation. ACS Applied Energy Materials, 0, , .	5.1	5
67	Synthesis and Controlled Growth of ZnO Nanorods Based Hybrid Device Structure by Aqueous Chemical Method. Advanced Materials Research, 2010, 123-125, 779-782.	0.3	4
68	Fabrication of molecular hybrid films of gold nanoparticle and polythiophene by covalent assembly. Thin Solid Films, 2015, 589, 238-245.	1.8	4
69	NANOFABRICATION BY COVALENT MOLECULAR ASSEMBLY: A PATHWAY TO ROBUST STRUCTURES. Cosmos, 2011, 07, 31-42.	0.4	1