

Sundaramurthy Jayaraman

List of Publications by Year in descending order

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69
papers

4,503
citations

117625

34
h-index

102487

66
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71
all docs

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docs citations

71
times ranked

6722
citing authors

#	ARTICLE	IF	CITATIONS
1	Techno-economic and profitability analysis of extraction of patchouli oil using supercritical carbon dioxide. <i>Journal of Cleaner Production</i> , 2021, 297, 126661.	9.3	16
2	High energy Na-Ion capacitor employing graphitic carbon fibers from waste rubber with diglyme-based electrolyte. <i>Chemical Engineering Journal</i> , 2021, 426, 130892.	12.7	11
3	Optimized extraction of patchouli essential oil from <i>Pogostemon cablin</i> Benth. with supercritical carbon dioxide. <i>Journal of Applied Research on Medicinal and Aromatic Plants</i> , 2020, 19, 100272.	1.5	11
4	Mathematical modeling of mass transfer in supercritical fluid extraction of patchouli oil. <i>Engineering Reports</i> , 2019, 1, e12051.	1.7	9
5	From Electrodes to Electrodes: Building High-Performance Li-Ion Capacitors and Batteries from Spent Lithium-Ion Battery Carbonaceous Materials. <i>ChemElectroChem</i> , 2019, 6, 1407-1412.	3.4	42
6	High energy Li-ion capacitor and battery using graphitic carbon spheres as an insertion host from cooking oil. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3242-3248.	10.3	48
7	Elongated graphitic hollow nanofibers from vegetable oil as prospective insertion host for constructing advanced high energy Li-Ion capacitor and battery. <i>Carbon</i> , 2018, 134, 9-14.	10.3	29
8	Electrospun carbon nanofibers/TiO ₂ -PAN hybrid membranes for effective removal of metal ions and cationic dye. <i>Environmental Nanotechnology, Monitoring and Management</i> , 2018, 10, 366-376.	2.9	30
9	Li-ion vs. Na-ion capacitors: A performance evaluation with coconut shell derived mesoporous carbon and natural plant based hard carbon. <i>Chemical Engineering Journal</i> , 2017, 316, 506-513.	12.7	90
10	Highly mesoporous carbon from Teak wood sawdust as prospective electrode for the construction of high energy Li-ion capacitors. <i>Electrochimica Acta</i> , 2017, 228, 131-138.	5.2	66
11	Exploring Anatase TiO ₂ Nanofibers as New Cathode for Constructing 1.6 V Class Rocking-Type Li-Ion Cells. <i>Particle and Particle Systems Characterization</i> , 2016, 33, 306-310.	2.3	13
12	Highly Stable Bonding of Thiol Monolayers to Hydrogen-Terminated Si via Supercritical Carbon Dioxide: Toward a Super Hydrophobic and Bioresistant Surface. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 24933-24945.	8.0	12
13	Overlithiated Li _{1+x} Ni _{0.5} Mn _{1.5} O ₄ in all one dimensional architecture with conversion type $\text{Li-Fe}_2\text{O}_3$: A new approach to eliminate irreversible capacity loss. <i>Electrochimica Acta</i> , 2016, 215, 647-651.	5.2	39
14	Single step peroxidase extraction and oxidation of highly concentrated ethanol and phenol aqueous solutions using supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2016, 116, 209-214.	3.2	12
15	Antibacterial, electrospun nanofibers of novel poly(sulfobetaine) and poly(sulfobetaine)s. <i>Journal of Materials Chemistry B</i> , 2016, 4, 2731-2738.	5.8	26
16	A comprehensive study on the self-lubrication mechanisms of SU-8 composites. <i>Tribology International</i> , 2016, 95, 391-405.	5.9	7
17	Supercritical fluid immobilization of horseradish peroxidase on high surface area mesoporous activated carbon. <i>Journal of Supercritical Fluids</i> , 2016, 107, 513-518.	3.2	24
18	Cellulose Acetate-Poly(<i>N</i> -isopropylacrylamide)-Based Functional Surfaces with Temperature-Triggered Switchable Wettability. <i>Macromolecular Rapid Communications</i> , 2015, 36, 1368-1373.	3.9	26

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19	Nanostructured spinel $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ as new insertion anode for advanced Li-ion capacitors with high power capability. <i>Nano Energy</i> , 2015, 12, 69-75.	16.0	114
20	Fabrication of molecular hybrid films of gold nanoparticle and polythiophene by covalent assembly. <i>Thin Solid Films</i> , 2015, 589, 238-245.	1.8	4
21	Deposition of zwitterionic polymer brushes in a dense gas medium. <i>Journal of Colloid and Interface Science</i> , 2015, 448, 156-162.	9.4	8
22	Mesoporous activated carbons with enhanced porosity by optimal hydrothermal pre-treatment of biomass for supercapacitor applications. <i>Microporous and Mesoporous Materials</i> , 2015, 218, 55-61.	4.4	151
23	Gold nanoparticle immobilization on ZnO nanorods via bi-functional monolayers: A facile method to tune interface properties. <i>Surface Science</i> , 2015, 641, 23-29.	1.9	17
24	Ultralong Durability of Porous Fe_2O_3 Nanofibers in Practical Li-ion Configuration with LiMn_2O_4 Cathode. <i>Advanced Science</i> , 2015, 2, 1500050.	11.2	34
25	Unveiling the Fabrication of "Rocking-Chair" Type 3.2 and 1.2 V Class Cells Using Spinel $\text{Li}_{0.5}\text{Mn}_{1.5}\text{O}_4$ as Cathode with $\text{Li}_4\text{Ti}_5\text{O}_{12}$. <i>Journal of Physical Chemistry C</i> , 2015, 119, 24332-24336.	3.1	10
26	Biomass derived palygorskite "carbon nanocomposites: Synthesis, characterisation and affinity to dye compounds. <i>Applied Clay Science</i> , 2015, 114, 617-626.	5.2	37
27	Application of Organophosphonic Acids by One-Step Supercritical CO_2 on 1D and 2D Semiconductors: Toward Enhanced Electrical and Sensing Performances. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 14885-14895.	8.0	9
28	Electrospun nanofibers: A prospective electro-active material for constructing high performance Li-ion batteries. <i>Chemical Communications</i> , 2015, 51, 2225-2234.	4.1	131
29	Bio-mass derived mesoporous carbon as superior electrode in all vanadium redox flow battery with multicouple reactions. <i>Journal of Power Sources</i> , 2015, 274, 846-850.	7.8	97
30	The Role of Functional End Groups of Perfluoropolyether (Z-dol and Z-03) Lubricants in Augmenting the Tribology of SU-8 Composites. <i>Tribology Letters</i> , 2014, 56, 423-434.	2.6	10
31	Does carbon coating really improves the electrochemical performance of electrospun SnO_2 anodes?. <i>Electrochimica Acta</i> , 2014, 121, 109-115.	5.2	45
32	Hydrothermal pre-treatment for mesoporous carbon synthesis: enhancement of chemical activation. <i>Journal of Materials Chemistry A</i> , 2014, 2, 520-528.	10.3	108
33	One-step fabrication of robust and optically transparent slippery coatings. <i>RSC Advances</i> , 2014, 4, 55263-55270.	3.6	18
34	Exceptional performance of a high voltage spinel $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ cathode in all one dimensional architectures with an anatase TiO_2 anode by electrospinning. <i>Nanoscale</i> , 2014, 6, 8926.	5.6	52
35	Electrospun TiO_2 Nanofibers as Insertion Anode for Li-Ion Battery Applications. <i>Journal of Physical Chemistry C</i> , 2014, 118, 16776-16781.	3.1	28
36	Enhanced luminescence and charge separation in polythiophene-grafted, gold nanoparticle-decorated, 1-D ZnO nanorods. <i>RSC Advances</i> , 2014, 4, 11288.	3.6	15

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37	Effect of La-Doping on optical bandgap and photoelectrochemical performance of hematite nanostructures. <i>Journal of Materials Chemistry A</i> , 2014, 2, 19290-19297.	10.3	22
38	Hierarchical electrospun nanofibers for energy harvesting, production and environmental remediation. <i>Energy and Environmental Science</i> , 2014, 7, 3192-3222.	30.8	271
39	Exceptional Performance of TiNb_2O_7 Anode in All One-Dimensional Architecture by Electrospinning. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 8660-8666.	8.0	124
40	Unveiling TiNb_2O_7 as an Insertion Anode for Lithium Ion Capacitors with High Energy and Power Density. <i>ChemSusChem</i> , 2014, 7, 1858-1863.	6.8	147
41	Morphologically Robust NiFe_2O_4 Nanofibers as High Capacity Li-Ion Battery Anode Material. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 9957-9963.	8.0	278
42	Electrospun ZnO Nanowire Plantations in the Electron Transport Layer for High-Efficiency Inverted Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 9396-9404.	8.0	32
43	In situ application of polyelectrolytes in zinc oxide nanorod synthesis: Understanding the effects on the structural and optical characteristics. <i>Journal of Colloid and Interface Science</i> , 2013, 394, 13-19.	9.4	5
44	Electrospun NiO nanofibers as high performance anode material for Li-ion batteries. <i>Journal of Power Sources</i> , 2013, 227, 284-290.	7.8	178
45	Superhydrophobic and antireflecting behavior of densely packed and size controlled ZnO nanorods. <i>Journal of Alloys and Compounds</i> , 2013, 553, 375-382.	5.5	26
46	Polythiophene-gold nanoparticle hybrid systems: Langmuir-Blodgett assembly of nanostructured films. <i>Nanoscale</i> , 2013, 5, 2974.	5.6	12
47	Nanostructured Fe_2O_3 platform for the electrochemical sensing of folic acid. <i>Analyst</i> , 2013, 138, 1779.	3.5	54
48	Synthesis of TiO_2 hollow nanofibers by co-axial electrospinning and its superior lithium storage capability in full-cell assembly with olivine phosphate. <i>Nanoscale</i> , 2013, 5, 5973.	5.6	87
49	Synthesis of porous LiMn_2O_4 hollow nanofibers by electrospinning with extraordinary lithium storage properties. <i>Chemical Communications</i> , 2013, 49, 6677.	4.1	90
50	Stable Organic Monolayers on Oxide-Free Silicon/Germanium in a Supercritical Medium: A New Route to Molecular Electronics. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1397-1403.	4.6	18
51	A novel strategy to construct high performance lithium-ion cells using one dimensional electrospun nanofibers, electrodes and separators. <i>Nanoscale</i> , 2013, 5, 10636.	5.6	68
52	Activated carbons derived from coconut shells as high energy density cathode material for Li-ion capacitors. <i>Scientific Reports</i> , 2013, 3, 3002.	3.3	222
53	Superior photocatalytic behaviour of novel 1D nanobraid and nanoporous Fe_2O_3 structures. <i>RSC Advances</i> , 2012, 2, 8201.	3.6	60
54	Electrospun composite nanofibers and their multifaceted applications. <i>Journal of Materials Chemistry</i> , 2012, 22, 12953.	6.7	267

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55	High Aspect Ratio Electrospun CuO Nanofibers as Anode Material for Lithium-Ion Batteries with Superior Cycleability. <i>Journal of Physical Chemistry C</i> , 2012, 116, 18087-18092.	3.1	202
56	Free-standing electrospun carbon nanofibres as a high performance anode material for lithium-ion batteries. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 265302.	2.8	47
57	Electrospun TiO ₂ Graphene Composite Nanofibers as a Highly Durable Insertion Anode for Lithium Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2012, 116, 14780-14788.	3.1	181
58	High performance lithium-ion cells using one dimensional electrospun TiO ₂ nanofibers with spinel cathode. <i>RSC Advances</i> , 2012, 2, 7983.	3.6	41
59	Electrospun γ -Fe ₂ O ₃ nanorods as a stable, high capacity anode material for Li-ion batteries. <i>Journal of Materials Chemistry</i> , 2012, 22, 12198.	6.7	249
60	Growth specificity of vertical ZnO nanorods on patterned seeded substrates through integrated chemical process. <i>Materials Chemistry and Physics</i> , 2012, 133, 126-134.	4.0	10
61	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. <i>Journal of Solid State Chemistry</i> , 2012, 186, 261-267.	2.9	168
62	Enhanced super-hydrophobic and switching behavior of ZnO nanostructured surfaces prepared by simple solution immersion successive ionic layer adsorption and reaction process. <i>Journal of Colloid and Interface Science</i> , 2011, 363, 51-58.	9.4	76
63	Tunable hierarchical TiO ₂ nanostructures by controlled annealing of electrospun fibers: formation mechanism, morphology, crystallographic phase and photoelectrochemical performance analysis. <i>Journal of Materials Chemistry</i> , 2011, 21, 9784.	6.7	52
64	NANOFABRICATION BY COVALENT MOLECULAR ASSEMBLY: A PATHWAY TO ROBUST STRUCTURES. <i>Cosmos</i> , 2011, 07, 31-42.	0.4	1
65	Formation of polythiophene multilayers on solid surfaces by covalent molecular assembly. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2010, 168, 45-54.	3.5	9
66	Synthesis and Controlled Growth of ZnO Nanorods Based Hybrid Device Structure by Aqueous Chemical Method. <i>Advanced Materials Research</i> , 2010, 123-125, 779-782.	0.3	4
67	Kinetics of the removal of mono-chlorobenzene vapour from waste gases using a trickle bed air biofilter. <i>Journal of Hazardous Materials</i> , 2006, 137, 1560-1568.	12.4	54
68	Electrochemical Route to Alleviate Irreversible Capacity Loss from Conversion Type γ -Fe ₂ O ₃ Anodes by LiVPO ₄ F Prelithiation. <i>ACS Applied Energy Materials</i> , 0, , .	5.1	5
69	Perspective of electrospun nanofibers in energy and environment. <i>Biofuel Research Journal</i> , 0, , 44-54.	13.3	39