S K Nataraj

List of Publications by Year
in descending order

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88 papers	5,093 citations	101543 36 h-index	88630 70 g-index
92 all docs	92 docs citations	92 times ranked	7046 citing authors

#	Article	IF	Citations
1	Creating ultrahigh surface area functional carbon from biomass for high performance supercapacitor and facile removal of emerging pollutants. Chemical Engineering Journal, 2022, 427, 131477.	12.7	59
2	Bioinspired engineering protein nanofibrils-based multilayered self-cleaning membranes for universal water purification. Journal of Hazardous Materials, 2022, 424, 127561.	12.4	20
3	Sustainable Polymer-Based Materials for Energy and Environmental Applications. Energy, Environment, and Sustainability, 2022, , 9-30.	1.0	2
4	Developing High-Performance Flexible Zinc Ion Capacitors from Agricultural Waste-Derived Carbon Sheets. ACS Sustainable Chemistry and Engineering, 2022, 10, 1471-1481.	6.7	23
5	New prospects on solvothermal carbonisation assisted by organic solvents, ionic liquids and eutectic mixtures â€“ A critical review. Progress in Materials Science, 2022, 126, 100932.	32.8	18
6	Sorption based easy-to-use low-cost filters derived from invasive weed biomass for dye contaminated water cleanup. RSC Advances, 2022, 12, 9101-9111.	3.6	6
7	Nanocomposite-based high-performance adsorptive water filters: recent advances, limitations, nanotoxicity and environmental implications. Environmental Science: Nano, 2022, 9, 2320-2341.	4.3	6
8	Presenting B-DNA as macromolecular crowding agent to improve efficacy of cytochrome c under various stresses. International Journal of Biological Macromolecules, 2022, 215, 184-191.	7.5	8
9	In situ synthesis of Cuâ€doped ZIFâ€8 for efficient photocatalytic water splitting. Applied Organometallic Chemistry, 2022, 36, .	3.5	11
10	Synthesis and photoluminescence properties of polycarbazole/tin oxide (PCz/SnO2) polymer nanocomposites. Polymer Bulletin, 2021, 78, 6321-6336.	3.3	14
11	Forward osmosis for industrial effluents treatment â€“ sustainability considerations. Separation and Purification Technology, 2021, 254, 117568.	7.9	32
12	Restructuring thin film composite membrane interfaces using biopolymer as a sustainable alternative to prevent organic fouling. Carbohydrate Polymers, 2021, 254, 117297.	10.2	8
13	Developing helical carbon functionalized chitosan-based loose nanofiltration membranes for selective separation and wastewater treatment. Chemical Engineering Journal, 2021, 417, 127911.	12.7	23
14	Constructing a High-Performance Aqueous Rechargeable Zinc-Ion Battery Cathode with Self-Assembled Mat-like Packing of Intertwined Ag(I) Pre-Inserted V₃O₇·H₂O Microbelts with Reduced Graphene Oxide Core. ACS Sustainable Chemistry and Engineering, 2021, 9, 3985-3995.	6.7	40
15	Engineering Cytochrome C with Quantum Dots and Ionic Liquids: A Win-Win Strategy for Protein Packaging against Multiple Stresses. ACS Sustainable Chemistry and Engineering, 2021, 9, 8327-8335.	6.7	11
16	Designing biopolymer-based artificial peroxidase for oxidative removal of dibenzothiophene from a model diesel fuel. International Journal of Biological Macromolecules, 2021, 183, 1784-1793.	7.5	3
17	A hyperaccumulation pathway to hierarchically porous carbon nanosheets from halophyte biomass for wastewater remediation. Sustainable Materials and Technologies, 2021, 29, e00292.	3.3	3
18	The rational design of inorganic and organic material based nanocomposite hybrids as Na-ion battery electrodes. Materials Advances, 2021, 2, 5006-5046.	5.4	7

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19	Progress in marine derived renewable functional materials and biochar for sustainable water purification. Green Chemistry, 2021, 23, 8305-8331.	9.0	31
20	Ultrafast synthesis of exfoliated manganese oxides in deep eutectic solvents for water purification and energy storage. Chemical Engineering Journal, 2020, 379, 122327.	12.7	38
21	DNA as a bioligand supported on magnetite for grafting palladium nanoparticles for crossâ€coupling reaction. Applied Organometallic Chemistry, 2020, 34, e5357.	3.5	12
22	One-step green route synthesis of spinel ZnMn2O4 nanoparticles decorated on MWCNTs as a novel electrode material for supercapacitor. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2020, 252, 114481.	3.5	50
23	Photoluminescence properties of zirconium oxide (ZrO2) nanoparticles. AIP Conference Proceedings, 2020, , .	0.4	6
24	Engineering a Biopolymer-Based Ultrafast Permeable Aerogel Membrane Decorated with Task-Specific Feâ€“Al Nanocomposites for Robust Water Purification. ACS Applied Bio Materials, 2020, 3, 5233-5243.	4.6	21
25	Feâ€“Al based nanocomposite reinforced hydrothermal carbon: Efficient and robust absorbent for anionic dyes. Chemosphere, 2020, 259, 127421.	8.2	21
26	Catalyzing the Intercalation Storage Capacity of Aqueous Zinc-Ion Battery Constructed with Zn(II) Preinserted Organo-Vanadyl Hybrid Cathode. ACS Applied Energy Materials, 2020, 3, 3425-3434.	5.1	27
27	Introducing deep eutectic solvents as flux boosting and surface cleaning agents for thin film composite polyamide membranes. Green Chemistry, 2020, 22, 2381-2387.	9.0	33
28	Multifunctional solvothermal carbon derived from alginate using â€˜water-in-deep eutectic solventsâ€™ for enhancing enzyme activity. Chemical Communications, 2020, 56, 9659-9662.	4.1	21
29	Structural and optical properties of zirconium oxide (ZrO₂) nanoparticles: effect of calcination temperature. Nano Express, 2020, 1, 010022.	2.4	73
30	Engineering Quantum Dots with Ionic Liquid: A Multifunctional White Light Emitting Hydrogel for Enzyme Packaging. Advanced Optical Materials, 2020, 8, 1902022.	7.3	16
31	Synthesis and photoluminescence properties of titanium oxide (TiO2) nanoparticles: Effect of calcination temperature. Optik, 2019, 194, 163070.	2.9	37
32	Facile Process for Metallizing DNA in a Multitasking Deep Eutectic Solvent for Ecofriendly Câ€“C Coupling Reaction and Nitrobenzene Reduction. ACS Sustainable Chemistry and Engineering, 2019, 7, 14225-14235.	6.7	19
33	Boosting the electrochemical performance of polyaniline based all-solid-state flexible supercapacitor using NiFe2O4 as adjuvant. Journal of Electroanalytical Chemistry, 2019, 851, 113482.	3.8	18
34	Biomolecule-derived quantum dots for sustainable optoelectronics. Nanoscale Advances, 2019, 1, 913-936.	4.6	42
35	Engineering Fe-doped highly oxygenated solvothermal carbon from glucose-based eutectic system as active microcleaner and efficient carbocatalyst. Journal of Materials Chemistry A, 2019, 7, 4988-4997.	10.3	20
36	Sustainable Water Purification Using an Engineered Solvothermal Carbon Based Membrane Derived from a Eutectic System. ACS Sustainable Chemistry and Engineering, 2019, 7, 10143-10153.	6.7	19

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37	Photoluminescence properties of copper oxide nanoparticles: Effect of solvents. AIP Conference Proceedings, 2019, , .	0.4	5
38	Binder free self-standing high performance supercapacitive electrode based on graphene/titanium carbide composite aerogel. Applied Surface Science, 2019, 481, 892-899.	6.1	52
39	Membrane-based separation of potential emerging pollutants. Separation and Purification Technology, 2019, 210, 850-866.	7.9	277
40	Self-Doped Interwoven Carbon Network Derived from Ulva fasciata for All-Solid Supercapacitor Devices: Solvent-Free Approach to a Scalable Synthetic Route. ACS Sustainable Chemistry and Engineering, 2019, 7, 174-186.	6.7	12
41	Low operating pressure nanofiltration membrane with functionalized natural nanoclay as antifouling and flux promoting agent. Chemical Engineering Journal, 2019, 358, 821-830.	12.7	43
42	Solvent-free production of nano-FeS anchored graphene from Ulva fasciata: A scalable synthesis of super-adsorbent for lead, chromium and dyes. Journal of Hazardous Materials, 2018, 353, 190-203.	12.4	37
43	Functionalized seaweed-derived graphene/polyaniline nanocomposite as efficient energy storage electrode. Journal of Applied Electrochemistry, 2018, 48, 37-48.	2.9	12
44	Direct conversion of lignocellulosic biomass to biomimetic tendril-like functional carbon helices: a protein friendly host for cytochrome C. Green Chemistry, 2018, 20, 3711-3716.	9.0	19
45	Low intensity sonosynthesis of iron carbide@iron oxide core-shell nanoparticles. Ultrasonics Sonochemistry, 2018, 49, 303-309.	8.2	12
46	Development of high-performance supercapacitor electrode derived from sugar industry spent wash waste. Journal of Hazardous Materials, 2017, 340, 189-201.	12.4	28
47	Classification of human breathing task based on electromyography signal of respiratory muscles. , 2017, , .		3
48	Nanostructured binary and ternary metal sulfides: synthesis methods and their application in energy conversion and storage devices. Journal of Materials Chemistry A, 2017, 5, 22040-22094.	10.3	341
49	Sustainable Water Reclamation from Different Feed Streams by Forward Osmosis Process Using Deep Eutectic Solvents as Reusable Draw Solution. Industrial & Engineering Chemistry Research, 2017, 56, 14623-14632.	3.7	32
50	Bionanomaterial Scaffolds for Effective Removal of Fluoride, Chromium, and Dye. ACS Sustainable Chemistry and Engineering, 2017, 5, 895-903.	6.7	46
51	Turmeric, naturally available colorimetric receptor for quantitative detection of fluoride and iron. Chemical Engineering Journal, 2016, 303, 14-21.	12.7	40
52	A potentiostatic approach of growing polyaniline nanofibers in fractal morphology by interfacial electropolymerization. RSC Advances, 2016, 6, 110416-110421.	3.6	14
53	Fabrication of carbon and sulphur-doped nanocomposites with seaweed polymer carrageenan as an efficient catalyst for rapid degradation of dye pollutants using a solar concentrator. RSC Advances, 2016, 6, 61716-61724.	3.6	15
54	Deep eutectic solvent promoted one step sustainable conversion of fresh seaweed biomass to functionalized graphene as a potential electrocatalyst. Green Chemistry, 2016, 18, 2819-2826.	9.0	84

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55	Preparation of a natural deep eutectic solvent mediated self polymerized highly flexible transparent gel having super capacitive behaviour. RSC Advances, 2016, 6, 28586-28592.	3.6	50
56	Four-fold concentration of sucrose in sugarcane juice through energy efficient forward osmosis using sea bittern as draw solution. RSC Advances, 2015, 5, 17872-17878.	3.6	29
57	Functionalizing Biomaterials to Be an Efficient Proton-Exchange Membrane and Methanol Barrier for DMFCs. ACS Sustainable Chemistry and Engineering, 2015, 3, 302-308.	6.7	24
58	Chitosan-Based Aerogel Membrane for Robust Oil-in-Water Emulsion Separation. ACS Applied Materials & Interfaces, 2015, 7, 24957-24962.	8.0	180
59	Deep eutectic solvents as a new class of draw agent to enrich low abundance DNA and proteins using forward osmosis. RSC Advances, 2015, 5, 89539-89544.	3.6	25
60	Bio-based superhydrophilic foam membranes for sustainable oilâ€“water separation. Green Chemistry, 2014, 16, 4552-4558.	9.0	95
61	Room-temperature development of thin film composite reverse osmosis membranes from cellulose acetate with antibacterial properties. Journal of Membrane Science, 2014, 453, 212-220.	8.2	66
62	Thin, Flexible Supercapacitors Made from Carbon Nanofiber Electrodes Decorated at Room Temperature with Manganese Oxide Nanosheets. Journal of Nanomaterials, 2013, 2013, 1-6.	2.7	15
63	Collective osmotic shock in ordered materials. Nature Materials, 2012, 11, 53-57.	27.5	56
64	Stand-up structure of graphene-like carbon nanowalls on CNT directly grown on polyacrylonitrile-based carbon fiber paper as supercapacitor. Diamond and Related Materials, 2012, 25, 176-179.	3.9	67
65	Zeolitic imidazolate framework (ZIF-8) based polymer nanocomposite membranes for gas separation. Energy and Environmental Science, 2012, 5, 8359.	30.8	627
66	Highly Protonâ€Selective Biopolymer Layerâ€Coated Ionâ€Exchange Membrane for Direct Methanol Fuel Cells. ChemSusChem, 2012, 5, 392-395.	6.8	20
67	Polyacrylonitrile-based nanofibersâ€”A state-of-the-art review. Progress in Polymer Science, 2012, 37, 487-513.	24.7	530
68	Prediction of physical properties of nanofiltration membranes for neutral and charged solutes. Desalination, 2011, 280, 174-182.	8.2	61
69	Cellulose acetate-coated Î±-alumina ceramic composite tubular membranes for wastewater treatment. Desalination, 2011, 281, 348-353.	8.2	42
70	Application of the electrodialytic pilot plant for fluoride removal. Journal of Water Chemistry and Technology, 2011, 33, 293-300.	0.6	26
71	Pore characteristics and electrochemical properties of the carbon nanofibres of polyacrylonitrile containing iron-oxide by electrospinning. International Journal of Nanotechnology, 2011, 8, 868.	0.2	3
72	Arsenic removal from drinking water using thin film composite nanofiltration membrane. Desalination, 2010, 252, 75-80.	8.2	151

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73	<I>In-Situ</I> Deposition of Iron Oxide Nanoparticles on Polyacrylonitrile-Based Nanofibers by Chemico-Thermal Reduction Method. Journal of Nanoscience and Nanotechnology, 2010, 10, 3530-3533.	0.9	5
74	Synthesis, Characterization, and Photocatalytic Activity of TiO₂/SiO₂ Nanoparticles Loaded on Carbon Nanofiber Web. Journal of Nanoscience and Nanotechnology, 2010, 10, 3331-3335.	0.9	8
75	Free standing thin webs of porous carbon nanofibers of polyacrylonitrile containing iron-oxide by electrospinning. Materials Letters, 2009, 63, 218-220.	2.6	44
76	Effect of added nickel nitrate on the physical, thermal and morphological characteristics of polyacrylonitrile-based carbon nanofibers. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 162, 75-81.	3.5	54
77	Nanofiltration and reverse osmosis thin film composite membrane module for the removal of dye and salts from the simulated mixtures. Desalination, 2009, 249, 12-17.	8.2	230
78	Morphological characterization of electrospun carbon nanofiber mats of polyacrylonitrile containing heteropolyacids. Synthetic Metals, 2009, 159, 1496-1504.	3.9	19
79	Prediction of physical properties of nanofiltration membranes using experiment and theoretical modelsâ˜†. Journal of Membrane Science, 2008, 310, 321-336.	8.2	82
80	Molecular dynamics simulations on the blends of poly(vinyl pyrrolidone) and poly(bisphenolâ€Aâ€ether) Tj ETQq0 0 0 rgBT /Overlock 10	2.6	44
81	Analyses of polysaccharide fouling mechanisms during crossflow membrane filtration. Journal of Membrane Science, 2008, 308, 152-161.	8.2	118
82	Electrospun Nanocomposite Fiber Mats of Zinc-Oxide Loaded Polyacrylonitrile. Carbon Letters, 2008, 9, 108-114.	5.9	23
83	Potential application of an electrodialysis pilot plant containing ion-exchange membranes in chromium removal. Desalination, 2007, 217, 181-190.	8.2	108
84	Membrane-based microfiltration/electrodialysis hybrid process for the treatment of paper industry wastewater. Separation and Purification Technology, 2007, 57, 185-192.	7.9	51
85	Polyaniline Membranes for Separation and Purification of Gases, Liquids, and Electrolyte Solutions. Separation and Purification Reviews, 2006, 35, 249-283.	5.5	62
86	Distillery wastewater treatment by the membrane-based nanofiltration and reverse osmosis processes. Water Research, 2006, 40, 2349-2356.	11.3	190
87	Poly(vinyl alcohol)-iron oxide nanocomposite membranes for pervaporation dehydration of isopropanol, 1,4-dioxane and tetrahydrofuran. Journal of Membrane Science, 2006, 283, 65-73.	8.2	89
88	Electrodialytic removal of nitrates and hardness from simulated mixtures using ion-exchange membranes. Journal of Applied Polymer Science, 2006, 99, 1788-1794.	2.6	28