Rashmi Walvekar

List of Publications by Year
in descending order

106 papers	4,791 citations	87888 38 h-index	106344 65 g-index
108 all docs	108 docs citations	108 times ranked	5105 citing authors

#	Article	IF	Citations
1	Waste tire rubber in polymer blends: A review on the evolution, properties and future. Progress in Materials Science, 2015, 72, 100-140.	32.8	368
2	A comprehensive review on magnetic carbon nanotubes and carbon nanotube-based buckypaper for removal of heavy metals and dyes. Journal of Hazardous Materials, 2021, 413, 125375.	12.4	223
3	Graphene based nanofluids and nanolubricants â€“ Review of recent developments. Renewable and Sustainable Energy Reviews, 2016, 63, 346-362.	16.4	222
4	Additives in proton exchange membranes for low- and high-temperature fuel cell applications: A review. International Journal of Hydrogen Energy, 2019, 44, 6116-6135.	7.1	207
5	Solar energy harvesting with the application of nanotechnology. Renewable and Sustainable Energy Reviews, 2013, 26, 837-852.	16.4	185
6	Experimental studies on the biodiesel production parameters optimization of sunflower and soybean oil mixture and DI engine combustion, performance, and emission analysis fueled with diesel/biodiesel blends. Fuel, 2019, 255, 115791.	6.4	169
7	A review on Malaysiaâ€™s solar energy pathway towards carbon-neutral Malaysia beyond Covidâ€™19 pandemic. Journal of Cleaner Production, 2020, 273, 122834.	9.3	149
8	Synthesis of organic phase change materials (PCM) for energy storage applications: A review. Nano Structures Nano Objects, 2019, 20, 100399.	3.5	137
9	Graphene based nanomaterials for strain sensor applicationâ€”a review. Journal of Environmental Chemical Engineering, 2020, 8, 103743.	6.7	136
10	Magnetic nanoadsorbentsâ€™ potential route for heavy metals removalâ€”a review. Environmental Science and Pollution Research, 2020, 27, 24342-24356.	5.3	127
11	Deep eutectic solvents for extraction-desulphurization: A review. Journal of Molecular Liquids, 2019, 275, 312-322.	4.9	126
12	Recent progress in solar thermal energy storage using nanomaterials. Renewable and Sustainable Energy Reviews, 2017, 67, 450-460.	16.4	115
13	Stability and thermal conductivity enhancement of carbon nanotube nanofluid using gum arabic. Journal of Experimental Nanoscience, 2011, 6, 567-579.	2.4	114
14	Biodiesel synthesis using natural solid catalyst derived from biomass waste â€” A review. Journal of Industrial and Engineering Chemistry, 2020, 81, 41-60.	5.8	101
15	Heat transfer and tribological performance of graphene nanolubricant in an internal combustion engine. Tribology International, 2016, 103, 504-515.	5.9	97
16	Development of Poly(Vinyl Alcohol)-Based Polymers as Proton Exchange Membranes and Challenges in Fuel Cell Application: A Review. Polymer Reviews, 2020, 60, 171-202.	10.9	94
17	Magnetic nanoparticles incorporation into different substrates for dyes and heavy metals removalâ€”A Review. Environmental Science and Pollution Research, 2020, 27, 43526-43541.	5.3	82
18	Effect of nanofillers on the physico-mechanical properties of load bearing bone implants. Materials Science and Engineering C, 2016, 67, 792-806.	7.3	80

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19	Optimisation of extractive desulfurization using Choline Chloride-based deep eutectic solvents. Fuel, 2018, 234, 1388-1400.	6.4	80
20	Magnetic palm kernel biochar potential route for phenol removal from wastewater. Environmental Science and Pollution Research, 2019, 26, 35183-35197.	5.3	70
21	Recent developments and performance review of metal working fluids. Tribology International, 2017, 114, 389-401.	5.9	63
22	Current progress in waste tire rubber devulcanization. Chemosphere, 2021, 265, 129033.	8.2	63
23	Adsorption of Cu(II) and Ni(II) ions from wastewater onto bentonite and bentonite/GO composite. Environmental Science and Pollution Research, 2020, 27, 33270-33296.	5.3	62
24	Thermal conductivity and electrical properties of hybrid SiO₂-graphene naphthenic mineral oil nanofluid as potential transformer oil. Materials Research Express, 2017, 4, 015504.	1.6	61
25	Thermophysical properties of glycerol and polyethylene glycol (PEG 600) based DES. Journal of Molecular Liquids, 2018, 252, 439-444.	4.9	59
26	Carbon nanomaterials based films for strain sensing applicationâ€"A review. Nano Structures Nano Objects, 2019, 18, 100312.	3.5	59
27	Natural and synthetic biocompatible and biodegradable polymers. , 2018, , 3-32.		58
28	Thermal conductivity of carbon nanotube nanofluidâ€"Experimental and theoretical study. Heat Transfer - Asian Research, 2012, 41, 145-163.	2.8	54
29	Preparation, thermo-physical properties and heat transfer enhancement of nanofluids. Materials Research Express, 2014, 1, 032001.	1.6	53
30	Recent Progress in the Development of Aromatic Polymer-Based Proton Exchange Membranes for Fuel Cell Applications. Polymers, 2020, 12, 1061.	4.5	53
31	Algae utilization and its role in the development of green cities. Chemosphere, 2021, 268, 129322.	8.2	53
32	CFD studies on natural convection heat transfer of Al2O3-water nanofluids. Heat and Mass Transfer, 2011, 47, 1301-1310.	2.1	50
33	Adsorption of heavy metal from industrial wastewater onto low-cost Malaysian kaolin clayâ€"based adsorbent. Environmental Science and Pollution Research, 2020, 27, 13949-13962.	5.3	50
34	Application of CNT nanofluids in a turbulent flow heat exchanger. Journal of Experimental Nanoscience, 2016, 11, 1-17.	2.4	45
35	Numerical study of dispersed oilâ€"water turbulent flow in horizontal tube. Journal of Petroleum Science and Engineering, 2009, 65, 123-128.	4.2	44
36	Recent Progress and Challenges in Transformer Oil Nanofluid Development: A Review on Thermal and Electrical Properties. IEEE Access, 2019, 7, 151422-151438.	4.2	42

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37	Recent progress in solar water heaters and solar collectors: A comprehensive review. Thermal Science and Engineering Progress, 2021, 25, 100981.	2.7	42
38	Synthesis and thermo-physical properties of deep eutectic solvent-based graphene nanofluids. Nanotechnology, 2016, 27, 075702.	2.6	39
39	Magnetic nanocomposites for sustainable water purificationâ€"a comprehensive review. Environmental Science and Pollution Research, 2021, 28, 19563-19588.	5.3	38
40	Effect of radiation dose on the properties of natural rubber nanocomposite. Radiation Physics and Chemistry, 2010, 79, 1279-1285.	2.8	37
41	Experimental and numerical investigation of heat transfer in CNT nanofluids. Journal of Experimental Nanoscience, 2015, 10, 545-563.	2.4	36
42	Cost effective thermoelectric composites from recycled carbon fibre: From waste to energy. Journal of Cleaner Production, 2018, 195, 1015-1025.	9.3	34
43	Functionalized multi-walled carbon nanotubes and hydroxyapatite nanorods reinforced with polypropylene for biomedical application. Scientific Reports, 2021, 11, 843.	3.3	33
44	Comprehensive review on carbon nanotubes embedded in different metal and polymer matrix: fabrications and applications. Critical Reviews in Solid State and Materials Sciences, 2022, 47, 837-864.	12.3	31
45	Investigating corrosion effects and heat transfer enhancement in smaller size radiators using CNT-nanofluids. Journal of Materials Science, 2014, 49, 4544-4551.	3.7	30
46	Synthesis of Hybrid Graphene/TiO2 Nanoparticles Based High-Temperature Quinary Salt Mixture for Energy Storage Application. Journal of Energy Storage, 2020, 31, 101540.	8.1	29
47	Synthesis and thermophysical properties of ethylammonium chloride-glycerol-ZnCl2 ternary deep eutectic solvent. Journal of Molecular Liquids, 2020, 310, 113232.	4.9	29
48	Stability and thermophysical studies on deep eutectic solvent based carbon nanotube nanofluid. Materials Research Express, 2017, 4, 075028.	1.6	28
49	Effect of deep eutectic solvent in proton conduction and thermal behaviour of chitosan-based membrane. Journal of Molecular Liquids, 2018, 269, 675-683.	4.9	27
50	A Review: Emphasizing the Nanofluids Use in PV/T Systems. IEEE Access, 2020, 8, 58227-58249.	4.2	26
51	Effect of electron beam irradiation on thermal and crystallization behavior of PP/EPDM blend. Radiation Physics and Chemistry, 2017, 141, 179-189.	2.8	25
52	An Overview of Magnetic Material: Preparation and Adsorption Removal of Heavy Metals from Wastewater. Nanotechnology in the Life Sciences, 2019, , 131-159.	0.6	25
53	Mechanical and thermal properties of polylactic acid composites reinforced with cellulose nanoparticles extracted from kenaf fibre. Materials Research Express, 2016, 3, 125301.	1.6	24
54	Sonosynthesis of cellulose nanoparticles (CNP) from kenaf fiber: Effects of processing parameters. Fibers and Polymers, 2016, 17, 1352-1358.	2.1	24

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55	Carbon and polymer-based magnetic nanocomposites for oil-spill remediationâ€"a comprehensive review. Environmental Science and Pollution Research, 2021, 28, 54477-54496.	5.3	24
56	Performance of Cow Dung Reinforced Biodegradable Poly(Lactic Acid) Biocomposites for Structural Applications. Journal of Polymers and the Environment, 2018, 26, 474-486.	5.0	22
57	Synthesis of organic phase change materials by using carbon nanotubes as filler material. Nano Structures Nano Objects, 2019, 19, 100361.	3.5	22
58	Effective devulcanization of ground tire rubber using choline chloride-based deep eutectic solvents. Journal of Environmental Chemical Engineering, 2019, 7, 103151.	6.7	22
59	Recycled carbon fibre/Bi2Te3 and Bi2S3 hybrid composite doped with MWCNTs for thermoelectric applications. Composites Part B: Engineering, 2019, 175, 107085.	12.0	21
60	Deep eutectic solvents-based CNT nanofluid â€" A potential alternative to conventional heat transfer fluids. Journal of the Taiwan Institute of Chemical Engineers, 2021, 128, 314-326.	5.3	21
61	Graphene/PVA buckypaper for strain sensing application. Scientific Reports, 2020, 10, 20106.	3.3	20
62	Study of graphene nanolubricant using thermogravimetric analysis. Journal of Materials Research, 2016, 31, 1939-1946.	2.6	17
63	Mechanical and physical performance of cowdungâ€based polypropylene biocomposites. Polymer Composites, 2018, 39, 288-296.	4.6	16
64	Tribological performance of nanographite-based metalworking fluid and parametric investigation using artificial neural network. International Journal of Advanced Manufacturing Technology, 2019, 104, 359-374.	3.0	16
65	High-temperature molten salts optimisation using mixture design for energy storage application. Journal of Energy Storage, 2020, 32, 101981.	8.1	16
66	Devulcanisation of ground rubber tyre by novel ternary deep eutectic solvents. Journal of Molecular Liquids, 2020, 306, 112913.	4.9	16
67	Proton Conductivity Enhancement at High Temperature on Polybenzimidazole Membrane Electrolyte with Acid-Functionalized Graphene Oxide Fillers. Membranes, 2022, 12, 344.	3.0	16
68	Sono-synthesis of nanohydroxyapatite: Effects of process parameters. Ceramics International, 2016, 42, 6263-6272.	4.8	13
69	Investigating the effect of graphene on eutectic salt properties for thermal energy storage. Materials Research Bulletin, 2019, 119, 110568.	5.2	13
70	Low-melting-temperature binary molten nitrate salt mixtures for solar energy storage. Journal of Thermal Analysis and Calorimetry, 2020, 141, 2657-2664.	3.6	13
71	Fabrication of binary metal phosphate-based binder-free electrode for new generation energy storage device. Surface and Coatings Technology, 2022, 429, 127924.	4.8	13
72	Nanohydroxyapatite synthesis using optimized process parameters for load-bearing implant. Bulletin of Materials Science, 2016, 39, 133-145.	1.7	12

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73	Surface force arising from Adsorbed graphene oxide in kaolinite suspensions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 592, 124592.	4.7	12
74	Surface modification techniques of biodegradable and biocompatible polymers. , 2018, , 33-54.		11
75	Influences of crosslinked carboxylic acid monomers on the proton conduction characteristics of chitosan/SPVA composite membranes. Polymer, 2020, 203, 122782.	3.8	11
76	Sonosynthesis of Microcellulose from Kenaf Fiber: Optimization of Process Parameters. Journal of Natural Fibers, 2017, 14, 437-449.	3.1	9
77	Mechanical properties of polylactic acid/synthetic rubber blend reinforced with cellulose nanoparticles isolated from kenaf fibres. Polymer Bulletin, 2018, 75, 809-827.	3.3	9
78	Physical properties optimization of POME-groundnut-naphthenic based graphene nanolubricant using response surface methodology. Journal of Cleaner Production, 2018, 193, 277-289.	9.3	9
79	Rubber/Nanoclay Composites: Towards Advanced Functional Materials. Engineering Materials, 2016, , 209-224.	0.6	8
80	Parametric Study for Devulcanization of Waste Tire Rubber Utilizing Deep Eutectic Solvent (DES). MATEC Web of Conferences, 2018, 152, 01005.	0.2	8
81	Investigation of rheological and corrosion properties of graphene-based eutectic salt. Journal of Materials Science, 2018, 53, 692-707.	3.7	8
82	Stability, thermo-physical and electrical properties of naphthenic/POME blended transformer oil nanofluids. Thermal Science and Engineering Progress, 2021, 23, 100878.	2.7	8
83	Surface modification of nanohydroxyapatite and its loading effect on polylactic acid properties for load bearing implants. Polymer Composites, 2018, 39, 2880-2888.	4.6	7
84	Effect of graphene doping on the charge carrier and thermoelectric properties of RCF-Bi2S3 composites. AIP Conference Proceedings, 2019, , .	0.4	7
85	Thermal Stability and Conductivity of Carbon Nanotube Nanofluid using Xanthan Gum as Surfactant. Sains Malaysiana, 2017, 46, 1017-1024.	0.5	7
86	Experimental investigations on spray flames and emissions analysis of diesel and diesel/biodiesel blends for combustion in oxyâ€fuel burner. Asia-Pacific Journal of Chemical Engineering, 2019, 14, e2375.	1.5	6
87	Comparative Study On Water Uptake And Ionic Transport Properties Of Pre- And Post Sulfonated Chitosan/PVA polymer Exchange Membrane. IOP Conference Series: Materials Science and Engineering, 0, 458, 012017.	0.6	5
88	Feasibility study of phosphonium ionic liquids as efficient solvent for sulfur extraction from liquid fuels. AIP Conference Proceedings, 2019, , .	0.4	5
89	Rheological behaviour of eutectic nanofluids containing a low fraction of GO/TiO2 hybrid nanoparticles. Thermal Science and Engineering Progress, 2020, 20, 100753.	2.7	4
90	Synthesis of magnetic basic palm kernel shell catalyst for biodiesel production and characterisation and optimisation by Taguchi method. Applied Nanoscience (Switzerland), 2022, 12, 3721-3733.	3.1	4

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91	OPTIMIZATION OF CNTs PRODUCTION USING FULL FACTORIAL DESIGN AND ITS ADVANCED APPLICATION IN PROTEIN PURIFICATION. International Journal of Nanoscience, 2010, 09, 181-192.	0.7	3
92	Co-PP/EPDM Blend Optimization Using D-Optimal Design for Medical Applications. Polymer-Plastics Technology and Engineering, 2017, 56, 216-226.	1.9	3
93	Investigating the effects of processing parameters on poly(lactic acid) properties â€“ a central composite design approach. Plastics, Rubber and Composites, 2019, 48, 95-102.	2.0	3
94	Corrosion, rheology, and thermal ageing behaviour of the eutectic salt-based graphene hybrid nanofluid for high-temperature TES applications. Journal of Molecular Liquids, 2021, 334, 116156.	4.9	3
95	THERMOPHYSICAL PROPERTIES OF DEEP EUTECTIC SOLVENT-CARBON NANOTUBES (DES-CNT) BASED NANOLUBRICANT. Journal of Thermal Engineering, 0, , 15-26.	1.6	3
96	Corrosion Inhibition of Cold-rolled Low Carbon Steel with Pulse Fiber Laser Ablation in Water. Journal of Materials Engineering and Performance, 2018, 27, 2805-2814.	2.5	2
97	E-beam sterilizable thermoplastics elastomers for healthcare devices: Mechanical, morphology, and in vivo studies. Journal of Biomaterials Applications, 2018, 32, 1049-1062.	2.4	2
98	Parametric optimization of pulsed laser ablation on stainless steel for improving corrosion resistance by Taguchi method. Materials Research Express, 2019, 6, 026533.	1.6	2
99	Thermo-physical properties of naphthenic-palm oil methyl ester (POME) blended transformer oil. Journal of Thermal Analysis and Calorimetry, 0, , 1.	3.6	2
100	Enhancement in hydrolytic stability and proton conductivity of optimised chitosan/sulfonated poly(vinyl alcohol) composite membrane with inorganic fillers. International Journal of Energy Research, 2021, 45, 21307-21323.	4.5	2
101	Viscoelastic Properties and Thermal Stability of Nanohydroxyapatite Reinforced Poly-Lactic Acid for Load Bearing Applications. Molecules, 2021, 26, 5852.	3.8	2
102	<scp>Thermophysical</scp> properties of novel ammoniumâ€based eutectic solvents with ethaneâ€1,2â€diol and <scp>ZnCl₂</scp>. Journal of Chemical Technology and Biotechnology, 2022, 97, 2728-2738.	3.2	2
103	Optimization of bio-mineral lubricants. AIP Conference Proceedings, 2017, , .	0.4	1
104	Dilution and ZnCl2 impact on eutectic solvents as devulcanizing reagent in de-linking phenomena of waste ground rubber tire. AIP Conference Proceedings, 2019, , .	0.4	1
105	Stability enhancement of MWCNT/water nanofluids using PVA surfactant. International Journal of Nanotechnology, 2019, 16, 631.	0.2	1
106	Effect of electron beam irradiation on (waste tire dust)-filled ethylene vinyl acetate in the presence of bisphenol a diglycidyl ether. Journal of Vinyl and Additive Technology, 2017, 23, 172-180.	3.4	0