Vinod Vellora Thekkae Padil

List of Publications by Year
in descending order

108 papers	5,118 citations	101543 36 h-index	95266 68 g-index
110 all docs	110 docs citations	110 times ranked	5894 citing authors

#	Article	IF	Citations
1	Chemistry of persulfates in water and wastewater treatment: A review. Chemical Engineering Journal, 2017, 330, 44-62.	12.7	1,320
2	Green synthesis of copper oxide nanoparticles using gum karaya as a biotemplate and their antibacterial application. International Journal of Nanomedicine, 2013, 8, 889.	6.7	374
3	A facile synthesis and characterization of Ag, Au and Pt nanoparticles using a natural hydrocolloid gum kondagogu (Cochlospermum gossypium). Colloids and Surfaces B: Biointerfaces, 2011, 83, 291-298.	5.0	184
4	Morphological, physico-chemical and structural characterization of gum kondagogu (Cochlospermum gossypium): A tree gum from India. Food Hydrocolloids, 2008, 22, 899-915.	10.7	137
5	Functionalization of polymers and nanomaterials for water treatment, food packaging, textile and biomedical applications: a review. Environmental Chemistry Letters, 2021, 19, 583-611.	16.2	112
6	Tree gum-based renewable materials: Sustainable applications in nanotechnology, biomedical and environmental fields. Biotechnology Advances, 2018, 36, 1984-2016.	11.7	106
7	Compositional Analysis and Rheological Properties of Gum Kondagogu (Cochlospermum gossypium): A Tree Gum from India. Journal of Agricultural and Food Chemistry, 2008, 56, 2199-2207.	5.2	93
8	Biosorption of nickel and total chromium from aqueous solution by gum kondagogu (Cochlospermum gossypium): A carbohydrate biopolymer. Journal of Hazardous Materials, 2010, 178, 851-860.	12.4	88
9	Antimicrobial gum bio-based nanocomposites and their industrial and biomedical applications. Chemical Communications, 2019, 55, 14871-14885.	4.1	84
10	Chemical oxidation and reduction of hexachlorocyclohexanes: A review. Water Research, 2019, 162, 302-319.	11.3	81
11	Chitosan/Gelatin/Silver Nanoparticles Composites Films for Biodegradable Food Packaging Applications. Polymers, 2021, 13, 1680.	4.5	77
12	Green Synthesis of Metal and Metal Oxide Nanoparticles and Their Effect on the Unicellular Alga Chlamydomonas reinhardtii. Nanoscale Research Letters, 2018, 13, 159.	5.7	76
13	Green Synthesis of High Temperature Stable Anatase Titanium Dioxide Nanoparticles Using Gum Kondagogu: Characterization and Solar Driven Photocatalytic Degradation of Organic Dye. Nanomaterials, 2018, 8, 1002.	4.1	68
14	Cytotoxic aquatic pollutants and their removal by nanocomposite-based sorbents. Chemosphere, 2020, 258, 127324.	8.2	59
15	Microscopic Techniques for the Analysis of Micro and Nanostructures of Biopolymers and Their Derivatives. Polymers, 2020, 12, 512.	4.5	59
16	Dodecenylsuccinic Anhydride Derivatives of Gum Karaya (Sterculia urens): Preparation, Characterization, and Their Antibacterial Properties. Journal of Agricultural and Food Chemistry, 2015, 63, 3757-3765.	5.2	58
17	Major Advances and Challenges in Heterogeneous Catalysis for Environmental Applications: A Review. Ecological Chemistry and Engineering S, 2018, 25, 9-34.	1.5	58
18	Gum kondagogu modified magnetic nano-adsorbent: An efficient protocol for removal of various toxic metal ions. Materials Science and Engineering C, 2012, 32, 581-586.	7.3	55

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19	Poly (vinyl alcohol)/gum karaya electrospun plasma treated membrane for the removal of nanoparticles (Au, Ag, Pt, CuO and Fe3O4) from aqueous solutions. Journal of Hazardous Materials, 2015, 287, 102-110.	12.4	55
20	Electrospun fibers based on Arabic, karaya and kondagogu gums. International Journal of Biological Macromolecules, 2016, 91, 299-309.	7.5	54
21	Comparative amino acid and fatty acid compositions of edible gums kondagogu (Cochlospermum) Tj ETQq1 1 0.784314 rgBT /Overlock	8.2	51
22	A novel approach for simultaneous improvement of dewaterability, post-digestion liquor properties and toluene removal from anaerobically digested sludge. Chemical Engineering Journal, 2016, 291, 192-198.	12.7	51
23	A review on advances in graphene-derivative/polysaccharide bionanocomposites: Therapeutics, pharmacogenomics and toxicity. Carbohydrate Polymers, 2020, 250, 116952.	10.2	50
24	Competitive adsorption of toxic heavy metal contaminants by gum kondagogu (Cochlospermum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	5.0	46
25	Advances in biogenically synthesized shaped metal- and carbon-based nanoarchitectures and their medicinal applications. Advances in Colloid and Interface Science, 2020, 283, 102236.	14.7	46
26	Functionalization of Polymers and Nanomaterials for Biomedical Applications: Antimicrobial Platforms and Drug Carriers. Prosthesis, 2020, 2, 117-139.	2.9	46
27	Solution and conformational properties of gum kondagogu (Cochlospermum gossypium) â€“ A natural product with immense potential as a food additive. Food Chemistry, 2009, 116, 686-692.	8.2	44
28	Gum karaya (Sterculia urens) stabilized zero-valent iron nanoparticles: characterization and applications for the removal of chromium and volatile organic pollutants from water. RSC Advances, 2017, 7, 13997-14009.	3.6	44
29	Biofabricated Nanostructures and Their Composites in Regenerative Medicine. ACS Applied Nano Materials, 2020, 3, 6210-6238.	5.0	43
30	Hierarchically Porous Bioâ€Based Sustainable Conjugate Sponge for Highly Selective Oil/Organic Solvent Absorption. Advanced Functional Materials, 2021, 31, 2100640.	14.9	43
31	Bioremediation of mercury (II) from aqueous solution by gum karaya (Sterculia urens): A natural hydrocolloid. Desalination, 2011, 272, 270-277.	8.2	42
32	A poly(3-hydroxybutyrate)â€“chitosan polymer conjugate for the synthesis of safer gold nanoparticles and their applications. Green Chemistry, 2018, 20, 4975-4982.	9.0	40
33	Production of electrospun nanofibers based on graphene oxide/gum Arabic. International Journal of Biological Macromolecules, 2019, 124, 396-402.	7.5	40
34	Synthesis, characterization and optical properties of graphene oxideâ€“polystyrene nanocomposites. Polymers for Advanced Technologies, 2015, 26, 214-222.	3.2	39
35	Electrospun fibers based on carbohydrate gum polymers and their multifaceted applications. Carbohydrate Polymers, 2020, 247, 116705.	10.2	39
36	Interaction of Pb2+ and Cd2+ with gum kondagogu (Cochlospermum gossypium): A natural carbohydrate polymer with biosorbent properties. Carbohydrate Polymers, 2009, 78, 894-901.	10.2	38

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37	Eco-Friendly and Economic, Adsorptive Removal of Cationic and Anionic Dyes by Bio-Based Karaya Gumâ€"Chitosan Sponge. Polymers, 2021, 13, 251.	4.5	38
38	Synthesis, fabrication and antibacterial properties of a plasma modified electrospun membrane consisting of gum Kondagogu, dodecenyl succinic anhydride and poly (vinyl alcohol). Surface and Coatings Technology, 2015, 271, 32-38.	4.8	37
39	Bioplastic Fibers from Gum Arabic for Greener Food Wrapping Applications. ACS Sustainable Chemistry and Engineering, 2019, 7, 5900-5911.	6.7	37
40	Electrospun fibers based on botanical, seaweed, microbial, and animal sourced biomacromolecules and their multidimensional applications. International Journal of Biological Macromolecules, 2021, 171, 130-149.	7.5	35
41	Cinnamomum tamala Leaf Extract Stabilized Zinc Oxide Nanoparticles: A Promising Photocatalyst for Methylene Blue Degradation. Nanomaterials, 2021, 11, 1558.	4.1	34
42	Visible-light-driven SnO₂/TiO₂ nanotube nanocomposite for textile effluent degradation. RSC Advances, 2015, 5, 20424-20431.	3.6	33
43	Tree Gumâ€"Graphene Oxide Nanocomposite Films as Gas Barriers. ACS Applied Nano Materials, 2020, 3, 633-640.	5.0	33
44	Recycling non-food-grade tree gum wastes into nanoporous carbon for sustainable energy harvesting. Green Chemistry, 2020, 22, 1198-1208.	9.0	33
45	Biomacromolecule assembly based on gum kondagogu-sodium alginate composites and their expediency in flexible packaging films. International Journal of Biological Macromolecules, 2021, 177, 526-534.	7.5	33
46	Ce 2 S 3 decorated ZnO-ZnS core-shell nanorod arrays: Efficient solar-driven photocatalytic properties. Catalysis Today, 2016, 278, 271-279.	4.4	31
47	Disintegration of Wastewater Activated Sludge (WAS) for Improved Biogas Production. Energies, 2019, 12, 21.	3.1	31
48	Fabrication, Characterization, and Antibacterial Properties of Electrospun Membrane Composed of Gum Karaya, Polyvinyl Alcohol, and Silver Nanoparticles. Journal of Nanomaterials, 2015, 2015, 1-10.	2.7	30
49	Green Synthesis: Nanoparticles and Nanofibres Based on Tree Gums for Environmental Applications. Ecological Chemistry and Engineering S, 2016, 23, 533-557.	1.5	30
50	Greener assembling of MoO3 nanoparticles supported on gum arabic: cytotoxic effects and catalytic efficacy towards reduction of p-nitrophenol. Clean Technologies and Environmental Policy, 2019, 21, 1549-1561.	4.1	29
51	Processing of Mnâ€"Al nanostructured magnets by spark plasma sintering and subsequent rapid thermal annealing. Journal of Magnetism and Magnetic Materials, 2015, 374, 427-432.	2.3	28
52	Sustainable and safer nanoclay composites for multifaceted applications. Green Chemistry, 2022, 24, 3081-3114.	9.0	28
53	Synthesis of Ag nanoparticles by a chitosan-poly(3-hydroxybutyrate) polymer conjugate and their superb catalytic activity. Carbohydrate Polymers, 2020, 232, 115806.	10.2	27
54	Plasma modified nanofibres based on gum kondagogu and their use for collection of nanoparticulate silver, gold and platinum. Carbohydrate Polymers, 2015, 121, 468-476.	10.2	26

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55	Surface modification of zero-valent iron nanoparticles with Î²-cyclodextrin for 4-nitrophenol conversion. Journal of Colloid and Interface Science, 2021, 586, 655-662.	9.4	26
56	Modification of nZVI with a bio-conjugate containing amine and carbonyl functional groups for catalytic activation of persulfate. Separation and Purification Technology, 2021, 257, 117880.	7.9	26
57	Enhanced degradation of sulfamethoxazole by a modified nano zero-valent iron with a Î²-cyclodextrin polymer: Mechanism and toxicity evaluation. Science of the Total Environment, 2022, 817, 152888.	8.0	26
58	Magnetic behaviour of solâ€“gel driven BiFeO3 thin films with different grain size distribution. Journal of Magnetism and Magnetic Materials, 2016, 401, 180-187.	2.3	24
59	Osteometric and molecular sexing of cattle metapodia. Journal of Archaeological Science, 2012, 39, 121-127.	2.4	23
60	Bioprospecting of gum kondagogu (Cochlospermum gossypium) for bioremediation of uranium (VI) from aqueous solution and synthetic nuclear power reactor effluents. Journal of Environmental Radioactivity, 2015, 148, 33-41.	1.7	22
61	Effect of annealing temperature on the structural and magnetic properties of CTAB-capped SrFe12O19 platelets. Journal of Magnetism and Magnetic Materials, 2016, 401, 775-783.	2.3	22
62	Alkenyl succinic anhydride modified tree-gum kondagogu: A bio-based material with potential for food packaging. Carbohydrate Polymers, 2021, 266, 118126.	10.2	22
63	Gum Kondagogu/Reduced Graphene Oxide Framed Platinum Nanoparticles and Their Catalytic Role. Molecules, 2019, 24, 3643.	3.8	21
64	Structural and magnetic properties of self-assembled Smâ€“Co spherical aggregates. Journal of Magnetism and Magnetic Materials, 2011, 323, 2083-2089.	2.3	20
65	Coercivity enhancement in Mn-Al-Cu flakes produced by surfactant-assisted milling. Applied Physics Letters, 2015, 107, 192407.	3.3	20
66	Electrospun membrane composed of poly[acrylonitrile-co-(methyl acrylate)-co-(itaconic acid)] terpolymer and ZVI nanoparticles and its application for the removal of arsenic from water. RSC Advances, 2016, 6, 110288-110300.	3.6	20
67	UV-Catalyzed Persulfate Oxidation of an Anthraquinone Based Dye. Catalysts, 2020, 10, 456.	3.5	20
68	Large scale synthesis and formation mechanism of highly magnetic and stable iron nitride (Îµ-Fe₃N) nanoparticles. RSC Advances, 2015, 5, 56045-56048.	3.6	18
69	Fabrication of a Greener TiO₂@Gum Arabic-Carbon Paste Electrode for the Electrochemical Detection of Pb²⁺ Ions in Plastic Toys. ACS Omega, 2020, 5, 25390-25399.	3.5	18
70	Morphology and Metal Binding Characteristics of a Natural Polymerâ€”Kondagogu (Cochlospermum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.8	17
71	Synthesis of Ni/NiO nanocomposites by hydrothermal-assisted polyol process and their magnetic properties as a function of annealing temperature. Powder Technology, 2015, 274, 98-104.	4.2	17
72	Laser-synthesized Ag/TiO nanoparticles to integrate catalytic pollutant degradation and antifouling enhancement in nanofibrous membranes for oilâ€“water separation. Applied Surface Science, 2021, 564, 150471.	6.1	17

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73	Study on the field-cooling induced magnetic interactions in Gd-doped NiO nanoparticles. Journal of Magnetism and Magnetic Materials, 2020, 493, 165713.	2.3	16
74	A comparative study of the degradation efficiency of chlorinated organic compounds by bimetallic zero-valent iron nanoparticles. Environmental Science: Water Research and Technology, 2021, 8, 162-172.	2.4	16
75	Microwave-assisted sustainable co-digestion of sewage sludge and rapeseed cakes. Energy Conversion and Management, 2019, 199, 112012.	9.2	14
76	A study on the origin of room temperature ferromagnetism in Ni1â^'Gd O nanoparticles. Journal of Magnetism and Magnetic Materials, 2015, 394, 179-184.	2.3	13
77	Carbon anchored conducting polymer composite linkage for high performance water energy harvesters. Nano Energy, 2020, 74, 104827.	16.0	13
78	Influence of catalyst zeta potential on the activation of persulfate. Chemical Communications, 2021, 57, 7814-7817.	4.1	13
79	Spark plasma-sintered Sn-based intermetallic alloys and their Li-storage studies. Journal of Solid State Electrochemistry, 2016, 20, 1743-1751.	2.5	12
80	Removal of Mercury from Aqueous Environment by Jute Nanofiber. Journal of Fiber Bioengineering and Informatics, 2013, 6, 175-184.	0.2	12
81	Laser-assisted synthesis of Fe-Cu oxide nanocrystals. Applied Surface Science, 2019, 469, 1007-1015.	6.1	11
82	A surfactant-assisted high energy ball milling technique to produce colloidal nanoparticles and nanocrystalline flakes in Mnâ€“Al alloys. RSC Advances, 2015, 5, 92406-92417.	3.6	10
83	TiO₂ immobilised on biopolymer nanofibers for the removal of bisphenol A and diclofenac from water. Ecological Chemistry and Engineering S, 2017, 24, 417-429.	1.5	10
84	A new method for assessment of the sludge disintegration degree with the use of differential centrifugal sedimentation. Environmental Technology (United Kingdom), 2019, 40, 3086-3093.	2.2	10
85	A Polymeric Composite Material (rGO/PANI) for Acid Blue 129 Adsorption. Polymers, 2020, 12, 1051.	4.5	10
86	Hydrocolloid-Stabilized Magnetite for Efficient Removal of Radioactive Phosphates. BioMed Research International, 2014, 2014, 1-10.	1.9	9
87	The Use of a Biopolymer Conjugate for an Eco-Friendly One-Pot Synthesis of Palladium-Platinum Alloys. Polymers, 2019, 11, 1948.	4.5	9
88	Exchange coupled rare-earth free Mn-Al/Fe nanocomposite magnets by spark plasma sintering. Materials Letters, 2014, 137, 369-372.	2.6	7
89	MWCNT reinforced Ï„-Mn-Al nanocomposite magnets through spark plasma sintering. Journal of Alloys and Compounds, 2017, 695, 364-371.	5.5	7
90	Interfacial layer formation during high-temperature deposition of Sm-Co magnetic thin films on Si (100) substrates. Intermetallics, 2019, 106, 36-47.	3.9	7

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91	Structural Parameters of Functional Membranes for Integration in Smart Wearable Materials. Fibres and Textiles in Eastern Europe, 2017, 25, 73-78.	0.5	7
92	Synthesis, Characterization and Physicochemical Properties of Biogenic Silver Nanoparticle-Encapsulated Chitosan Bionanocomposites. Polymers, 2022, 14, 463.	4.5	7
93	â€œGreenâ€•polymeric electrospun fibers based on tree-gum hydrocolloids. , 2019, , 127-172.		6
94	Transforming gum wastes into high tap density micron-sized carbon with ultra-stable high-rate Li storage. Electrochimica Acta, 2021, 367, 137419.	5.2	6
95	Nanoparticles and nanofibres based on tree gums: Biosynthesis and applications. Comprehensive Analytical Chemistry, 2021, 94, 223-265.	1.3	6
96	Selective spectrophotometric determination of peroxydisulfate based on a by-product formation. Sensors and Actuators B: Chemical, 2021, 344, 130214.	7.8	6
97	Development of ZnO Nanoflake Type Structures Using Silk Fibres as Template for Water Pollutants Remediation. Polymers, 2020, 12, 1151.	4.5	6
98	Structural and magnetic properties of SmCo-based magnetic films grown by electron-beam evaporation. Journal of Magnetism and Magnetic Materials, 2015, 385, 313-317.	2.3	5
99	Enhancement of stability and reactivity of nanosized zero-valent iron with polyhydroxybutyrate. , 0, 69, 302-307.		5
100	Dialdehyde Modified Tree Gum Karaya: A Sustainable Green Crosslinker for Gelatinâ€Based Edible Films. Advanced Sustainable Systems, 2022, 6, .	5.3	4
101	Graphene Oxideâ€”Plant Gum Nanocomposites for Sustainable Applications. Composites Science and Technology, 2021, , 149-171.	0.6	3
102	Structural and magnetic properties of rare-earth-free MnAl(MCNT)/Fe nanocomposite magnets processed by resin-bonding technique. Journal of Materials Science: Materials in Electronics, 2020, 31, 9878-9887.	2.2	2
103	Effect of CoSi2 interfacial layer on the magnetic properties of Si|CoSi2|Sm-Co thin films. Journal of Magnetism and Magnetic Materials, 2020, 493, 165716.	2.3	1
104	Cellulose composites as nanobiosorbents for ecological remediation. , 2022, , 333-358.		0
105	Tree gum-based nanostructures and their biomedical applications. , 2022, , 383-407.		0
106	High Barrier, Biodegradable Nanocomposite Films Based on Clayâ€Coated and Chemically Modified Gum Kondagogu. Macromolecular Materials and Engineering, 0, , 2200008.	3.6	0
107	Aegle marmelos Leaf Extract Based Synthesis of Nanoiron and Nanoiron+Au Particles for Degradation of Methylene Blue. Ecological Chemistry and Engineering S, 2022, 29, 7-14.	1.5	0
108	Activation of Peroxydisulfate by Bimetallic Nano Zero-Valent Iron for Waste-Activated Sludge Disintegration. Catalysts, 2022, 12, 590.	3.5	0