

Kokkarachedu Varaprasad

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104
papers

3,965
citations

33
h-index

60
g-index

109
ext. papers

4,692
ext. citations

5.5
avg, IF

5.88
L-index

#	Paper	IF	Citations
104	Fabrication of porous chitosan films impregnated with silver nanoparticles: a facile approach for superior antibacterial application. <i>Colloids and Surfaces B: Biointerfaces</i> , 2010 , 76, 248-58	6	257
103	A mini review on hydrogels classification and recent developments in miscellaneous applications. <i>Materials Science and Engineering C</i> , 2017 , 79, 958-971	8.3	230
102	First successful design of semi-IPN hydrogel-silver nanocomposites: a facile approach for antibacterial application. <i>Journal of Colloid and Interface Science</i> , 2008 , 318, 217-24	9.3	208
101	Alginate-based composite materials for wound dressing application:A mini review. <i>Carbohydrate Polymers</i> , 2020 , 236, 116025	10.3	198
100	Fabrication of Curcumin Encapsulated Chitosan-PVA Silver Nanocomposite Films for Improved Antimicrobial Activity. <i>Journal of Biomaterials and Nanobiotechnology</i> , 2011 , 02, 55-64	1	167
99	Controlling of silver nanoparticles structure by hydrogel networks. <i>Journal of Colloid and Interface Science</i> , 2010 , 342, 73-82	9.3	153
98	Synthesis and characterization of hydrogel-silver nanoparticle-curcumin composites for wound dressing and antibacterial application. <i>Journal of Applied Polymer Science</i> , 2011 , 121, 784-796	2.9	143
97	Nano zinc oxide-sodium alginate antibacterial cellulose fibres. <i>Carbohydrate Polymers</i> , 2016 , 135, 349-55	10.3	126
96	Cellulose-polymer-Ag nanocomposite fibers for antibacterial fabrics/skin scaffolds. <i>Carbohydrate Polymers</i> , 2013 , 93, 553-60	10.3	112
95	Hydrogel-silver nanoparticle composites: A new generation of antimicrobials. <i>Journal of Applied Polymer Science</i> , 2010 , 115, 1199-1207	2.9	112
94	Development of novel biodegradable Au nanocomposite hydrogels based on wheat: for inactivation of bacteria. <i>Carbohydrate Polymers</i> , 2013 , 92, 2193-200	10.3	110
93	Iota-Carrageenan-based biodegradable Ag0 nanocomposite hydrogels for the inactivation of bacteria. <i>Carbohydrate Polymers</i> , 2013 , 95, 188-94	10.3	104
92	Removal of dye by carboxymethyl cellulose, acrylamide and graphene oxide via a free radical polymerization process. <i>Carbohydrate Polymers</i> , 2017 , 164, 186-194	10.3	95
91	Carboxymethyl cellulose-based materials for infection control and wound healing: A review. <i>International Journal of Biological Macromolecules</i> , 2020 , 164, 963-975	7.9	87
90	Evaluation of blood compatibility and drug release studies of gelatin based magnetic hydrogel nanocomposites. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011 , 385, 20-27	5.1	68
89	Preparation and characterization of cellulose/curcumin composite films. <i>RSC Advances</i> , 2012 , 2, 8483	3.7	67
88	Fabrication of silver nanocomposite films impregnated with curcumin for superior antibacterial applications. <i>Journal of Materials Science: Materials in Medicine</i> , 2011 , 22, 1863-72	4.5	65

87	Chitosan capped copper oxide/copper nanoparticles encapsulated microbial resistant nanocomposite films. <i>International Journal of Biological Macromolecules</i> , 2019 , 128, 499-508	7.9	63
86	Preparation and properties of biodegradable films from <i>Sterculia urens</i> short fiber/cellulose green composites. <i>Carbohydrate Polymers</i> , 2013 , 93, 622-7	10.3	60
85	Preparation and characterization of poly(ethylene glycol) stabilized nano silver particles by a mechanochemical assisted ball mill process. <i>Journal of Applied Polymer Science</i> , 2016 , 133, n/a-n/a	2.9	54
84	Microwave assisted antibacterial chitosan-silver nanocomposite films. <i>International Journal of Biological Macromolecules</i> , 2016 , 84, 281-8	7.9	49
83	One-step synthesis of starch-silver nanoparticle solution and its application to antibacterial paper coating. <i>International Journal of Biological Macromolecules</i> , 2018 , 107, 2285-2290	7.9	47
82	Magnetic and electric responsive hydrogel-magnetic nanocomposites for drug-delivery application. <i>Journal of Applied Polymer Science</i> , 2011 , 122, 1364-1375	2.9	46
81	Preparation and characterization of magnetic nanoparticles embedded in hydrogels for protein purification and metal extraction. <i>Journal of Polymer Research</i> , 2011 , 18, 2285-2294	2.7	45
80	Biodegradable Chitosan Hydrogels for In Vitro Drug Release Studies of 5-Fluorouracil an Anticancer Drug. <i>Journal of Polymers and the Environment</i> , 2012 , 20, 573-582	4.5	43
79	Microbial resistant nanocurcumin-gelatin-cellulose fibers for advanced medical applications. <i>RSC Advances</i> , 2014 , 4, 3494-3501	3.7	42
78	Antibacterial nanocomposite hydrogels for superior biomedical applications: a Facile eco-friendly approach. <i>RSC Advances</i> , 2015 , 5, 14351-14358	3.7	40
77	Synthesis and Characterizations of Macroporous Poly(acrylamide-2-acrylamido-2-methyl-1-propanesulfonic acid) Hydrogels for In Vitro Drug Release of Ranitidine Hydrochloride. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2011 , 60, 490-503	3	40
76	Kinetic release studies of nitrogen-containing bisphosphonate from gum acacia crosslinked hydrogels. <i>International Journal of Biological Macromolecules</i> , 2015 , 73, 115-23	7.9	39
75	Development and Characterization of Curcumin Loaded Silver Nanoparticle Hydrogels for Antibacterial and Drug Delivery Applications. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2012 , 22, 1254-1262	3.2	39
74	Biomaterials: Design, Development and Biomedical Applications 2015 , 21-44		37
73	Hydroxyapatite nanocrystals synthesized from calcium rich bio-wastes. <i>Materials Letters</i> , 2018 , 230, 64-68	8.3	35
72	Development of biodegradable metaloxide/polymer nanocomposite films based on poly-ε-caprolactone and terephthalic acid. <i>Materials Science and Engineering C</i> , 2017 , 70, 85-93	8.3	34
71	Chitosan-pluronic based Cu nanocomposite hydrogels for prototype antimicrobial applications. <i>International Journal of Biological Macromolecules</i> , 2020 , 143, 825-832	7.9	33
70	5-Fluorouracil encapsulated magnetic nanohydrogels for drug-delivery applications. <i>Journal of Applied Polymer Science</i> , 2016 , 133,	2.9	33

69	Antibiotic copper oxide-curcumin nanomaterials for antibacterial applications. <i>Journal of Molecular Liquids</i> , 2020 , 300, 112353	6	32
68	Development of novel protein-Ag nanocomposite for drug delivery and inactivation of bacterial applications. <i>International Journal of Biological Macromolecules</i> , 2014 , 63, 75-82	7.9	31
67	Biomolecule chitosan, curcumin and ZnO-based antibacterial nanomaterial, via a one-pot process. <i>Carbohydrate Polymers</i> , 2020 , 249, 116825	10.3	30
66	Biosynthesis of CMC-Guar gum-Ag nanocomposites for inactivation of food pathogenic microbes and its effect on the shelf life of strawberries. <i>Carbohydrate Polymers</i> , 2020 , 236, 116053	10.3	29
65	Structure and properties of poly (lactic acid)/Sterculia urens uniaxial fabric biocomposites. <i>Carbohydrate Polymers</i> , 2013 , 94, 822-8	10.3	28
64	Calcinated tea and cellulose composite films and its dielectric and lead adsorption properties. <i>Carbohydrate Polymers</i> , 2017 , 171, 183-192	10.3	27
63	Development of Sodium Carboxymethyl Cellulose-based Poly(acrylamide-co-2acrylamido-2-methyl-1-propane sulfonic acid) Hydrogels for In Vitro Drug Release Studies of Ranitidine Hydrochloride an Anti-ulcer Drug. <i>Polymer-Plastics Technology and Engineering</i> , 2011 , 50, 1199-1207		26
62	Development of Gelatin Based Inorganic Nanocomposite Hydrogels for Inactivation of Bacteria. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2013 , 23, 1054-1060	3.2	25
61	Surface treatment of plasticized poly(vinyl chloride) to prevent plasticizer migration. <i>Journal of Applied Polymer Science</i> , 2010 , 115, 1589-1597	2.9	25
60	Hydroxypropyl methylcellulose-copper nanoparticle and its nanocomposite hydrogel films for antibacterial application. <i>Carbohydrate Polymers</i> , 2021 , 254, 117302	10.3	25
59	Synthesis of a novel compound based on chitosan and ammonium polyphosphate for flame retardancy applications. <i>Cellulose</i> , 2019 , 26, 8801-8812	5.5	24
58	Poly(acrylamide-chitosan) Hydrogels: Interaction with Surfactants. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2010 , 59, 981-993	3	24
57	Fabrication of Au and Ag Bi-metallic nanocomposite for antimicrobial applications. <i>Journal of Applied Polymer Science</i> , 2012 , 125, 1357-1362	2.9	23
56	Development and characterization of nano-multifunctional materials for advanced applications. <i>RSC Advances</i> , 2014 , 4, 60363-60370	3.7	22
55	Nano-hydroxyapatite polymeric hydrogels for dye removal. <i>RSC Advances</i> , 2018 , 8, 18118-18127	3.7	22
54	Heavy metal removal from aqueous systems using hydroxyapatite nanocrystals derived from clam shells.. <i>RSC Advances</i> , 2019 , 9, 22883-22890	3.7	20
53	Development of microbial resistant Carbopol nanocomposite hydrogels via a green process. <i>Biomaterials Science</i> , 2014 , 2, 257-263	7.4	20
52	Preparation and Characterization of Sodium Alginate-Based Hydrogels and Their In Vitro Release Studies. <i>Advances in Polymer Technology</i> , 2013 , 32, n/a-n/a	1.9	20

51	Development of microbial resistant thermosensitive Ag nanocomposite (gelatin) hydrogels via green process. <i>Journal of Biomedical Materials Research - Part A</i> , 2014 , 102, 928-34	5.4	19
50	A Novel Biodegradable Green Poly(l-Aspartic Acid-Citric Acid) Copolymer for Antimicrobial Applications. <i>Journal of Polymers and the Environment</i> , 2012 , 20, 17-22	4.5	19
49	Development of high alginate comprised hydrogels for removal of Pb(II) ions. <i>Journal of Molecular Liquids</i> , 2020 , 298, 112087	6	19
48	Chitosan-mediated synthesis of flowery-CuO, and its antibacterial and catalytic properties. <i>Carbohydrate Polymers</i> , 2017 , 172, 78-84	10.3	18
47	Mechanical properties of uniaxial natural fabric <i>Grewia tilifolia</i> reinforced epoxy based composites: Effects of chemical treatment. <i>Fibers and Polymers</i> , 2014 , 15, 1462-1468	2	18
46	Perylenedianhydride-Based Polyimides as Organic Cathodes for Rechargeable Lithium and Sodium Batteries. <i>ACS Applied Energy Materials</i> , 2020 , 3, 240-252	6.1	18
45	Generation of engineered core-shell antibiotic nanoparticles. <i>RSC Advances</i> , 2019 , 9, 8326-8332	3.7	17
44	Green synthesis of tea Ag nanocomposite hydrogels via mint leaf extraction for effective antibacterial activity. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2017 , 28, 1588-1602	3.5	16
43	Surfactant-Modified Poly(acrylamide-co-acrylamido propane sulphonic acid) Hydrogels. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2009 , 58, 278-296	3	16
42	Magnetic properties of nano-multiferroic materials. <i>Journal of Magnetism and Magnetic Materials</i> , 2017 , 442, 453-459	2.8	14
41	Synthesis of Surfactant-Modified Poly (Acrylamide-co-Potassium Acrylate) Hydrogels and Its in vitro Release Studies. <i>Polymer-Plastics Technology and Engineering</i> , 2012 , 51, 1355-1360		14
40	Biocidal (bacterial and cancer cells) activities of chitosan/CuO nanomaterial, synthesized via a green process. <i>Carbohydrate Polymers</i> , 2021 , 259, 117762	10.3	14
39	Development of anti-scale poly(aspartic acid-citric acid) dual polymer systems for water treatment. <i>Environmental Technology (United Kingdom)</i> , 2014 , 35, 2903-9	2.6	13
38	Biodegradable Microspheres for Controlled Release of an Antibiotic Ciprofloxacin. <i>Journal of Polymers and the Environment</i> , 2011 , 19, 413-418	4.5	13
37	Silver nanoparticles incorporated within intercalated clay/polymer nanocomposite hydrogels for antibacterial studies. <i>Polymer Composites</i> , 2017 , 38, E16-E23	3	12
36	Temperature-sensitive semi-IPN composite hydrogels for antibacterial applications. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019 , 572, 307-316	5.1	12
35	Identification of silver cubic structures during ultrasonication of chitosan AgNO ₃ solution. <i>Carbohydrate Polymers</i> , 2016 , 152, 558-565	10.3	12
34	Biocidal chitosan-magnesium oxide nanoparticles via a green precipitation process. <i>Journal of Hazardous Materials</i> , 2021 , 411, 124884	12.8	12

33	Effect of Alkali Treatment on the Morphology and Tensile Properties of Cordia Dichotoma Fabric/Polycarbonate Composites. <i>Advances in Polymer Technology</i> , 2013 , 32, n/a-n/a	1.9	11
32	Biodegradable Water Soluble Copolymer for Antimicrobial Applications. <i>Journal of Polymers and the Environment</i> , 2011 , 19, 225-229	4.5	11
31	Antimicrobial Cellulose Nanocomposite Films with In Situ Generations of Bimetallic (Ag and Cu) Nanoparticles Using Vitex negundo Leaves Extract. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2021 , 31, 802-815	3.2	11
30	Co-assembled ZnO (shell) CuO (core) nano-oxide materials for microbial protection. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 2018 , 193, 74-80	1	10
29	An ecofriendly nanocomposite of bacterial cellulose and hydroxyapatite efficiently removes lead from water. <i>International Journal of Biological Macromolecules</i> , 2020 , 165, 2711-2720	7.9	10
28	Preparation of antibacterial temperature-sensitive silver-nanocomposite hydrogels from N-isopropylacrylamide with green tea. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 45739	2.9	9
27	Development of microbial protective Kolliphor-based nanocomposite hydrogels. <i>Journal of Applied Polymer Science</i> , 2015 , 132, n/a-n/a	2.9	9
26	Automotive components composed of polyolefins 2017 , 449-496		6
25	Studies on Curcumin Loaded Poly(N-isopropylacrylamide) Silver Nanocomposite Hydrogels for Antibacterial and Drug Releasing Applications. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2013 , 50, 1230-1240	2.2	6
24	The effect of capping agents on the structural and magnetic properties of cobalt ferrite nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , 2018 , 29, 11774-11782	2.1	6
23	Biocidal and biocompatible hybrid nanomaterials from biomolecule chitosan, alginate and ZnO. <i>Carbohydrate Polymers</i> , 2021 , 274, 118646	10.3	6
22	Studies on the functional properties of free-standing polyvinyl alcohol/(CoFe ₂ O ₄ /CoFe ₂) composite films. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2017 , 226, 211-222	3.1	5
21	Probing the Defect-Induced Magnetocaloric Effect on Ferrite/Graphene Functional Nanocomposites and their Magnetic Hyperthermia. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 25844-25855	3.8	5
20	Hydrophobic/Hydrophilic Nanostructured Polymer Blends 2016 , 385-411		5
19	Side Chain Liquid Crystalline Polymers: Advances and Applications 2015 , 389-415		4
18	Nanostructured Polymer Blends for Gas/Vapor Barrier and Dielectric Applications 2016 , 239-259		4
17	Poly (Lactic Acid) Biopolymer Composites and Nanocomposites for Biomedicals and Biopackaging Applications 2017 , 135-169		4
16	Application of Hydrogel Biocomposites for Multiple Drug Delivery 2017 , 139-165		4

- 15 Metal-oxide polymer nanocomposite films from disposable scrap tire powder/poly-ε-caprolactone for advanced electrical energy (capacitor) applications. *Journal of Cleaner Production*, **2017**, 161, 888-895^{10.3} 3
- 14 The Use of Polymer Nanocomposites in the Aerospace and the Military/Defence Industries. *Advances in Chemical and Materials Engineering Book Series*, **2019**, 316-349 0.2 3
- 13 Synergistic Antibacterial Effect of the Magnesium-Doped ZnO Nanoparticles with Chloramphenicol. *BioNanoScience*, **2020**, 10, 106-111 3.4 3
- 12 Cell Encapsulation in Polymeric Self-Assembled Hydrogels **2015**, 149-171 2
- 11 Significances of Nanostructured Hydrogels for Valuable Applications **2014**, 273-298 2
- 10 Novel-porous-Ag0 nanocomposite hydrogels via green process for advanced antibacterial applications. *Journal of Biomedical Materials Research - Part A*, **2014**, 102, 4616-24 5.4 2
- 9 Biocidal activity of Ba-doped CeO NPs against and bacterial strains.. *RSC Advances*, **2021**, 11, 30623-30634⁷ 2
- 8 The significance of biomacromolecule alginate for the 3D printing of hydrogels for biomedical applications. *International Journal of Biological Macromolecules*, **2022**, 212, 561-578 7.9 2
- 7 Antibiotic Nanomaterials **2020**, 1-10 1
- 6 Crystallization and Morphological Changes in Nanostructured Polymer Blends **2016**, 287-312 1
- 5 Design and development of temperature sensitive porous poly(NIPAAm-AMPS) hydrogels for drug release of doxorubicin-a cancer chemotherapy drug. *Journal of Applied Polymer Science*, **2010**, 116, NA-NA^{2.9} 1
- 4 Nanotechnology in Paints and Coatings **2018**, 175-233 0
- 3 Polymers used in green synthesis of nanoparticles and their importance in pharmaceutical and biomedical applications **2022**, 125-163 0
- 2 3. Biomass and biowastes: renewable resources for biodegradable materials in advanced applications **2020**, 57-70 0
- 1 Polymeric materials for autoimmune diseases **2022**, 403-425 0