Kummara Madhusudana Rao

List of Publications by Year
in descending order

86	3,484	136885	149623
papers	citations	32 h-index	56 g-index

88	88	88	4623
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Application of xanthan gum as polysaccharide in tissue engineering: A review. Carbohydrate Polymers, 2018, 180, 128-144.	5.1	352
2	MicroRNA-378 limits activation of hepatic stellate cells and liver fibrosis by suppressing Gli3 expression. Nature Communications, 2016, 7, 10993.	5.8	200
3	An intuitive review of supercapacitors with recent progress and novel device applications. Journal of Energy Storage, 2020, 31, 101652.	3.9	160
4	Effect of crosslinking functionality on microstructure, mechanical properties, and in vitro cytocompatibility of cellulose nanocrystals reinforced poly (vinyl alcohol)/sodium alginate hybrid scaffolds. International Journal of Biological Macromolecules, 2017, 95, 962-973.	3.6	149
5	Synthesis of mechanically stiff and bioactive hybrid hydrogels for bone tissue engineering applications. Chemical Engineering Journal, 2017, 317, 119-131.	6.6	113
6	Novel thermo/pH sensitive nanogels composed from poly(N-vinylcaprolactam) for controlled release of an anticancer drug. Colloids and Surfaces B: Biointerfaces, 2013, 102, 891-897.	2.5	106
7	pH and near-infrared active; chitosan-coated halloysite nanotubes loaded with curcumin-Au hybrid nanoparticles for cancer drug delivery. International Journal of Biological Macromolecules, 2018, 112, 119-125.	3.6	106
8	Curcumin encapsulated pH sensitive gelatin based interpenetrating polymeric network nanogels for anti cancer drug delivery. International Journal of Pharmaceutics, 2015, 478, 788-795.	2.6	103
9	pH sensitive halloysite-sodium hyaluronate/poly(hydroxyethyl methacrylate) nanocomposites for colon cancer drug delivery. Applied Clay Science, 2014, 97-98, 33-42.	2.6	98
10	Mechanically viscoelastic nanoreinforced hybrid hydrogels composed of polyacrylamide, sodium carboxymethylcellulose, graphene oxide, and cellulose nanocrystals. Carbohydrate Polymers, 2018, 193, 228-238.	5.1	98
11	A novel use of cellulose based filter paper containing silver nanoparticles for its potential application as wound dressing agent. International Journal of Biological Macromolecules, 2018, 108, 455-461.	3.6	93
12	Development of sodium alginate-xanthan gum based nanocomposite scaffolds reinforced with cellulose nanocrystals and halloysite nanotubes. Polymer Testing, 2017, 63, 214-225.	2.3	83
13	Mussel-Inspired Cell/Tissue-Adhesive, Hemostatic Hydrogels for Tissue Engineering Applications. ACS Omega, 2019, 4, 12647-12656.	1.6	73
14	Bio-synthesis and characterization of silver nanoparticles using Terminalia chebula leaf extract and evaluation of its antimicrobial potential. Materials Letters, 2016, 174, 129-133.	1.3	71
15	Stimuli Responsive Poly(Vinyl Caprolactam) Gels for Biomedical Applications. Gels, 2016, 2, 6.	2.1	70
16	Polysaccharide based bionanocomposite hydrogels reinforced with cellulose nanocrystals: Drug release and biocompatibility analyses. International Journal of Biological Macromolecules, 2017, 101, 165-171.	3.6	68
17	Hemostatic, biocompatible, and antibacterial non-animal fungal mushroom-based carboxymethyl chitosan-ZnO nanocomposite for wound-healing applications. International Journal of Biological Macromolecules, 2020, 155, 71-80.	3.6	67
18	Self-healable and dual-functional guar gum-grafted-polyacrylamidoglycolic acid-based hydrogels with nano-silver for wound dressings. Carbohydrate Polymers, 2019, 223, 115074.	5.1	63

#	Article	IF	Citations
19	Bacterial Cellulose and Its Applications. Polymers, 2022, 14, 1080.	2.0	59
20	Synthesis of alginate based silver nanocomposite hydrogels for biomedical applications. Macromolecular Research, 2014, 22, 832-842.	1.0	57
21	One-pot synthesis of ZnO nanobelt-like structures in hyaluronan hydrogels for wound dressing applications. Carbohydrate Polymers, 2019, 223, 115124.	5.1	55
22	Polysaccharides based antibacterial polyelectrolyte hydrogels with silver nanoparticles. Materials Letters, 2016, 184, 189-192.	1.3	53
23	Xanthan gum/bioactive silica glass hybrid scaffolds reinforced with cellulose nanocrystals: Morphological, mechanical and in vitro cytocompatibility study. Materials Letters, 2017, 193, 274-278.	1.3	53
24	Polysaccharide-based magnetically responsive polyelectrolyte hydrogels for tissue engineering applications. Journal of Materials Science and Technology, 2018, 34, 1371-1377.	5.6	53
25	Tissue-adhesive, stretchable, and self-healable hydrogels based on carboxymethyl cellulose-dopamine/PEDOT:PSS via mussel-inspired chemistry for bioelectronic applications. Chemical Engineering Journal, 2021, 426, 130847.	6.6	51
26	Biodegradable sodium alginateâ€based semiâ€interpenetrating polymer network hydrogels for antibacterial application. Journal of Biomedical Materials Research - Part A, 2014, 102, 3196-3206.	2.1	40
27	Synthesis and Characterization of pH Sensitive Poly (Hydroxy Ethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 432 Td (Methacrylate) 5-Fluorouracil. International Journal of Polymeric Materials and Polymeric Biomaterials, 2013, 62, 565-571.	1.8	38
28	Targeting integrins for cancer management using nanotherapeutic approaches: Recent advances and challenges. Seminars in Cancer Biology, 2021, 69, 325-336.	4.3	38
29	Biodegradable Tragacanth Gum Based Silver Nanocomposite Hydrogels and Their Antibacterial Evaluation. Journal of Polymers and the Environment, 2018, 26, 778-788.	2.4	37
30	Tunable Intracellular Degradable Periodic Mesoporous Organosilica Hybrid Nanoparticles for Doxorubicin Drug Delivery in Cancer Cells. ACS Biomaterials Science and Engineering, 2018, 4, 175-183.	2.6	36
31	Physicochemical characterization, drug release, and biocompatibility evaluation of carboxymethyl cellulose-based hydrogels reinforced with sepiolite nanoclay. International Journal of Biological Macromolecules, 2021, 178, 464-476.	3.6	35
32	Development and Characterization of Chitosan-Poly (Vinyl Pyrrolidone) Blend Microspheres for Controlled Release of Metformin Hydrochloride. International Journal of Polymeric Materials and Polymeric Biomaterials, 2012, 61, 424-436.	1.8	34
33	Preparation and characterization of pH sensitive poly(vinyl alcohol)/sodium carboxymethyl cellulose IPN microspheres for in vitro release studies of an anti-cancer drug. Polymer Bulletin, 2012, 68, 1905-1919.	1.7	34
34	Mechanically improved porous hydrogels with polysaccharides via polyelectrolyte complexation for bone tissue engineering. International Journal of Biological Macromolecules, 2020, 144, 160-169.	3.6	34
35	Temperature-responsive poly(N-vinylcaprolactam-co-hydroxyethyl methacrylate) nanogels for controlled release studies of curcumin. Designed Monomers and Polymers, 2015, 18, 705-713.	0.7	32
36	Semi-IPN hydrogels based on Poly(vinyl alcohol) for controlled release studies of chemotherapeutic agent and their Swelling characteristics. Polymer Bulletin, 2008, 61, 81-90.	1.7	31

#	Article	IF	Citations
37	Tragacanth gum-based multifunctional hydrogels and green synthesis of their silver nanocomposites for drug delivery and inactivation of multidrug resistant bacteria. International Journal of Biological Macromolecules, 2021, 174, 502-511.	3.6	31
38	Fungal-derived carboxymethyl chitosan blended with polyvinyl alcohol as membranes for wound dressings. International Journal of Biological Macromolecules, 2021, 190, 792-800.	3.6	31
39	Poly(acrylamidoglycolic acid) nanocomposite hydrogels reinforced with cellulose nanocrystals for pH-sensitive controlled release of diclofenac sodium. Polymer Testing, 2017, 64, 175-182.	2.3	30
40	Pectin/poly(acrylamide-co-acrylamidoglycolic acid) pH sensitive semi-IPN hydrogels: selective removal of Cu²⁺and Ni²⁺, modeling, and kinetic studies. Desalination and Water Treatment, 2016, 57, 6503-6514.	1.0	28
41	Facile synthesis of hierarchical agglomerated cauliflower-like ZnWO4@NiO nanostructures as an efficient electrode material for high-performance supercapacitor applications. Materials Letters, 2020, 268, 127594.	1.3	28
42	Tissue Adhesive, Self-Healing, Biocompatible, Hemostasis, and Antibacterial Properties of Fungal-Derived Carboxymethyl Chitosan-Polydopamine Hydrogels. Pharmaceutics, 2022, 14, 1028.	2.0	26
43	Pervaporation studies of sodium alginate (SA)/dextrin blend membranes for separation of water and isopropanol mixture. Desalination, 2011, 269, 177-183.	4.0	25
44	Polysaccharide based hydrogels reinforced with halloysite nanotubes via polyelectrolyte complexation. Materials Letters, 2018, 213, 231-235.	1.3	23
45	Chitosan-poly(aminopropyl/phenylsilsesquioxane) hybrid nanocomposite membranes for antibacterial and drug delivery applications. Polymer International, 2015, 64, 293-302.	1.6	22
46	Periodic mesoporous organosilica (PMO) containing bridged succinamic acid groups as a nanocarrier for sulfamerazine, sulfadiazine and famotidine: Adsorption and release study. Microporous and Mesoporous Materials, 2016, 225, 174-184.	2.2	20
47	pH sensitive poly(methyl methacrylate-co-acryloyl phenylalanine) nanogels and their silver nanocomposites for biomedical applications. Journal of Drug Delivery Science and Technology, 2015, 29, 181-188.	1.4	18
48	Hydrothermal synthesis of CuS/CoS nano composite as an efficient electrode for the supercapattery applications. Journal of Energy Storage, 2021, 40, 102749.	3.9	18
49	Green Synthesis and Characterization of Halloysite Nanoclay/Curcumin/Ag Hybrid Nano Materials for Antibacterial Applications. Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 1450-1456.	1.9	17
50	Encapsulation of 5â€Fluorouracil Treated Reduced Graphene Oxide in Sodium Alginate Matrix for Controlled and pHâ€Responsive Drug Delivery. ChemistrySelect, 2021, 6, 6533-6540.	0.7	16
51	Diffusion and controlled release characteristics of pH-sensitive poly(2-(dimethyl amino)ethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf Polymeric Biomaterials, 2016, 65, 134-142.	1.8	14
52	Recent biotechnological developments in reshaping the microalgal genome: A signal for green recovery in biorefinery practices. Chemosphere, 2022, 293, 133513.	4.2	14
53	Cell/Tissue Adhesive, Selfâ€Healable, Biocompatible, Hemostasis, and Antibacterial Hydrogel Dressings for Wound Healing Applications. Advanced Materials Interfaces, 2022, 9, .	1.9	14
54	Sodium alginate/poly (ethylene oxide) blend hydrogel membranes for controlled release of valganciclovir hydrochloride. Designed Monomers and Polymers, 2013, 16, 151-159.	0.7	13

#	Article	IF	Citations
55	Synthesis of 1-acryloyl-3-phenyl thiourea based pH sensitive hydrogels for removal of samarium and terbium. Macromolecular Research, 2016, 24, 494-501.	1.0	13
56	Injectable nanocomposite hydrogel as wound dressing agent with tunable multifunctional property. Materials Letters, 2022, 307, 131062.	1.3	13
57	Dual responsive tamarind gum-co-poly(N-isopropyl acrylamide-co-ethylene glycol vinyl ether) hydrogel: A promising device for colon specific anti-cancer drug delivery. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 641, 128456.	2.3	13
58	Development of Triprolidine-Hydrochloride-Loaded pH-Sensitive Poly(Acrylamide-co-Acrylamidoglycolic Acid) Co-Polymer Microspheres: In Vitro Release Studies. Designed Monomers and Polymers, 2011, 14, 445-459.	0.7	12
59	Fabrication and Characterization of Multicomponent Polysaccharide/Nanohydroxyapatite Composite Scaffolds. Polymer-Plastics Technology and Engineering, 2017, 56, 983-991.	1.9	12
60	Fabrication of Polyelectrolyte Membranes of Pectin Graft-Copolymers with PVA and Their Composites with Phosphomolybdic Acid for Drug Delivery, Toxic Metal Ion Removal, and Fuel Cell Applications. Membranes, 2021, 11, 792.	1.4	12
61	Dual Responsive poly(vinyl caprolactam)-Based Nanogels for Tunable Intracellular Doxorubicin Delivery in Cancer Cells. Pharmaceutics, 2022, 14, 852.	2.0	12
62	Development of temperature-responsive semi-IPN hydrogels from PVA-PNVC-PAm for controlled release of anti-cancer agent. Soft Materials, 2016, 14, 96-106.	0.8	11
63	Development of Thiourea-Formaldehyde Crosslinked Chitosan Membrane Networks for Separation of Cu (II) and Ni (II) Ions. Bulletin of the Korean Chemical Society, 2013, 34, 1513-1520.	1.0	11
64	Development of pH-sensitive polycaprolactone-based microspheres for in vitro release studies of Triprolidine Hydrochloride. Designed Monomers and Polymers, 2014, 17, 617-623.	0.7	10
65	Development of antibacterial paper coated with sodium hyaluronate stabilized curcumin-Ag nanohybrid and chitosan via polyelectrolyte complexation for medical applications. Materials Research Express, 2017, 4, 115401.	0.8	10
66	Graphene oxide/poly(N-isopropyl acrylamide)/sodium alginate-based dual responsive composite beads for controlled release characteristics of chemotherapeutic agent. Iranian Polymer Journal (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.3	10
67	Fabrication of Eco-Friendly Polyelectrolyte Membranes Based on Sulfonate Grafted Sodium Alginate for Drug Delivery, Toxic Metal Ion Removal and Fuel Cell Applications. Polymers, 2021, 13, 3293.	2.0	10
68	Antibacterial reduced graphene oxide reinforces polyelectrolyte hydrogels with polysaccharides via a green method. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 628, 127340.	2.3	10
69	Biodegradable interpenetrating polymer network hydrogel membranes for controlled release of anticancer drug. Asian Journal of Pharmaceutics (discontinued), 2015, 9, 129.	0.4	9
70	Synthesis of dual responsive cyclotriphosphazene-based IPN hydrogels for controlled release of chemotherapeutic agent. Polymers for Advanced Technologies, 2016, 27, 374-381.	1.6	9
71	Strychnos Potatorum L. Seed Polysaccharide-Based Stimuli-Responsive Hydrogels and Their Silver Nanocomposites for the Controlled Release of Chemotherapeutics and Antimicrobial Applications. ACS Omega, 2022, 7, 12856-12869.	1.6	9
72	Development of dual responsive 5-fluorouracil loaded poly(N-vinylcaprolactam) based nanogels for targeted drug delivery applications. Polymer Science - Series B, 2015, 57, 638-644.	0.3	7

#	Article	IF	Citations
73	Camellia japonica-polysiloxane based superhydrophobic hybrid powder for the selective adsorption of metal ions from a mixture of metal ions in artificial sea water. Journal of Porous Materials, 2015, 22, 229-238.	1.3	7
74	Synthesis of Novel Tamarind Gum-co-poly(acrylamidoglycolic acid)-Based pH Responsive Semi-IPN Hydrogels and Their Ag Nanocomposites for Controlled Release of Chemotherapeutics and Inactivation of Multi-Drug-Resistant Bacteria. Gels, 2021, 7, 237.	2.1	7
75	Snap-top nanocontainer for selective recovery of nickel ions from seawater. Microporous and Mesoporous Materials, 2017, 238, 27-35.	2.2	6
76	Functional stimuli-responsive polymeric network nanogels as cargo systems for targeted drug delivery and gene delivery in cancer cells. , 2018, , 243-275.		5
77	Facets of diatom biology and their potential applications. Biomass Conversion and Biorefinery, 0, , 1.	2.9	5
78	Revised Manuscript with Corrections: Polyurethane-Based Conductive Composites: From Synthesis to Applications. International Journal of Molecular Sciences, 2022, 23, 1938.	1.8	5
79	Stimuli-Responsive Smart Polymeric Coatings: An Overview. , 2016, , 27-49.		4
80	Salacia mulbarica leaf extract mediated synthesis of silver nanoparticles for antibacterial and ctâ€ÐNA damage via releasing of reactive oxygen species. IET Nanobiotechnology, 2020, 14, 485-490.	1.9	4
81	Efficient Metal-Free Catalytic Reduction of Nitro to Amine Over Carbon Sheets Doped with Nitrogen. Catalysis Letters, 2022, 152, 538-546.	1.4	4
82	Aminothiozolyl maleamic acid based multi chelating hydrogels for the separation of uranium (VI) ions from aqueous environment. Polymers for Advanced Technologies, 2016, 27, 1317-1324.	1.6	3
83	Formulation, optimization, and in vitro characterization of omega-3-rich binary lipid carriers for curcumin delivery: in vitro evaluation of sustained release and its potential antioxidant behavior. Polymer Bulletin, 2022, 79, 307-330.	1.7	3
84	Preparation and characterization of nimesulide loaded poly (methyl methacrylate)/poly (ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2013, 7, 118.	0.4	2
85	Tannic Acid-chitosan Strengthened Cellulose Filter Paper for Water Disinfection via Formation of Silver Nanoparticles. Fibers and Polymers, 0, , 1.	1.1	2
86	Alginate-based hydrogels. , 2021, , 357-393.		0