

# Kummara Madhusudana Rao

## List of Publications by Year in descending order

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86  
papers

3,484  
citations

136885

32  
h-index

149623

56  
g-index

88  
all docs

88  
docs citations

88  
times ranked

4623  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Efficient Metal-Free Catalytic Reduction of Nitro to Amine Over Carbon Sheets Doped with Nitrogen. Catalysis Letters, 2022, 152, 538-546.	1.4	4
3	Injectable nanocomposite hydrogel as wound dressing agent with tunable multifunctional property. Materials Letters, 2022, 307, 131062.	1.3	13
4	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
5	Recent biotechnological developments in reshaping the microalgal genome: A signal for green recovery in biorefinery practices. Chemosphere, 2022, 293, 133513.	4.2	14
6	Revised Manuscript with Corrections: Polyurethane-Based Conductive Composites: From Synthesis to Applications. International Journal of Molecular Sciences, 2022, 23, 1938.	1.8	5
7	Cell/Tissue Adhesive, Self-Healable, Biocompatible, Hemostasis, and Antibacterial Hydrogel Dressings for Wound Healing Applications. Advanced Materials Interfaces, 2022, 9, .	1.9	14
8	Bacterial Cellulose and Its Applications. Polymers, 2022, 14, 1080.	2.0	59
9	<i>Strychnos Potatorium</i> <i>L.</i> 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
10	Dual Responsive poly(vinyl caprolactam)-Based Nanogels for Tunable Intracellular Doxorubicin Delivery in Cancer Cells. Pharmaceutics, 2022, 14, 852.	2.0	12
11	Tissue Adhesive, Self-Healing, Biocompatible, Hemostasis, and Antibacterial Properties of Fungal-Derived Carboxymethyl Chitosan-Polydopamine Hydrogels. Pharmaceutics, 2022, 14, 1028.	2.0	26
12	Targeting integrins for cancer management using nanotherapeutic approaches: Recent advances and challenges. Seminars in Cancer Biology, 2021, 69, 325-336.	4.3	38
13	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
14	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
15	Encapsulation of 5-Fluorouracil Treated Reduced Graphene Oxide in Sodium Alginate Matrix for Controlled and pH-Responsive Drug Delivery. ChemistrySelect, 2021, 6, 6533-6540.	0.7	16
16	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
17	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
18	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

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19	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
20	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
21	Alginate-based hydrogels. , 2021, , 357-393.		0
22	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
23	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
24	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
25	An intuitive review of supercapacitors with recent progress and novel device applications. Journal of Energy Storage, 2020, 31, 101652.	3.9	160
26	Salacia mulbarica leaf extract mediated synthesis of silver nanoparticles for antibacterial and ctâ€DNA damage via releasing of reactive oxygen species. IET Nanobiotechnology, 2020, 14, 485-490.	1.9	4
27	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
28	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
29	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
30	Mussel-Inspired Cell/Tissue-Adhesive, Hemostatic Hydrogels for Tissue Engineering Applications. ACS Omega, 2019, 4, 12647-12656.	1.6	73
31	One-pot synthesis of ZnO nanobelt-like structures in hyaluronan hydrogels for wound dressing applications. Carbohydrate Polymers, 2019, 223, 115124.	5.1	55
32	Mechanically viscoelastic nanoreinforced hybrid hydrogels composed of polyacrylamide, sodium carboxymethylcellulose, graphene oxide, and cellulose nanocrystals. Carbohydrate Polymers, 2018, 193, 228-238.	5.1	98
33	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
34	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
35	Biodegradable Tragacanth Gum Based Silver Nanocomposite Hydrogels and Their Antibacterial Evaluation. Journal of Polymers and the Environment, 2018, 26, 778-788.	2.4	37
36	Polysaccharide-based magnetically responsive polyelectrolyte hydrogels for tissue engineering applications. Journal of Materials Science and Technology, 2018, 34, 1371-1377.	5.6	53

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37	Application of xanthan gum as polysaccharide in tissue engineering: A review. Carbohydrate Polymers, 2018, 180, 128-144.	5.1	352
38	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
39	Functional stimuli-responsive polymeric network nanogels as cargo systems for targeted drug delivery and gene delivery in cancer cells. , 2018, , 243-275.		5
40	Polysaccharide based hydrogels reinforced with halloysite nanotubes via polyelectrolyte complexation. Materials Letters, 2018, 213, 231-235.	1.3	23
41	Snap-top nanocontainer for selective recovery of nickel ions from seawater. Microporous and Mesoporous Materials, 2017, 238, 27-35.	2.2	6
42	Fabrication and Characterization of Multicomponent Polysaccharide/Nanohydroxyapatite Composite Scaffolds. Polymer-Plastics Technology and Engineering, 2017, 56, 983-991.	1.9	12
43	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
44	Synthesis of mechanically stiff and bioactive hybrid hydrogels for bone tissue engineering applications. Chemical Engineering Journal, 2017, 317, 119-131.	6.6	113
45	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
46	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
47	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
48	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
49	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
50	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 rgBIL3 Overload 10 Tf 50		
51	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
52	Stimuli Responsive Poly(Vinyl Caprolactam) Gels for Biomedical Applications. Gels, 2016, 2, 6.	2.1	70
53	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
54	Aminothiozoyl 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

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55	Stimuli-Responsive Smart Polymeric Coatings: An Overview. , 2016, , 27-49.		4
56	Polysaccharides based antibacterial polyelectrolyte hydrogels with silver nanoparticles. Materials Letters, 2016, 184, 189-192.	1.3	53
57	MicroRNA-378 limits activation of hepatic stellate cells and liver fibrosis by suppressing Gli3 expression. Nature Communications, 2016, 7, 10993.	5.8	200
58	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
59	Pectin/poly(acrylamide-co-acrylamidoglycolic acid) pH sensitive semi-IPN hydrogels: selective removal of Cu <sup>2+</sup> and Ni <sup>2+</sup> , modeling, and kinetic studies. Desalination and Water Treatment, 2016, 57, 6503-6514.	1.0	28
60	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
61	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
62	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
63	Diffusion and controlled release characteristics of pH-sensitive poly(2-(dimethyl amino)ethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Polymeric Biomaterials, 2016, 65, 134-142.	1.8	14
64	Biodegradable interpenetrating polymer network hydrogel membranes for controlled release of anticancer drug. Asian Journal of Pharmaceutics (discontinued), 2015, 9, 129.	0.4	9
65	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
66	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
67	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
68	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
69	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
70	Chitosan-poly(aminopropyl/phenylsilsesquioxane) hybrid nanocomposite membranes for antibacterial and drug delivery applications. Polymer International, 2015, 64, 293-302.	1.6	22
71	Development of pH-sensitive polycaprolactone-based microspheres for <i>in vitro</i> release studies of Triprolidine Hydrochloride. Designed Monomers and Polymers, 2014, 17, 617-623.	0.7	10
72	Biodegradable sodium alginate-based semi-interpenetrating polymer network hydrogels for antibacterial application. Journal of Biomedical Materials Research - Part A, 2014, 102, 3196-3206.	2.1	40

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73	Synthesis of alginate based silver nanocomposite hydrogels for biomedical applications. Macromolecular Research, 2014, 22, 832-842.	1.0	57
74	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
75	Synthesis and Characterization of pH Sensitive Poly (Hydroxy Ethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 672 Td (Methacrylate) 5-Fluorouracil. International Journal of Polymeric Materials and Polymeric Biomaterials, 2013, 62, 565-571.	1.8	38
76	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
77	Preparation and characterization of nimesulide loaded poly (methyl methacrylate)/poly (ethylene Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 672 Td (Methacrylate) 2013, 7, 118.	0.4	2
78	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
79	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
80	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
81	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
82	Development of Tripolidine-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
83	Pervaporation studies of sodium alginate (SA)/dextrin blend membranes for separation of water and isopropanol mixture. Desalination, 2011, 269, 177-183.	4.0	25
84	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
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	Facets of diatom biology and their potential applications. Biomass Conversion and Biorefinery, 0, , 1.	2.9	5