Baljit Singh

List of Publications by Year
in descending order

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105	4,952	101543	98798
papers	citations	36 h-index	67 g-index

105	105	105	5347
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanistic implications of plastic degradation. Polymer Degradation and Stability, 2008, 93, 561-584.	5.8	1,067
2	Psyllium as therapeutic and drug delivery agent. International Journal of Pharmaceutics, 2007, 334, 1-14.	5.2	299
3	Polysaccharides as safer release systems for agrochemicals. Agronomy for Sustainable Development, 2015, 35, 47-66.	5.3	238
4	Design of antibiotic containing hydrogel wound dressings: Biomedical properties and histological study of wound healing. International Journal of Pharmaceutics, 2013, 457, 82-91.	5.2	138
5	Influence of polymer network parameters of tragacanth gum-based pH responsive hydrogels on drug delivery. Carbohydrate Polymers, 2014, 101, 928-940.	10.2	133
6	Controlled release of the fungicide thiram from starchâ€“alginateâ€“clay based formulation. Applied Clay Science, 2009, 45, 76-82.	5.2	128
7	Sterculia crosslinked PVA and PVA-poly(AAm) hydrogel wound dressings for slow drug delivery: Mechanical, mucoadhesive, biocompatible and permeability properties. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 9, 9-21.	3.1	125
8	Synthesis, characterization and swelling responses of pH sensitive psyllium and polyacrylamide based hydrogels for the use in drug delivery (I). Carbohydrate Polymers, 2007, 67, 190-200.	10.2	102
9	Radiation crosslinking polymerization of sterculia polysaccharideâ€“PVAâ€“PVP for making hydrogel wound dressings. International Journal of Biological Macromolecules, 2011, 48, 501-510.	7.5	101
10	Development of sterculia gum based wound dressings for use in drug delivery. European Polymer Journal, 2008, 44, 3222-3230.	5.4	94
11	Acacia gum polysaccharide based hydrogel wound dressings: Synthesis, characterization, drug delivery and biomedical properties. Carbohydrate Polymers, 2017, 165, 294-303.	10.2	84
12	Gastroretentive floating sterculiaâ€“alginate beads for use in antiulcer drug delivery. Chemical Engineering Research and Design, 2010, 88, 997-1012.	5.6	82
13	Synthesis, characterization and swelling studies of pH responsive psyllium and methacrylamide based hydrogels for the use in colon specific drug delivery. Carbohydrate Polymers, 2007, 69, 631-643.	10.2	76
14	Preliminary evaluation of molecular imprinting of 5-fluorouracil within hydrogels for use as drug delivery systems. Acta Biomaterialia, 2008, 4, 1244-1254.	8.3	76
15	Designing tragacanth gum based sterile hydrogel by radiation method for use in drug delivery and wound dressing applications. International Journal of Biological Macromolecules, 2016, 88, 586-602.	7.5	72
16	Crosslinking of poly(vinylpyrrolidone)/acrylic acid with tragacanth gum for hydrogels formation for use in drug delivery applications. Carbohydrate Polymers, 2017, 157, 185-195.	10.2	70
17	In vitro release dynamics of thiram fungicide from starch and poly(methacrylic acid)-based hydrogels. Journal of Hazardous Materials, 2008, 154, 278-286.	12.4	63
18	Mechanistic Implication for Cross-Linking in Sterculia-Based Hydrogels and Their Use in GIT Drug Delivery. Biomacromolecules, 2009, 10, 2515-2532.	5.4	63

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19	A study towards release dynamics of thiram fungicide from starchâ€“alginate beads to control environmental and health hazards. Journal of Hazardous Materials, 2009, 161, 208-216.	12.4	61
20	Metal ion sorption and swelling studies of psyllium and acrylic acid based hydrogels. Carbohydrate Polymers, 2006, 64, 50-56.	10.2	57
21	Modification of psyllium polysaccharides for use in oral insulin delivery. Food Hydrocolloids, 2009, 23, 928-935.	10.7	56
22	Design of psylliumâ€“PVAâ€“acrylic acid based novel hydrogels for use in antibiotic drug delivery. International Journal of Pharmaceutics, 2010, 389, 94-106.	5.2	55
23	The release dynamics of salicylic acid and tetracycline hydrochloride from the psyllium and polyacrylamide based hydrogels (II). Carbohydrate Polymers, 2007, 67, 559-565.	10.2	54
24	Development of novel hydrogels by functionalization of sterculia gum for use in anti-ulcer drug delivery. Carbohydrate Polymers, 2008, 74, 489-497.	10.2	53
25	Designing bio-mimetic moxifloxacin loaded hydrogel wound dressing to improve antioxidant and pharmacology properties. RSC Advances, 2015, 5, 44666-44678.	3.6	52
26	Synthesis and characterization of tragacanth gum based hydrogels by radiation method for use in wound dressing application. Radiation Physics and Chemistry, 2017, 135, 94-105.	2.8	50
27	The release dynamics of model drugs from the psyllium and N-hydroxymethylacrylamide based hydrogels. International Journal of Pharmaceutics, 2006, 325, 15-25.	5.2	48
28	Development of a new controlled pesticide delivery system based on neem leaf powder. Journal of Hazardous Materials, 2010, 177, 290-299.	12.4	48
29	Development of novel hydrogels by modification of sterculia gum through radiation cross-linking polymerization for use in drug delivery. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 2009-2020.	1.4	45
30	Design of Acacia Gumâ€“Carbopolâ€“Cross-Linked-Polyvinylimidazole Hydrogel Wound Dressings for Antibiotic/Anesthetic Drug Delivery. Industrial & Engineering Chemistry Research, 2016, 55, 9176-9188.	3.7	45
31	Controlled release of thiram from neem-alginate-clay based delivery systems to manage environmental and health hazards. Applied Clay Science, 2010, 47, 384-391.	5.2	43
32	Polysaccharide based hydrogels as controlled drug delivery system for GIT cancer. International Journal of Biological Macromolecules, 2014, 65, 524-533.	7.5	41
33	Network formation of Moringa oleifera gum by radiation induced crosslinking: Evaluation of drug delivery, network parameters and biomedical properties. International Journal of Biological Macromolecules, 2018, 108, 477-488.	7.5	41
34	Functionalization of poly(4-vinyl pyridine) grafted cellulose by quaternization reactions and a study on the properties of postquaternized copolymers. Journal of Applied Polymer Science, 2004, 91, 2454-2464.	2.6	40
35	Graft and crosslinked polymerization of polysaccharide gum to form hydrogel wound dressings for drug delivery applications. Carbohydrate Research, 2020, 489, 107949.	2.3	40
36	Synthesis and characterization of alginate and sterculia gum based hydrogel for brain drug delivery applications. International Journal of Biological Macromolecules, 2020, 148, 248-257.	7.5	39

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37	Radiation crosslinked psyllium and polyacrylic acid based hydrogels for use in colon specific drug delivery. Carbohydrate Polymers, 2008, 73, 446-455.	10.2	37
38	Design of Molecular Imprinted Hydrogels for Controlled Release of Cisplatin: Evaluation of Network Density of Hydrogels. Industrial & Engineering Chemistry Research, 2011, 50, 13742-13751.	3.7	37
39	Influence of graphene-oxide nanosheets impregnation on properties of sterculia gum-polyacrylamide hydrogel formed by radiation induced polymerization. International Journal of Biological Macromolecules, 2017, 99, 699-712.	7.5	37
40	Formation of sterculia polysaccharide networks by gamma rays induced graft copolymerization for biomedical applications. Carbohydrate Polymers, 2011, 86, 1371-1380.	10.2	36
41	Modification of sterculia gum with methacrylic acid to prepare a novel drug delivery system. International Journal of Biological Macromolecules, 2008, 43, 142-150.	7.5	35
42	Synthesis and characterization of psyllium-NVP based drug delivery system through radiation crosslinking polymerization. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 3417-3430.	1.4	32
43	Optimized synthesis and characterization of polystyrene graft copolymers and preliminary assessment of their biodegradability and application in water pollution alleviation technologies. Polymer Degradation and Stability, 2007, 92, 876-885.	5.8	31
44	Barium Ions Crosslinked Alginate and Sterculia Gum-Based Gastroretentive Floating Drug Delivery System for Use in Peptic Ulcers. International Journal of Polymeric Materials and Polymeric Biomaterials, 2011, 60, 684-705.	3.4	31
45	Slow release of ciprofloxacin from Î²- cyclodextrin containing drug delivery system through network formation and supramolecular interactions. International Journal of Biological Macromolecules, 2016, 92, 390-400.	7.5	31
46	Psyllium and copolymers of 2-hydroxylethylmethacrylate and acrylamide-based novel devices for the use in colon specific antibiotic drug delivery. International Journal of Pharmaceutics, 2008, 352, 74-80.	5.2	29
47	Design of sterculia gum based double potential antidiarrheal drug delivery system. Colloids and Surfaces B: Biointerfaces, 2011, 82, 325-332.	5.0	29
48	Hydrogel formation by radiation induced crosslinked copolymerization of acrylamide onto moringa gum for use in drug delivery applications. Carbohydrate Polymers, 2018, 200, 262-270.	10.2	29
49	Gamma radiation synthesis and characterization of gentamicin loaded polysaccharide gum based hydrogel wound dressings. Journal of Drug Delivery Science and Technology, 2018, 47, 200-208.	3.0	25
50	Exploration of arabinogalactan of gum polysaccharide potential in hydrogel formation and controlled drug delivery applications. International Journal of Biological Macromolecules, 2020, 147, 482-492.	7.5	25
51	Synthesis and characterization of agar-starch based hydrogels for slow herbicide delivery applications. International Journal of Plastics Technology, 2015, 19, 263-274.	3.1	24
52	Graft copolymerization of polyvinylpyrollidone onto Azadirachta indica gum polysaccharide in the presence of crosslinker to develop hydrogels for drug delivery applications. International Journal of Biological Macromolecules, 2020, 159, 264-275.	7.5	24
53	Designing biocompatible sterile organogelâ€“bigel formulations for drug delivery applications using green protocol. New Journal of Chemistry, 2019, 43, 3059-3070.	2.8	23
54	Synthesis and characterization ofN-vinyl pyrrolidone and cellulosics based functional graft copolymers for use as metal ions and iodine sorbents. Journal of Applied Polymer Science, 2005, 98, 373-382.	2.6	22

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55	Dietary fiber psyllium based hydrogels for use in insulin delivery. International Journal of Diabetes Mellitus, 2010, 2, 32-37.	0.6	22
56	Radiation-induced graft copolymerization of Nâ€'vinyl imidazole onto moringa gum polysaccharide for making hydrogels for biomedical applications. International Journal of Biological Macromolecules, 2018, 120, 1369-1378.	7.5	22
57	Controlled release of thiram fungicide from starch-based hydrogels. Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes, 2007, 42, 677-695.	1.5	21
58	Designing sterile biocompatible moxifloxacin loaded trgacanth-PVA-alginate wound dressing by radiation crosslinking method. Wound Medicine, 2017, 17, 11-17.	2.7	21
59	Design of sterile mucoadhesive hydrogels for use in drug delivery: Effect of radiation on network structure. Colloids and Surfaces B: Biointerfaces, 2014, 121, 230-237.	5.0	20
60	Development of hydrogels by radiation induced polymerization for use in slow drug delivery. Radiation Physics and Chemistry, 2014, 103, 178-187.	2.8	19
61	Modification of sterculia gum polysaccharide via network formation by radiation induced crosslinking polymerization for biomedical applications. International Journal of Biological Macromolecules, 2018, 116, 91-99.	7.5	19
62	Influence of gamma radiation on the physicochemical and rheological properties of sterculia gum polysaccharides. Radiation Physics and Chemistry, 2013, 92, 112-120.	2.8	18
63	Dietary fiber tragacanth gum based hydrogels for use in drug delivery applications. Bioactive Carbohydrates and Dietary Fibre, 2020, 21, 100208.	2.7	18
64	InÂvitro release dynamics of model drugs from psyllium and acrylic acid based hydrogels for the use in colon specific drug delivery. Journal of Materials Science: Materials in Medicine, 2008, 19, 2771-2780.	3.6	17
65	Environment friendly agar and alginate-based thiram delivery system. Toxicological and Environmental Chemistry, 2013, 95, 567-578.	1.2	17
66	Correlation Study of Structural Parameters of Bioadhesive Polymers in Designing a Tunable Drug Delivery System. Langmuir, 2014, 30, 8580-8591.	3.5	17
67	Designing galacturonic acid /arabinogalactan crosslinked poly(vinyl pyrrolidone)-co-poly(2-acrylamido-2-methylpropane sulfonic acid) polymers: Synthesis, characterization and drug delivery application. Polymer, 2016, 91, 50-61.	3.8	17
68	The controlled and sustained release of a fungicide from starch and alginate beads. Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes, 2009, 44, 113-122.	1.5	16
69	Design of Aloe Vera-Alginate Gastroretentive Drug Delivery System to Improve the Pharmacotherapy. Polymer-Plastics Technology and Engineering, 2012, 51, 1303-1314.	1.9	15
70	Design of dietary polysaccharide and binary monomer mixture of acrylamide and 2-acrylamido-2-methylpropane sulphonic acid based antiviral drug delivery devices. Chemical Engineering Research and Design, 2012, 90, 346-358.	5.6	15
71	Radiation crosslinked polymerization of methacrylamide and psyllium to develop antibiotic drug delivery device. International Journal of Biological Macromolecules, 2009, 45, 338-347.	7.5	14
72	Radiation formation of functionalized polysaccharide-protein based skin mimicking semi- inter penetrating network for biomedical application. International Journal of Biological Macromolecules, 2016, 92, 1136-1150.	7.5	14

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73	Radiation induced graft copolymerization of graphene oxide and carbopol onto sterculia gum polysaccharide to develop hydrogels for biomedical applications. FlatChem, 2020, 19, 100151.	5.6	14
74	Gamma radiation formation of sterculia gum-alginate-carbopol hydrogel dressing by grafting method for use in brain drug delivery. Chemical Physics Letters, 2021, 779, 138875.	2.6	13
75	Designing moringa gum-sterculia gum-polyacrylamide hydrogel wound dressings for drug delivery applications. Carbohydrate Polymer Technologies and Applications, 2021, 2, 100062.	2.6	12
76	A study of the synthesis, kinetics, and characterization of reactive graft copolymers of poly(vinyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6 Applied Polymer Science, 2006, 100, 1522-1530.	2.6	11
77	Release dynamics of tyrosine from dietary fiber psyllium based hydrogels for use in Parkinsonâ€™s disease. Food Research International, 2010, 43, 1065-1072.	6.2	11
78	Developing a drug delivery carrier from natural polysaccharide exudate gum by graft-copolymerization reaction using high energy radiations. International Journal of Biological Macromolecules, 2019, 127, 450-459.	7.5	11
79	Evaluation of Gentamicin and Lidocaine Release Profile from Gum Acacia-crosslinked-poly(2-hydroxyethylmethacrylate)-carbopol Based Hydrogels. Current Drug Delivery, 2017, 14, 981-991.	1.6	11
80	Slow release of ciprofloxacin from double potential drug delivery system. Journal of Materials Science, 2011, 46, 2587-2599.	3.7	10
81	In vitro release profile of anti-ulcer drug rabeprazole from biocompatible psyllium-PVA hydrogels. Journal of Materials Science: Materials in Medicine, 2012, 23, 1021-1032.	3.6	10
82	Functionalization of poly(tetrafluoroethylene-co-ethylene) film by radiation-induced graft copolymerization. Journal of Applied Polymer Science, 2000, 78, 1171-1178.	2.6	9
83	Molecular Imprinted Polymers for use as Drug Delivery Devices: Preliminary Evaluation. Journal of Macromolecular Science - Pure and Applied Chemistry, 2008, 45, 776-784.	2.2	9
84	Applications of natural polysaccharide-based beads for slow release herbicide formulation. Toxicological and Environmental Chemistry, 2011, 93, 616-622.	1.2	9
85	Design of Radiation Crosslinked Psyllium and Binary Monomers-Based Hydrogels for Use in Colon Drug Delivery. International Journal of Polymeric Materials and Polymeric Biomaterials, 2013, 62, 68-75.	3.4	9
86	Synthesis and Characterization of Sterculia Gum Based pH Responsive Drug Delivery System for Use in Colon Cancer. Journal of Macromolecular Science - Pure and Applied Chemistry, 2009, 46, 381-396.	2.2	7
87	Polysaccharides Sterculia Gum/Psyllium Based Hydrogel Dressings for Drug Delivery Applications. Polymer Science - Series A, 2019, 61, 865-874.	1.0	7
88	Synthesis and characterization of the azadirachta indica gumâ€“polyacrylamide interpenetrating network for biomedical applications. Carbohydrate Polymer Technologies and Applications, 2020, 1, 100017.	2.6	6
89	Application of tragacanth gum and alginate in hydrogel wound dressing's formation using gamma radiation. Carbohydrate Polymer Technologies and Applications, 2021, 2, 100058.	2.6	6
90	Synthesis and characterization of arabinoxylan-bis[2-(methacryloyloxy)ethyl] phosphate crosslinked copolymer network by high energy gamma radiation for use in controlled drug delivery applications. International Journal of Biological Macromolecules, 2022, 200, 206-217.	7.5	6

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91	Development and characterization of azadirachta indica gum-poly(2-hydroxyethyl methacrylate) crosslinked co-polymeric hydrogels for drug delivery applications. Chemical Physics Letters, 2022, 792, 139401.	2.6	6
92	Synthesis and Characterization of Reactive Graft Copolymers of Poly(butyl Acrylate) and Cellulose. Polymers and Polymer Composites, 2005, 13, 467-478.	1.9	5
93	Synthesis of smart hydrogels by radiation polymerisation for use as slow drug delivery devices. Canadian Journal of Chemical Engineering, 2011, 89, 1596-1605.	1.7	5
94	Development of dietary fiber psyllium based hydrogel for use in drug delivery applications. Food Hydrocolloids for Health, 2022, 2, 100059.	3.9	5
95	Synthesis of hydrocortisone containing dietary fiber almond gum-based hydrogels as sustained drug delivery carriers for use in colon inflammation. Food Hydrocolloids for Health, 2022, 2, 100057.	3.9	5
96	Evaluation of network parameters and drug release behavior of gum acacia-crosslinked-carbopol hydrogel wound dressings. Polymer Science - Series A, 2016, 58, 754-764.	1.0	4
97	Development of dietary fibre moringa gum and polyvinylpyrrolidone based hydrogels for drug delivery application. Food Hydrocolloids for Health, 2021, 1, 100008.	3.9	4
98	Radiation formation of psyllium cross-linked poly(hydroxyethylmethacrylate)-co-poly(acrylamide) based sterile hydrogels for drug delivery applications. Polymer Science - Series A, 2017, 59, 363-375.	1.0	3
99	Modification of Dietary Fiber Psyllium with Poly(vinyl pyrrolidone) through Network Formation for Use in Slow Drug Delivery Application. Polymer Science - Series B, 2018, 60, 331-348.	0.8	3
100	Induction of Biodegradability in the Plastic Waste Through Graft Copolymerization. Polymer-Plastics Technology and Engineering, 2009, 48, 1324-1332.	1.9	2
101	Modification of Tefzel film through graft copolymerization. Polymer International, 2004, 53, 1572-1580.	3.1	1
102	Sterculia Gum. , 2016, , 7601-7609.		0
103	Design of dietary fiber azadiracta indica gum based hydrogels for use in drug delivery. Food Hydrocolloids for Health, 2021, 1, 100011.	3.9	0
104	Synthesis and Characterization of Psyllium Polysaccharideâ€“Poly(2-hydroxypropyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 227 Td (metha Science - Series B, 2020, 62, 685-696.	0.8	0
105	Synthesis and Characterization of Arabinoxylan Psyllium Mucilage-2-methacryloyloxyethyl Trimethylammonium Chloride Copolymeric Hydrogel by Gamma Radiation for Use in Drug Delivery Applications. Polymer Science - Series B, 0, , 1.	0.8	0