Xiaojuan Xu

List of Publications by Year
in descending order

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Version: 2024-02-01

112 papers	4,856 citations	70961 41 h-index	102304 66 g-index
112 all docs	112 docs citations	112 times ranked	4381 citing authors

#	Article	IF	Citations
1	Dynamic Self-Assembly Induced Rapid Dissolution of Cellulose at Low Temperatures. Macromolecules, 2008, 41, 9345-9351.	2.2	368
2	Correlation between antitumor activity, molecular weight, and conformation of lentinan. Carbohydrate Research, 2005, 340, 1515-1521.	1.1	273
3	Intermolecular Interaction and the Extended Wormlike Chain Conformation of Chitin in NaOH/Urea Aqueous Solution. Biomacromolecules, 2015, 16, 1410-1417.	2.6	164
4	Recent Advances in Chain Conformation and Bioactivities of Triple-Helix Polysaccharides. Biomacromolecules, 2020, 21, 1653-1677.	2.6	137
5	Preparation and antimicrobial activity of hydroxypropyl chitosan. Carbohydrate Research, 2005, 340, 1846-1851.	1.1	136
6	Chain conformation and anti-tumor activities of phosphorylated (1â†'3)-Î²-d-glucan from Poria cocos. Carbohydrate Polymers, 2009, 78, 581-587.	5.1	135
7	Effects of molecular structure on antitumor activities of (1â†'3)-Î²-d-glucans from different Lentinus Edodes. Carbohydrate Polymers, 2006, 63, 97-104.	5.1	128
8	Construction of selenium nanoparticles/Î²-glucan composites for enhancement of the antitumor activity. Carbohydrate Polymers, 2015, 117, 434-442.	5.1	127
9	Branching Structure and Chain Conformation of Water-Soluble Glucan Extracted from Auricularia auricula-judae. Journal of Agricultural and Food Chemistry, 2012, 60, 3498-3506.	2.4	118
10	Thermally Induced Conformation Transition of Triple-Helical Lentinan in NaCl Aqueous Solution. Journal of Physical Chemistry B, 2008, 112, 10343-10351.	1.2	109
11	Structural changes of waxy and normal maize starches modified by heat moisture treatment and their relationship with starch digestibility. Carbohydrate Polymers, 2017, 177, 232-240.	5.1	91
12	Effect of quinoa flour on baking performance, antioxidant properties and digestibility of wheat bread. Food Chemistry, 2019, 294, 87-95.	4.2	89
13	Inclusion Interaction of Highly Densely PEO Grafted Polymer Brush and Î±-Cyclodextrin. Macromolecules, 2005, 38, 3845-3851.	2.2	87
14	A novel cationic polyelectrolyte microsphere for ultrafast and ultra-efficient removal of heavy metal ions and dyes. Chemical Engineering Journal, 2021, 410, 128404.	6.6	80
15	Different variations in structures of A- and B-type starches subjected to microwave treatment and their relationships with digestibility. LWT - Food Science and Technology, 2019, 99, 179-187.	2.5	71
16	Chain structures of glucans from Lentinus edodes and their effects on NO production from RAW 264.7 macrophages. Carbohydrate Polymers, 2012, 87, 1855-1862.	5.1	70
17	Construction of blood compatible lysine-immobilized chitin/carbon nanotube microspheres and potential applications for blood purified therapy. Journal of Materials Chemistry B, 2017, 5, 2952-2963.	2.9	70
18	Morphologies and conformation transition oflentinan in aqueous NaOH solution. Biopolymers, 2004, 75, 187-195.	1.2	69

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19	Construction of high strength hollow fibers by self-assembly of a stiff polysaccharide with short branches in water. Journal of Materials Chemistry A, 2013, 1, 4198.	5.2	69
20	Chain conformation and anti-tumor activity of derivatives of polysaccharide from Rhizoma Panacis Japonici. Carbohydrate Polymers, 2014, 105, 308-316.	5.1	69
21	Rheology of triple helical Lentinan in solution: Steady shear viscosity and dynamic oscillatory behavior. Food Hydrocolloids, 2008, 22, 735-741.	5.6	68
22	Triple Helical Polysaccharide-Induced Good Dispersion of Silver Nanoparticles in Water. Biomacromolecules, 2011, 12, 2864-2871.	2.6	67
23	Rheological behavior of Aeromonas gum in aqueous solutions. Food Hydrocolloids, 2006, 20, 723-729.	5.6	66
24	Dynamic viscoelastic behavior of triple helical Lentinan in water: Effects of concentration and molecular weight. Polymer, 2007, 48, 6681-6690.	1.8	66
25	Î²-Glucan from Lentinus edodes Inhibits Nitric Oxide and Tumor Necrosis Factor-Î± Production and Phosphorylation of Mitogen-activated Protein Kinases in Lipopolysaccharide-stimulated Murine RAW 264.7 Macrophages. Journal of Biological Chemistry, 2012, 287, 871-878.	1.6	65
26	Hypoglycemic activity of the Baker's yeast Î²-glucan in obese/type 2 diabetic mice and the underlying mechanism. Molecular Nutrition and Food Research, 2016, 60, 2678-2690.	1.5	61
27	Orally Administered Bakerâ€™s Yeast Î²-Glucan Promotes Glucose and Lipid Homeostasis in the Livers of Obesity and Diabetes Model Mice. Journal of Agricultural and Food Chemistry, 2017, 65, 9665-9674.	2.4	59
28	Structural Characterization, Chain Conformation, and Morphology of a Î²-(1â†'3)-<scp>d</scp>-Glucan Isolated from the Fruiting Body of Dictyophora indusiata. Journal of Agricultural and Food Chemistry, 2009, 57, 5918-5924.	2.4	56
29	Progress in rigid polysaccharide-based nanocomposites with therapeutic functions. Journal of Materials Chemistry B, 2017, 5, 5690-5713.	2.9	56
30	Inhibition of dextran sodium sulfate-induced colitis in mice by bakerâ€™s yeast polysaccharides. Carbohydrate Polymers, 2019, 207, 371-381.	5.1	56
31	Anti-tumor effect of Î²-glucan from Lentinus edodes and the underlying mechanism. Scientific Reports, 2016, 6, 28802.	1.6	55
32	Orally Delivered Antisense Oligodeoxyribonucleotides of TNFâ€Î± via Polysaccharideâ€Based Nanocomposites Targeting Intestinal Inflammation. Advanced Healthcare Materials, 2019, 8, e1801389.	3.9	52
33	Immunomodulatory Î²-Glucan from Lentinus edodes Activates Mitogen-activated Protein Kinases and Nuclear Factor-ÎºB in Murine RAW 264.7 Macrophages. Journal of Biological Chemistry, 2011, 286, 31194-31198.	1.6	50
34	Triple-Helix Conformation of a Polysaccharide Determined with Light Scattering, AFM, and Molecular Dynamics Simulation. Macromolecules, 2018, 51, 10150-10159.	2.2	48
35	The Î²-glucan fromLentinus edodessuppresses cell proliferation and promotes apoptosis in estrogen receptor positive breast cancers. Oncotarget, 2017, 8, 86693-86709.	0.8	48
36	Chain conformation and biological activities of hyperbranched fucoidan derived from brown algae and its desulfated derivative. Carbohydrate Polymers, 2019, 208, 86-96.	5.1	47

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37	Natural polysaccharides with different conformations: extraction, structure and anti-tumor activity. Journal of Materials Chemistry B, 2020, 8, 9652-9667.	2.9	47
38	Construction of highly stable selenium nanoparticles embedded in hollow nanofibers of polysaccharide and their antitumor activities. Nano Research, 2017, 10, 3775-3789.	5.8	45
39	Collapse and Association of Denatured Lentinan in Water/Dimethlysulfoxide Solutions. Biomacromolecules, 2004, 5, 1893-1898.	2.6	44
40	Renaturation of triple helical polysaccharide lentinan in water-diluted dimethylsulfoxide solution. Carbohydrate Research, 2010, 345, 419-424.	1.1	44
41	Î²-Glucan from Saccharomyces cerevisiae reduces lipopolysaccharide-induced inflammatory responses in RAW264.7 macrophages. Biochimica Et Biophysica Acta - General Subjects, 2012, 1820, 1656-1663.	1.1	44
42	Anti-hepatoma activity of the stiff branched Î²-<scp>d</scp>-glucan and effects of molecular weight. Journal of Materials Chemistry B, 2016, 4, 4565-4573.	2.9	44
43	Extended chain conformation of Î²-glucan and its effect on antitumor activity. Journal of Materials Chemistry B, 2017, 5, 5623-5631.	2.9	43
44	Synthesis and Stabilization of Gold Nanoparticles Induced by Denaturation and Renaturation of Triple Helical Î²-Glucan in Water. Biomacromolecules, 2013, 14, 1787-1794.	2.6	42
45	The linear structure of Î²-glucan from bakerâ€™s yeast and its activation of macrophage-like RAW264.7 cells. Carbohydrate Polymers, 2016, 148, 61-68.	5.1	42
46	Yeast Î²-Glucan Suppresses the Chronic Inflammation and Improves the Microenvironment in Adipose Tissues of ob/ob Mice. Journal of Agricultural and Food Chemistry, 2018, 66, 621-629.	2.4	40
47	Inhibition of tumor growth by Î²-glucans through promoting CD4+ T cell immunomodulation and neutrophil-killing in mice. Carbohydrate Polymers, 2019, 213, 370-381.	5.1	40
48	Highly Efficient One-Step Purification of Sulfated Polysaccharides via Chitosan Microspheres Adsorbents. ACS Sustainable Chemistry and Engineering, 2017, 5, 3195-3203.	3.2	39
49	Microstructure, gelatinization and pasting properties of rice starch under acid and heat treatments. International Journal of Biological Macromolecules, 2020, 149, 1098-1108.	3.6	39
50	Determination of the Triple Helical Chain Conformation of Î²-Glucan by Facile and Reliable Triple-Detector Size Exclusion Chromatography. Journal of Physical Chemistry B, 2014, 118, 668-675.	1.2	37
51	Anti-leukemia activities of selenium nanoparticles embedded in nanotube consisted of triple-helix Î²-d-glucan. Carbohydrate Polymers, 2020, 240, 116329.	5.1	36
52	Antitumor Activities ofO-Sulfonated Derivatives of (1â†'3)-Î±-D-Glucan from DifferentLentinus edodes. Bioscience, Biotechnology and Biochemistry, 2006, 70, 38-46.	0.6	33
53	A Novel Strategy for Treating Inflammatory Bowel Disease by Targeting Delivery of Methotrexate through Glucan Particles. Advanced Healthcare Materials, 2020, 9, e1901805.	3.9	33
54	Flexible chain conformation of (1â†'3)-Î²-d-glucan from Poria cocos sclerotium in NaOH/urea aqueous solution. Carbohydrate Polymers, 2009, 75, 586-591.	5.1	32

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55	Gel formation and lowâ€temperature intramolecular conformation transition of a tripleâ€helical polysaccharide lentinan in water. Biopolymers, 2008, 89, 852-861.	1.2	31
56	Effect of Heating on Chain Conformation of Branched Î²-Glucan in Water. Journal of Physical Chemistry B, 2013, 117, 8370-8377.	1.2	31
57	A novel gene carrier prepared from triple helical Î²-glucan and polydeoxyadenylic acid. Journal of Materials Chemistry B, 2014, 2, 933.	2.9	31
58	Dendritic nanotubes self-assembled from stiff polysaccharides as drug and probe carriers. Journal of Materials Chemistry B, 2017, 5, 2616-2624.	2.9	31
59	Dynamic viscoelastic behavior of triple helical Lentinan in water: Effect of temperature. Carbohydrate Polymers, 2008, 73, 26-34.	5.1	24
60	Interaction between polydeoxyadenylic acid and Î²-glucan from Lentinus edodes. European Polymer Journal, 2012, 48, 1329-1338.	2.6	24
61	Chain conformation and rheological behavior of an extracellular heteropolysaccharide Erwinia gum in aqueous solution. Carbohydrate Research, 2009, 344, 113-119.	1.1	23
62	Self-assembly of graphene oxide on the surface of aluminum foil. New Journal of Chemistry, 2013, 37, 181-187.	1.4	22
63	Hypoglycemic Effects of Pyrodextrins with Different Molecular Weights and Digestibilities in Mice with Diet-Induced Obesity. Journal of Agricultural and Food Chemistry, 2018, 66, 2988-2995.	2.4	22
64	Transfection efficiency and internalization of the gene carrier prepared from a triple-helical Î²-glucan and polydeoxyadenylic acid in macrophage RAW264.7 cells. Journal of Materials Chemistry B, 2015, 3, 3789-3798.	2.9	20
65	Molecular weight and chain conformation of amylopectin from rice starch. Journal of Applied Polymer Science, 2007, 104, 3124-3128.	1.3	19
66	Changes in shape and size of the stiff branched Î²-glucan in dimethlysulfoxide/water solutions. Carbohydrate Polymers, 2016, 138, 86-93.	5.1	19
67	Chain conformation and rheological behavior of exopolysaccharide from Bacillus mucilaginosus SM-01. Food Hydrocolloids, 2017, 65, 165-174.	5.6	19
68	Nanoplatform Constructed from a Î²-Glucan and Polydeoxyadenylic Acid for Cancer Chemotherapy and Imaging. Biomacromolecules, 2019, 20, 1567-1577.	2.6	19
69	Effect of Molecular Mass on Antitumor Activity of Heteropolysaccharide fromPoria cocos. Bioscience, Biotechnology and Biochemistry, 2005, 69, 631-634.	0.6	18
70	Variable chain conformations of renatured Î²â€glucan in dimethylsulfoxide/water mixture. Biopolymers, 2012, 97, 988-997.	1.2	18
71	Single chain morphology and nanofiber-like aggregates of branched Î²-(1â†'3)- d -glucan in water/dimethylsulfoxide solution. Carbohydrate Polymers, 2016, 137, 287-294.	5.1	18
72	Chemical structure of aeromonas gumâ€"â€"extracellular polysaccharide from Aeromonas nichidenii 5797. Carbohydrate Research, 2004, 339, 1631-1636.	1.1	16

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73	Solution properties of water-insoluble polysaccharides from the mycelium of Ganoderma tsugae. Carbohydrate Polymers, 2005, 59, 351-356.	5.1	16
74	Construction of size-controllable gold nanoparticles immobilized on polysaccharide nanotubes by in situ one-pot synthesis. International Journal of Biological Macromolecules, 2018, 113, 240-247.	3.6	16
75	Aggregation of Aeromonas Gum in Aqueous Solution. Polymer Journal, 1999, 31, 150-153.	1.3	15
76	One-step synthesis of ultra-small silver nanoparticles-loaded triple-helix Î²-glucan nanocomposite for highly catalytic hydrogenation of 4-nitrophenol and dyes. Chemical Engineering Journal, 2022, 442, 136114.	6.6	15
77	The composites of triple-helix glucan nanotubes/selenium nanoparticles target hepatocellular carcinoma to enhance ferroptosis by depleting glutathione and augmenting redox imbalance. Chemical Engineering Journal, 2022, 446, 137110.	6.6	15
78	Uptake of intraperitoneally administrated triple helical Î²-glucan for antitumor activity in murine tumor models. Journal of Materials Chemistry B, 2017, 5, 9337-9345.	2.9	14
79	New approaches for the synthesis of hindered C60-containing polyphosphazenes via functionalized intermediates. Journal of Polymer Science Part A, 2004, 42, 2877-2885.	2.5	13
80	Targeted delivery of methotrexate by modified yeast Î²-glucan nanoparticles for rheumatoid arthritis therapy. Carbohydrate Polymers, 2022, 284, 119183.	5.1	13
81	Effects of potassium sulfate on swelling, gelatinizing and pasting properties of three rice starches from different sources. Carbohydrate Polymers, 2021, 251, 117057.	5.1	12
82	Lentinan greatly enhances the dispersibility of single-walled carbon nanotubes in water and decreases the cytotoxicity. Bioactive Carbohydrates and Dietary Fibre, 2013, 1, 111-119.	1.5	11
83	A novel self-assembly Lentinan-tetraphenylethyleneâ€‹ composite with strong blueâ€‹ fluorescence in water and its properties. Carbohydrate Polymers, 2017, 174, 13-24.	5.1	11
84	Construction of silver nanoparticles by the triple helical polysaccharide from black fungus and the antibacterial activities. International Journal of Biological Macromolecules, 2021, 182, 1170-1178.	3.6	11
85	Chain conformation transition induced hostâ€“guest assembly between triple helical curdlan and Î²-CD for drug delivery. Biomaterials Science, 2020, 8, 1638-1648.	2.6	11
86	SOLUTION PROPERTIES OF PACHYMAN FROM PORIA COCOS MYCELIA IN DIMETHYL SULFOXIDE. Journal of Macromolecular Science - Physics, 2001, 40, 147-156.	0.4	10
87	Dilute-solution behavior of aeromonas gum, a heteropolysaccharide. Polymer Bulletin, 2002, 48, 491-498.	1.7	10
88	The LiCl effect on the conformation of lentinan in DMSO. Biopolymers, 2012, 97, 840-845.	1.2	10
89	New insights into the anti- hepatoma mechanism of triple-helix Î²- glucan by metabolomics profiling. Carbohydrate Polymers, 2021, 269, 118289.	5.1	10
90	Specific Î²-glucans in chain conformations and their biological functions. Polymer Journal, 2022, 54, 427-453.	1.3	10

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91	A programmable bilayer hydrogel actuator based on the asymmetric distribution of crystalline regions. Journal of Materials Chemistry B, 2021, 10, 120-130.	2.9	10
92	Chain conformations and steady-shear viscosity properties of pectic polysaccharides from apple and tomato. Food Chemistry: X, 2022, 14, 100296.	1.8	10
93	Aggregation and disaggregation ofAeromonas gum in an aqueous solution under different conditions. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 2644-2651.	2.4	9
94	Assembly of single-stranded polydeoxyadenylic acid and Î²-glucan probed by the sensing platform of graphene oxide based on the fluorescence resonance energy transfer and fluorescence anisotropy. Analyst, The, 2013, 138, 2661.	1.7	9
95	Source apportionment and health risk assessment of trace elements in the heavy industry areas of Tangshan, China. Air Quality, Atmosphere and Health, 2019, 12, 1303-1315.	1.5	9
96	Fabrication of tumor-targeting composites based on the triple helical Î²-glucan through conjugation of aptamer. Carbohydrate Polymers, 2021, 254, 117476.	5.1	9
97	Viscoelastic properties of an exopolysaccharide: Aeromonas gum, produced by Aeromonas nichidenii 5797. Biorheology, 2007, 44, 387-401.	1.2	9
98	Heat-induced conformation transition of the comb-branched Î²-glucan in dimethyl sulfoxide/water mixture. Carbohydrate Polymers, 2017, 157, 1404-1412.	5.1	8
99	Effects of the thermal history and concentration on the aggregation of Erwinia gum in an aqueous solution. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 1352-1358.	2.4	6
100	Effects of Sourdough Fermentation and an Innovative Compound Improver on the Baking Performance, Nutritional Quality, and Antistaling Property of Whole Wheat Bread. ACS Food Science & Technology, 2022, 2, 825-835.	1.3	6
101	Chain stiffness of heteropolysaccharide fromAeromonas gum in dilute solution by dynamic light scattering. Biopolymers, 2002, 65, 387-394.	1.2	5
102	Molecular weight and aggregation of Aeromonas gum treated with dimethyl sulfoxide in aqueous solution. Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 2269-2276.	2.4	5
103	Pt(IV) Prodrugs Designed to Embed in Nanotubes of a Polysaccharide for Drug Delivery. ACS Applied Bio Materials, 2021, 4, 4841-4848.	2.3	5
104	A Review on the Structure and Anti-Diabetic (Type 2) Functions of Î²-Glucans. Foods, 2022, 11, 57.	1.9	5
105	Designing a Highly Stable Enzymeâ€“Graphene Oxide Biohybrid as a Sensitive Biorecognition Module for Biosensor Fabrication with Superior Performance and Stability. ACS Sustainable Chemistry and Engineering, 2022, 10, 2971-2983.	3.2	4
106	The environmental benefit of Beijing-Tianjin-Hebei coal banning area for North China. Journal of Environmental Management, 2022, 311, 114870.	3.8	4
107	Molecular size and aggregation behavior of Erwinia gum in aqueous solution. Journal of Applied Polymer Science, 2000, 75, 1083-1088.	1.3	3
108	Detection of sialylated N-Linked glycans by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Wuhan University Journal of Natural Sciences, 2014, 19, 245-252.	0.2	3

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109	Molecular architectures of four-arm star-shaped styrene-butadiene copolymer. Journal of Applied Polymer Science, 2005, 96, 961-965.	1.3	2
110	Urea/NaOH aqueous solution as new solvent of aeromonas gum. Journal of Applied Polymer Science, 2005, 97, 1710-1713.	1.3	2
111	Neural Regeneration: A Novel Strategy for Treating Inflammatory Bowel Disease by Targeting Delivery of Methotrexate through Glucan Particles (Adv. Healthcare Mater. 6/2020). Advanced Healthcare Materials, 2020, 9, 2070018.	3.9	1
112	Chemical structure of aeromonas gum??extracellular polysaccharide from Aeromonas nichidenii 5797. Carbohydrate Research, 2004, 339, 1631-1631.	1.1	0