Chao Cai

List of Publications by Year in Descending Order

76 papers	2,263 citations	24 h-index	46 g-index
82 ext. papers	2,753 ext. citations	7.3 avg, IF	5.02 L-index

#	Paper	IF	Citations
76	Canagliflozin Prevents Lipid Accumulation, Mitochondrial Dysfunction, and Gut Microbiota Dysbiosis in Mice With Diabetic Cardiovascular Disease.. *Frontiers in Pharmacology*, **2022**, 13, 839640	5.6	2
75	Recent Advances in the Chemical Synthesis of Marine Acidic Carbohydrates. *Current Organic Chemistry*, **2021**, 25, 507-518	1.7	
74	Porphyran-derived oligosaccharides alleviate NAFLD and related cecal microbiota dysbiosis in mice. *FASEB Journal*, **2021**, 35, e21458	0.9	1
73	Recent progress and advanced technology in carbohydrate-based drug development. *Current Opinion in Biotechnology*, **2021**, 69, 191-198	11.4	7
72	Odd-numbered agaro-oligosaccharides alleviate type 2 diabetes mellitus and related colonic microbiota dysbiosis in mice. *Carbohydrate Polymers*, **2020**, 240, 116261	10.3	18
71	End-functionalised glycopolymers as glycosaminoglycan mimetics inhibit HeLa cell proliferation. *Polymer Chemistry*, **2020**, 11, 4714-4722	4.9	3
70	Mass spectrometric evidence for the mechanism of free-radical depolymerization of various types of glycosaminoglycans. *Carbohydrate Polymers*, **2020**, 233, 115847	10.3	3
69	Purification, structural characterization, and immunomodulatory activity of the polysaccharides from Ganoderma lucidum. *International Journal of Biological Macromolecules*, **2020**, 143, 806-813	7.9	41
68	Anti-diabetic activities of agaropectin-derived oligosaccharides from Gloiopeltis furcata via regulation of mitochondrial function. *Carbohydrate Polymers*, **2020**, 229, 115482	10.3	8
67	Collaborative assembly of doxorubicin and galactosyl diblock glycopolymers for targeted drug delivery of hepatocellular carcinoma. *Biomaterials Science*, **2020**, 8, 189-200	7.4	11
66	Fucoidan from sea cucumber Holothuria polii: Structural elucidation and stimulation of hematopoietic activity. *International Journal of Biological Macromolecules*, **2020**, 154, 1123-1131	7.9	15
65	Two different fucosylated chondroitin sulfates: Structural elucidation, stimulating hematopoiesis and immune-enhancing effects. *Carbohydrate Polymers*, **2020**, 230, 115698	10.3	13
64	Fucoidan from Suppresses Postprandial Hyperglycemia by Inhibiting Na/Glucose Cotransporter 1 Activity. *Marine Drugs*, **2020**, 18,	6	2
63	Photoprotective effect of Astragalus membranaceus polysaccharide on UVA-induced damage in HaCaT cells. *PLoS ONE*, **2020**, 15, e0235515	3.7	5
62	Glycocalyx-Like Hydrogel Coatings for Small Diameter Vascular Grafts. *Advanced Functional Materials*, **2020**, 30, 1908963	15.6	13
61	Photoprotective effect of Astragalus membranaceus polysaccharide on UVA-induced damage in HaCaT cells **2020**, 15, e0235515		
60	Photoprotective effect of Astragalus membranaceus polysaccharide on UVA-induced damage in HaCaT cells **2020**, 15, e0235515		

59	Photoprotective effect of Astragalus membranaceus polysaccharide on UVA-induced damage in HaCaT cells **2020**, 15, e0235515		
58	Photoprotective effect of Astragalus membranaceus polysaccharide on UVA-induced damage in HaCaT cells **2020**, 15, e0235515		
57	Anti-Metabolic Syndrome Effects of Fucoidan from via Reactive Oxygen Species-Mediated Regulation of JNK, Akt, and AMPK Signaling. *Molecules*, **2019**, 24,	4.8	12
56	Fabrication of carbohydrate microarrays on poly(2-hydroxyethyl methacrylate)-cyanuric chloride-modified substrates for the analysis of carbohydrate□lectin interactions. *New Journal of Chemistry*, **2019**, 43, 9145-9151	3.6	3
55	Alkaline Extraction, Structural Characterization, and Bioactivities of (1-6)-□-D-Glucan from. *Molecules*, **2019**, 24,	4.8	11
54	Concise chemoenzymatic synthesis of heparan sulfate analogues as potent BACE-1 inhibitors. *Carbohydrate Polymers*, **2019**, 217, 232-239	10.3	4
53	Extraction, isolation and structural characterization of a novel polysaccharide from Cyclocarya paliurus. *International Journal of Biological Macromolecules*, **2019**, 132, 864-870	7.9	18
52	Heavy Heparin: A Stable Isotope-Enriched, Chemoenzymatically-Synthesized, Poly-Component Drug. *Angewandte Chemie - International Edition*, **2019**, 58, 5962-5966	16.4	27
51	Synthesis and Properties of Functional Glycomimetics through Click Grafting of Fucose onto Chondroitin Sulfates. *Biomacromolecules*, **2019**, 20, 3798-3808	6.9	7
50	Recent Advances in Pharmaceutical Potential of Brown Algal Polysaccharides and their Derivatives. *Current Pharmaceutical Design*, **2019**, 25, 1290-1311	3.3	13
49	Chemoenzymatic Synthesis of Heparan Sulfate Mimetic Glycopolymers and Their Interactions with the Receptor for Advanced Glycation End-Product. *ACS Macro Letters*, **2019**, 8, 1570-1574	6.6	8
48	Synthesis of Fucoidan-Mimetic Glycopolymers with Well-Defined Sulfation Patterns via Emulsion Ring-Opening Metathesis Polymerization. *ACS Macro Letters*, **2018**, 7, 330-335	6.6	18
47	Interaction of Neisseria meningitidis Group X N-acetylglucosamine-1-phosphotransferase with its donor substrate. *Glycobiology*, **2018**, 28, 100-107	5.8	11
46	Marine polysaccharides attenuate metabolic syndrome by fermentation products and altering gut microbiota: An overview. *Carbohydrate Polymers*, **2018**, 195, 601-612	10.3	59
45	Synthesis and anti-inflammatory activity of gold-nanoparticle bearing a dermatan sulfate disaccharide analog. *Chinese Chemical Letters*, **2018**, 29, 81-83	8.1	5
44	Gut microbiota fermentation of marine polysaccharides and its effects on intestinal ecology: An overview. *Carbohydrate Polymers*, **2018**, 179, 173-185	10.3	112
43	Structural Characterization and Interaction with RCA of a Highly Sulfated Keratan Sulfate from Blue Shark (Prionace glauca) Cartilage. *Marine Drugs*, **2018**, 16,	6	3
42	Dietary Polysaccharide from Modulates Gut Microbiota and Promotes the Growth of , spp. and spp. *Marine Drugs*, **2018**, 16,	6	30

41	A novel structural fucosylated chondroitin sulfate from Holothuria Mexicana and its effects on growth factors binding and anticoagulation. *Carbohydrate Polymers*, **2018**, 181, 1160-1168	10.3	51
40	Effect of Anomeric Configuration on Stereocontrolled -Glycosylation of l-Fucose. *Synlett*, **2018**, 29, 2701-2706	2.2	4
39	Chitosan-Based Nanomaterials for Drug Delivery. *Molecules*, **2018**, 23,	4.8	180
38	Structure and immunomodulatory activity of a sulfated agarose with pyruvate and xylose substitutes from Polysiphonia senticulosa Harvey. *Carbohydrate Polymers*, **2017**, 176, 29-37	10.3	17
37	Microwave-assisted synthesis of glycopolymers by ring-opening metathesis polymerization (ROMP) in an emulsion system. *Polymer Chemistry*, **2017**, 8, 6709-6719	4.9	24
36	Carrageenan-induced colitis is associated with decreased population of anti-inflammatory bacterium, Akkermansia muciniphila, in the gut microbiota of C57BL/6J mice. *Toxicology Letters*, **2017**, 279, 87-95	4.4	93
35	Spongy bilayer dressing composed of chitosan-Ag nanoparticles and chitosan-Bletilla striata polysaccharide for wound healing applications. *Carbohydrate Polymers*, **2017**, 157, 1538-1547	10.3	113
34	New Functional Tools for Antithrombogenic Activity Assessment of Live Surface Glycocalyx. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2016**, 36, 1847-53	9.4	15
33	Structural modulation of gut microbiota by chondroitin sulfate and its oligosaccharide. *International Journal of Biological Macromolecules*, **2016**, 89, 489-98	7.9	46
32	Low anticoagulant heparin oligosaccharides as inhibitors of BACE-1, the Alzheimer's -secretase. *Carbohydrate Polymers*, **2016**, 151, 51-59	10.3	11
31	Dietary fucoidan modulates the gut microbiota in mice by increasing the abundance of Lactobacillus and Ruminococcaceae. *Food and Function*, **2016**, 7, 3224-32	6.1	180
30	Can natural fibers be a silver bullet? Antibacterial cellulose fibers through the covalent bonding of silver nanoparticles to electrospun fibers. *Nanotechnology*, **2016**, 27, 055102	3.4	27
29	One-Pot Synthesis of 1H-Indazole-4,7-diols via Iodine(III)-Mediated [3+2] Cyclization in Water. *Synlett*, **2016**, 27, 773-776	2.2	4
28	Surface modification of a polyethylene film for anticoagulant and anti-microbial catheter. *Reactive and Functional Polymers*, **2016**, 100, 142-150	4.6	20
27	Keratan sulfate glycosaminoglycan from chicken egg white. *Glycobiology*, **2016**, 26, 693-700	5.8	12
26	In vitro and in vivo hypoglycemic effects of brown algal fucoidans. *International Journal of Biological Macromolecules*, **2016**, 82, 249-55	7.9	90
25	Dietary Keratan Sulfate from Shark Cartilage Modulates Gut Microbiota and Increases the Abundance of Lactobacillus spp. *Marine Drugs*, **2016**, 14,	6	23
24	In Vivo Anti-Cancer Mechanism of Low-Molecular-Weight Fucosylated Chondroitin Sulfate (LFCS) from Sea Cucumber Cucumaria frondosa. *Molecules*, **2016**, 21,	4.8	37

23	Antithrombotic activities of fucosylated chondroitin sulfates and their depolymerized fragments from two sea cucumbers. *Carbohydrate Polymers*, **2016**, 152, 343-350	10.3	44
22	Characteristics of glycosaminoglycans in chicken eggshells and the influence of disaccharide composition on eggshell properties. *Poultry Science*, **2016**, 95, 2879-2888	3.9	8
21	Structural Study of Sulfated Fuco-Oligosaccharide Branched Glucuronomannan from Kjellmaniella crassifolia by ESI-CID-MS/MS. *Journal of Carbohydrate Chemistry*, **2015**, 34, 303-317	1.7	15
20	Green solvents in carbohydrate chemistry: from raw materials to fine chemicals. *Chemical Reviews*, **2015**, 115, 6811-53	68.1	236
19	Enzymatic formation of a resorcylic acid by creating a structure-guided single-point mutation in stilbene synthase. *Protein Science*, **2015**, 24, 167-73	6.3	23
18	A purification process for heparin and precursor polysaccharides using the pH responsive behavior of chitosan. *Biotechnology Progress*, **2015**, 31, 1348-59	2.8	6
17	Extraction, Isolation, Structural Characterization and Anti-Tumor Properties of an Apigalacturonan-Rich Polysaccharide from the Sea Grass Zostera caespitosa Miki. *Marine Drugs*, **2015**, 13, 3710-31	6	19
16	Click-coated, heparinized, decellularized vascular grafts. *Acta Biomaterialia*, **2015**, 13, 177-87	10.8	54
15	High sensitivity detection of active botulinum neurotoxin by glyco-quantitative polymerase chain-reaction. *Analytical Chemistry*, **2014**, 86, 2279-84	7.8	5
14	Stereoselective total synthesis of cochliomycin A. *Tetrahedron*, **2014**, 70, 2616-2620	2.4	18
13	Homogeneous low-molecular-weight heparins with reversible anticoagulant activity. *Nature Chemical Biology*, **2014**, 10, 248-50	11.7	147
12	Fluorous-assisted chemoenzymatic synthesis of heparan sulfate oligosaccharides. *Organic Letters*, **2014**, 16, 2240-3	6.2	47
11	Method to detect contaminants in heparin using radical depolymerization and liquid chromatography-mass spectrometry. *Analytical Chemistry*, **2014**, 86, 326-30	7.8	31
10	Capillary electrophoresis for total glycosaminoglycan analysis. *Analytical and Bioanalytical Chemistry*, **2014**, 406, 4617-26	4.4	29
9	Heparin stability by determining unsubstituted amino groups using hydrophilic interaction chromatography mass spectrometry. *Analytical Biochemistry*, **2014**, 461, 46-8	3.1	15
8	Towards the chemoenzymatic synthesis of heparan sulfate oligosaccharides: Oxidative cleavage of -nitrophenyl group with ceric ammonium salts. *Tetrahedron Letters*, **2013**, 54, 4471-4474	2	17
7	Ultrasensitive detection and quantification of acidic disaccharides using capillary electrophoresis and quantum dot-based fluorescence resonance energy transfer. *Analytical Chemistry*, **2013**, 85, 9356-62	7.8	24
6	Preparation and application of a SclickableSacceptor for enzymatic synthesis of heparin oligosaccharides. *Carbohydrate Research*, **2013**, 372, 30-4	2.9	11

5	Semi-synthesis of chondroitin sulfate-E from chondroitin sulfate-A. *Carbohydrate Polymers*, **2012**, 87, 822-829	10.3	42
4	Stereoselective total synthesis of (-)-cleistenolide. *Journal of Organic Chemistry*, **2010**, 75, 5754-6	4.2	25
3	Methyl 2,3-di-O-acetyl-4-O-levulinoyl-1-O-(2,2,2-trichloro-2-imino-ethyl)-l-ido-pyran-osiduronate. *Acta Crystallographica Section E: Structure Reports Online*, **2010**, 66, o949		1
2	Highly Efficient and Versatile Synthesis of Some Important Precursors from 1,6-Anhydrous-β-D-glucopyranose as a Green Starting Material. *Chinese Journal of Chemistry*, **2009**, 27, 1589-1592	4.9	2
1	Selective cleavage of sugar anomeric O-acyl groups using FeCl3·6H2O. *Tetrahedron Letters*, **2008**, 49, 5488-5491	2	14