

# Chao Cai

## List of Publications by Year in descending order

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78  
papers

3,184  
citations

201385

27  
h-index

155451

55  
g-index

82  
all docs

82  
docs citations

82  
times ranked

4516  
citing authors

#	ARTICLE	IF	CITATIONS
1	Green Solvents in Carbohydrate Chemistry: From Raw Materials to Fine Chemicals. <i>Chemical Reviews</i> , 2015, 115, 6811-6853.	23.0	296
2	Chitosan-Based Nanomaterials for Drug Delivery. <i>Molecules</i> , 2018, 23, 2661.	1.7	279
3	Dietary fucoidan modulates the gut microbiota in mice by increasing the abundance of <i>Lactobacillus</i> and <i>Ruminococcaceae</i> . <i>Food and Function</i> , 2016, 7, 3224-3232.	2.1	245
4	Homogeneous low-molecular-weight heparins with reversible anticoagulant activity. <i>Nature Chemical Biology</i> , 2014, 10, 248-250.	3.9	173
5	Gut microbiota fermentation of marine polysaccharides and its effects on intestinal ecology: An overview. <i>Carbohydrate Polymers</i> , 2018, 179, 173-185.	5.1	165
6	Spongy bilayer dressing composed of chitosan-Ag nanoparticles and chitosan-Bletilla striata polysaccharide for wound healing applications. <i>Carbohydrate Polymers</i> , 2017, 157, 1538-1547.	5.1	150
7	Carrageenan-induced colitis is associated with decreased population of anti-inflammatory bacterium, <i>Akkermansia muciniphila</i> , in the gut microbiota of C57BL/6J mice. <i>Toxicology Letters</i> , 2017, 279, 87-95.	0.4	130
8	In vitro and in vivo hypoglycemic effects of brown algal fucoidans. <i>International Journal of Biological Macromolecules</i> , 2016, 82, 249-255.	3.6	114
9	Purification, structural characterization, and immunomodulatory activity of the polysaccharides from <i>Ganoderma lucidum</i> . <i>International Journal of Biological Macromolecules</i> , 2020, 143, 806-813.	3.6	96
10	Marine polysaccharides attenuate metabolic syndrome by fermentation products and altering gut microbiota: An overview. <i>Carbohydrate Polymers</i> , 2018, 195, 601-612.	5.1	94
11	Structural modulation of gut microbiota by chondroitin sulfate and its oligosaccharide. <i>International Journal of Biological Macromolecules</i> , 2016, 89, 489-498.	3.6	68
12	Click-coated, heparinized, decellularized vascular grafts. <i>Acta Biomaterialia</i> , 2015, 13, 177-187.	4.1	65
13	Dietary Polysaccharide from <i>Enteromorpha Clathrata</i> Modulates Gut Microbiota and Promotes the Growth of <i>Akkermansia muciniphila</i> , <i>Bifidobacterium</i> spp. and <i>Lactobacillus</i> spp.. <i>Marine Drugs</i> , 2018, 16, 167.	2.2	59
14	A novel structural fucosylated chondroitin sulfate from <i>Holothuria Mexicana</i> and its effects on growth factors binding and anticoagulation. <i>Carbohydrate Polymers</i> , 2018, 181, 1160-1168.	5.1	58
15	Antithrombotic activities of fucosylated chondroitin sulfates and their depolymerized fragments from two sea cucumbers. <i>Carbohydrate Polymers</i> , 2016, 152, 343-350.	5.1	55
16	Fluorous-Assisted Chemoenzymatic Synthesis of Heparan Sulfate Oligosaccharides. <i>Organic Letters</i> , 2014, 16, 2240-2243.	2.4	54
17	Semi-synthesis of chondroitin sulfate-E from chondroitin sulfate-A. <i>Carbohydrate Polymers</i> , 2012, 87, 822-829.	5.1	49
18	In Vivo Anti-Cancer Mechanism of Low-Molecular-Weight Fucosylated Chondroitin Sulfate (LFCS) from Sea Cucumber <i>Cucumaria frondosa</i> . <i>Molecules</i> , 2016, 21, 625.	1.7	49

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19	Odd-numbered agaro-oligosaccharides alleviate type 2 diabetes mellitus and related colonic microbiota dysbiosis in mice. <i>Carbohydrate Polymers</i> , 2020, 240, 116261.	5.1	41
20	Heavy Heparin: A Stable Isotope-Enriched, Chemoenzymatically-Synthesized, Poly-Component Drug. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 5962-5966.	7.2	35
21	Capillary electrophoresis for total glycosaminoglycan analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 4617-4626.	1.9	33
22	Glycocalyx-Like Hydrogel Coatings for Small Diameter Vascular Grafts. <i>Advanced Functional Materials</i> , 2020, 30, 1908963.	7.8	33
23	Method to Detect Contaminants in Heparin Using Radical Depolymerization and Liquid Chromatography-Mass Spectrometry. <i>Analytical Chemistry</i> , 2014, 86, 326-330.	3.2	32
24	Can natural fibers be a silver bullet? Antibacterial cellulose fibers through the covalent bonding of silver nanoparticles to electrospun fibers. <i>Nanotechnology</i> , 2016, 27, 055102.	1.3	31
25	Extraction, isolation and structural characterization of a novel polysaccharide from <i>Cyclocarya paliurus</i> . <i>International Journal of Biological Macromolecules</i> , 2019, 132, 864-870.	3.6	31
26	Recent progress and advanced technology in carbohydrate-based drug development. <i>Current Opinion in Biotechnology</i> , 2021, 69, 191-198.	3.3	31
27	Dietary Keratan Sulfate from Shark Cartilage Modulates Gut Microbiota and Increases the Abundance of <i>Lactobacillus</i> spp.. <i>Marine Drugs</i> , 2016, 14, 224.	2.2	29
28	Microwave-assisted synthesis of glycopolymers by ring-opening metathesis polymerization (ROMP) in an emulsion system. <i>Polymer Chemistry</i> , 2017, 8, 6709-6719.	1.9	29
29	Fucoidan from sea cucumber <i>Holothuria polii</i> : Structural elucidation and stimulation of hematopoietic activity. <i>International Journal of Biological Macromolecules</i> , 2020, 154, 1123-1131.	3.6	29
30	Surface modification of a polyethylene film for anticoagulant and antimicrobial catheter. <i>Reactive and Functional Polymers</i> , 2016, 100, 142-150.	2.0	27
31	Stereoselective Total Synthesis of ( $\hat{\alpha}$ )-Cleistenolide. <i>Journal of Organic Chemistry</i> , 2010, 75, 5754-5756.	1.7	26
32	Ultrasensitive Detection and Quantification of Acidic Disaccharides Using Capillary Electrophoresis and Quantum Dot-Based Fluorescence Resonance Energy Transfer. <i>Analytical Chemistry</i> , 2013, 85, 9356-9362.	3.2	25
33	Enzymatic formation of a resorcylic acid by creating a structure-guided single-point mutation in stilbene synthase. <i>Protein Science</i> , 2015, 24, 167-173.	3.1	25
34	Structure and immunomodulatory activity of a sulfated agarose with pyruvate and xylose substitutes from <i>Polysiphonia senticulosa</i> Harvey. <i>Carbohydrate Polymers</i> , 2017, 176, 29-37.	5.1	24
35	Synthesis of Fucoidan-Mimetic Glycopolymers with Well-Defined Sulfation Patterns via Emulsion Ring-Opening Metathesis Polymerization. <i>ACS Macro Letters</i> , 2018, 7, 330-335.	2.3	24
36	Extraction, Isolation, Structural Characterization and Anti-Tumor Properties of an Apigalacturonan-Rich Polysaccharide from the Sea Grass <i>Zostera caespitosa</i> Miki. <i>Marine Drugs</i> , 2015, 13, 3710-3731.	2.2	23

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37	Recent Advances in Pharmaceutical Potential of Brown Algal Polysaccharides and their Derivatives. <i>Current Pharmaceutical Design</i> , 2019, 25, 1290-1311.	0.9	23
38	Heparin stability by determining unsubstituted amino groups using hydrophilic interaction chromatography mass spectrometry. <i>Analytical Biochemistry</i> , 2014, 461, 46-48.	1.1	22
39	Anti-Metabolic Syndrome Effects of Fucoidan from <i>Fucus vesiculosus</i> via Reactive Oxygen Species-Mediated Regulation of JNK, Akt, and AMPK Signaling. <i>Molecules</i> , 2019, 24, 3319.	1.7	21
40	Two different fucosylated chondroitin sulfates: Structural elucidation, stimulating hematopoiesis and immune-enhancing effects. <i>Carbohydrate Polymers</i> , 2020, 230, 115698.	5.1	21
41	Stereoselective total synthesis of cochliomycin A. <i>Tetrahedron</i> , 2014, 70, 2616-2620.	1.0	20
42	Alkaline Extraction, Structural Characterization, and Bioactivities of (1 $\alpha$ '6)- $\beta$ -D-Glucan from <i>Lentinus edodes</i> . <i>Molecules</i> , 2019, 24, 1610.	1.7	20
43	Anti-diabetic activities of agaropectin-derived oligosaccharides from <i>Gloiopeltis furcata</i> via regulation of mitochondrial function. <i>Carbohydrate Polymers</i> , 2020, 229, 115482.	5.1	20
44	Collaborative assembly of doxorubicin and galactosyl diblock glycopolymers for targeted drug delivery of hepatocellular carcinoma. <i>Biomaterials Science</i> , 2020, 8, 189-200.	2.6	20
45	Structural Study of Sulfated Fuco-Oligosaccharide Branched Glucuronomannan from <i>Kjellmaniella crassifolia</i> by ESI-CID-MS/MS. <i>Journal of Carbohydrate Chemistry</i> , 2015, 34, 303-317.	0.4	19
46	Low anticoagulant heparin oligosaccharides as inhibitors of BACE-1, the Alzheimer's $\beta$ -secretase. <i>Carbohydrate Polymers</i> , 2016, 151, 51-59.	5.1	19
47	Selective cleavage of sugar anomeric O-acyl groups using FeCl <sub>3</sub> ·6H <sub>2</sub> O. <i>Tetrahedron Letters</i> , 2008, 49, 5488-5491.	0.7	18
48	Toward the chemoenzymatic synthesis of heparan sulfate oligosaccharides: oxidative cleavage of p-nitrophenyl group with ceric ammonium salts. <i>Tetrahedron Letters</i> , 2013, 54, 4471-4474.	0.7	18
49	New Functional Tools for Antithrombogenic Activity Assessment of Live Surface Glycocalyx. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2016, 36, 1847-1853.	1.1	18
50	Keratan sulfate glycosaminoglycan from chicken egg white. <i>Glycobiology</i> , 2016, 26, 693-700.	1.3	18
51	Fucoidan from <i>Ascophyllum nodosum</i> Suppresses Postprandial Hyperglycemia by Inhibiting Na <sup>+</sup> /Glucose Cotransporter 1 Activity. <i>Marine Drugs</i> , 2020, 18, 485.	2.2	17
52	Chemoenzymatic Synthesis of Heparan Sulfate Mimetic Glycopolymers and Their Interactions with the Receptor for Advanced Glycation End-Product. <i>ACS Macro Letters</i> , 2019, 8, 1570-1574.	2.3	16
53	Interaction of <i>Neisseria meningitidis</i> Group X N-acetylglucosamine-1-phosphotransferase with its donor substrate. <i>Glycobiology</i> , 2018, 28, 100-107.	1.3	13
54	Preparation and application of a clickable acceptor for enzymatic synthesis of heparin oligosaccharides. <i>Carbohydrate Research</i> , 2013, 372, 30-34.	1.1	12

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55	Photoprotective effect of Astragalus membranaceus polysaccharide on UVA-induced damage in HaCaT cells. <i>PLoS ONE</i> , 2020, 15, e0235515.	1.1	12
56	Porphyranâ€ derived oligosaccharides alleviate NAFLD and related cecal microbiota dysbiosis in mice. <i>FASEB Journal</i> , 2021, 35, e21458.	0.2	12
57	Synthesis and Properties of Functional Glycomimetics through Click Grafting of Fucose onto Chondroitin Sulfates. <i>Biomacromolecules</i> , 2019, 20, 3798-3808.	2.6	11
58	Canagliflozin Prevents Lipid Accumulation, Mitochondrial Dysfunction, and Gut Microbiota Dysbiosis in Mice With Diabetic Cardiovascular Disease. <i>Frontiers in Pharmacology</i> , 2022, 13, 839640.	1.6	11
59	Characteristics of glycosaminoglycans in chicken eggshells and the influence of disaccharide composition on eggshell properties. <i>Poultry Science</i> , 2016, 95, 2879-2888.	1.5	10
60	Mass spectrometric evidence for the mechanism of free-radical depolymerization of various types of glycosaminoglycans. <i>Carbohydrate Polymers</i> , 2020, 233, 115847.	5.1	9
61	Synthesis and anti-inflammatory activity of gold-nanoparticle bearing a dermatan sulfate disaccharide analog. <i>Chinese Chemical Letters</i> , 2018, 29, 81-83.	4.8	7
62	High Sensitivity Detection of Active Botulinum Neurotoxin by Glyco-Quantitative Polymerase Chain-Reaction. <i>Analytical Chemistry</i> , 2014, 86, 2279-2284.	3.2	6
63	A purification process for heparin and precursor polysaccharides using the pH responsive behavior of chitosan. <i>Biotechnology Progress</i> , 2015, 31, 1348-1359.	1.3	6
64	One-Pot Synthesis of 1H-Indazole-4,7-diols via Iodine(III)-Mediated [3+2] Cyclization in Water. <i>Synlett</i> , 2016, 27, 773-776.	1.0	6
65	Effect of Anomeric Configuration on Stereocontrolled Î±-Glycosylation of I-Fucose. <i>Synlett</i> , 2018, 29, 2701-2706.	1.0	6
66	Fabrication of carbohydrate microarrays on poly(2-hydroxyethyl methacrylate)-cyanuric chloride-modified substrates for the analysis of carbohydrateâ€lectin interactions. <i>New Journal of Chemistry</i> , 2019, 43, 9145-9151.	1.4	5
67	Concise chemoenzymatic synthesis of heparan sulfate analogues as potent BACE-1 inhibitors. <i>Carbohydrate Polymers</i> , 2019, 217, 232-239.	5.1	5
68	End-functionalised glycopolymers as glycosaminoglycan mimetics inhibit HeLa cell proliferation. <i>Polymer Chemistry</i> , 2020, 11, 4714-4722.	1.9	5
69	Highly Efficient and Versatile Synthesis of Some Important Precursors from 1,6-Anhydrous-Î²-D-glucopyranose as a Green Starting Material. <i>Chinese Journal of Chemistry</i> , 2009, 27, 1589-1592.	2.6	3
70	Structural Characterization and Interaction with RCA120 of a Highly Sulfated Keratan Sulfate from Blue Shark ( <i>Prionace glauca</i> ) Cartilage. <i>Marine Drugs</i> , 2018, 16, 128.	2.2	3
71	IDDF2021-ABS-0198â€...Canagliflozin alleviates diabetic cardiovascular disease via lipid lowering, mitochondrial homeostasis, and gut microbiota regulation. , 2021, , .		3
72	Methyl 2,3-di-O-acetyl-4-O-levulinoyl-1-(2,2,2-trichloro-2-iminoethyl)-idopyranosiduronate. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2010, 66, o949-o949.		2

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73	Recent Advances in the Chemical Synthesis of Marine Acidic Carbohydrates. Current Organic Chemistry, 2021, 25, 507-518.	0.9	0
74	IDDF2021-ABS-0197â€¦Delayed intervention of agaropectin-derived oligosaccharides alleviate lipid accumulation by modulating intestinal flora homeostasis. , 2021, , .		0
75	Title is missing!. , 2020, 15, e0235515.		0
76	Title is missing!. , 2020, 15, e0235515.		0
77	Title is missing!. , 2020, 15, e0235515.		0
78	Title is missing!. , 2020, 15, e0235515.		0