

Chao Cai

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Green solvents in carbohydrate chemistry: from raw materials to fine chemicals. <i>Chemical Reviews</i> , 2015 , 115, 6811-53	68.1	236
75	Dietary fucoidan modulates the gut microbiota in mice by increasing the abundance of Lactobacillus and Ruminococcaceae. <i>Food and Function</i> , 2016 , 7, 3224-32	6.1	180
74	Chitosan-Based Nanomaterials for Drug Delivery. <i>Molecules</i> , 2018 , 23,	4.8	180
73	Homogeneous low-molecular-weight heparins with reversible anticoagulant activity. <i>Nature Chemical Biology</i> , 2014 , 10, 248-50	11.7	147
72	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	10.3	113
71	Gut microbiota fermentation of marine polysaccharides and its effects on intestinal ecology: An overview. <i>Carbohydrate Polymers</i> , 2018 , 179, 173-185	10.3	112
70	Carrageenan-induced colitis is associated with decreased population of anti-inflammatory bacterium, Akkermansia muciniphila, in the gut microbiota of C57BL/6J mice. <i>Toxicology Letters</i> , 2017 , 279, 87-95	4.4	93
69	In vitro and in vivo hypoglycemic effects of brown algal fucoidans. <i>International Journal of Biological Macromolecules</i> , 2016 , 82, 249-55	7.9	90
68	Marine polysaccharides attenuate metabolic syndrome by fermentation products and altering gut microbiota: An overview. <i>Carbohydrate Polymers</i> , 2018 , 195, 601-612	10.3	59
67	Click-coated, heparinized, decellularized vascular grafts. <i>Acta Biomaterialia</i> , 2015 , 13, 177-87	10.8	54
66	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	10.3	51
65	Fluorous-assisted chemoenzymatic synthesis of heparan sulfate oligosaccharides. <i>Organic Letters</i> , 2014 , 16, 2240-3	6.2	47
64	Structural modulation of gut microbiota by chondroitin sulfate and its oligosaccharide. <i>International Journal of Biological Macromolecules</i> , 2016 , 89, 489-98	7.9	46
63	Antithrombotic activities of fucosylated chondroitin sulfates and their depolymerized fragments from two sea cucumbers. <i>Carbohydrate Polymers</i> , 2016 , 152, 343-350	10.3	44
62	Semi-synthesis of chondroitin sulfate-E from chondroitin sulfate-A. <i>Carbohydrate Polymers</i> , 2012 , 87, 822-829	10.3	42
61	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	7.9	41
60	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,	4.8	37

59	Method to detect contaminants in heparin using radical depolymerization and liquid chromatography-mass spectrometry. <i>Analytical Chemistry</i> , 2014 , 86, 326-30	7.8	31
58	Dietary Polysaccharide from Modulates Gut Microbiota and Promotes the Growth of , spp. and spp. <i>Marine Drugs</i> , 2018 , 16,	6	30
57	Capillary electrophoresis for total glycosaminoglycan analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2014 , 406, 4617-26	4.4	29
56	Heavy Heparin: A Stable Isotope-Enriched, Chemoenzymatically-Synthesized, Poly-Component Drug. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 5962-5966	16.4	27
55	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	3.4	27
54	Stereoselective total synthesis of (-)-cleistenolide. <i>Journal of Organic Chemistry</i> , 2010 , 75, 5754-6	4.2	25
53	Ultrasensitive detection and quantification of acidic disaccharides using capillary electrophoresis and quantum dot-based fluorescence resonance energy transfer. <i>Analytical Chemistry</i> , 2013 , 85, 9356-62	7.8	24
52	Microwave-assisted synthesis of glycopolymers by ring-opening metathesis polymerization (ROMP) in an emulsion system. <i>Polymer Chemistry</i> , 2017 , 8, 6709-6719	4.9	24
51	Enzymatic formation of a resorcylic acid by creating a structure-guided single-point mutation in stilbene synthase. <i>Protein Science</i> , 2015 , 24, 167-73	6.3	23
50	Dietary Keratan Sulfate from Shark Cartilage Modulates Gut Microbiota and Increases the Abundance of Lactobacillus spp. <i>Marine Drugs</i> , 2016 , 14,	6	23
49	Surface modification of a polyethylene film for anticoagulant and anti-microbial catheter. <i>Reactive and Functional Polymers</i> , 2016 , 100, 142-150	4.6	20
48	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, 3710-31	6	19
47	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	7.9	18
46	Odd-numbered agaro-oligosaccharides alleviate type 2 diabetes mellitus and related colonic microbiota dysbiosis in mice. <i>Carbohydrate Polymers</i> , 2020 , 240, 116261	10.3	18
45	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	6.6	18
44	Stereoselective total synthesis of cochliomycin A. <i>Tetrahedron</i> , 2014 , 70, 2616-2620	2.4	18
43	Towards the chemoenzymatic synthesis of heparan sulfate oligosaccharides: Oxidative cleavage of -nitrophenyl group with ceric ammonium salts. <i>Tetrahedron Letters</i> , 2013 , 54, 4471-4474	2	17
42	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	10.3	17

41	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	1.7	15
40	New Functional Tools for Antithrombogenic Activity Assessment of Live Surface Glycocalyx. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2016 , 36, 1847-53	9.4	15
39	Heparin stability by determining unsubstituted amino groups using hydrophilic interaction chromatography mass spectrometry. <i>Analytical Biochemistry</i> , 2014 , 461, 46-8	3.1	15
38	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	7.9	15
37	Selective cleavage of sugar anomeric O-acyl groups using FeCl ₃ ·6H ₂ O. <i>Tetrahedron Letters</i> , 2008 , 49, 5488-5491	2	14
36	Recent Advances in Pharmaceutical Potential of Brown Algal Polysaccharides and their Derivatives. <i>Current Pharmaceutical Design</i> , 2019 , 25, 1290-1311	3.3	13
35	Two different fucosylated chondroitin sulfates: Structural elucidation, stimulating hematopoiesis and immune-enhancing effects. <i>Carbohydrate Polymers</i> , 2020 , 230, 115698	10.3	13
34	Glycocalyx-Like Hydrogel Coatings for Small Diameter Vascular Grafts. <i>Advanced Functional Materials</i> , 2020 , 30, 1908963	15.6	13
33	Anti-Metabolic Syndrome Effects of Fucoidan from via Reactive Oxygen Species-Mediated Regulation of JNK, Akt, and AMPK Signaling. <i>Molecules</i> , 2019 , 24,	4.8	12
32	Keratan sulfate glycosaminoglycan from chicken egg white. <i>Glycobiology</i> , 2016 , 26, 693-700	5.8	12
31	Alkaline Extraction, Structural Characterization, and Bioactivities of (1-6)- β -D-Glucan from. <i>Molecules</i> , 2019 , 24,	4.8	11
30	Interaction of <i>Neisseria meningitidis</i> Group X N-acetylglucosamine-1-phosphotransferase with its donor substrate. <i>Glycobiology</i> , 2018 , 28, 100-107	5.8	11
29	Low anticoagulant heparin oligosaccharides as inhibitors of BACE-1, the Alzheimer's Secretase. <i>Carbohydrate Polymers</i> , 2016 , 151, 51-59	10.3	11
28	Preparation and application of a Clickable Acceptor for enzymatic synthesis of heparin oligosaccharides. <i>Carbohydrate Research</i> , 2013 , 372, 30-4	2.9	11
27	Collaborative assembly of doxorubicin and galactosyl diblock glycopolymers for targeted drug delivery of hepatocellular carcinoma. <i>Biomaterials Science</i> , 2020 , 8, 189-200	7.4	11
26	Anti-diabetic activities of agaropectin-derived oligosaccharides from <i>Gloiopeltis furcata</i> via regulation of mitochondrial function. <i>Carbohydrate Polymers</i> , 2020 , 229, 115482	10.3	8
25	Characteristics of glycosaminoglycans in chicken eggshells and the influence of disaccharide composition on eggshell properties. <i>Poultry Science</i> , 2016 , 95, 2879-2888	3.9	8
24	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	6.6	8

23	Synthesis and Properties of Functional Glycomimetics through Click Grafting of Fucose onto Chondroitin Sulfates. <i>Biomacromolecules</i> , 2019 , 20, 3798-3808	6.9	7
22	Recent progress and advanced technology in carbohydrate-based drug development. <i>Current Opinion in Biotechnology</i> , 2021 , 69, 191-198	11.4	7
21	A purification process for heparin and precursor polysaccharides using the pH responsive behavior of chitosan. <i>Biotechnology Progress</i> , 2015 , 31, 1348-59	2.8	6
20	Synthesis and anti-inflammatory activity of gold-nanoparticle bearing a dermatan sulfate disaccharide analog. <i>Chinese Chemical Letters</i> , 2018 , 29, 81-83	8.1	5
19	High sensitivity detection of active botulinum neurotoxin by glyco-quantitative polymerase chain-reaction. <i>Analytical Chemistry</i> , 2014 , 86, 2279-84	7.8	5
18	Photoprotective effect of Astragalus membranaceus polysaccharide on UVA-induced damage in HaCaT cells. <i>PLoS ONE</i> , 2020 , 15, e0235515	3.7	5
17	Concise chemoenzymatic synthesis of heparan sulfate analogues as potent BACE-1 inhibitors. <i>Carbohydrate Polymers</i> , 2019 , 217, 232-239	10.3	4
16	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	2.2	4
15	Effect of Anomeric Configuration on Stereocontrolled β -Glycosylation of L-Fucose. <i>Synlett</i> , 2018 , 29, 2701-2706	2.2	4
14	Fabrication of carbohydrate microarrays on poly(2-hydroxyethyl methacrylate)-cyanuric chloride-modified substrates for the analysis of carbohydrate-lectin interactions. <i>New Journal of Chemistry</i> , 2019 , 43, 9145-9151	3.6	3
13	End-functionalised glycopolymers as glycosaminoglycan mimetics inhibit HeLa cell proliferation. <i>Polymer Chemistry</i> , 2020 , 11, 4714-4722	4.9	3
12	Mass spectrometric evidence for the mechanism of free-radical depolymerization of various types of glycosaminoglycans. <i>Carbohydrate Polymers</i> , 2020 , 233, 115847	10.3	3
11	Structural Characterization and Interaction with RCA of a Highly Sulfated Keratan Sulfate from Blue Shark (<i>Prionace glauca</i>) Cartilage. <i>Marine Drugs</i> , 2018 , 16,	6	3
10	Highly Efficient and Versatile Synthesis of Some Important Precursors from 1,6-Anhydrous- β -D-glucopyranose as a Green Starting Material. <i>Chinese Journal of Chemistry</i> , 2009 , 27, 1589-1592	4.9	2
9	Fucoidan from Suppresses Postprandial Hyperglycemia by Inhibiting Na/Glucose Cotransporter 1 Activity. <i>Marine Drugs</i> , 2020 , 18,	6	2
8	Canagliflozin Prevents Lipid Accumulation, Mitochondrial Dysfunction, and Gut Microbiota Dysbiosis in Mice With Diabetic Cardiovascular Disease.. <i>Frontiers in Pharmacology</i> , 2022 , 13, 839640	5.6	2
7	Methyl 2,3-di-O-acetyl-4-O-levulinoyl-1-O-(2,2,2-trichloro-2-imino-ethyl)-l-ido-pyran-osiduronate. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2010 , 66, o949		1
6	Porphyran-derived oligosaccharides alleviate NAFLD and related cecal microbiota dysbiosis in mice. <i>FASEB Journal</i> , 2021 , 35, e21458	0.9	1

- 5 Recent Advances in the Chemical Synthesis of Marine Acidic Carbohydrates. *Current Organic Chemistry*, **2021**, 25, 507-518 1.7
- 4 Photoprotective effect of Astragalus membranaceus polysaccharide on UVA-induced damage in HaCaT cells **2020**, 15, e0235515
- 3 Photoprotective effect of Astragalus membranaceus polysaccharide on UVA-induced damage in HaCaT cells **2020**, 15, e0235515
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- 1 Photoprotective effect of Astragalus membranaceus polysaccharide on UVA-induced damage in HaCaT cells **2020**, 15, e0235515