

Zhengbiao Gu

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91
papers

1,414
citations

21
h-index

33
g-index

96
ext. papers

1,936
ext. citations

7
avg, IF

4.92
L-index

#	Paper	IF	Citations
91	Electrospun starch nanofibers: Recent advances, challenges, and strategies for potential pharmaceutical applications. <i>Journal of Controlled Release</i> , 2017 , 252, 95-107	11.7	113
90	Retrogradation behavior of corn starch treated with 1,4- α -glucan branching enzyme. <i>Food Chemistry</i> , 2016 , 203, 308-313	8.5	74
89	The effect of xanthan on short and long-term retrogradation of rice starch. <i>Starch/Staerke</i> , 2013 , 65, 702-708	2.3	70
88	Impact of amylose content on starch physicochemical properties in transgenic sweet potato. <i>Carbohydrate Polymers</i> , 2015 , 122, 417-27	10.3	66
87	Characterisation of physicochemical and functional properties of soluble dietary fibre from potato pulp obtained by enzyme-assisted extraction. <i>International Journal of Biological Macromolecules</i> , 2017 , 101, 1004-1011	7.9	56
86	Improved stability and controlled release of CLA with spray-dried microcapsules of OSA-modified starch and xanthan gum. <i>Carbohydrate Polymers</i> , 2016 , 147, 243-250	10.3	52
85	In structure and in - vitro digestibility of waxy corn starch debranched by pullulanase. <i>Food Hydrocolloids</i> , 2017 , 67, 104-110	10.6	40
84	Effects of montmorillonite addition on the performance of starch-based wood adhesive. <i>Carbohydrate Polymers</i> , 2015 , 115, 394-400	10.3	40
83	Maltooligosaccharide-forming amylase: Characteristics, preparation, and application. <i>Biotechnology Advances</i> , 2017 , 35, 619-632	17.8	39
82	Effect of modification with 1,4- α -glucan branching enzyme on the rheological properties of cassava starch. <i>International Journal of Biological Macromolecules</i> , 2017 , 103, 630-639	7.9	36
81	Pasting and rheologic properties of potato starch and maize starch mixtures. <i>Starch/Staerke</i> , 2011 , 63, 11-16	2.3	34
80	Preparation, characterization and properties of starch-based adhesive for wood-based panels. <i>International Journal of Biological Macromolecules</i> , 2019 , 134, 247-254	7.9	32
79	Comparative study on the interaction between native corn starch and different hydrocolloids during gelatinization. <i>International Journal of Biological Macromolecules</i> , 2018 , 116, 136-143	7.9	32
78	Chitosan coating of zein-carboxymethylated short-chain amylose nanocomposites improves oral bioavailability of insulin in vitro and in vivo. <i>Journal of Controlled Release</i> , 2019 , 313, 1-13	11.7	31
77	Ghost Structures, Pasting, Rheological and Textural Properties between Mesona Blumes Gum and Various Starches. <i>Journal of Food Quality</i> , 2014 , 37, 73-82	2.7	28
76	Effects of hydrocolloids on corn starch retrogradation. <i>Starch/Staerke</i> , 2015 , 67, 348-354	2.3	26
75	Binary and Tertiary Complex Based on Short-Chain Glucan and Proanthocyanidins for Oral Insulin Delivery. <i>Journal of Agricultural and Food Chemistry</i> , 2017 , 65, 8866-8874	5.7	26

74	Preparation and characterization of pullulanase debranched starches and their properties for drug controlled-release. <i>RSC Advances</i> , 2015 , 5, 97066-97075	3.7	26
73	Pasting and thermal properties of waxy corn starch modified by 1,4- α -glucan branching enzyme. <i>International Journal of Biological Macromolecules</i> , 2017 , 97, 679-687	7.9	23
72	Effects of emulsifier on the bonding performance and freeze-thaw stability of starch-based wood adhesive. <i>Cellulose</i> , 2013 , 20, 2583-2590	5.5	22
71	Polyethylene glycols enhance the thermostability of β -cyclodextrin glycosyltransferase from <i>Bacillus circulans</i> . <i>Food Chemistry</i> , 2014 , 164, 17-22	8.5	21
70	Effect of amylose on pasting and rheological properties of corn starch/xanthan blends. <i>Starch/Staerke</i> , 2015 , 67, 98-106	2.3	21
69	Effects of heat pretreatment of starch on graft copolymerization reaction and performance of resulting starch-based wood adhesive. <i>International Journal of Biological Macromolecules</i> , 2017 , 96, 11-18	7.9	20
68	Calcium and sodium ions synergistically enhance the thermostability of a maltooligosaccharide-forming amylase from <i>Bacillus stearothermophilus</i> STB04. <i>Food Chemistry</i> , 2019 , 283, 170-176	8.5	17
67	A two-stage modification method using 1,4- α -glucan branching enzyme lowers the in vitro digestibility of corn starch. <i>Food Chemistry</i> , 2020 , 305, 125441	8.5	16
66	Stabilization of Pickering emulsions using starch nanocrystals treated with alkaline solution. <i>International Journal of Biological Macromolecules</i> , 2020 , 155, 273-285	7.9	16
65	Structure and emulsification properties of octenyl succinic anhydride starch using acid-hydrolyzed method. <i>Starch/Staerke</i> , 2017 , 69, 1600039	2.3	14
64	Alanine 310 is important for the activity of 1,4- α -glucan branching enzyme from <i>Geobacillus thermoglucosidans</i> STB02. <i>International Journal of Biological Macromolecules</i> , 2017 , 97, 156-163	7.9	14
63	An investigation into the structure and digestibility of starch-oleic acid complexes prepared under various complexing temperatures. <i>International Journal of Biological Macromolecules</i> , 2019 , 138, 966-974	7.9	14
62	Effects of low-temperature blanching on tissue firmness and cell wall strengthening during sweet potato flour processing. <i>International Journal of Food Science and Technology</i> , 2014 , 49, 1360-1366	3.8	14
61	Combinatorial effect of fermentation and drying on the relationship between the structure and expansion properties of tapioca starch and potato starch. <i>International Journal of Biological Macromolecules</i> , 2020 , 145, 965-973	7.9	14
60	Effects of acid hydrolysis intensity on the properties of starch/xanthan mixtures. <i>International Journal of Biological Macromolecules</i> , 2018 , 106, 320-329	7.9	14
59	Preparation of acetylated nanofibrillated cellulose from corn stalk microcrystalline cellulose and its reinforcing effect on starch films. <i>International Journal of Biological Macromolecules</i> , 2018 , 111, 959-966	7.9	13
58	Assessment of starch-based wood adhesive quality by confocal Raman microscopic detection of reaction homogeneity. <i>Carbohydrate Polymers</i> , 2015 , 131, 75-9	10.3	13
57	Leu600 mutations decrease product inhibition of the β -cyclodextrin glycosyltransferase from <i>Bacillus circulans</i> STB01. <i>International Journal of Biological Macromolecules</i> , 2018 , 115, 1194-1201	7.9	13

56	Crystal structure of a maltooligosaccharide-forming amylase from <i>Bacillus stearothermophilus</i> STB04. <i>International Journal of Biological Macromolecules</i> , 2019 , 138, 394-402	7.9	12
55	Mutations enhance Cyclodextrin specificity of cyclodextrin glycosyltransferase from <i>Bacillus circulans</i> . <i>Carbohydrate Polymers</i> , 2014 , 108, 112-7	10.3	12
54	Structural studies of an acidic polysaccharide of Mesona blumes gum. <i>Journal of the Science of Food and Agriculture</i> , 2008 , 88, 24-34	4.3	12
53	Met349 Mutations Enhance the Activity of 1,4- α -Glucan Branching Enzyme from <i>Geobacillus thermoglucosidans</i> STB02. <i>Journal of Agricultural and Food Chemistry</i> , 2017 , 65, 5674-5680	5.7	11
52	Asp577 mutations enhance the catalytic efficiency of cyclodextrin glycosyltransferase from <i>Bacillus circulans</i> . <i>International Journal of Biological Macromolecules</i> , 2016 , 83, 111-6	7.9	11
51	Evolutionary Stability of Salt Bridges Hints Its Contribution to Stability of Proteins. <i>Computational and Structural Biotechnology Journal</i> , 2019 , 17, 895-903	6.8	11
50	Rheological properties of cereal starch gels and Mesona Blumes gum mixtures. <i>Starch/Staerke</i> , 2010 , 62, 480-488	2.3	11
49	Characterization of physicochemical properties of cellulose from potato pulp and their effects on enzymatic hydrolysis by cellulase. <i>International Journal of Biological Macromolecules</i> , 2019 , 131, 564-571	7.9	10
48	Mutations at calcium binding site III in cyclodextrin glycosyltransferase improve Cyclodextrin specificity. <i>International Journal of Biological Macromolecules</i> , 2015 , 76, 224-9	7.9	9
47	Enzyme assisted fermentation of potato pulp: An effective way to reduce water holding capacity and improve drying efficiency. <i>Food Chemistry</i> , 2018 , 258, 118-123	8.5	9
46	Thermostabilization of a thermophilic 1,4- α -glucan branching enzyme through C-terminal truncation. <i>International Journal of Biological Macromolecules</i> , 2018 , 107, 1510-1518	7.9	9
45	Preparation and stability mechanisms of double emulsions stabilized by gelatinized native starch. <i>Carbohydrate Polymers</i> , 2021 , 262, 117926	10.3	9
44	Potassium and sodium ions enhance the activity and thermostability of 1,4- α -glucan branching enzyme from <i>Geobacillus thermoglucosidarius</i> in the presence of glycerol. <i>International Journal of Biological Macromolecules</i> , 2017 , 102, 712-717	7.9	8
43	Expression and characterization of an extremely thermophilic 1,4- α -glucan branching enzyme from <i>Rhodothermus obamensis</i> STB05. <i>Protein Expression and Purification</i> , 2019 , 164, 105478	2	8
42	Emulsification properties of enzymatically treated octenyl-succinic anhydride starch. <i>Starch/Staerke</i> , 2014 , 66, 1089-1095	2.3	8
41	Influence of guar gum on the in vitro digestibility of tapioca starch. <i>Starch/Staerke</i> , 2016 , 68, 339-347	2.3	8
40	Effect of cassava starch structure on scalding of dough and baking expansion ability. <i>Food Chemistry</i> , 2021 , 352, 129350	8.5	8
39	Ultrasonic pretreatment improves the high-temperature liquefaction of corn starch at high concentrations. <i>Starch/Staerke</i> , 2017 , 69, 1600002	2.3	7

38	Effects of sugar, salt and acid on tapioca starch and tapioca starch-xanthan gum combinations. <i>Starch/Staerke</i> , 2014 , 66, 436-443	2.3	7
37	An Innovative Short-Clustered Maltodextrin as Starch Substitute for Ameliorating Postprandial Glucose Homeostasis. <i>Journal of Agricultural and Food Chemistry</i> , 2021 , 69, 354-367	5.7	7
36	Characterization the structural property and degradation behavior of corn starch in KOH/thiourea aqueous solution. <i>Carbohydrate Polymers</i> , 2021 , 270, 118363	10.3	7
35	Variants at position 603 of the CGTase from <i>Bacillus circulans</i> STB01 for reducing product inhibition. <i>International Journal of Biological Macromolecules</i> , 2019 , 136, 460-468	7.9	6
34	Importance of Trp139 in the product specificity of a maltooligosaccharide-forming amylase from <i>Bacillus stearothermophilus</i> STB04. <i>Applied Microbiology and Biotechnology</i> , 2019 , 103, 9433-9442	5.7	6
33	Effect of NaCl addition on the freeze-thaw stability of tapioca starch gels. <i>Starch/Staerke</i> , 2015 , 67, 604-614	6.1	6
32	Insights into the thermostability and product specificity of a maltooligosaccharide-forming amylase from <i>Bacillus stearothermophilus</i> STB04. <i>Biotechnology Letters</i> , 2020 , 42, 295-303	3	6
31	Structure-Based Engineering of a Maltooligosaccharide-Forming Amylase To Enhance Product Specificity. <i>Journal of Agricultural and Food Chemistry</i> , 2020 , 68, 838-844	5.7	6
30	Novel Short-Clustered Maltodextrin as a Dietary Starch Substitute Attenuates Metabolic Dysregulation and Restructures Gut Microbiota in / Mice. <i>Journal of Agricultural and Food Chemistry</i> , 2020 , 68, 12400-12412	5.7	6
29	Two 1,4- α -glucan branching enzymes successively rearrange glycosidic bonds: A novel synergistic approach for reducing starch digestibility. <i>Carbohydrate Polymers</i> , 2021 , 262, 117968	10.3	6
28	Structure of maltotetraose-forming amylase from <i>Pseudomonas saccharophila</i> STB07 provides insights into its product specificity. <i>International Journal of Biological Macromolecules</i> , 2020 , 154, 1303-1313	7.9	5
27	Non-classical secretion of 1,4- α -glucan branching enzymes without signal peptides in <i>Escherichia coli</i> . <i>International Journal of Biological Macromolecules</i> , 2019 , 132, 759-765	7.9	4
26	Bacterial 1,4- α -glucan branching enzymes: characteristics, preparation and commercial applications. <i>Critical Reviews in Biotechnology</i> , 2020 , 40, 380-396	9.4	4
25	Additional salt bridges improve the thermostability of 1,4- α -glucan branching enzyme. <i>Food Chemistry</i> , 2020 , 316, 126348	8.5	4
24	Rational Design of Disulfide Bonds for Enhancing the Thermostability of the 1,4- α -glucan Branching Enzyme from STB02. <i>Journal of Agricultural and Food Chemistry</i> , 2020 , 68, 13791-13797	5.7	4
23	Comparison of bioaccessibility of astaxanthin encapsulated in starch-based double emulsion with different structures. <i>Carbohydrate Polymers</i> , 2021 , 272, 118475	10.3	4
22	Physical Changes of Mesona Blumes Gum/Starch Mixed Gel with Sugars. <i>Cereal Chemistry</i> , 2008 , 85, 550-556	5.5	3
21	Flexible Loop in Carbohydrate-Binding Module 48 Allosterically Modulates Substrate Binding of the 1,4- α -glucan Branching Enzyme. <i>Journal of Agricultural and Food Chemistry</i> , 2021 , 69, 5755-5763	5.7	3

20	The desirable salt bridges in amylases: Distribution, configuration and location. <i>Food Chemistry</i> , 2021 , 354, 129475	8.5	3
19	An extensive review: How starch and gluten impact dough machinability and resultant bread qualities. <i>Critical Reviews in Food Science and Nutrition</i> , 2021 , 1-12	11.5	3
18	Study on rapid drying and spoilage prevention of potato pulp using solid-state fermentation with <i>Aspergillus aculeatus</i> . <i>Bioresource Technology</i> , 2020 , 296, 122323	11	2
17	Effect of increased pressure on the coated layer profile of steamed rice. <i>Food Chemistry</i> , 2020 , 310, 125974	9.7	2
16	Maltose binding site 2 mutations affect product inhibition of <i>Bacillus circulans</i> STB01 cyclodextrin glycosyltransferase. <i>International Journal of Biological Macromolecules</i> , 2021 , 175, 254-261	7.9	2
15	Preparation and characterization of octenyl succinic anhydride modified waxy maize starch hydrolyzate/chitosan complexes with enhanced interfacial properties. <i>Carbohydrate Polymers</i> , 2021 , 267, 118228	10.3	2
14	New insights into the alleviating role of starch derivatives on dough quality deterioration caused by freeze. <i>Food Chemistry</i> , 2021 , 362, 130240	8.5	2
13	A review of controlled release from cyclodextrins: release methods, release systems and application. <i>Critical Reviews in Food Science and Nutrition</i> , 2021 , 1-13	11.5	1
12	KOH/thiourea aqueous solution: A potential solvent for studying the dissolution mechanism and chain conformation of corn starch. <i>International Journal of Biological Macromolecules</i> , 2021 , 195, 86-86	7.9	1
11	Preparation and structural properties of starch phosphate modified by alkaline phosphatase. <i>Carbohydrate Polymers</i> , 2022 , 276, 118803	10.3	1
10	Importance of C-Terminal Extension in Thermophilic 1,4- α -Glucan Branching Enzyme from <i>Geobacillus thermoglucosidans</i> STB02. <i>Applied Biochemistry and Biotechnology</i> , 2020 , 190, 1010-1022	3.2	1
9	Fusion of maltooligosaccharide-forming amylases from two origins for the improvement of maltopentaose synthesis. <i>Food Research International</i> , 2021 , 150, 110735	7	1
8	Effects of different gelatinization degrees of starch in potato flour on the quality of steamed bread.. <i>International Journal of Biological Macromolecules</i> , 2022 , 209, 144-152	7.9	1
7	Themes, Trends, and Knowledge Structure in 30 Years of Starch Research in Food Science and Technology: a Visualization Review. <i>Starch/Staerke</i> , 2100274	2.3	0
6	Combined effects of wheat gluten and carboxymethylcellulose on dough rheological behaviours and gluten network of potato/wheat flour-based bread. <i>International Journal of Food Science and Technology</i> , 2021 , 56, 4149-4158	3.8	0
5	Carbohydrate-Binding Module and Linker Allow Cold Adaptation and Salt Tolerance of Maltopentaose-Forming Amylase From Marine Bacterium 2-40. <i>Frontiers in Microbiology</i> , 2021 , 12, 708480	5.7	0
4	Butyrylated starch protects mice from DSS-induced colitis: combined effects of butyrate release and prebiotic supply. <i>Food and Function</i> , 2021 , 12, 11290-11302	6.1	0
3	The amino acid on the top of the active groove allosterically modulates product specificity of the 1,4- α -glucan branching enzyme.. <i>Food Chemistry</i> , 2022 , 384, 132458	8.5	0

- 2 Substrate Selectivity of a Novel Amylo- α ,6-glucosidase from *Thermococcus gammatolerans* STB12. *Foods*, **2022**, 11, 1442 4.9 0
- 1 Effects of acid-ethanol hydrolysis and debranch on acetylated starch and its potential used for curcumin carrier.. *Carbohydrate Polymers*, **2022**, 279, 119019 10.3