

Zhengbiao Gu

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/4877241/zhengbiao-gu-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

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	Effects of acid-ethanol hydrolysis and debranch on acetylated starch and its potential used for curcumin carrier.. <i>Carbohydrate Polymers</i> , 2022 , 279, 119019	10.3	
90	Preparation and structural properties of starch phosphate modified by alkaline phosphatase. <i>Carbohydrate Polymers</i> , 2022 , 276, 118803	10.3	1
89	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
88	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
87	Substrate Selectivity of a Novel Amylo- β ,6-glucosidase from <i>Thermococcus gammatolerans</i> STB12. <i>Foods</i> , 2022 , 11, 1442	4.9	0
86	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
85	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
84	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
83	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
82	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
81	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
80	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
79	Preparation and stability mechanisms of double emulsions stabilized by gelatinized native starch. <i>Carbohydrate Polymers</i> , 2021 , 262, 117926	10.3	9
78	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
77	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
76	Effect of cassava starch structure on scalding of dough and baking expansion ability. <i>Food Chemistry</i> , 2021 , 352, 129350	8.5	8
75	The desirable salt bridges in amylases: Distribution, configuration and location. <i>Food Chemistry</i> , 2021 , 354, 129475	8.5	3

74	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
73	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
72	Fusion of maltooligosaccharide-forming amylases from two origins for the improvement of maltopentaose synthesis. <i>Food Research International</i> , 2021 , 150, 110735	7	1
71	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
70	Comparison of bioaccessibility of astaxanthin encapsulated in starch-based double emulsion with different structures. <i>Carbohydrate Polymers</i> , 2021 , 272, 118475	10.3	4
69	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
68	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
67	Additional salt bridges improve the thermostability of 1,4- α -glucan branching enzyme. <i>Food Chemistry</i> , 2020 , 316, 126348	8.5	4
66	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
65	Effect of increased pressure on the coated layer profile of steamed rice. <i>Food Chemistry</i> , 2020 , 310, 125974	9.4	2
64	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
63	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
62	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
61	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
60	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
59	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
58	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
57	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

56	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
55	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
54	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
53	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
52	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
51	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
50	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
49	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
48	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
47	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
46	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
45	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
44	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
43	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
42	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
41	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
40	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
39	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

38	Ultrasonic pretreatment improves the high-temperature liquefaction of corn starch at high concentrations. <i>Starch/Staerke</i> , 2017 , 69, 1600002	2.3	7
37	Structure and emulsification properties of octenyl succinic anhydride starch using acid-hydrolyzed method. <i>Starch/Staerke</i> , 2017 , 69, 1600039	2.3	14
36	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
35	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
34	In structure and in - vitro digestibility of waxy corn starch debranched by pullulanase. <i>Food Hydrocolloids</i> , 2017 , 67, 104-110	10.6	40
33	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
32	Potassium and sodium ions enhance the activity and thermostability of 1,4- α -glucan branching enzyme from <i>Geobacillus thermoglucosidans</i> in the presence of glycerol. <i>International Journal of Biological Macromolecules</i> , 2017 , 102, 712-717	7.9	8
31	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
30	Maltooligosaccharide-forming amylase: Characteristics, preparation, and application. <i>Biotechnology Advances</i> , 2017 , 35, 619-632	17.8	39
29	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
28	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
27	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
26	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
25	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
24	Influence of guar gum on the in vitro digestibility of tapioca starch. <i>Starch/Staerke</i> , 2016 , 68, 339-347	2.3	8
23	Retrogradation behavior of corn starch treated with 1,4- α -glucan branching enzyme. <i>Food Chemistry</i> , 2016 , 203, 308-313	8.5	74
22	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
21	Mutations at calcium binding site III in cyclodextrin glycosyltransferase improve β -cyclodextrin specificity. <i>International Journal of Biological Macromolecules</i> , 2015 , 76, 224-9	7.9	9

20	Effects of hydrocolloids on corn starch retrogradation. <i>Starch/Staerke</i> , 2015 , 67, 348-354	2.3	26
19	Effects of montmorillonite addition on the performance of starch-based wood adhesive. <i>Carbohydrate Polymers</i> , 2015 , 115, 394-400	10.3	40
18	Effect of amylose on pasting and rheological properties of corn starch/xanthan blends. <i>Starch/Staerke</i> , 2015 , 67, 98-106	2.3	21
17	Effect of NaCl addition on the freeze-thaw stability of tapioca starch gels. <i>Starch/Staerke</i> , 2015 , 67, 604-611	2.3	6
16	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
15	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
14	Impact of amylose content on starch physicochemical properties in transgenic sweet potato. <i>Carbohydrate Polymers</i> , 2015 , 122, 417-27	10.3	66
13	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
12	Emulsification properties of enzymatically treated octenyl-succinic anhydride starch. <i>Starch/Staerke</i> , 2014 , 66, 1089-1095	2.3	8
11	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
10	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
9	Mutations enhance β -cyclodextrin specificity of cyclodextrin glycosyltransferase from <i>Bacillus circulans</i> . <i>Carbohydrate Polymers</i> , 2014 , 108, 112-7	10.3	12
8	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
7	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
6	The effect of xanthan on short and long-term retrogradation of rice starch. <i>Starch/Staerke</i> , 2013 , 65, 702-708	2.3	70
5	Pasting and rheologic properties of potato starch and maize starch mixtures. <i>Starch/Staerke</i> , 2011 , 63, 11-16	2.3	34
4	Rheological properties of cereal starch gels and Mesona Blumes gum mixtures. <i>Starch/Staerke</i> , 2010 , 62, 480-488	2.3	11
3	Physical Changes of Mesona Blumes Gum/Starch Mixed Gel with Sugars. <i>Cereal Chemistry</i> , 2008 , 85, 550-556	2.3	3

- | | | | |
|---|---|-----|----|
| 2 | 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 |
| 1 | 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 |