Byung-Hoo Lee

List of Publications by Year
in descending order

66 papers	1,623 citations	304743 22 h-index	315739 38 g-index
66 all docs	66 docs citations	66 times ranked	1767 citing authors

#	Article	IF	Citations
1	Human Î±-amylase Present in Lower-Genital-Tract Mucosal Fluid Processes Glycogen to Support Vaginal Colonization by Lactobacillus. Journal of Infectious Diseases, 2014, 210, 1019-1028.	4.0	171
2	Contribution of the Individual Small Intestinal Î±-Glucosidases to Digestion of Unusual Î±-Linked Glycemic Disaccharides. Journal of Agricultural and Food Chemistry, 2016, 64, 6487-6494.	5.2	94
3	Green process development for apple-peel pectin production by organic acid extraction. Carbohydrate Polymers, 2019, 204, 97-103.	10.2	92
4	Enzyme-Synthesized Highly Branched Maltodextrins Have Slow Glucose Generation at the Mucosal Î±-Glucosidase Level and Are Slowly Digestible In Vivo. PLoS ONE, 2013, 8, e59745.	2.5	83
5	Slow glucose release property of enzyme-synthesized highly branched maltodextrins differs among starch sources. Carbohydrate Polymers, 2014, 107, 182-191.	10.2	70
6	Importance of Location of Digestion and Colonic Fermentation of Starch Related to Its Quality. Cereal Chemistry, 2013, 90, 335-343.	2.2	69
7	Modulation of Starch Digestion for Slow Glucose Release through â€œTogglingâ€•of Activities of Mucosal Î±-Glucosidases. Journal of Biological Chemistry, 2012, 287, 31929-31938.	3.4	61
8	Multifunctional Nutrient-Binding Proteins Adapt Human Symbiotic Bacteria for Glycan Competition in the Gut by Separately Promoting Enhanced Sensing and Catalysis. MBio, 2014, 5, e01441-14.	4.1	58
9	Production and characterization of digestionâ€resistant starch by the reaction of <i>Neisseria polysaccharea</i> amylosucrase. Starch/Staerke, 2010, 62, 221-228.	2.1	52
10	Starch Source Influences Dietary Glucose Generation at the Mucosal Î±-Glucosidase Level. Journal of Biological Chemistry, 2012, 287, 36917-36921.	3.4	48
11	Gut feedback mechanisms and food intake: a physiological approach to slow carbohydrate bioavailability. Food and Function, 2015, 6, 1072-1089.	4.6	42
12	Physicochemical and structural properties of different colored sweet potato starches. Starch/Staerke, 2017, 69, 1600001.	2.1	40
13	Enzymatic Process for High-Yield Turanose Production and Its Potential Property as an Adipogenesis Regulator. Journal of Agricultural and Food Chemistry, 2016, 64, 4758-4764.	5.2	39
14	Mucosal Câ€terminal maltaseâ€glucoamylase hydrolyzes large size starch digestion products that may contribute to rapid postprandial glucose generation. Molecular Nutrition and Food Research, 2014, 58, 1111-1121.	3.3	37
15	Structure of branching enzyme- and amylomaltase modified starch produced from well-defined amylose to amylopectin substrates. Carbohydrate Polymers, 2016, 152, 51-61.	10.2	34
16	Physical structure and absorption properties of tailor-made porous starch granules produced by selected amylolytic enzymes. PLoS ONE, 2017, 12, e0181372.	2.5	34
17	Effect of pH on Cleavage of Glycogen by Vaginal Enzymes. PLoS ONE, 2015, 10, e0132646.	2.5	31
18	Number of branch points in Î±-limit dextrins impact glucose generation rates by mammalian mucosal Î±-glucosidases. Carbohydrate Polymers, 2017, 157, 207-213.	10.2	31

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19	Potato phenolics impact starch digestion and glucose transport in model systems but translation to phenolic rich potato chips results in only modest modification of glycemic response in humans. Nutrition Research, 2018, 52, 57-70.	2.9	31
20	Glycogen Synthase Isoforms in Synechocystis sp. PCC6803: Identification of Different Roles to Produce Glycogen by Targeted Mutagenesis. PLoS ONE, 2014, 9, e91524.	2.5	29
21	Optimization of in vitro carbohydrate digestion by mammalian mucosal Î±-glucosidases and its applications to hydrolyze the various sources of starches. Food Hydrocolloids, 2019, 87, 470-476.	10.7	25
22	Characterization of 4-Î±-glucanotransferase from Synechocystis sp. PCC 6803 and its application to various corn starches. New Biotechnology, 2009, 26, 29-36.	4.4	24
23	Enzymatic synthesis of Î±-flavone glucoside via regioselective transglucosylation by amylosucrase from Deinococcus geothermalis. PLoS ONE, 2018, 13, e0207466.	2.5	24
24	Characterization of rice starch gels reinforced with enzymatically-produced resistant starch. Food Hydrocolloids, 2019, 91, 76-82.	10.7	24
25	Different inhibition properties of catechins on the individual subunits of mucosal Î±-glucosidases as measured by partially-purified rat intestinal extract. Food and Function, 2019, 10, 4407-4413.	4.6	23
26	Efficient Biocatalytic Production of Cyclodextrins by Combined Action of Amylosucrase and Cyclodextrin Glucanotransferase. Journal of Agricultural and Food Chemistry, 2016, 64, 4371-4375.	5.2	22
27	Biochemical properties of L-arabinose isomerase from Clostridium hylemonae to produce D-tagatose as a functional sweetener. PLoS ONE, 2018, 13, e0196099.	2.5	22
28	Effects of enzymatically modified chestnut starch on the gut microbiome, microbial metabolome, and transcriptome of diet-induced obese mice. International Journal of Biological Macromolecules, 2020, 145, 235-243.	7.5	20
29	Starch nanoparticles prepared by enzymatic hydrolysis and self-assembly of short-chain glucans. Food Science and Biotechnology, 2020, 29, 585-598.	2.6	18
30	Amelioration of obesity in high-fat diet-fed mice by chestnut starch modified by amylosucrase from Deinococcus geothermalis. Food Hydrocolloids, 2018, 75, 22-32.	10.7	17
31	Effects of raw potato starch on body weight with controlled glucose delivery. Food Chemistry, 2018, 256, 367-372.	8.2	16
32	Potato starch modified by Streptococcus thermophilus GtfB enzyme has low viscoelastic and slowly digestible properties. International Journal of Biological Macromolecules, 2021, 183, 1248-1256.	7.5	15
33	Structural Analysis of Gluco-Oligosaccharides Produced by Leuconostoc lactis and Their Prebiotic Effect. Molecules, 2019, 24, 3998.	3.8	14
34	Increasing the dietary fiber contents in isomaltooligosaccharides by dextransucrase reaction with sucrose as a glucosyl donor. Carbohydrate Polymers, 2020, 230, 115607.	10.2	14
35	Altering the Structure of Carbohydrate Storage Granules in the Cyanobacterium Synechocystis sp. Strain PCC 6803 through Branching-Enzyme Truncations. Journal of Bacteriology, 2016, 198, 701-710.	2.2	12
36	Determination of glucose generation rate from various types of glycemic carbohydrates by mammalian glucosidases anchored in the small intestinal tissue. International Journal of Biological Macromolecules, 2020, 154, 751-757.	7.5	12

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37	<i>Bifidobacterium bifidum</i>BGN4 Paraprobiotic Supplementation Alleviates Experimental Colitis by Maintaining Gut Barrier and Suppressing Nuclear Factor Kappa B Activation Signaling Molecules. Journal of Medicinal Food, 2022, 25, 146-157.	1.5	12
38	Optimization of leucrose production by dextransucrase from Streptococcus mutans and its application as an adipogenesis regulator. Journal of Functional Foods, 2017, 39, 238-244.	3.4	11
39	Maltase Has Most Versatile Î±â€•Hydrolytic Activity Among the Mucosal Î±â€•Glucosidases of the Small Intestine. Journal of Pediatric Gastroenterology and Nutrition, 2018, 66, S7-S10.	1.8	11
40	New insights suggest isomaltooligosaccharides are slowly digestible carbohydrates, rather than dietary fibers, at constitutive mammalian Î±-glucosidase levels. Food Chemistry, 2022, 383, 132456.	8.2	11
41	Biocatalytic Fabrication of Î±-Glucan-Coated Porous Starch Granules by Amylolytic and Glucan-Synthesizing Enzymes as a Target-Specific Delivery Carrier. Biomacromolecules, 2019, 20, 4143-4149.	5.4	10
42	Highly branched Î±-limit dextrins attenuate the glycemic response and stimulate the secretion of satiety hormone peptide YY. Food Hydrocolloids, 2020, 108, 106057.	10.7	10
43	Physicochemical properties of turanose and its potential applications as a sucrose substitute. Food Science and Biotechnology, 2021, 30, 433-441.	2.6	9
44	Enzymatic synthesis of 2-deoxyglucose-containing maltooligosaccharides for tracing the location of glucose absorption from starch digestion. Carbohydrate Polymers, 2015, 132, 41-49.	10.2	8
45	Impact of static and dynamic modes of semi-dry heat reaction on the characteristics of starch citrates. Carbohydrate Polymers, 2020, 233, 115853.	10.2	8
46	Effect of highly branched Î±-glucans synthesized by dual glycosyltransferases on the glucose release rate. Carbohydrate Polymers, 2022, 278, 119016.	10.2	8
47	Lactobacillus acidophilus PIN7 paraprobiotic supplementation ameliorates DSS-induced colitis through anti-inflammatory and immune regulatory effects. Journal of Applied Microbiology, 2022, 132, 3189-3200.	3.1	8
48	Inhibition of Maltaseâ€•Glucoamylase Activity to Hydrolyze Î±â€•1,4 Linkages by the Presence of Undigested Sucrose. Journal of Pediatric Gastroenterology and Nutrition, 2012, 55, S45-7.	1.8	7
49	Pregelatinized starches enriched in slowly digestible and resistant fractions. LWT - Food Science and Technology, 2018, 97, 187-192.	5.2	7
50	Citric-acid treatment during rice processing increases the level of slowly digestible starch with a potential to regulate the post-prandial blood glucose level. Journal of Cereal Science, 2019, 89, 102821.	3.7	7
51	Lysed and disrupted Bifidobacterium bifidum BGN4 cells promote anti-inflammatory activities in lipopolysaccharide-stimulated RAW 264.7 cells. Saudi Journal of Biological Sciences, 2021, 28, 5115-5118.	3.8	7
52	Slowly digestible property of highly branched Î±-limit dextrins produced by 4,6-Î±-glucanotransferase from Streptococcus thermophilus evaluated in vitro and in vivo. Carbohydrate Polymers, 2022, 275, 118685.	10.2	7
53	Physicochemical properties of partially Î±-glucan-coated normal corn starch formed by amylosucrase from Neisseria polysaccharea. International Journal of Biological Macromolecules, 2019, 133, 1102-1106.	7.5	6
54	Biocatalytic role of potato starch synthase III for Î±-glucan biosynthesis in Synechocystis sp. PCC6803 mutants. International Journal of Biological Macromolecules, 2015, 81, 710-717.	7.5	5

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55	Enzymatically elongated rice starches by amylosucrase from Deinococcus geothermalis lead to slow down the glucose generation rate at the mammalian Î±-glucosidase level. International Journal of Biological Macromolecules, 2020, 149, 767-772.	7.5	4
56	Heterologous expression and characterization of glycogen branching enzyme from Synechocystis sp. PCC6803. Journal of Microbiology and Biotechnology, 2008, 18, 1386-92.	2.1	4
57	Improved rheological properties and shelf-life of wheat starch-lipid complex produced by the homogenization process. Food Science and Biotechnology, 2021, 30, 541-544.	2.6	3
58	Potato Phenolics Modulate Rate of Glucose Transport in a Cacoâ€2 Human Intestinal Cell Model. FASEB Journal, 2015, 29, 606.6.	0.5	3
59	Cryoprotective effect of turanose on lyophilized Lactobacillus paracasei subsp. paracasei, L. casei 431. Food Science and Biotechnology, 2022, 31, 343-347.	2.6	3
60	New glucogenesis inhibition model based on complete <scp><i>Î±</i>â€glucosidases</scp> from rat intestinal tissues validated with various types of natural and pharmaceutical inhibitors. Journal of the Science of Food and Agriculture, 2022, 102, 4419-4424.	3.5	3
61	Biogenic amine production of makgeollis with controlled alcohol concentrations. Food Science and Biotechnology, 2019, 28, 923-930.	2.6	2
62	Wheat dough syruping in cold storage is related to structural changes of starch and non-starch polysaccharides. Food Research International, 2017, 99, 596-602.	6.2	1
63	Alphaâ€glucogenic activity of mammalian mucosal enzymes on different disaccharides. FASEB Journal, 2011, 25, 93.1.	0.5	0
64	Modulation of starch digestion for slow glucose release through â€œtogglingâ€•of mucosal Î±â€glucosidases by acarbose. FASEB Journal, 2012, 26, 638.7.	0.5	0
65	Enzymeâ€synthesized highly branched maltodextrins have slow glucogenesis at the mucosal Î±â€glucosidase level and are slowly digestible in vivo. FASEB Journal, 2013, 27, 1074.13.	0.5	0
66	Different physicochemical properties of entirely Î±-glucan-coated starch from various botanical sources. Food Science and Biotechnology, 0, , .	2.6	0