Hans Leemhuis

List of Publications by Year
in descending order

32 papers	2,605 citations	331670 21 h-index	414414 32 g-index
32 all docs	32 docs citations	32 times ranked	2406 citing authors

#	Article	IF	Citations
1	Properties and applications of starch-converting enzymes of the Î±-amylase family. Journal of Biotechnology, 2002, 94, 137-155.	3.8	1,075
2	Glucansucrases: Three-dimensional structures, reactions, mechanism, Î±-glucan analysis and their implications in biotechnology and food applications. Journal of Biotechnology, 2013, 163, 250-272.	3.8	250
3	Engineering of cyclodextrin glucanotransferases and the impact for biotechnological applications. Applied Microbiology and Biotechnology, 2010, 85, 823-835.	3.6	157
4	Starch modification with microbial alpha-glucanotransferase enzymes. Carbohydrate Polymers, 2013, 93, 116-121.	10.2	115
5	Directed evolution of enzymes: Library screening strategies. IUBMB Life, 2009, 61, 222-228.	3.4	99
6	Inulin and levan synthesis by probiotic Lactobacillus gasseri strains: characterization of three novel fructansucrase enzymes and their fructan products. Microbiology (United Kingdom), 2010, 156, 1264-1274.	1.8	93
7	4,6-Î±-Glucanotransferase, a Novel Enzyme That Structurally and Functionally Provides an Evolutionary Link between Glycoside Hydrolase Enzyme Families 13 and 70. Applied and Environmental Microbiology, 2011, 77, 8154-8163.	3.1	81
8	Isomalto/Malto-Polysaccharide, A Novel Soluble Dietary Fiber Made Via Enzymatic Conversion of Starch. Journal of Agricultural and Food Chemistry, 2014, 62, 12034-12044.	5.2	73
9	Structural characterization of linear isomalto-/malto-oligomer products synthesized by the novel GTFB 4,6-Î±-glucanotransferase enzyme from Lactobacillus reuteri 121. Glycobiology, 2012, 22, 517-528.	2.5	60
10	Conversion of Cyclodextrin Glycosyltransferase into a Starch Hydrolase by Directed Evolution:â€‰ The Role of Alanine 230 in Acceptor Subsite +1,. Biochemistry, 2003, 42, 7518-7526.	2.5	57
11	Biochemical Characterization of the Lactobacillus reuteri Glycoside Hydrolase Family 70 GTFB Type of 4,6-Î±-Glucanotransferase Enzymes That Synthesize Soluble Dietary Starch Fibers. Applied and Environmental Microbiology, 2015, 81, 7223-7232.	3.1	54
12	Glycosidic bond specificity of glucansucrases: on the role of acceptor substrate binding residues. Biocatalysis and Biotransformation, 2012, 30, 366-376.	2.0	53
13	4,6-Î±-Glucanotransferase activity occurs more widespread in Lactobacillus strains and constitutes a separate GH70 subfamily. Applied Microbiology and Biotechnology, 2013, 97, 181-193.	3.6	52
14	Mutations converting cyclodextrin glycosyltransferase from a transglycosylase into a starch hydrolase. FEBS Letters, 2002, 514, 189-192.	2.8	47
15	The Remote Substrate Binding Subsite âˆ'6 in Cyclodextrin-glycosyltransferase Controls the Transferase Activity of the Enzyme via an Induced-fit Mechanism. Journal of Biological Chemistry, 2002, 277, 1113-1119.	3.4	43
16	Thermoanaerobacterium thermosulfurigenes cyclodextrin glycosyltransferase. FEBS Journal, 2002, 270, 155-162.	0.2	38
17	Improved thermostability of bacillus circulans cyclodextrin glycosyltransferase by the introduction of a salt bridge. Proteins: Structure, Function and Bioinformatics, 2003, 54, 128-134.	2.6	38
18	Gluco-oligomers initially formed by the reuteransucrase enzyme of Lactobacillus reuteri 121 incubated with sucrose and malto-oligosaccharides. Glycobiology, 2013, 23, 1084-1096.	2.5	33

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19	The fully conserved Asp residue in conserved sequence region I of the Î±-amylase family is crucial for the catalytic site architecture and activity. FEBS Letters, 2003, 541, 47-51.	2.8	25
20	Single Amino Acid Mutations Interchange the Reaction Specificities of Cyclodextrin Glycosyltransferase and the Acarbose-Modifying Enzyme Acarviosyl Transferaseâ€. Biochemistry, 2004, 43, 13204-13213.	2.5	25
21	The role of conserved inulosucrase residues in the reaction and product specificity of <i>Lactobacillusâ€ƒreuteri</i> inulosucrase. FEBS Journal, 2012, 279, 3612-3621.	4.7	23
22	Synthesis of highly branched Î±-glucans with different structures using GH13 and GH57 glycogen branching enzymes. Carbohydrate Polymers, 2019, 216, 231-237.	10.2	18
23	Engineering cyclodextrin glycosyltransferase into a starch hydrolase with a high exo-specificity. Journal of Biotechnology, 2003, 103, 203-212.	3.8	16
24	Characterization of the GH13 and GH57 glycogen branching enzymes from Petrotoga mobilis SJ95 and potential role in glycogen biosynthesis. PLoS ONE, 2019, 14, e0219844.	2.5	12
25	Identification of Thermotoga maritima MSB8 GH57 Î±-amylase AmyC as a glycogen-branching enzyme with high hydrolytic activity. Applied Microbiology and Biotechnology, 2019, 103, 6141-6151.	3.6	12
26	Digestion kinetics of low, intermediate and highly branched maltodextrins produced from gelatinized starches with various microbial glycogen branching enzymes. Carbohydrate Polymers, 2020, 247, 116729.	10.2	12
27	Engineering of Hydrolysis Reaction Specificity in the Transglycosylase Cyclodextrin Glycosyltransferase. Biocatalysis and Biotransformation, 2003, 21, 261-270.	2.0	9
28	Structural elements determining the transglycosylating activity of glycoside hydrolase family 57 glycogen branching enzymes. Proteins: Structure, Function and Bioinformatics, 2022, 90, 155-163.	2.6	9
29	The thermostable 4,6-Î±-glucanotransferase of <i>Bacillus coagulans</i> DSM 1 synthesizes isomaltooligosaccharides. Amylase, 2021, 5, 13-22.	1.6	8
30	GtfC Enzyme of <i>Geobacillus</i> sp. 12AMOR1 Represents a Novel Thermostable Type of GH70 4,6-Î±-Glucanotransferase That Synthesizes a Linear Alternating (Î±1 â†’ 6)/(Î±1 â†’ 4) Î±-Glucan and Delays Bread Staling. Journal of Agricultural and Food Chemistry, 2021, 69, 9859-9868.	5.2	7
31	Hydrolysis and Transglycosylation Reaction Specificity of Cyclodextrin Glycosyltransferases. Journal of Applied Glycoscience (1999), 2003, 50, 263-271.	0.7	6
32	High-throughput screening for gene libraries expressing carbohydrate hydrolase activity. Biotechnology Letters, 2003, 25, 1643-1645.	2.2	5