

# Slavko Kralj

## List of Publications by Year in descending order

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38  
papers

2,597  
citations

172457

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315739

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docs citations

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times ranked

1437  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure-Function Relationships of Glucansucrase and Fructansucrase Enzymes from Lactic Acid Bacteria. <i>Microbiology and Molecular Biology Reviews</i> , 2006, 70, 157-176.	6.6	366
2	Glucansucrases: Three-dimensional structures, reactions, mechanism, $\alpha$ -glucan analysis and their implications in biotechnology and food applications. <i>Journal of Biotechnology</i> , 2013, 163, 250-272.	3.8	250
3	Crystal structure of a 117 kDa glucansucrase fragment provides insight into evolution and product specificity of GH70 enzymes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 21406-21411.	7.1	140
4	The levansucrase and inulosucrase enzymes of <i>Lactobacillus reuteri</i> 121 catalyse processive and non-processive transglycosylation reactions. <i>Microbiology (United Kingdom)</i> , 2006, 152, 1187-1196.	1.8	123
5	Molecular Characterization of a Novel Glucosyltransferase from <i>Lactobacillus reuteri</i> Strain 121 Synthesizing a Unique, Highly Branched Glucan with $\alpha$ -(1 $\rightarrow$ 4) and $\alpha$ -(1 $\rightarrow$ 6) Glucosidic Bonds. <i>Applied and Environmental Microbiology</i> , 2002, 68, 4283-4291.	3.1	110
6	Hydrophobic Amino Acid Residues in the Acceptor Binding Site Are Main Determinants for Reaction Mechanism and Specificity of Cyclodextrin-glycosyltransferase. <i>Journal of Biological Chemistry</i> , 2001, 276, 44557-44562.	3.4	93
7	Inulin and levan synthesis by probiotic <i>Lactobacillus gasseri</i> strains: characterization of three novel fructansucrase enzymes and their fructan products. <i>Microbiology (United Kingdom)</i> , 2010, 156, 1264-1274.	1.8	93
8	<i>Thermus thermophilus</i> Glycoside Hydrolase Family 57 Branching Enzyme. <i>Journal of Biological Chemistry</i> , 2011, 286, 3520-3530.	3.4	88
9	Structural analysis of the $\alpha$ -D-glucan (EPS180) produced by the <i>Lactobacillus reuteri</i> strain 180 glucansucrase GTF180 enzyme. <i>Carbohydrate Research</i> , 2008, 343, 1237-1250.	2.3	86
10	Highly Hydrolytic Reuteransucrase from Probiotic <i>Lactobacillus reuteri</i> Strain ATCC 55730. <i>Applied and Environmental Microbiology</i> , 2005, 71, 3942-3950.	3.1	82
11	4,6- $\alpha$ -Glucanotransferase, a Novel Enzyme That Structurally and Functionally Provides an Evolutionary Link between Glycoside Hydrolase Enzyme Families 13 and 70. <i>Applied and Environmental Microbiology</i> , 2011, 77, 8154-8163.	3.1	81
12	The Unique Branching Patterns of <i>Deinococcus</i> Glycogen Branching Enzymes Are Determined by Their N-Terminal Domains. <i>Applied and Environmental Microbiology</i> , 2009, 75, 1355-1362.	3.1	78
13	The Probiotic <i>Lactobacillus johnsonii</i> NCC 533 Produces High-Molecular-Mass Inulin from Sucrose by Using an Inulosucrase Enzyme. <i>Applied and Environmental Microbiology</i> , 2008, 74, 3426-3433.	3.1	77
14	Rational Transformation of <i>Lactobacillus reuteri</i> 121 Reuteransucrase into a Dextransucrase. <i>Biochemistry</i> , 2005, 44, 9206-9216.	2.5	75
15	Crystal Structure of Inulosucrase from <i>Lactobacillus</i> : Insights into the Substrate Specificity and Product Specificity of GH68 Fructansucrases. <i>Journal of Molecular Biology</i> , 2011, 412, 80-93.	4.2	63
16	Structural analysis of the $\alpha$ -D-glucan (EPS35-5) produced by the <i>Lactobacillus reuteri</i> strain 35-5 glucansucrase GTF $\alpha$ enzyme. <i>Carbohydrate Research</i> , 2008, 343, 1251-1265.	2.3	61
17	Structural characterization of linear isomalto-/malto-oligomer products synthesized by the novel GTFB 4,6- $\alpha$ -glucanotransferase enzyme from <i>Lactobacillus reuteri</i> 121. <i>Glycobiology</i> , 2012, 22, 517-528.	2.5	60
18	Engineering the Glucansucrase GTF $\alpha$ Enzyme Reaction and Glycosidic Bond Specificity: Toward Tailor-Made Polymer and Oligosaccharide Products. <i>Biochemistry</i> , 2008, 47, 6678-6684.	2.5	58

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19	4,6- $\alpha$ -Glucanotransferase activity occurs more widespread in <i>Lactobacillus</i> strains and constitutes a separate GH70 subfamily. <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 181-193.	3.6	52
20	Screening of lactic acid bacteria from Indonesia reveals glucansucrase and fructansucrase genes in two different <i>Weissella confusa</i> strains from soya. <i>FEMS Microbiology Letters</i> , 2009, 300, 131-138.	1.8	50
21	Structural Characterization of Bioengineered $\alpha$ -D-Glucans Produced by Mutant Glucansucrase GTF180 Enzymes of <i>Lactobacillus reuteri</i> Strain 180. <i>Biomacromolecules</i> , 2009, 10, 580-588.	5.4	50
22	Structure of the $\alpha$ -1,6/ $\alpha$ -1,4-specific glucansucrase GTF180 from <i>Lactobacillus reuteri</i> 121. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2012, 68, 1448-1454.	0.7	47
23	Single amino acid residue changes in subsite $\sigma$ 1 of inulosucrase from <i>Lactobacillus reuteri</i> 121 strongly influence the size of products synthesized. <i>FEBS Journal</i> , 2006, 273, 4104-4113.	4.7	42
24	Enzymatic degradation of granular potato starch by <i>Microbacterium aurum</i> strain B8.A. <i>Applied Microbiology and Biotechnology</i> , 2012, 93, 645-654.	3.6	36
25	Synthesis of fructooligosaccharides (FosA) and inulin (InuO) by GH68 fructosyltransferases from <i>Bacillus agaradhaerens</i> strain WDG185. <i>Carbohydrate Polymers</i> , 2018, 179, 350-359.	10.2	36
26	Efficient Screening Methods for Glucosyltransferase Genes in <i>Lactobacillus</i> Strains. <i>Biocatalysis and Biotransformation</i> , 2003, 21, 181-187.	2.0	33
27	Characterization of the glucansucrase GTF180 W1065 mutant enzymes producing polysaccharides and oligosaccharides with altered linkage composition. <i>Food Chemistry</i> , 2017, 217, 81-90.	8.2	33
28	Biochemical and crystallographic characterization of a glucansucrase from <i>Lactobacillus reuteri</i> 180. <i>Biocatalysis and Biotransformation</i> , 2008, 26, 12-17.	2.0	31
29	Structural Analysis of Bioengineered $\alpha$ -D-Glucan Produced by a Triple Mutant of the Glucansucrase GTF180 Enzyme from <i>Lactobacillus reuteri</i> Strain 180: Generation of ( $\alpha$ -1 $\rightarrow$ 4) Linkages in a Native ( $\alpha$ -1 $\rightarrow$ 3)( $\alpha$ -1 $\rightarrow$ 6)- $\alpha$ -D-Glucan. <i>Biomacromolecules</i> , 2008, 9, 2251-2258.	5.4	31
30	Role of asparagine 1134 in glucosidic bond and transglycosylation specificity of reuteransucrase from <i>Lactobacillus reuteri</i> 121. <i>FEBS Journal</i> , 2006, 273, 3735-3742.	4.7	29
31	Highly Efficient Chemoenzymatic Synthesis of Novel Branched Thiooligosaccharides by Substrate Direction with Glucansucrases. <i>ChemBioChem</i> , 2007, 8, 273-276.	2.6	28
32	Enzymatic Polymerization Routes to Synthetic "Natural Materials: A Review. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 9947-9954.	6.7	24
33	The role of conserved inulosucrase residues in the reaction and product specificity of <i>Lactobacillus reuteri</i> inulosucrase. <i>FEBS Journal</i> , 2012, 279, 3612-3621.	4.7	23
34	Flexibility of truncated and full-length glucansucrase GTF180 enzymes from <i>Lactobacillus reuteri</i> 180. <i>FEBS Journal</i> , 2014, 281, 2159-2171.	4.7	21
35	Fructansucrase enzymes and sucrose analogues: A new approach for the synthesis of unique fructo-oligosaccharides. <i>Biocatalysis and Biotransformation</i> , 2008, 26, 32-41.	2.0	18
36	Hybrid reuteransucrase enzymes reveal regions important for glucosidic linkage specificity and the transglucosylation/hydrolysis ratio. <i>FEBS Journal</i> , 2008, 275, 6002-6010.	4.7	15

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37	An Unconventional Glycosyl Transfer Reaction: Glucansucrase GTFA Functions as an Allosyltransferase Enzyme. <i>ChemBioChem</i> , 2013, 14, 2423-2426.	2.6	9
38	Purification, crystallization and preliminary X-ray analysis of a thermostable glycoside hydrolase family 43 $\beta$ -xylosidase from <i>Geobacillus thermoleovorans</i> IT-08. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2007, 63, 932-935.	0.7	5