

# Koen Beerens

## List of Publications by Year in descending order

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Version: 2024-02-01

32  
papers

811  
citations

623188

14  
h-index

525886

27  
g-index

33  
all docs

33  
docs citations

33  
times ranked

996  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enzymes for the biocatalytic production of rare sugars. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2012, 39, 823-834.	1.4	157
2	FireProt: Energy- and Evolution-Based Computational Design of Thermostable Multiple-Point Mutants. <i>PLoS Computational Biology</i> , 2015, 11, e1004556.	1.5	144
3	UDP-hexose 4-epimerases: a view on structure, mechanism and substrate specificity. <i>Carbohydrate Research</i> , 2015, 414, 8-14.	1.1	55
4	A structural classification of carbohydrate epimerases: From mechanistic insights to practical applications. <i>Biotechnology Advances</i> , 2015, 33, 1814-1828.	6.0	42
5	Biocatalytic Synthesis of the Rare Sugar Kojibiose: Process Scale-Up and Application Testing. <i>Journal of Agricultural and Food Chemistry</i> , 2017, 65, 6030-6041.	2.4	40
6	Exploration of Protein Unfolding by Modelling Calorimetry Data from Reheating. <i>Scientific Reports</i> , 2017, 7, 16321.	1.6	39
7	Disulfide bridges as essential elements for the thermostability of lytic polysaccharide monooxygenase LPMO10C from <i>Streptomyces coelicolor</i> . <i>Protein Engineering, Design and Selection</i> , 2017, 30, 401-408.	1.0	29
8	Rational design of an improved transglucosylase for production of the rare sugar nigerose. <i>Chemical Communications</i> , 2019, 55, 4531-4533.	2.2	26
9	Site-Specific Analysis of Protein Hydration Based on Unnatural Amino Acid Fluorescence. <i>Journal of the American Chemical Society</i> , 2015, 137, 4988-4992.	6.6	25
10	Molecular Gating of an Engineered Enzyme Captured in Real Time. <i>Journal of the American Chemical Society</i> , 2018, 140, 17999-18008.	6.6	25
11	Evolutionary Analysis As a Powerful Complement to Energy Calculations for Protein Stabilization. <i>ACS Catalysis</i> , 2018, 8, 9420-9428.	5.5	20
12	Thermostable alpha-glucan phosphorylases: characteristics and industrial applications. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 8187-8202.	1.7	20
13	Converting Galactose into the Rare Sugar Talose with Cellobiose 2-Epimerase as Biocatalyst. <i>Molecules</i> , 2018, 23, 2519.	1.7	17
14	Structure-function relationships in NDP-sugar active SDR enzymes: Fingerprints for functional annotation and enzyme engineering. <i>Biotechnology Advances</i> , 2021, 48, 107705.	6.0	17
15	Engineering of cellobiose phosphorylase for the defined synthesis of cellotriose. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 8327-8337.	1.7	15
16	Characterization of the First Bacterial and Thermostable GDP-Mannose 3,5-Epimerase. <i>International Journal of Molecular Sciences</i> , 2019, 20, 3530.	1.8	14
17	Stereo-electronic control of reaction selectivity in short-chain dehydrogenases: Decarboxylation, epimerization, and dehydration. <i>Current Opinion in Chemical Biology</i> , 2021, 61, 43-52.	2.8	14
18	Characterization and mutational analysis of the UDP-Glc(NAc) 4-epimerase from <i>Marinithermus hydrothermalis</i> . <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 7733-7740.	1.7	13

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19	The "epimering" highlights the potential of carbohydrate epimerases for rare sugar production. <i>Biocatalysis and Biotransformation</i> , 2017, 35, 230-237.	1.1	13
20	Oral Microbiota Display Profound Differential Metabolic Kinetics and Community Shifts upon Incubation with Sucrose, Trehalose, Kojibiose, and Xylitol. <i>Applied and Environmental Microbiology</i> , 2020, 86, .	1.4	11
21	Î <sup>2</sup> -Glucan phosphorylases in carbohydrate synthesis. <i>Applied Microbiology and Biotechnology</i> , 2021, 105, 4073-4087.	1.7	10
22	Engineering of a Thermostable Biocatalyst for the Synthesis of 2- <i>O</i> -Glucosylglycerol. <i>ChemBioChem</i> , 2021, 22, 2777-2782.	1.3	9
23	GDP-Mannose 3,5-Epimerase: A View on Structure, Mechanism, and Industrial Potential. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 784142.	1.6	9
24	Nucleotide sugar dehydratases: Structure, mechanism, substrate specificity, and application potential. <i>Journal of Biological Chemistry</i> , 2022, 298, 101809.	1.6	9
25	Determinants of the Nucleotide Specificity in the Carbohydrate Epimerase Family 1. <i>Biotechnology Journal</i> , 2020, 15, e2000132.	1.8	6
26	Exploration of GH94 Sequence Space for Enzyme Discovery Reveals a Novel Glucosylgalactose Phosphorylase Specificity. <i>ChemBioChem</i> , 2021, 22, 3319-3325.	1.3	6
27	GDP-altrose as novel product of GDP-mannose 3,5-epimerase: Revisiting its reaction mechanism. <i>International Journal of Biological Macromolecules</i> , 2020, 165, 1862-1868.	3.6	5
28	Synthesis, trehalase hydrolytic resistance and inhibition properties of 4- and 6-substituted trehalose derivatives. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2020, 35, 1964-1989.	2.5	5
29	Expanding the Enzyme Repertoire for Sugar Nucleotide Epimerization: the CDP-Tyvelose 2-Epimerase from <i>Thermodesulfatator atlanticus</i> for Glucose/Mannose Interconversion. <i>Applied and Environmental Microbiology</i> , 2021, 87, .	1.4	5
30	Metabolism and Health Effects of Rare Sugars in a CACO-2/HepG2 Coculture Model. <i>Nutrients</i> , 2022, 14, 611.	1.7	5
31	Novel Insights into the Existence of the Putative UDP-Glucuronate 5-Epimerase Specificity. <i>Catalysts</i> , 2020, 10, 222.	1.6	4
32	Sweet Biotechnology: Enzymatic Production and Digestibility Screening of Novel Kojibiose and Nigerose Analogues. <i>Journal of Agricultural and Food Chemistry</i> , 2022, 70, 3502-3511.	2.4	2