JÃ¼rgen Seibel

List of Publications by Year
in descending order

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98 papers	3,286 citations	172207 29 h-index	161609 54 g-index
119 all docs	119 docs citations	119 times ranked	3624 citing authors

#	Article	IF	Citations
1	Click-correlative lightÂand electron microscopy (click-AT-CLEM) for imaging and tracking azido-functionalized sphingolipids in bacteria. Scientific Reports, 2021, 11, 4300.	1.6	9
2	Metabolic Glycoengineering in hMSC-TERT as a Model for Skeletal Precursors by Using Modified Azide/Alkyne Monosaccharides. International Journal of Molecular Sciences, 2021, 22, 2820.	1.8	7
3	Inhibition of acid sphingomyelinase increases regulatory T cells in humans. Brain Communications, 2021, 3, fcab020.	1.5	11
4	The serotonin reuptake inhibitor Fluoxetine inhibits SARS-CoV-2 in human lung tissue. Scientific Reports, 2021, 11, 5890.	1.6	98
5	Polyoxazolines with a Vicinally Double-Bioactivated Terminus for Biomacromolecular Affinity Assessment. Sensors, 2021, 21, 3153.	2.1	2
6	Editorial: Sphingolipids in Infection Control. Frontiers in Cell and Developmental Biology, 2021, 9, 697290.	1.8	0
7	Sphingolipids: Effectors and Achilles Heals in Viral Infections?. Cells, 2021, 10, 2175.	1.8	14
8	Concatemeric Broccoli reduces mRNA stability and induces aggregates. PLoS ONE, 2021, 16, e0244166.	1.1	3
9	Azidosphinganine enables metabolic labeling and detection of sphingolipid de novo synthesis. Organic and Biomolecular Chemistry, 2021, 19, 2203-2212.	1.5	9
10	Detection of Functionalized Sphingolipid Analogs in Detergent-Resistant Membranes of Immune Cells. Methods in Molecular Biology, 2021, 2187, 313-325.	0.4	0
11	Enzymatic Synthesis of Artificial Polysaccharides. ACS Sustainable Chemistry and Engineering, 2020, 8, 11853-11871.	3.2	27
12	Nanoscale imaging of bacterial infections by sphingolipid expansion microscopy. Nature Communications, 2020, 11, 6173.	5.8	43
13	Reprogramming of host glutamine metabolism during Chlamydia trachomatis infection and its key role in peptidoglycan synthesis. Nature Microbiology, 2020, 5, 1390-1402.	5.9	29
14	High-Yielding Water-Soluble Asymmetric Cyanine Dyes for Labeling Applications. Journal of Organic Chemistry, 2020, 85, 9751-9760.	1.7	11
15	A Role of Sphingosine in the Intracellular Survival of Neisseria gonorrhoeae. Frontiers in Cellular and Infection Microbiology, 2020, 10, 215.	1.8	11
16	Implications of the mutation S164A on Bacillus subtilis levansucrase product specificity and insights into protein interactions acting upon levan synthesis. International Journal of Biological Macromolecules, 2020, 161, 898-908.	3.6	13
17	Acid ceramidase of macrophages traps herpes simplex virus in multivesicular bodies and protects from severe disease. Nature Communications, 2020, 11, 1338.	5.8	32
18	Bioorthogonal labeling with tetrazine-dyes for super-resolution microscopy. Communications Biology, 2019, 2, 261.	2.0	101

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19	Exploring the sequence variability of polymerization-involved residues in the production of levan- and inulin-type fructooligosaccharides with a levansucrase. Scientific Reports, 2019, 9, 7720.	1.6	17
20	Zwitterionâ€Functionalized Detonation Nanodiamond with Superior Protein Repulsion and Colloidal Stability in Physiological Media. Small, 2019, 15, e1901551.	5.2	26
21	Identification of a potential allosteric site of Golgi Î±-mannosidase II using computer-aided drug design. PLoS ONE, 2019, 14, e0216132.	1.1	5
22	A close look at the structural features and reaction conditions that modulate the synthesis of low and high molecular weight fructans by levansucrases. Carbohydrate Polymers, 2019, 219, 130-142.	5.1	39
23	Tuning the Product Spectrum of a Glycoside Hydrolase Enzyme by a Combination of Siteâ€Directed Mutagenesis and Tyrosineâ€Specific Chemical Modification. Chemistry - A European Journal, 2019, 25, 6533-6541.	1.7	13
24	Structural and functional role of disulphide bonds and substrate binding residues of the human beta-galactoside alpha-2,3-sialyltransferase 1 (hST3Gal1). Scientific Reports, 2019, 9, 17993.	1.6	5
25	Metabolic Glycoengineering of Cell-Derived Matrices and Cell Surfaces: A Combination of Key Principles and Step-by-Step Procedures. ACS Biomaterials Science and Engineering, 2019, 5, 215-233.	2.6	16
26	Mit Zucker gegen BÃ¶sartiges. Nachrichten Aus Der Chemie, 2018, 66, 30-31.	0.0	0
27	Bioorthogonal Modification of Cell Derived Matrices by Metabolic Glycoengineering. ACS Biomaterials Science and Engineering, 2018, 4, 1300-1306.	2.6	18
28	Product-oriented chemical surface modification of a levansucrase (SacB) via an ene-type reaction. Chemical Science, 2018, 9, 5312-5321.	3.7	19
29	Mechanistical Insights into the Bioconjugation Reaction of Triazolinediones with Tyrosine. Journal of Organic Chemistry, 2018, 83, 10248-10260.	1.7	15
30	Reversibility of a Point Mutation Induced Domain Shift: Expanding the Conformational Space of a Sucrose Phosphorylase. Scientific Reports, 2018, 8, 10490.	1.6	6
31	Click reactions with functional sphingolipids. Biological Chemistry, 2018, 399, 1157-1168.	1.2	19
32	Exploring the Structural Space of the Galectinâ€1â€“Ligand Interaction. ChemBioChem, 2017, 18, 1477-1481.	1.3	7
33	Incorporation studies of clickable ceramides in Jurkat cell plasma membranes. Chemical Communications, 2017, 53, 6836-6839.	2.2	32
34	Switching enzyme specificity from phosphate to resveratrol glucosylation. Chemical Communications, 2017, 53, 12181-12184.	2.2	19
35	A Chemoenzymatic Route to a Class of Sucrose Esters. European Journal of Organic Chemistry, 2017, 2017, 6335-6337.	1.2	4
36	Extending the Scope of GTFR Glucosylation Reactions with Tosylated Substrates for Rare Sugars Synthesis. ChemBioChem, 2017, 18, 2012-2015.	1.3	1

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37	Antibacterial activity of ceramide and ceramide analogs against pathogenic Neisseria. Scientific Reports, 2017, 7, 17627.	1.6	38
38	Impaired coordination of nucleophile and increased hydrophobicity in the +1 subsite shift levansucrase activity towards transfructosylation. Glycobiology, 2017, 27, 755-765.	1.3	18
39	Biocompatible Azideâ€“Alkyne â€œClickâ€•Reactions for Surface Decoration of Glycoâ€Engineered Cells. ChemBioChem, 2016, 17, 866-875.	1.3	37
40	A Functionalized Sphingolipid Analogue for Studying Redistribution during Activation in Living T Cells. Journal of Immunology, 2016, 196, 3951-3962.	0.4	30
41	Synthesis and application of water-soluble, photoswitchable cyanine dyes for bioorthogonal labeling of cell-surface carbohydrates. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 2016, 71, 347-354.	0.6	12
42	The fungal-specific Î²-glucan-binding lectin FGB1 alters cell-wall composition and suppresses glucan-triggered immunity in plants. Nature Communications, 2016, 7, 13188.	5.8	117
43	Incorporation and visualization of azido-functionalized N-oleoyl serinol in Jurkat cells, mouse brain astrocytes, 3T3 fibroblasts and human brain microvascular endothelial cells. Chemical Communications, 2016, 52, 8612-8614.	2.2	19
44	ZNC opens a new chapter focussing on the emerging field of natural and natural-like compounds. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 2016, 71, 93-93.	0.6	0
45	Redesign of the Active Site of Sucrose Phosphorylase through a Clashâ€Induced Cascade of Loop Shifts. ChemBioChem, 2016, 17, 33-36.	1.3	24
46	Synthesis of the rare disaccharide nigerose by structure-based design of a phosphorylase mutant with altered regioselectivity. Chemical Communications, 2016, 52, 4625-4627.	2.2	34
47	Expression of Functional Human Sialyltransferases ST3Gal1 and ST6Gal1 in Escherichia coli. PLoS ONE, 2016, 11, e0155410.	1.1	21
48	Synthesis and Evaluation of Neoglycoconjugates Based on Adamantyl Scaffolds. European Journal of Organic Chemistry, 2015, 2015, 1696-1710.	1.2	2
49	Superâ€Resolution Imaging of Plasma Membrane Glycans. Angewandte Chemie - International Edition, 2014, 53, 10921-10924.	7.2	80
50	Highâ€Affinity Carbohydrate Binding by Trimeric Benzoboroxoles Measured on Carbohydrate Arrays. ChemBioChem, 2014, 15, 2450-2457.	1.3	8
51	Enzymatic Degradation of (Ligno)cellulose. Angewandte Chemie - International Edition, 2014, 53, 10876-10893.	7.2	123
52	Matrixâ€assisted laser desorption/ionization tandem mass spectrometry of Nâ€glycans derivatized with isonicotinic hydrazide and its biotinylated form. Rapid Communications in Mass Spectrometry, 2014, 28, 1745-1756.	0.7	5
53	Biotechnological Synthesis and Transformation of Valuable Sugars in the Food and Pharmaceutical Industry. Current Organic Chemistry, 2014, 18, 964-986.	0.9	8
54	Investigating infection processes with a workflow from organic chemistry to biophysics: the combination of metabolic glycoengineering, super-resolution fluorescence imaging and proteomics. Expert Review of Proteomics, 2013, 10, 25-31.	1.3	8

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55	Metabolic glycoengineering of Staphylococcus aureus reduces its adherence to human T24 bladder carcinoma cells. Chemical Communications, 2013, 49, 7301.	2.2	25
56	Galectine: SÃ¼ÃŸe Zukunft fÃ¼r die Krebsforschung. Chemie in Unserer Zeit, 2013, 47, 144-144.	0.1	0
57	ZuckersÃ¼ÃŸ und richtig wichtig. Nachrichten Aus Der Chemie, 2013, 61, 1207-1211.	0.0	0
58	An Unconventional Glycosyl Transfer Reaction: Glucansucrase GTFA Functions as an Allosyltransferase Enzyme. ChemBioChem, 2013, 14, 2423-2426.	1.3	9
59	Super-Resolution dSTORM Imaging of Human Galectin-1 Interacting with Neuroblastoma Cells. Biophysical Journal, 2012, 102, 223a.	0.2	0
60	Chemo-enzymatic synthesis and in vitro cytokine profiling of tailor-made oligofructosides. BMC Biotechnology, 2012, 12, 90.	1.7	3
61	Mechanismâ€Oriented Redesign of an Isomaltulose Synthase to an Isomelezitose Synthase by Siteâ€Directed Mutagenesis. ChemBioChem, 2012, 13, 149-156.	1.3	15
62	Inside Cover: Mechanism-Oriented Redesign of an Isomaltulose Synthase to an Isomelezitose Synthase by Site-Directed Mutagenesis (ChemBioChem 1/2012). ChemBioChem, 2012, 13, 2-2.	1.3	0
63	Metabolic Engineering of Bacteria. Indian Journal of Microbiology, 2011, 51, 403-409.	1.5	55
64	Genome Sequences of the Biotechnologically Important Bacillus megaterium Strains QM B1551 and DSM319. Journal of Bacteriology, 2011, 193, 4199-4213.	1.0	155
65	Polysaccharide Synthesis of the Levansucrase SacB from Bacillus megaterium Is Controlled by Distinct Surface Motifs. Journal of Biological Chemistry, 2011, 286, 17593-17600.	1.6	86
66	From Gene to Product. , 2011, , .		0
67	Vom Gen zum Produkt: MaÃŸgeschneiderte Oligosaccharide durch Substratâ€, Enzymâ€•und genetisches Engineering. Chemie-Ingenieur-Technik, 2010, 82, 141-146.	0.4	1
68	Bioorthogonal metabolic glycoengineering of human larynx carcinoma (HEp-2) cells targeting sialic acid. Beilstein Journal of Organic Chemistry, 2010, 6, 24.	1.3	22
69	Extending Synthetic Routes for Oligosaccharides by Enzyme, Substrate and Reaction Engineering. , 2010, 120, 163-193.		4
70	Tools in Oligosaccharide Synthesis. Advances in Carbohydrate Chemistry and Biochemistry, 2010, 63, 101-138.	0.4	25
71	Directed optimization of biocatalytic transglycosylation processes by the integration of genetic algorithms and fermentative approaches into a kinetic model. Process Biochemistry, 2009, 44, 1103-1114.	1.8	2
72	Towards tailor-made oligosaccharidesâ€"chemo-enzymatic approaches by enzyme and substrate engineering. Applied Microbiology and Biotechnology, 2009, 83, 209-216.	1.7	32

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73	Chemo-enzymatic synthesis and functional analysis of natural and modified glycostructures. Natural Product Reports, 2009, 26, 1555.	5.2	17
74	Tailorâ€Made Fructooligosaccharides by a Combination of Substrate and Genetic Engineering. ChemBioChem, 2008, 9, 143-149.	1.3	40
75	Synthesis of novel fructooligosaccharides by substrate and enzyme engineering. Journal of Biotechnology, 2008, 138, 33-41.	1.9	63
76	Industrial carbohydrate biotransformations. Carbohydrate Research, 2008, 343, 1966-1979.	1.1	128
77	Engineering the Glucansucrase GTFR Enzyme Reaction and Glycosidic Bond Specificity: Toward Tailor-Made Polymer and Oligosaccharide Productsâ€. Biochemistry, 2008, 47, 6678-6684.	1.2	58
78	Fructansucrase enzymes and sucrose analogues: A new approach for the synthesis of unique fructo-oligosaccharides. Biocatalysis and Biotransformation, 2008, 26, 32-41.	1.1	18
79	Insights into polymer versus oligosaccharide synthesis: mutagenesis and mechanistic studies of a novel levansucrase from Bacillus megaterium. Biochemical Journal, 2007, 407, 189-198.	1.7	115
80	Highly Efficient Chemoenzymatic Synthesis of Novel Branched Thiooligosaccharides by Substrate Direction with Glucansucrases. ChemBioChem, 2007, 8, 273-276.	1.3	28
81	Export, purification, and activities of affinity tagged Lactobacillus reuteri levansucrase produced by Bacillus megaterium. Applied Microbiology and Biotechnology, 2007, 74, 1062-1073.	1.7	33
82	A new pathway for the synthesis of oligosaccharides by the use of non-Leloir glycosyltransferases. Biocatalysis and Biotransformation, 2006, 24, 157-165.	1.1	34
83	Glycosylation with activated sugars using glycosyltransferases and transglycosidases. Biocatalysis and Biotransformation, 2006, 24, 311-342.	1.1	90
84	Enzymatische Oligosaccharidsynthesen: vom Gen zum Produkt. Nachrichten Aus Der Chemie, 2006, 54, 110-114.	0.0	0
85	Synthesis of sucrose analogues and the mechanism of action of Bacillus subtilis fructosyltransferase (levansucrase). Carbohydrate Research, 2006, 341, 2335-2349.	1.1	111
86	A Two-Photon Fluorescence-Correlation Study of Lectins Interacting with Carbohydrated 20 nm Beads. ChemBioChem, 2006, 7, 268-274.	1.3	10
87	Identification of New Acceptor Specificities of Glycosyltransferase R with the Aid of Substrate Microarrays. ChemBioChem, 2006, 7, 310-320.	1.3	48
88	Synthesis of Î´-lactam (2-oxopiperazine) inhibitors of elastase. Journal of Chemical Research, 2005, 2005, 826-832.	0.6	2
89	Biocatalytic and chemical investigations in the synthesis of sucrose analogues. Tetrahedron, 2005, 61, 7081-7086.	1.0	41
90	Microwave-assisted glycosylation for the synthesis of glycopeptides. Carbohydrate Research, 2005, 340, 507-511.	1.1	29

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91	Investigations of the transfructosylation reaction by fructosyltransferase from B. subtilis NCIMB 11871 for the synthesis of the sucrose analogue galactosyl-fructoside. Journal of Biotechnology, 2005, 116, 347-357.	1.9	38
92	Isomaltooligosaccharides. ChemInform, 2004, 35, no.	0.1	0
93	Synthesis and Evaluation of Î´-Lactams (Piperazones) as Elastase Inhibitors.. ChemInform, 2003, 34, no.	0.1	0
94	Synthesis and evaluation of Î´-Lactams (Piperazones) as elastase inhibitors. Bioorganic and Medicinal Chemistry Letters, 2003, 13, 387-389.	1.0	30
95	The C-4 stereochemistry of leucocyanidin substrates for anthocyanidin synthase affects product selectivity. Bioorganic and Medicinal Chemistry Letters, 2003, 13, 3853-3857.	1.0	43
96	Structure of Factor-inhibiting Hypoxia-inducible Factor (HIF) Reveals Mechanism of Oxidative Modification of HIF-1Î±. Journal of Biological Chemistry, 2003, 278, 1802-1806.	1.6	342
97	Isomaltooligosaccharides. ACS Symposium Series, 2003, , 63-75.	0.5	14
98	Hypoxia-inducible factor asparaginyl hydroxylase (FIH-1) catalyses hydroxylation at the Î²-carbon of asparagine-803. Biochemical Journal, 2002, 367, 571-575.	1.7	194