David J Vocadlo

List of Publications by Year
in descending order

170 papers	11,832 citations	23567 58 h-index	30087 103 g-index
178 all docs	178 docs citations	178 times ranked	9006 citing authors

#	Article	IF	Citations
1	Catalysis by hen egg-white lysozyme proceeds via a covalent intermediate. Nature, 2001, 412, 835-838.	27.8	588
2	A potent mechanism-inspired O-GlcNAcase inhibitor that blocks phosphorylation of tau in vivo. Nature Chemical Biology, 2008, 4, 483-490.	8.0	576
3	A chemical approach for identifying O-GlcNAc-modified proteins in cells. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 9116-9121.	7.1	496
4	Increasing O-GlcNAc slows neurodegeneration and stabilizes tau against aggregation. Nature Chemical Biology, 2012, 8, 393-399.	8.0	493
5	Mechanistic insights into glycosidase chemistry. Current Opinion in Chemical Biology, 2008, 12, 539-555.	6.1	363
6	O-GlcNAcase Uses Substrate-assisted Catalysis. Journal of Biological Chemistry, 2005, 280, 25313-25322.	3.4	333
7	O-GlcNAcylation Regulates Cancer Metabolism and Survival Stress Signaling via Regulation of the HIF-1 Pathway. Molecular Cell, 2014, 54, 820-831.	9.7	307
8	Hijacking a biosynthetic pathway yields a glycosyltransferase inhibitor within cells. Nature Chemical Biology, 2011, 7, 174-181.	8.0	291
9	NAG-thiazoline, An N-Acetyl-Î²-hexosaminidase Inhibitor That Implicates Acetamido Participation. Journal of the American Chemical Society, 1996, 118, 6804-6805.	13.7	248
10	Crystallographic Evidence for Substrate-assisted Catalysis in a Bacterial Î²-Hexosaminidase. Journal of Biological Chemistry, 2001, 276, 10330-10337.	3.4	239
11	<i>Drosophila O</i> -GlcNAc transferase (OGT) is encoded by the <i>Polycomb</i> group (PcG) gene, <i>super sex combs</i> (<i>sxc</i>). Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13427-13432.	7.1	214
12	O-GlcNAc and neurodegeneration: biochemical mechanisms and potential roles in Alzheimer's disease and beyond. Chemical Society Reviews, 2014, 43, 6839-6858.	38.1	209
13	Hyper-O-GlcNAcylation Is Anti-apoptotic and Maintains Constitutive NF-ÎºB Activity in Pancreatic Cancer Cells. Journal of Biological Chemistry, 2013, 288, 15121-15130.	3.4	205
14	The Emerging Link between O-GlcNAc and Alzheimer Disease. Journal of Biological Chemistry, 2014, 289, 34472-34481.	3.4	205
15	Structure and mechanism of a bacterial Î²-glucosaminidase having O-GlcNAcase activity. Nature Structural and Molecular Biology, 2006, 13, 365-371.	8.2	182
16	HCF-1 Is Cleaved in the Active Site of O-GlcNAc Transferase. Science, 2013, 342, 1235-1239.	12.6	162
17	Developing inhibitors of glycan processing enzymes as tools for enabling glycobiology. Nature Chemical Biology, 2012, 8, 683-694.	8.0	159
18	Analysis of PUGNAc and NAG-thiazoline as Transition State Analogues for HumanO-GlcNAcase:Â Mechanistic and Structural Insights into Inhibitor Selectivity and Transition State Poise. Journal of the American Chemical Society, 2007, 129, 635-644.	13.7	155

#	Article	IF	Citations
19	Structural snapshots of the reaction coordinate for O-GlcNAc transferase. Nature Chemical Biology, 2012, 8, 966-968.	8.0	132
20	A Strategy for Functional Proteomic Analysis of Glycosidase Activity from Cell Lysates. Angewandte Chemie - International Edition, 2004, 43, 5338-5342.	13.8	131
21	Aspartate 313 in the Streptomyces plicatusHexosaminidase Plays a Critical Role in Substrate-assisted Catalysis by Orienting the 2-Acetamido Group and Stabilizing the Transition State. Journal of Biological Chemistry, 2002, 277, 40055-40065.	3.4	126
22	O-GlcNAc processing enzymes: catalytic mechanisms, substrate specificity, and enzyme regulation. Current Opinion in Chemical Biology, 2012, 16, 488-497.	6.1	122
23	In Vivo Modulation of O-GlcNAc Levels Regulates Hippocampal Synaptic Plasticity through Interplay with Phosphorylation. Journal of Biological Chemistry, 2009, 284, 174-181.	3.4	115
24	Pharmacological inhibition of O-GlcNAcase (OGA) prevents cognitive decline and amyloid plaque formation in bigenic tau/APP mutant mice. Molecular Neurodegeneration, 2014, 9, 42.	10.8	114
25	O-GlcNAc occurs cotranslationally to stabilize nascent polypeptide chains. Nature Chemical Biology, 2015, 11, 319-325.	8.0	113
26	O-GlcNAc Modification of tau Directly Inhibits Its Aggregation without Perturbing the Conformational Properties of tau Monomers. Journal of Molecular Biology, 2014, 426, 1736-1752.	4.2	110
27	mTOR/MYC Axis Regulates O-GlcNAc Transferase Expression and O-GlcNAcylation in Breast Cancer. Molecular Cancer Research, 2015, 13, 923-933.	3.4	109
28	Identification of Asp174 and Asp175 as the Key Catalytic Residues of Human O-GlcNAcase by Functional Analysis of Site-Directed Mutants. Biochemistry, 2006, 45, 3835-3844.	2.5	107
29	Mechanism of Action and Identification of Asp242 as the Catalytic Nucleophile of Vibrio furnisii N-Acetyl-Î²-d-glucosaminidase Using 2-Acetamido-2-deoxy-5-fluoro-Î±-l-idopyranosyl Fluoride. Biochemistry, 2000, 39, 117-126.	2.5	106
30	Elevation of Global O-GlcNAc Levels in 3T3-L1 Adipocytes by Selective Inhibition of O-GlcNAcase Does Not Induce Insulin Resistance. Journal of Biological Chemistry, 2008, 283, 34687-34695.	3.4	106
31	Inhibition of O-GlcNAcase leads to elevation of O-GlcNAc tau and reduction of tauopathy and cerebrospinal fluid tau in rTg4510 mice. Molecular Neurodegeneration, 2017, 12, 39.	10.8	106
32	Increasing O-GlcNAc levels: An overview of small-molecule inhibitors of O-GlcNAcase. Biochimica Et Biophysica Acta - General Subjects, 2010, 1800, 107-121.	2.4	105
33	Small Molecule Inhibitors of a Glycoside Hydrolase Attenuate Inducible AmpC-mediated Î²-Lactam Resistance. Journal of Biological Chemistry, 2007, 282, 21382-21391.	3.4	103
34	Mapping O-GlcNAc modification sites on tau and generation of a site-specific O-GlcNAc tau antibody. Amino Acids, 2011, 40, 857-868.	2.7	103
35	Insights into O-Linked N-Acetylglucosamine ([0-9]O-GlcNAc) Processing and Dynamics through Kinetic Analysis of O-GlcNAc Transferase and O-GlcNAcase Activity on Protein Substrates. Journal of Biological Chemistry, 2012, 287, 15395-15408.	3.4	102
36	Detailed Comparative Analysis of the Catalytic Mechanisms of Î²-N-Acetylglucosaminidases from Families 3 and 20 of Glycoside Hydrolases. Biochemistry, 2005, 44, 12809-12818.	2.5	98

#	Article	IF	Citations
37	Structure of an O-GlcNAc transferase homolog provides insight into intracellular glycosylation. Nature Structural and Molecular Biology, 2008, 15, 764-765.	8.2	98
38	Synthesis and Use of Mechanism-Based Protein-Profiling Probes for Retaining Î²-<scp>d</scp>-Glucosaminidases Facilitate Identification of <i>Pseudomonas aeruginosa</i> NagZ. Journal of the American Chemical Society, 2008, 130, 327-335.	13.7	95
39	Analysis of Keystone Enzyme in Agar Hydrolysis Provides Insight into the Degradation (of a) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5	8.4	89
40	Structural and functional insight into human O-GlcNAcase. Nature Chemical Biology, 2017, 13, 610-612.	8.0	88
41	Discovery of MK-8719, a Potent O-GlcNAcase Inhibitor as a Potential Treatment for Tauopathies. Journal of Medicinal Chemistry, 2019, 62, 10062-10097.	6.4	87
42	Streptococcus pneumoniae Endohexosaminidase D, Structural and Mechanistic Insight into Substrate-assisted Catalysis in Family 85 Glycoside Hydrolases. Journal of Biological Chemistry, 2009, 284, 11676-11689.	3.4	85
43	Substrateâ€Guided Frontâ€Face Reaction Revealed by Combined Structural Snapshots and Metadynamics for the Polypeptide <i>N</i>â€Acetylgalactosaminyltransferaseâ€…2. Angewandte Chemie - International Edition, 2014, 53, 8206-8210.	13.8	80
44	Structural and mechanistic insight into the basis of mucopolysaccharidosis IIIB. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6560-6565.	7.1	79
45	The Î²-Lactamase Gene Regulator AmpR Is a Tetramer That Recognizes and Binds the d-Ala-d-Ala Motif of Its Repressor UDP-N-acetylmuramic Acid (MurNAc)-pentapeptide. Journal of Biological Chemistry, 2015, 290, 2630-2643.	3.4	77
46	Differential Effects of an O-GlcNAcase Inhibitor on Tau Phosphorylation. PLoS ONE, 2012, 7, e35277.	2.5	76
47	Elevation of Global O-GlcNAc in Rodents UsingÂa Selective O-GlcNAcase Inhibitor Does Not Cause Insulin Resistance or Perturb Glucohomeostasis. Chemistry and Biology, 2010, 17, 949-958.	6.0	71
48	Visualizing the Reaction Coordinate of an O-GlcNAc Hydrolase. Journal of the American Chemical Society, 2010, 132, 1807-1809.	13.7	70
49	Crystal Structure of Î²-d-Xylosidase from Thermoanaerobacterium saccharolyticum, a Family 39 Glycoside Hydrolase. Journal of Molecular Biology, 2004, 335, 155-165.	4.2	69
50	O-GlcNAcase Catalyzes Cleavage of Thioglycosides without General Acid Catalysis. Journal of the American Chemical Society, 2005, 127, 17202-17203.	13.7	69
51	Inhibition of O-GlcNAcase Using a Potent and Cell-Permeable Inhibitor Does Not Induce Insulin Resistance in 3T3-L1 Adipocytes. Chemistry and Biology, 2010, 17, 937-948.	6.0	67
52	Active Site Plasticity within the Glycoside Hydrolase NagZ Underlies a Dynamic Mechanism of Substrate Distortion. Chemistry and Biology, 2012, 19, 1471-1482.	6.0	67
53	A divergent synthesis of 2-acyl derivatives of PUGNAc yields selective inhibitors of O-GlcNAcase. Organic and Biomolecular Chemistry, 2006, 4, 839.	2.8	65
54	Inactivation of the Glycoside Hydrolase NagZ Attenuates Antipseudomonal Î²-Lactam Resistance in <i>Pseudomonas aeruginosa</i>. Antimicrobial Agents and Chemotherapy, 2009, 53, 2274-2282.	3.2	65

#	Article	IF	Citations
55	Analysis of a New Family of Widely Distributed Metal-independent Î±-Mannosidases Provides Unique Insight into the Processing of N-Linked Glycans. Journal of Biological Chemistry, 2011, 286, 15586-15596.	3.4	65
56	Mislocalization of TDP-43 in the G93A mutant SOD1 transgenic mouse model of ALS. Neuroscience Letters, 2009, 458, 70-74.	2.1	64
57	Molecular Basis for Inhibition of GH84 Glycoside Hydrolases by Substituted Azepanes: Conformational Flexibility Enables Probing of Substrate Distortion. Journal of the American Chemical Society, 2009, 131, 5390-5392.	13.7	62
58	NagZ Inactivation Prevents and Reverts Î²-Lactam Resistance, Driven by AmpD and PBP 4 Mutations, in <i>Pseudomonas aeruginosa</i>. Antimicrobial Agents and Chemotherapy, 2010, 54, 3557-3563.	3.2	61
59	Providing Î²-lactams a helping hand: targeting the AmpC Î²-lactamase induction pathway. Future Microbiology, 2011, 6, 1415-1427.	2.0	61
60	Inhibition of O-GlcNAcase by a gluco-configured nagstatin and a PUGNAcâ€"imidazole hybrid inhibitor. Chemical Communications, 2006, , 4372-4374.	4.1	60
61	Characterization of a beta-N-acetylhexosaminidase and a beta-N-acetylglucosaminidase/beta-glucosidase from Cellulomonas fimi. FEBS Journal, 2006, 273, 2929-2941.	4.7	60
62	Fluorescence-Quenched Substrates for Live Cell Imaging of Human Glucocerebrosidase Activity. Journal of the American Chemical Society, 2015, 137, 1181-1189.	13.7	59
63	Post-translational<i>O</i>-GlcNAcylation is essential for nuclear pore integrity and maintenance of the pore selectivity filter. Journal of Molecular Cell Biology, 2016, 8, 2-16.	3.3	57
64	Metabolic Inhibitors of Oâ€GlcNAc Transferase That Act Inâ€…Vivo Implicate Decreased Oâ€GlcNAc Levels in Leptinâ€Mediated Nutrient Sensing. Angewandte Chemie - International Edition, 2018, 57, 7644-7648.	13.8	56
65	Mechanism, Structure, and Inhibition of O-GlcNAc Processing Enzymes. Current Signal Transduction Therapy, 2010, 5, 74-91.	0.5	54
66	A Case for Reverse Protonation:Â Identification of Glu160 as an Acid/Base Catalyst inThermoanaerobacterium saccharolyticumÎ²-Xylosidase and Detailed Kinetic Analysis of a Site-Directed Mutantâ€. Biochemistry, 2002, 41, 9736-9746.	2.5	50
67	Structures of lactate dehydrogenase A (LDHA) in apo, ternary and inhibitor-bound forms. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 185-195.	2.5	49
68	Molecular Basis for G Protein Control of the Prokaryotic ATP Sulfurylase. Molecular Cell, 2006, 21, 109-122.	9.7	48
69	Crystal Structure of the AmpR Effector Binding Domain Provides Insight into the Molecular Regulation of Inducible AmpC Î²-Lactamase. Journal of Molecular Biology, 2010, 400, 998-1010.	4.2	48
70	Mechanism ofThermoanaerobacterium saccharolyticumÎ²-Xylosidase:Â Kinetic Studiesâ€. Biochemistry, 2002, 41, 9727-9735.	2.5	47
71	AmpG Inactivation Restores Susceptibility of Pan-Î²-Lactam-Resistant Pseudomonas aeruginosa Clinical Strains. Antimicrobial Agents and Chemotherapy, 2011, 55, 1990-1996.	3.2	47
72	Pharmacological Inhibition of O-GlcNAcase Enhances Autophagy in Brain through an mTOR-Independent Pathway. ACS Chemical Neuroscience, 2018, 9, 1366-1379.	3.5	47

#	Article	IF	Citations
73	Molecular mechanisms regulating O-linked N-acetylglucosamine (O-GlcNAc)â€"processing enzymes. Current Opinion in Chemical Biology, 2019, 53, 131-144.	6.1	46
74	MK-8719, a Novel and Selective <i>O</i>-GlcNAcase Inhibitor That Reduces the Formation of Pathological Tau and Ameliorates Neurodegeneration in a Mouse Model of Tauopathy. Journal of Pharmacology and Experimental Therapeutics, 2020, 374, 252-263.	2.5	45
75	Oâ€GLcNAc postâ€translational modifications regulate the entry of neurons into an axon branching program. Developmental Neurobiology, 2009, 69, 162-173.	3.0	43
76	Insight into a strategy for attenuating AmpCâ€mediated Î²â€lactam resistance: Structural basis for selective inhibition of the glycoside hydrolase NagZ. Protein Science, 2009, 18, 1541-1551.	7.6	43
77	Quinolinic Acid Amyloid-like Fibrillar Assemblies Seed Î±-Synuclein Aggregation. Journal of Molecular Biology, 2018, 430, 3847-3862.	4.2	43
78	Biochemical and Structural Assessment of the 1-N-Azasugar GalNAc-isofagomine as a Potent Family 20 Î²-N-Acetylhexosaminidase Inhibitor. Journal of Biological Chemistry, 2001, 276, 42131-42137.	3.4	42
79	The Conformation and Function of a Multimodular Glycogen-Degrading Pneumococcal Virulence Factor. Structure, 2011, 19, 640-651.	3.3	42
80	Metabolic Inhibition of Sialyl-Lewis X Biosynthesis by 5-Thiofucose Remodels the Cell Surface and Impairs Selectin-Mediated Cell Adhesion*. Journal of Biological Chemistry, 2012, 287, 40021-40030.	3.4	42
81	Identification of Glu-277 as the catalytic nucleophile of Thermoanaerobacterium saccharolyticum Î²-xylosidase using electrospray MS. Biochemical Journal, 1998, 335, 449-455.	3.7	41
82	Differential Recognition and Hydrolysis of Host Carbohydrate Antigens by Streptococcus pneumoniae Family 98 Glycoside Hydrolases. Journal of Biological Chemistry, 2009, 284, 26161-26173.	3.4	41
83	A Convenient Approach to Stereoisomeric Iminocyclitols: Generation of Potent Brainâ€Permeable OGA Inhibitors. Angewandte Chemie - International Edition, 2015, 54, 15429-15433.	13.8	41
84	A Selective Inhibitor Galâ€PUGNAc of Human Lysosomal Î²â€Hexosaminidases Modulates Levels of the Gangliosideâ€...GM2 in Neuroblastoma Cells. Angewandte Chemie - International Edition, 2009, 48, 1300-1303.	13.8	39
85	Reduced protein O-glycosylation in the nervous system of the mutant SOD1 transgenic mouse model of amyotrophic lateral sclerosis. Neuroscience Letters, 2012, 516, 296-301.	2.1	39
86	Direct One-Step Fluorescent Labeling of <i>O</i>-GlcNAc-Modified Proteins in Live Cells Using Metabolic Intermediates. Journal of the American Chemical Society, 2018, 140, 15300-15308.	13.7	39
87	Inhibition of the Pneumococcal Virulence Factor StrH and Molecular Insights into N-Glycan Recognition and Hydrolysis. Structure, 2011, 19, 1603-1614.	3.3	38
88	Tools for probing and perturbing O-GlcNAc in cells and in vivo. Current Opinion in Chemical Biology, 2013, 17, 719-728.	6.1	38
89	The Development of Selective Inhibitors of NagZ: Increased Susceptibility of Gram-Negative Bacteria to Î²-Lactams. ChemBioChem, 2013, 14, 1973-1981.	2.6	38
90	A 1-acetamido derivative of 6-epi-valienamine: an inhibitor of a diverse group of Î²-N-acetylglucosaminidases. Organic and Biomolecular Chemistry, 2007, 5, 3013.	2.8	37

#	Article	IF	Citations
91	Mammalian Notch is modified by d-Xyl-Î±1-3-d-Xyl-Î±1-3-d-Glc-Î²1-O-Ser: Implementation of a method to study O-glucosylation. Glycobiology, 2010, 20, 287-299.	2.5	37
92	Metabolism of Vertebrate Amino Sugars with N-Glycolyl Groups. Journal of Biological Chemistry, 2012, 287, 28898-28916.	3.4	37
93	Characterization of the Glu and Asp Residues in the Active Site of Human Î²-Hexosaminidase B. Biochemistry, 2001, 40, 2201-2209.	2.5	36
94	Probing Synergy between Two Catalytic Strategies in the Glycoside Hydrolase <i>O</i>-GlcNAcase Using Multiple Linear Free Energy Relationships. Journal of the American Chemical Society, 2009, 131, 13415-13422.	13.7	36
95	Selective trihydroxyazepane NagZ inhibitors increase sensitivity of Pseudomonas aeruginosa to Î²-lactams. Chemical Communications, 2013, 49, 10983.	4.1	36
96	Functional analysis of a group A streptococcal glycoside hydrolase Spy1600 from family 84 reveals it is a Î²-N-acetylglucosaminidase and not a hyaluronidase. Biochemical Journal, 2006, 399, 241-247.	3.7	35
97	Enzymatic characterization and inhibition of the nuclear variant of human O-GlcNAcase. Carbohydrate Research, 2009, 344, 1079-1084.	2.3	34
98	Catalytic Promiscuity of <i>O</i>-GlcNAc Transferase Enables Unexpected Metabolic Engineering of Cytoplasmic Proteins with 2-Azido-2-deoxy-glucose. ACS Chemical Biology, 2017, 12, 206-213.	3.4	34
99	Analysis of transition state mimicry by tight binding aminothiazoline inhibitors provides insight into catalysis by human O-GlcNAcase. Chemical Science, 2016, 7, 3742-3750.	7.4	33
100	Genome-wide chemical mapping of O-GlcNAcylated proteins in Drosophila melanogaster. Nature Chemical Biology, 2017, 13, 161-167.	8.0	33
101	Carbohydrate Bis-acetal-Based Substrates as Tunable Fluorescence-Quenched Probes for Monitoring <i>exo</i>-Glycosidase Activity. Journal of the American Chemical Society, 2017, 139, 8392-8395.	13.7	31
102	Monitoring and modulating O-GlcNAcylation: assays and inhibitors of O-GlcNAc processing enzymes. Current Opinion in Structural Biology, 2021, 68, 157-165.	5.7	30
103	Multivalency To Inhibit and Discriminate Hexosaminidases. Chemistry - A European Journal, 2017, 23, 9022-9025.	3.3	28
104	Precision Mapping of O-Linked <i>N</i>-Acetylglucosamine Sites in Proteins Using Ultraviolet Photodissociation Mass Spectrometry. Journal of the American Chemical Society, 2020, 142, 11569-11577.	13.7	28
105	Pharmacological inhibition and knockdown of Oâ€GlcNAcase reduces cellular internalization of Î±â€synuclein preformed fibrils. FEBS Journal, 2021, 288, 452-470.	4.7	28
106	Tandem Bioorthogonal Labeling Uncovers Endogenous Cotranslationally <i>O</i>-GlcNAc Modified Nascent Proteins. Journal of the American Chemical Society, 2020, 142, 15729-15739.	13.7	27
107	O-GlcNAc Modification and the Tauopathies: Insights from Chemical Biology. Current Alzheimer Research, 2009, 6, 451-454.	1.4	25
108	Production of Î±-L-iduronidase in maize for the potential treatment of a human lysosomal storage disease. Nature Communications, 2012, 3, 1062.	12.8	25

#	Article	IF	Citations
109	A mechanism-based inactivator of glycoside hydrolases involving formation of a transient non-classical carbocation. Nature Communications, 2014, 5, 5590.	12.8	25
110	Structural, Mechanistic, and Computational Analysis of the Effects of Anomeric Fluorines on Anomeric Fluoride Departure in 5-Fluoroxylosyl Fluorides. Journal of the American Chemical Society, 2011, 133, 15826-15829.	13.7	24
111	Molecular Basis of 1,6-Anhydro Bond Cleavage and Phosphoryl Transfer by Pseudomonas aeruginosa 1,6-Anhydro-N-acetylmuramic Acid Kinase. Journal of Biological Chemistry, 2011, 286, 12283-12291.	3.4	24
112	Cryo-EM structure provides insights into the dimer arrangement of the O-linked Î²-N-acetylglucosamine transferase OGT. Nature Communications, 2021, 12, 6508.	12.8	24
113	Metabolism of Vertebrate Amino Sugars with N-Glycolyl Groups. Journal of Biological Chemistry, 2012, 287, 28882-28897.	3.4	23
114	Structural Analysis of a Family 101 Glycoside Hydrolase in Complex with Carbohydrates Reveals Insights into Its Mechanism. Journal of Biological Chemistry, 2015, 290, 25657-25669.	3.4	23
115	Streptococcus pneumoniae endohexosaminidase D; feasibility of using N-glycan oxazoline donors for synthetic glycosylation of a GlcNAc-asparagine acceptor. Organic and Biomolecular Chemistry, 2010, 8, 1861.	2.8	22
116	P4â€036: Pharmacokinetics and Pharmacodynamics to Support Clinical Studies of MKâ€8719: an Oâ€Glcnacase Inhibitor for Progressive Supranuclear Palsy. Alzheimer's and Dementia, 2016, 12, P1028.	0.8	20
117	A Direct Fluorescent Activity Assay for Glycosyltransferases Enables Convenient Highâ€Throughput Screening: Application to <i>O</i>â€GlcNAc Transferase. Angewandte Chemie - International Edition, 2020, 59, 9601-9609.	13.8	19
118	The nutrient sensor OGT regulates Hipk stability and tumorigenic-like activities in Drosophila. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2004-2013.	7.1	19
119	Diverse perspectives on interdisciplinarity from Members of the College of the Royal Society of Canada. Facets, 2020, 5, 138-165.	2.4	19
120	Thermal Proteome Profiling Reveals the O-GlcNAc-Dependent Meltome. Journal of the American Chemical Society, 2022, 144, 3833-3842.	13.7	19
121	Characterization and downstream mannose phosphorylation of human recombinant Î±â€<scp>L</scp>â€iduronidase produced in <scp>A</scp>rabidopsis <i>complex glycanâ€deficient</i> (<i>cgl</i>) seeds. Plant Biotechnology Journal, 2013, 11, 1034-1043.	8.3	18
122	Conformational flexibility of the glycosidase NagZ allows it to bind structurally diverse inhibitors to suppress Î²â€lactam antibiotic resistance. Protein Science, 2017, 26, 1161-1170.	7.6	18
123	Chemoproteomic identification of CO2-dependent lysine carboxylation in proteins. Nature Chemical Biology, 2022, 18, 782-791.	8.0	18
124	Role of Î²Arg211 in the Active Site of Human Î²-Hexosaminidase B. Biochemistry, 2000, 39, 6219-6227.	2.5	17
125	6â€³-Azido-6â€³-deoxy-UDP-N-acetylglucosamine as a glycosyltransferase substrate. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 1199-1201.	2.2	17
126	Design of glycosyltransferase inhibitors targeting human<i>O</i>-GlcNAc transferase (OGT). MedChemComm, 2014, 5, 1172-1178.	3.4	17

#	Article	IF	Citations
127	Modifying the phenyl group of PUGNAc: reactivity tuning to deliver selective inhibitors for N-acetyl-<scp>d</scp>-glucosaminidases. Organic and Biomolecular Chemistry, 2016, 14, 3193-3197.	2.8	16
128	O2â€13â€04: Early Clinical Results and Preclinical Validation of the Oâ€Glcnacase (OGA) Inhibitor Mkâ€8719 as a Novel Therapeutic for the Treatment of Tauopathies. Alzheimer's and Dementia, 2016, 12, P261.	0.8	15
129	Mechanism of Human Nucleocytoplasmic Hexosaminidase D. Biochemistry, 2016, 55, 2735-2747.	2.5	15
130	Bicyclic Picomolar OGA Inhibitors Enable Chemoproteomic Mapping of Its Endogenous Post-translational Modifications. Journal of the American Chemical Society, 2022, 144, 832-844.	13.7	15
131	The chemical synthesis of 2-deoxy-2-fluorodisaccharide probes of the hen egg white lysozyme mechanism. Carbohydrate Research, 2005, 340, 379-388.	2.3	14
132	Selective trihydroxylated azepane inhibitors of NagZ, a glycosidase involved in Pseudomonas aeruginosa resistance to Î²-lactam antibiotics. Organic and Biomolecular Chemistry, 2017, 15, 4609-4619.	2.8	12
133	A mechanism-based GlcNAc-inspired cyclophellitol inactivator of the peptidoglycan recycling enzyme NagZ reverses resistance to Î²-lactams in<i>Pseudomonas aeruginosa</i>. Chemical Communications, 2018, 54, 10630-10633.	4.1	12
134	An Allosamizoline/Glucosamine Hybrid NAGase Inhibitor. Synlett, 1997, 1997, 435-436.	1.8	11
135	The Details of Glycolipid Glycan Hydrolysis by the Structural Analysis of a Family 123 Glycoside Hydrolase from Clostridium perfringens. Journal of Molecular Biology, 2016, 428, 3253-3265.	4.2	11
136	Quantifying lysosomal glycosidase activity within cells using bis-acetal substrates. Nature Chemical Biology, 2022, 18, 332-341.	8.0	11
137	A Chemical Genetic Method for Monitoring Genome-Wide Dynamics of <i>O</i>-GlcNAc Turnover on Chromatin-Associated Proteins. ACS Central Science, 2019, 5, 663-670.	11.3	10
138	A versatile fluorescence-quenched substrate for quantitative measurement of glucocerebrosidase activity within live cells. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	10
139	Inhibition of the family 20 glycoside hydrolase catalytic modules in the Streptococcus pneumoniae exo-Î²-d-N-acetylglucosaminidase, StrH. Organic and Biomolecular Chemistry, 2013, 11, 7907.	2.8	9
140	A Fluorescent Transport Assay Enables Studying AmpG Permeases Involved in Peptidoglycan Recycling and Antibiotic Resistance. ACS Chemical Biology, 2016, 11, 2626-2635.	3.4	8
141	The structure of a family 110 glycoside hydrolase provides insight into the hydrolysis of Î±-1,3-galactosidic linkages in Î»-carrageenan and blood group antigens. Journal of Biological Chemistry, 2020, 295, 18426-18435.	3.4	8
142	A Direct Fluorescent Activity Assay for Glycosyltransferases Enables Convenient Highâ€Throughput Screening: Application to O â€GlcNAc Transferase. Angewandte Chemie, 2020, 132, 9688-9696.	2.0	8
143	Identification of Active Site Residues in Glycosidases by Use of Tandem Mass Spectrometry. , 2000, 146, 203-222.		7
144	A highly concise preparation of O-deacetylated arylthioglycosides of N-acetyl-d-glucosamine from 2-acetamido-3,4,6-tri-O-acetyl-2-deoxy-Î±-d-glucopyranosyl chloride and aryl thiols or disulfides. Carbohydrate Research, 2006, 341, 1764-1769.	2.3	7

#	Article	IF	Citations
145	The synthesis and biological evaluation of some carbocyclic analogues of PUGNAc. Carbohydrate Research, 2008, 343, 2744-2753.	2.3	7
146	Synthesis of 4-methylumbelliferyl Î±-d-mannopyranosyl-(1â†’6)-Î²-d-mannopyranoside and development of a coupled fluorescent assay for GH125 exo-Î±-1,6-mannosidases. Bioorganic and Medicinal Chemistry, 2013, 21, 4839-4845.	3.0	7
147	Conformational Itinerary of Pseudomonas aeruginosa 1,6-Anhydro-N-acetylmuramic Acid Kinase during Its Catalytic Cycle. Journal of Biological Chemistry, 2014, 289, 4504-4514.	3.4	7
148	Metabolic Inhibitors of Oâ€GlcNAc Transferase That Act Inâ€…Vivo Implicate Decreased Oâ€GlcNAc Levels in Leptinâ€Mediated Nutrient Sensing. Angewandte Chemie, 2018, 130, 7770-7774.	2.0	7
149	Affinity-Based Proteomics Probes; Tools for Studying Carbohydrate-Processing Enzymes. Australian Journal of Chemistry, 2009, 62, 521.	0.9	6
150	Production of O-GlcNAc Modified Recombinant Tau in E. coli and Detection of Ser400 O-GlcNAc Tau In Vivo. Methods in Molecular Biology, 2017, 1523, 237-248.	0.9	6
151	Selective Fluorogenic Î²-Glucocerebrosidase Substrates for Convenient Analysis of Enzyme Activity in Cell and Tissue Homogenates. ACS Chemical Biology, 2020, 15, 824-829.	3.4	6
152	Fluorescence-Quenched Substrates for Quantitative Live Cell Imaging of Glucocerebrosidase Activity. Methods in Enzymology, 2018, 598, 199-215.	1.0	5
153	Thiamme2-G, a Novel O-GlcNAcase Inhibitor, Reduces Tau Hyperphosphorylation and Rescues Cognitive Impairment in Mice. Journal of Alzheimer's Disease, 2021, 81, 273-286.	2.6	5
154	sp²-Iminosugars targeting human lysosomal Î²-hexosaminidase as pharmacological chaperone candidates for late-onset Tay-Sachs disease. Journal of Enzyme Inhibition and Medicinal Chemistry, 2022, 37, 1364-1374.	5.2	5
155	Functional Proteomic Profiling of Glycanâ€Processing Enzymes. Methods in Enzymology, 2006, 415, 253-268.	1.0	4
156	Molecular Basis for the Potent Inhibition of the Emerging Carbapenemase VCC-1 by Avibactam. Antimicrobial Agents and Chemotherapy, 2019, 63, .	3.2	4
157	Immunoprecipitation and Western blot-based detection of protein O-GlcNAcylation in cells. STAR Protocols, 2022, 3, 101108.	1.2	4
158	The Chitopentaose Complex of a Mutant Hen Egg-White Lysozyme Displays No Distortion of the â€“1 Sugar Away from a 4C1 Chair Conformation. Australian Journal of Chemistry, 2009, 62, 528.	0.9	3
159	Structural variation of the 3-acetamido-4,5,6-trihydroxyazepane iminosugar through epimerization and C-alkylation leads to low micromolar HexAB and NagZ inhibitors. Organic and Biomolecular Chemistry, 2021, , .	2.8	3
160	Synthesis, conformational analysis and glycosidase inhibition of bicyclic nojirimycin C-glycosides based on an octahydrofuro[3,2-b]pyridine motif. Carbohydrate Research, 2022, 511, 108491.	2.3	3
161	Discovery of a New Drug-like Series of OGT Inhibitors by Virtual Screening. Molecules, 2022, 27, 1996.	3.8	3
162	Cura Annonaeâ€”Chemically Boosting Crop Yields Through Metabolic Feeding of a Plant Signaling Precursor. Angewandte Chemie - International Edition, 2017, 56, 5980-5982.	13.8	2

#	Article	IF	Citations
163	Cura Annonae â€" chemische ErhÃ¶hung des Getreideertrags durch metabolisches VerfÃ¼ttern einer pflanzlichen SignalmolekÃ¼lvorstufe. Angewandte Chemie, 2017, 129, 6074-6076.	2.0	2
164	Software for rapid time dependent ChIP-sequencing analysis (TDCA). BMC Bioinformatics, 2017, 18, 521.	2.6	1
165	A Shut-and-Open Case: An Epoxide Intermediate Spotted in the Reaction Coordinate of a Family of Glycoside Hydrolases. ACS Central Science, 2020, 6, 619-621.	11.3	1
166	Rational design of cell active C2-modified DGJ analogues for the inhibition of human Î±-galactosidase A (GALA). Organic and Biomolecular Chemistry, 2021, 19, 8057-8062.	2.8	1
167	How to make a difference: mechanisms of protein and nucleic acid modifying enzymes. Current Opinion in Chemical Biology, 2012, 16, 461-464.	6.1	0
168	A divergent synthesis to generate targeted libraries of inhibitors for endo-N-acetylglucosaminidases. Canadian Journal of Chemistry, 2018, 96, 248-254.	1.1	0
169	A round up on some of the latest in the chemistry and biology of carbohydrates and carbohydrate-processing enzymes. Current Opinion in Chemical Biology, 2019, 53, A1-A3.	6.1	0
170	Protective Roles of Oâ€GlcNAc in Neurodegenerative Diseases. FASEB Journal, 2021, 35, .	0.5	0