Zhongwu Guo

List of Publications by Year
in descending order

105 papers	3,031 citations	147786 31 h-index	197805 49 g-index
123 all docs	123 docs citations	123 times ranked	2625 citing authors

#	Article	IF	Citations
1	Enzymatic glycoengineering-based spin labelling of cell surface sialoglycans to enable their analysis by electron paramagnetic resonance (EPR) spectroscopy. Analyst, The, 2022, 147, 784-788.	3.5	4
2	Synthesis of Structurally Defined Nitroxide Spin-Labeled Glycolipids as Useful Probes for Electron Paramagnetic Resonance (EPR) Spectroscopy Studies of Cell Surface Glycans. Synthesis, 2022, 54, 2856-2864.	2.3	1
3	Analysis and Comparison of Mouse and Human Brain Gangliosides via Two-Stage Matching of MS/MS Spectra. ACS Omega, 2022, 7, 6403-6411.	3.5	7
4	Structural characterization and analysis of different epimers of neutral glycosphingolipid LcGg4 by ion mobility spectrometry-mass spectrometry. Analyst, The, 2022, 147, 3101-3108.	3.5	3
5	The structural diversity of natural glycosphingolipids (GSLs). Journal of Carbohydrate Chemistry, 2022, 41, 63-154.	1.1	4
6	Design and Synthesis of a Doubly Functionalized Core Structure of a Glycosylphosphatidylinositol Anchor Containing Photoreactive and Clickable Functional Groups. Journal of Organic Chemistry, 2022, 87, 9419-9425.	3.2	6
7	A Diversity-Oriented Strategy for Chemical Synthesis of Glycosphingolipids: Synthesis of Glycosphingolipid LcGg4 and Its Analogues and Derivatives. Journal of Organic Chemistry, 2021, 86, 1633-1648.	3.2	6
8	Characterization of Glycosphingolipids and Their Diverse Lipid Forms through Two-Stage Matching of LC-MS/MS Spectra. Analytical Chemistry, 2021, 93, 3154-3162.	6.5	5
9	Enzymatic Synthesis of Glycosphingolipids: A Review. Synthesis, 2021, 53, 2367-2380.	2.3	4
10	Oligosaccharide Antigen Conjugation to Carrier Proteins to Formulate Glycoconjugate Vaccines. Methods in Molecular Biology, 2021, 2183, 305-312.	0.9	2
11	Direct access to various C3-substituted sialyl glycal derivatives from 3-iodo-sialyl glycals. Organic and Biomolecular Chemistry, 2021, 19, 10169-10173.	2.8	2
12	Synthesis of the Oligosaccharides of Burkholderia pseudomallei and B. mallei Capsular Polysaccharide and Preliminary Immunological Studies of Their Protein Conjugates. Journal of Organic Chemistry, 2020, 85, 2369-2384.	3.2	14
13	Group A Streptococcus Cell Wall Oligosaccharide-Streptococcal C5a Peptidase Conjugates as Effective Antibacterial Vaccines. ACS Infectious Diseases, 2020, 6, 281-290.	3.8	31
14	A Diversity-Oriented Strategy for Chemoenzymatic Synthesis of Glycosphingolipids and Related Derivatives. Organic Letters, 2020, 22, 8245-8249.	4.6	12
15	A metabolically engineered spin-labeling approach for studying glycans on cells. Chemical Science, 2020, 11, 12522-12532.	7.4	9
16	Synthesis and evaluation ofN^{Î±},N^{Îµ}-diacetyl-<scp>l</scp>-lysine-inositol conjugates as cancer-selective probes for metabolic engineering of GPIs and GPI-anchored proteins. Organic and Biomolecular Chemistry, 2020, 18, 2938-2948.	2.8	7
17	Efficient Strategy for Î±-Selective Glycosidation of <scp>d</scp>-Glucosamine and Its Application to the Synthesis of a Bacterial Capsular Polysaccharide Repeating Unit Containing Multiple Î±-Linked GlcNAc Residues. Organic Letters, 2020, 22, 1520-1524.	4.6	27
18	Comparative immunological studies of tumor-associated Lewis X, Lewis Y, and KH-1 antigens. Carbohydrate Research, 2020, 492, 107999.	2.3	10

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19	Improving in vitro biocompatibility on biomimetic mineralized collagen bone materials modified with hyaluronic acid oligosaccharide. Materials Science and Engineering C, 2019, 104, 110008.	7.3	26
20	Site-specific C-terminal dinitrophenylation to reconstitute the antibody Fc functions for nanobodies. Chemical Science, 2019, 10, 9331-9338.	7.4	25
21	Synthesis and immunological studies of group AStreptococcuscell-wall oligosaccharideâ€“streptococcal C5a peptidase conjugates as bivalent vaccines. Organic Chemistry Frontiers, 2019, 6, 3589-3596.	4.5	19
22	Synthesis of Lewis Y Analogues and Their Protein Conjugates for Structureâ€“Immunogenicity Relationship Studies of Lewis Y Antigen. Journal of Organic Chemistry, 2019, 84, 13232-13241.	3.2	6
23	A new method for Î±-specific glucosylation and its application to the one-pot synthesis of a branched Î±-glucan. Organic Chemistry Frontiers, 2019, 6, 762-772.	4.5	20
24	Biochemical studies of a Î²-1,4-rhamnoslytransferase from Streptococcus pneumonia serotype 23F. Organic and Biomolecular Chemistry, 2019, 17, 1071-1075.	2.8	4
25	Semisynthetic Glycoconjugate Vaccines To Elicit T Cell-Mediated Immune Responses and Protection against Streptococcus pneumoniae Serotype 3. ACS Infectious Diseases, 2019, 5, 1423-1432.	3.8	13
26	An extensive review of studies on mycobacterium cell wall polysaccharide-related oligosaccharides â€“ part III: synthetic studies and biological applications of arabinofuranosyl oligosaccharides and their analogs, derivatives and conjugates. Journal of Carbohydrate Chemistry, 2019, 38, 414-469.	1.1	12
27	An extensive review of studies on mycobacterium cell wall polysaccharide-related oligosaccharides â€“ part I: Synthetic studies on arabinofuranosyl oligosaccharides. Journal of Carbohydrate Chemistry, 2019, 38, 269-334.	1.1	9
28	An extensive review of studies on mycobacterium cell wall polysaccharide-related oligosaccharides â€“ part II: Synthetic studies on complex arabinofuranosyl oligosaccharides carrying other functional motifs and related derivatives and analogs. Journal of Carbohydrate Chemistry, 2019, 38, 335-382.	1.1	11
29	Fabrication and Comprehensive Characterization of Biomimetic Extracellular Matrix Electrospun Scaffold for Vascular Tissue Engineering Applications. Journal of Materials Science, 2019, 54, 10871-10883.	3.7	43
30	Synthesis of a dimer of the repeating unit of type Ia group BStreptococcusextracellular capsular polysaccharide and immunological evaluations of related protein conjugates. Organic Chemistry Frontiers, 2019, 6, 2833-2838.	4.5	12
31	One-Pot Synthesis of the Repeating Unit of Type VII Group B Streptococcus Polysaccharide and the Dimer. Organic Letters, 2019, 21, 2374-2377.	4.6	14
32	Synthesis and immunological studies of Î²-1,2-mannan-peptide conjugates as antifungal vaccines. European Journal of Medicinal Chemistry, 2019, 173, 250-260.	5.5	19
33	Chemical Synthesis of the Repeating Unit of Type II Group B Streptococcus Capsular Polysaccharide. Journal of Organic Chemistry, 2018, 83, 5920-5930.	3.2	21
34	Synthesis and Immunological Studies of Oligosaccharides that Consist of the Repeating Unit of Streptococcus pneumoniae Serotype 3 Capsular Polysaccharide. Chemistry - A European Journal, 2018, 24, 8205-8216.	3.3	20
35	Progress in the synthesis and biological evaluation of lipid A and its derivatives. Medicinal Research Reviews, 2018, 38, 556-601.	10.5	33
36	Characterization and biochemical investigation of the potential inositol monophosphate phosphatase involved in bacterial mycothiol biosynthesis. Journal of Carbohydrate Chemistry, 2018, 37, 507-521.	1.1	1

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37	Per-O-Benzylated Ethyl 5-N-Acetyl-Î±-thiosialoside as a Glycosyl Donor for Î±-Silylation. Journal of Carbohydrate Chemistry, 2018, 37, 370-382.	1.1	7
38	Carbohydrate O-benzylation through trialkylsilane-mediated reductive etherification. Journal of Carbohydrate Chemistry, 2018, 37, 327-346.	1.1	8
39	Recent Advances in Toll Like Receptor-Targeting Glycoconjugate Vaccines. Molecules, 2018, 23, 1583.	3.8	34
40	Synthesis of biotin-labelled core glycans of GPI anchors and their application in the study of GPI interaction with pore-forming bacterial toxins. Chemical Communications, 2017, 53, 6227-6230.	4.1	3
41	Chemical Synthesis of GPI Glycanâ€“Peptide Conjugates by Traceless Staudinger Ligation. Organic Letters, 2017, 19, 3063-3066.	4.6	23
42	Synthesis of Defined and Functionalized Glycans of Lipoteichoic Acid: A Cell Surface Polysaccharide from Clostridium difficile. Organic Letters, 2017, 19, 3123-3126.	4.6	7
43	Biochemical studies of inositol N-acetylglucosaminyltransferase involved in mycothiol biosynthesis in Corynebacterium diphtheria. Organic and Biomolecular Chemistry, 2017, 15, 3775-3782.	2.8	3
44	Synthesis of a disaccharide repeating unit of the O-antigen from Burkholderia ambifaria and its oligomers. Carbohydrate Research, 2017, 442, 41-51.	2.3	7
45	Mechanical enhancement and in vitro biocompatibility of nanofibrous collagen-chitosan scaffolds for tissue engineering. Journal of Biomaterials Science, Polymer Edition, 2017, 28, 2255-2270.	3.5	16
46	Mutagenesis and immunological evaluation of group A streptococcal C5a peptidase as an antigen for vaccine development and as a carrier protein for glycoconjugate vaccine design. RSC Advances, 2017, 7, 42056-42063.	3.6	10
47	Synthesis of a trisaccharide repeating unit of the O-antigen from Burkholderia cenocepacia and its dimer. Carbohydrate Research, 2017, 451, 1-11.	2.3	8
48	Synthesis and Evaluation of GM2-Monophosphoryl Lipid A Conjugate as a Fully Synthetic Self-Adjuvant Cancer Vaccine. Scientific Reports, 2017, 7, 11403.	3.3	29
49	One-step purification and immobilization of extracellularly expressed sortase A by magnetic particles to develop a robust and recyclable biocatalyst. Scientific Reports, 2017, 7, 6561.	3.3	14
50	Synthesis of the Cancer-Associated KH-1 Antigen by Block Assembly of Its Backbone Structure Followed by One-Step Grafting of Three Fucose Residues. Organic Letters, 2017, 19, 6558-6561.	4.6	17
51	Synthesis and Immunological Comparison of Differently Linked Lipoarabinomannan Oligosaccharideâ€“Monophosphoryl Lipid A Conjugates as Antituberculosis Vaccines. Journal of Organic Chemistry, 2017, 82, 12085-12096.	3.2	34
52	Synthesis of a tetrasaccharide repeating unit of the exopolysaccharide from Burkholderia multivorans. Journal of Carbohydrate Chemistry, 2017, 36, 189-204.	1.1	3
53	Pondering the structural factors that affect 1,2-trans-galactosylation: A lesson learnt from 3-O-Î²-galactosylation of galactosamine. Journal of Carbohydrate Chemistry, 2017, 36, 347-362.	1.1	5
54	Synthesis of a trisaccharide repeating unit of the O-antigen from Burkholderia anthina and its dimer. Carbohydrate Research, 2016, 427, 13-20.	2.3	10

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55	Fully Synthetic Self-Adjuvanting Î±-2,9-Oligosialic Acid Based Conjugate Vaccines against Group C Meningitis. ACS Central Science, 2016, 2, 210-218.	11.3	65
56	Recent advances in the research of bacterial glucuronosyltransferases. Journal of Carbohydrate Chemistry, 2016, 35, 201-223.	1.1	3
57	One-pot four-enzyme synthesis of thymidinediphosphate-l-rhamnose. Chemical Communications, 2016, 52, 13995-13998.	4.1	16
58	Chemical Synthesis of the Repeating Unit of Type V Group B Streptococcus Capsular Polysaccharide. Organic Letters, 2016, 18, 5552-5555.	4.6	36
59	A six-membered-ring incorporated Si-rhodamine for imaging of copper(<scp>ii</scp>) in lysosomes. Organic and Biomolecular Chemistry, 2016, 14, 6720-6728.	2.8	45
60	6-O-Branched Oligo-Î²-glucan-Based Antifungal Glycoconjugate Vaccines. ACS Infectious Diseases, 2016, 2, 123-131.	3.8	27
61	Labeling Cell Surface GPIs and GPIâ€Anchored Proteins through Metabolic Engineering with Artificial Inositol Derivatives. Angewandte Chemie - International Edition, 2015, 54, 9679-9682.	13.8	38
62	Synthesis and Immunological Studies of Linear Oligosaccharides of Î²-Glucan As Antigens for Antifungal Vaccine Development. Bioconjugate Chemistry, 2015, 26, 466-476.	3.6	49
63	Chemical Synthesis of the Repeating Unit of Type Ia Group B Streptococcus Capsular Polysaccharide. Organic Letters, 2015, 17, 1102-1105.	4.6	28
64	Transbilayer Lipid Interactions Mediate Nanoclustering of Lipid-Anchored Proteins. Cell, 2015, 161, 581-594.	28.9	333
65	A Convergent Synthesis of 6â€Oâ€Branched Î²â€Glucan Oligosaccharides. European Journal of Organic Chemistry, 2015, 2015, 2942-2951.	2.4	17
66	Synthesis and immunological study of Î±-2,9-oligosialic acid conjugates as anti-group C meningitis vaccines. Chemical Communications, 2015, 51, 9647-9650.	4.1	41
67	Chemical synthesis of the tumor-associated globo H antigen. RSC Advances, 2015, 5, 23311-23319.	3.6	21
68	A fully synthetic self-adjuvanting globo H-Based vaccine elicited strong T cell-mediated antitumor immunity. Chemical Science, 2015, 6, 7112-7121.	7.4	69
69	Synthetic and Immunological Studies of Mycobacterial Lipoarabinomannan Oligosaccharides and Their Protein Conjugates. Journal of Organic Chemistry, 2015, 80, 10060-10075.	3.2	32
70	A novel cancer immunotherapy based on the combination of a synthetic carbohydrate-pulsed dendritic cell vaccine and glycoengineered cancer cells. Oncotarget, 2015, 6, 5195-5203.	1.8	23
71	Quantifying the Efficiency ofN-Phenyl-D-mannosamine to Metabolically Engineer Sialic Acid on Cancer Cell Surface. Journal of Carbohydrate Chemistry, 2014, 33, 395-407.	1.1	8
72	Synthesis of a Miniature Lipoarabinomannan. Organic Letters, 2014, 16, 988-991.	4.6	27

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73	Synthesis and evaluation of monophosphoryl lipid A derivatives as fully synthetic self-adjuvanting glycoconjugate cancer vaccine carriers. Organic and Biomolecular Chemistry, 2014, 12, 3238-3245.	2.8	66
74	Chemoenzymatic Synthesis of the Human CD52 and CD24 Antigen Analogues. Organic Letters, 2013, 15, 5906-5908.	4.6	11
75	Synthesis of a Tristearoyl Lipomannan via Preactivation-Based Iterative One-Pot Glycosylation. Journal of Organic Chemistry, 2013, 78, 12717-12725.	3.2	27
76	Sortase A-mediated chemoenzymatic synthesis of complex glycosylphosphatidylinositol-anchored protein. Chemical Communications, 2013, 49, 11689.	4.1	23
77	Synthesis of Novel, Fluorescently Tagged Analogs of Glycosylphosphatidylinositol (GPI) Anchors. Journal of Carbohydrate Chemistry, 2013, 32, 301-323.	1.1	7
78	Tin(IV) Chloride Promoted Reaction of Oxiranes with Hydrogen Peroxide. Synlett, 2013, 24, 502-506.	1.8	14
79	Synthetic Studies of Glycosylphosphatidylinositol (GPI) Anchors and GPI-Anchored Peptides, Glycopeptides, and Proteins. Current Organic Synthesis, 2013, 10, 366-383.	1.3	12
80	A Facile Synthesis ofN^{Î³}-Glycosyl Asparagine Conjugates and ShortN-Linked Glycopeptides. Journal of Carbohydrate Chemistry, 2012, 31, 105-113.	1.1	9
81	Chemical Synthesis of Glycosylphosphatidylinositol Anchors. Advances in Carbohydrate Chemistry and Biochemistry, 2012, 67, 137-219.	0.9	20
82	Sortase-Mediated Transpeptidation for Site-Specific Modification of Peptides, Glycopeptides, and Proteins. Journal of Carbohydrate Chemistry, 2012, 31, 48-66.	1.1	35
83	Carbohydrate-Monophosphoryl Lipid A Conjugates Are Fully Synthetic Self-Adjuvanting Cancer Vaccines Eliciting Robust Immune Responses in the Mouse. ACS Chemical Biology, 2012, 7, 235-240.	3.4	98
84	Chemical synthesis and functionalization of clickable glycosylphosphatidylinositol anchors. Chemical Science, 2011, 2, 2342.	7.4	35
85	Sortase A-catalyzed peptide cyclization for the synthesis of macrocyclic peptides and glycopeptides. Chemical Communications, 2011, 47, 9218.	4.1	71
86	Synthesis and evaluation of protein conjugates of GM3 derivatives carrying modified sialic acids as highly immunogenic cancer vaccine candidates. MedChemComm, 2011, 2, 524.	3.4	16
87	Synthesis of a Monophosphoryl Derivative of Escherichia coli Lipidâ€…A and Its Efficient Coupling to a Tumorâ€Associated Carbohydrate Antigen. Chemistry - A European Journal, 2010, 16, 1319-1325.	3.3	28
88	Synthesis of a Glycosylphosphatidylinositol Anchor Bearing Unsaturated Lipid Chains. Journal of the American Chemical Society, 2010, 132, 6648-6650.	13.7	62
89	Sortase A-Catalyzed Transpeptidation of Glycosylphosphatidylinositol Derivatives for Chemoenzymatic Synthesis of GPI-Anchored Proteins. Journal of the American Chemical Society, 2010, 132, 1567-1571.	13.7	72
90	Chemoenzymatic synthesis of glycosylphosphatidylinositol-anchored glycopeptides. Chemical Communications, 2010, 46, 5773.	4.1	32

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91	Recent development in carbohydrate-based cancer vaccines. Current Opinion in Chemical Biology, 2009, 13, 608-617.	6.1	140
92	Sortase-Catalyzed Peptideâ"Glycosylphosphatidylinositol Analogue Ligation. Journal of the American Chemical Society, 2009, 131, 9878-9879.	13.7	58
93	Synthesis of a monophosphoryl lipid A derivative and its conjugation to a modified form of a tumor-associated carbohydrate antigen GM3. Chemical Communications, 2009, , 5536.	4.1	31
94	Synthesis and biological evaluation of sperm CD52 GPI anchor and related derivatives as binding receptors of pore-forming CAMP factor. Carbohydrate Research, 2008, 343, 1718-1729.	2.3	21
95	Synthetic Studies on the Carbohydrate Moiety of Amipurimycin. Journal of Carbohydrate Chemistry, 2008, 27, 51-69.	1.1	14
96	Synthetic and Immunological Studies of 5â€²-N-Phenylacetyl sTn to Develop Carbohydrate-Based Cancer Vaccines and to Explore the Impacts of Linkage between Carbohydrate Antigens and Carrier Proteins. Bioconjugate Chemistry, 2008, 19, 2060-2067.	3.6	53
97	Efficient glycoengineering of GM3 on melanoma cell and monoclonal antibody-mediated selective killing of the glycoengineered cancer cell. Bioorganic and Medicinal Chemistry, 2007, 15, 7561-7567.	3.0	53
98	Streptococcus agalactiae CAMP factor binds to GPI-anchored proteins. Medical Microbiology and Immunology, 2007, 196, 1-10.	4.8	23
99	Efficient Metabolic Engineering of GM3 on Tumor Cells by N-Phenylacetyl-d-mannosamine. Biochemistry, 2006, 45, 3733-3739.	2.5	68
100	Synthesis and Immunological Properties of N-Modified GM3 Antigens as Therapeutic Cancer Vaccines. Journal of Medicinal Chemistry, 2005, 48, 875-883.	6.4	109
101	Chemical Synthesis of a Skeleton Structure of Sperm CD52â€"A GPI-Anchored Glycopeptide. Angewandte Chemie - International Edition, 2004, 43, 1569-1573.	13.8	55
102	First Total Synthesis of a GPI-Anchored Peptide. Journal of Organic Chemistry, 2003, 68, 4020-4029.	3.2	51
103	Convergent Synthesis of a GPI Containing an Acylated Inositol. Journal of the American Chemical Society, 2003, 125, 16334-16339.	13.7	50
104	A facile synthesis of Cerny epoxides and selectively blocked derivatives of 2-azido-2-deoxy-Î²-d-glucopyranose. Tetrahedron Letters, 2001, 42, 6487-6489.	1.4	32
105	Design and synthesis of 4-azido-phosphatidylinositol as a potential probe for metabolic engineering of glycosylphosphatidylinositol on cells. Journal of Carbohydrate Chemistry, 0, , 1-11.	1.1	3