Valentin Wittmann

List of Publications by Year
in descending order

89 papers	3,179 citations	147726 31 h-index	168321 53 g-index
115 all docs	115 docs citations	115 times ranked	3377 citing authors

#	Article	IF	Citations
1	An Advanced â€˜clickECMâ€™ That Can be Modified by the Inverseâ€Electronâ€Demand Dielsâ€Alder Reaction. ChemBioChem, 2022, 23, .	1.3	5
2	Using polymeric hydroxypropyl methylcellulose as an alternative to â€˜micellar catalysisâ€™ to enable chemical reactions in water. Current Opinion in Green and Sustainable Chemistry, 2022, 33, 100571.	3.2	6
3	Photoswitching Affinity and Mechanism of Multivalent Lectin Ligands. Chemistry - A European Journal, 2022, 28, .	1.7	3
4	Metabolic Glycoengineering with Azideâ€•and Alkeneâ€Modified Hexosamines: Quantification of Sialic Acid Levels. ChemBioChem, 2021, 22, 1243-1251.	1.3	23
5	Ligandâ€Programmed Consecutive Symmetry Break(s) in Nanoparticle Based Materials Showing Emergent Phenomena: Transitioning from Sixfold to Threefold Symmetry in Anisotropic ZnO Colloids. Advanced Functional Materials, 2021, 31, 2009104.	7.8	5
6	Application of the Inverse-Electron-Demand Diels-Alder Reaction for Metabolic Glycoengineering. Frontiers in Chemistry, 2021, 9, 654932.	1.8	11
7	Nucleophilic aromatic substitution reactions under aqueous, mild conditions using polymeric additive HPMC. Green Chemistry, 2021, 23, 3955-3962.	4.6	17
8	Rapid glycoconjugation with glycosyl amines. Chemical Science, 2021, 12, 14901-14906.	3.7	4
9	In situ EPR spectroscopy of a bacterial membrane transporter using an expanded genetic code. Chemical Communications, 2021, 57, 12980-12983.	2.2	13
10	Time and space-resolved quantification of plasma membrane sialylation for measurements of cell function and neurotoxicity. Archives of Toxicology, 2020, 94, 449-467.	1.9	9
11	Precipitation-free high-affinity multivalent binding by inline lectin ligands. Chemical Science, 2020, 11, 5227-5237.	3.7	11
12	Optimising broadband pulses for DEER depends on concentration and distance range of interest. Magnetic Resonance, 2020, 1, 59-74.	0.8	5
13	Machine learning prediction of cyanobacterial toxin (microcystin) toxicodynamics in humans. ALTEX: Alternatives To Animal Experimentation, 2020, 37, 24-36.	0.9	9
14	Simultaneous Detection of 14 Microcystin Congeners from Tissue Samples Using UPLC- ESI-MS/MS and Two Different Deuterated Synthetic Microcystins as Internal Standards. Toxins, 2019, 11, 388.	1.5	17
15	Human MRP2 exports MC-LR but not the glutathione conjugate. Chemico-Biological Interactions, 2019, 311, 108761.	1.7	5
16	A Tripeptide Approach to the Solidâ€Phase Synthesis of Peptide Thioacids and Nâ€Glycopeptides. Chemistry - A European Journal, 2019, 25, 15759-15764.	1.7	10
17	Protein Spin Labeling with a Photocaged Nitroxide Using Dielsâ€“Alder Chemistry. ChemBioChem, 2019, 20, 2479-2484.	1.3	18
18	Cyclopropene derivatives of aminosugars for metabolic glycoengineering. Beilstein Journal of Organic Chemistry, 2019, 15, 584-601.	1.3	13

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19	Generation of an azide-modified extracellular matrix by adipose-derived stem cells using metabolic glycoengineering. Current Directions in Biomedical Engineering, 2019, 5, 393-395.	0.2	7
20	Multivalent Carbohydrate-Functionalized Polymer Nanocrystals. Biomacromolecules, 2019, 20, 294-304.	2.6	4
21	Triple Orthogonal Labeling of Glycans by Applying Photoclick Chemistry. ChemBioChem, 2019, 20, 166-171.	1.3	35
22	Identification of d -amino acid oxidase and propiverine interaction partners and their potential role in the propiverine-mediated nephropathy. Chemico-Biological Interactions, 2018, 281, 69-80.	1.7	1
23	Conformationally Unambiguous Spin Label for Exploring the Binding Site Topology of Multivalent Systems. Journal of Physical Chemistry Letters, 2018, 9, 6131-6135.	2.1	2
24	Intracellular Imaging of Protein-Specific Glycosylation. Methods in Enzymology, 2018, 598, 283-319.	0.4	7
25	Sweet surfactants: packing parameter-invariant amphiphiles as emulsifiers and capping agents for morphology control of inorganic particles. Soft Matter, 2018, 14, 7214-7227.	1.2	7
26	Total Synthesis of Microcystin-LF and Derivatives Thereof. Journal of Organic Chemistry, 2017, 82, 3680-3691.	1.7	11
27	Dienophileâ€Modified Mannosamine Derivatives for Metabolic Labeling of Sialic Acids: A Comparative Study. ChemBioChem, 2017, 18, 1242-1250.	1.3	16
28	Activation of the glmS Ribozyme Confers Bacterial Growth Inhibition. ChemBioChem, 2017, 18, 435-440.	1.3	24
29	clickECM: Development of a cell-derived extracellular matrix with azide functionalities. Acta Biomaterialia, 2017, 52, 159-170.	4.1	29
30	Fluoroâ€Carbaâ€Sugars are Glycomimetic Activators of the glmS Ribozyme. Chemistry - A European Journal, 2017, 23, 12604-12612.	1.7	13
31	Mechanistic Insight into Nanomolar Binding of Multivalent Neoglycopeptides to Wheat Germ Agglutinin. Chemistry - A European Journal, 2016, 22, 9724-9733.	1.7	8
32	Visualization of Proteinâ€Specific Glycosylation inside Living Cells. Angewandte Chemie - International Edition, 2016, 55, 2262-2266.	7.2	89
33	Synthesis of Highly Selective Submicromolar Microcystinâ€Based Inhibitors of Protein Phosphatase (PP)2A over PP1. Angewandte Chemie, 2016, 128, 14191-14195.	1.6	3
34	Synthesis of Highly Selective Submicromolar Microcystinâ€Based Inhibitors of Protein Phosphatase (PP)2A over PP1. Angewandte Chemie - International Edition, 2016, 55, 13985-13989.	7.2	20
35	Exploring the Potential of Norborneneâ€Modified Mannosamine Derivatives for Metabolic Glycoengineering. ChemBioChem, 2016, 17, 1374-1383.	1.3	26
36	Regioselective Cleavage of Thioether Linkages in Microcystin Conjugates. Chemistry - A European Journal, 2016, 22, 10990-10997.	1.7	11

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37	Realâ€Time NMR Studies of Oxyamine Ligations of Reducing Carbohydrates under Equilibrium Conditions. Chemistry - A European Journal, 2016, 22, 17359-17365.	1.7	19
38	Visualisierung proteinspezifischer Glycosylierung in lebenden Zellen. Angewandte Chemie, 2016, 128, 2303-2308.	1.6	25
39	Synthetic Glycosphingolipids for Live-Cell Labeling. Bioconjugate Chemistry, 2016, 27, 1624-1637.	1.8	15
40	The STEAP1_{262â€“270} peptide encapsulated into PLGA microspheres elicits strong cytotoxic T cell immunity in HLAâ€A*0201 transgenic miceâ€”A new approach to immunotherapy against prostate carcinoma. Prostate, 2016, 76, 456-468.	1.2	15
41	Distinct CCR7 glycosylation pattern shapes receptor signaling and endocytosis to modulate chemotactic responses. Journal of Leukocyte Biology, 2016, 99, 993-1007.	1.5	68
42	Application of the Thioacidâ€Azide Ligation (TAL) for the Preparation of Glycosylated and Fluorescently Labeled Amino Acids. Israel Journal of Chemistry, 2015, 55, 437-446.	1.0	6
43	Orthogonally Protected Furanoid Sugar Diamino Acids for Solid-Phase Synthesis of Oligosaccharide Mimetics. Journal of Organic Chemistry, 2015, 80, 7477-7485.	1.7	6
44	Expanding the scope of cyclopropene reporters for the detection of metabolically engineered glycoproteins by Dielsâ€“Alder reactions. Beilstein Journal of Organic Chemistry, 2014, 10, 2235-2242.	1.3	37
45	Terminal Alkenes as Versatile Chemical Reporter Groups for Metabolic Oligosaccharide Engineering. Chemistry - A European Journal, 2014, 20, 16502-16508.	1.7	41
46	Rapid Labeling of Metabolically Engineered Cell-Surface Glycoconjugates with a Carbamate-Linked Cyclopropene Reporter. Bioconjugate Chemistry, 2014, 25, 147-154.	1.8	84
47	Efficient labelling of enzymatically synthesized vinyl-modified DNA by an inverse-electron-demand Dielsâ€“Alder reaction. Chemical Communications, 2014, 50, 10827-10829.	2.2	62
48	Terminal Alkenes as Versatile Chemical Reporter Groups for Metabolic Oligosaccharide Engineering. Chemistry - A European Journal, 2014, 20, 16411-16411.	1.7	2
49	Structural investigation of multivalent carbohydrateâ€“protein interactions using synthetic biomolecules. Current Opinion in Chemical Biology, 2013, 17, 982-989.	2.8	32
50	Twoâ€Color Glycan Labeling of Live Cells by a Combination of Dielsâ€“Alder and Click Chemistry. Angewandte Chemie - International Edition, 2013, 52, 4265-4268.	7.2	174
51	Bridging lectin binding sites by multivalent carbohydrates. Chemical Society Reviews, 2013, 42, 4492.	18.7	190
52	High-affinity multivalent wheat germ agglutinin ligands by one-pot click reaction. Beilstein Journal of Organic Chemistry, 2012, 8, 819-826.	1.3	27
53	Preparation of Carbohydrate Arrays by Using Dielsâ€“Alder Reactions with Inverse Electron Demand. Chemistry - A European Journal, 2012, 18, 6548-6554.	1.7	50
54	Carba-sugars Activate the glmS-Riboswitch of Staphylococcus aureus. ACS Chemical Biology, 2011, 6, 675-678.	1.6	66

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55	Mechanism of Multivalent Carbohydrateâ€“Protein Interactions Studied by EPR Spectroscopy. Angewandte Chemie - International Edition, 2011, 50, 8428-8431.	7.2	32
56	Cover Picture: Mechanism of Multivalent Carbohydrate-Protein Interactions Studied by EPR Spectroscopy (Angew. Chem. Int. Ed. 36/2011). Angewandte Chemie - International Edition, 2011, 50, 8199-8199.	7.2	1
57	Rapid Screening of Lectins for Multivalency Effects with a Glycodendrimer Microarray. ChemBioChem, 2010, 11, 1896-1904.	1.3	65
58	De novo sequencing of peptides on single resin beads by MALDI-FTICR tandem mass spectrometry. Journal of the American Society for Mass Spectrometry, 2010, 21, 215-219.	1.2	20
59	Muropeptide Rescue in Bacillus subtilis Involves Sequential Hydrolysis by Î²- N -Acetylglucosaminidase and N -Acetylmuramyl- <scp>l</scp> -Alanine Amidase. Journal of Bacteriology, 2010, 192, 3132-3143.	1.0	68
60	Structural Basis of Multivalent Binding to Wheat Germ Agglutinin. Journal of the American Chemical Society, 2010, 132, 8704-8719.	6.6	177
61	Carbamate-Linked Lactose: Design of Clusters and Evidence for Selectivity to Block Binding of Human Lectins to (Neo)Glycoproteins with Increasing Degree of Branching and to Tumor Cells. Bioconjugate Chemistry, 2009, 20, 1716-1728.	1.8	34
62	Stereoselective synthesis of 1,1â€²-linked Î±-l-lyxopyranosyl Î²-d-glucopyranoside, the proposed biosynthetic precursor of the FG ring system of avilamycins. Carbohydrate Research, 2008, 343, 1612-1623.	1.1	8
63	Efficient Nâ€Terminal Glycoconjugation of Proteins by the Nâ€End Rule. ChemBioChem, 2008, 9, 1220-1224.	1.3	32
64	Unexpected formation of complex bridged tetrazoles via intramolecular 1,3-dipolar cycloaddition of 1,2-O-cyanoalkylidene derivatives of 3-azido-3-deoxy-d-allose. Carbohydrate Research, 2008, 343, 2118-2129.	1.1	11
65	One-Pot Procedure for Diazo Transfer and Azideâ^'Alkyne Cycloaddition:Â Triazole Linkages from Amines. Organic Letters, 2007, 9, 1-4.	2.4	155
66	Probing multivalent carbohydrateâ€“lectin interactions by an enzyme-linked lectin assay employing covalently immobilized carbohydrates. Bioorganic and Medicinal Chemistry, 2007, 15, 7661-7676.	1.4	45
67	Synthesis and Application of Glycopeptide and Glycoprotein Mimetics. , 2006, , 65-107.		38
68	Orthogonally Protected Sugar Diamino Acids as Building Blocks for Linear and Branched Oligosaccharide Mimetics. Angewandte Chemie - International Edition, 2005, 44, 2096-2099.	7.2	36
69	NMR Spectroscopic Determination of the Solution Structure of a Branched Nucleic Acid from Residual Dipolar Couplings by Using Isotopically Labeled Nucleotides. Angewandte Chemie - International Edition, 2004, 43, 187-192.	7.2	30
70	Spatial Screening of Cyclic Neoglycopeptides: Identification of Polyvalent Wheat-Germ Agglutinin Ligands. Angewandte Chemie - International Edition, 2004, 43, 900-903.	7.2	62
71	Temporary attachment of carbohydrates to cyclopeptide templates: a new strategy for single-bead analysis of multivalent neoglycopeptides. Tetrahedron Letters, 2003, 44, 9243-9246.	0.7	7
72	Totalsynthesen von Callipeltosid A. Nachrichten Aus Der Chemie, 2002, 50, 841-845.	0.0	3

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73	Dynamische kombinatorische Bibliotheken. Nachrichten Aus Der Chemie, 2002, 50, 724-727.	0.0	18
74	RNAâ€Targeting mit Aminoglycosidâ€Analoga. Nachrichten Aus Der Chemie, 2002, 50, 1364-1368.	0.0	2
75	Copper(II)-Mediated Activation of Sugar Oxazolines: Mild and Efficient Synthesis of Î²-Glycosides ofN-Acetylglucosamine. European Journal of Organic Chemistry, 2002, 2002, 1363-1367.	1.2	60
76	Spatial Screening of Lectin Ligands. Cyclic Peptides as Scaffolds for Multivalent Presentation of Carbohydrates. , 2001, , 174-176.		0
77	Chemoenzymatic Synthesis and Fluorescent Visualization of Cell-Surface Selectin-Bound Sialyl Lewis X Derivatives. Chemistry - A European Journal, 2000, 6, 162-171.	1.7	19
78	Combinatorial Solid-Phase Synthesis of Multivalent Cyclic Neoglycopeptides. Angewandte Chemie - International Edition, 2000, 39, 4348-4352.	7.2	63
79	Ligand Recognition by E- and P-Selectin:Â Chemoenzymatic Synthesis and Inhibitory Activity of Bivalent Sialyl Lewis x Derivatives and Sialyl Lewis x Carboxylic Acids. Journal of Organic Chemistry, 1998, 63, 5137-5143.	1.7	45
80	Modified Hammerhead Ribozymes as Potential Therapeutics. Nucleosides & Nucleotides, 1998, 17, 1685-1696.	0.5	2
81	Mechanism of Human Î±-1,3-Fucosyltransferase V:â€‰ Glycosidic Cleavage Occurs Prior to Nucleophilic Attack. Biochemistry, 1997, 36, 823-831.	1.2	128
82	1H-Tetrazole as Catalyst in Phosphomorpholidate Coupling Reactions:â€‰ Efficient Synthesis of GDP-Fucose, GDP-Mannose, and UDP-Galactose. Journal of Organic Chemistry, 1997, 62, 2144-2147.	1.7	170
83	Structural Comparison of Oligoribonucleotides and Their 2â€²-Deoxy-2â€²-fluoro Analogs by heteronuclear NMR spectroscopy. Helvetica Chimica Acta, 1997, 80, 1952-1971.	1.0	43
84	Sâ€and Câ€glycopeptide derivatives of an LHâ€RH agonist. International Journal of Peptide and Protein Research, 1996, 48, 59-70.	0.1	25
85	Stereoselective Synthesis of C-Glycoside with a Glycosyl Dianion. Angewandte Chemie International Edition in English, 1993, 32, 1091-1093.	4.4	66
86	Stereoselektive Synthese von Câ€Glycosiden mit einem Glycosylâ€Dianion. Angewandte Chemie, 1993, 105, 1138-1140.	1.6	28
87	Synthesis ofC-Glycopeptides via Free Radical Addition of Glycosyl Bromides to Dehydroalanine Derivatives. Angewandte Chemie International Edition in English, 1992, 31, 902-904.	4.4	72
88	Synthese vonC-Glycopeptiden durch radikalische Addition von Glycosylbromiden an Dehydroalaninderivate. Angewandte Chemie, 1992, 104, 874-877.	1.6	26
89	Synthesis of Oligosaccharides on Solid Support Using Thioglycosides and Pentenyl Glycosides. , 0, , 99-116.		3