Michaela Wimmerova

List of Publications by Year
in descending order

90	3,972	32	61
papers	citations	h-index	g-index
		136885	123376

93	93	93	3709
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Heptabladed Î²â€propeller lectins PLL2 and PHL from <i>Photorhabdus</i> spp. recognize <i>O</i>â€methylated sugars and influence the host immune system. FEBS Journal, 2021, 288, 1343-1365.	2.2	5
2	Synthesis of Tetravalent Thio- and Selenogalactoside-Presenting Galactoclusters and Their Interactions with Bacterial Lectin PA-IL from Pseudomonas aeruginosa. Molecules, 2021, 26, 542.	1.7	2
3	Development of 48-condition buffer screen for protein stability assessment. European Biophysics Journal, 2021, 50, 461-471.	1.2	2
4	Visualization of hydrogen atoms in a perdeuterated lectin-fucose complex reveals key details of protein-carbohydrate interactions. Structure, 2021, 29, 1003-1013.e4.	1.6	8
5	Newly identified DNA methyltransferases of Ixodes ricinus ticks. Ticks and Tick-borne Diseases, 2020, 11, 101348.	1.1	7
6	Characterization of novel lectins from Burkholderia pseudomallei and Chromobacterium violaceum with seven-bladed Î²-propeller fold. International Journal of Biological Macromolecules, 2020, 152, 1113-1124.	3.6	5
7	The CHâ€"Ï€ Interaction in Proteinâ€"Carbohydrate Binding: Bioinformatics and In Vitro Quantification. Chemistry - A European Journal, 2020, 26, 10769-10780.	1.7	30
8	Microscopy examination of red blood and yeast cell agglutination induced by bacterial lectins. PLoS ONE, 2019, 14, e0220318.	1.1	11
9	Fucosylated inhibitors of recently identified bangle lectin from Photorhabdus asymbiotica. Scientific Reports, 2019, 9, 14904.	1.6	4
10	Synthesis of Î²-d-galactopyranoside-Presenting Glycoclusters, Investigation of Their Interactions with Pseudomonas aeruginosa Lectin A (PA-IL) and Evaluation of Their Anti-Adhesion Potential. Biomolecules, 2019, 9, 686.	1.8	8
11	Microbe-focused glycan array screening platform. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1958-1967.	3.3	71
12	Investigation of the Binding Affinity of a Broad Array of l-Fucosides with Six Fucose-Specific Lectins of Bacterial and Fungal Origin. Molecules, 2019, 24, 2262.	1.7	6
13	Architecture and Evolution of Blade Assembly in Î²-propeller Lectins. Structure, 2019, 27, 764-775.e3.	1.6	27
14	Lectin PLL3, a Novel Monomeric Member of the Seven-Bladed Î²-Propeller Lectin Family. Molecules, 2019, 24, 4540.	1.7	2
15	Synthesis of Î±â€<scp>l</scp>â€Fucopyranosideâ€Presenting Glycoclusters and Investigation of Their Interaction with <i>Photorhabdus asymbiotica</i> Lectin (PHL). Chemistry - A European Journal, 2018, 24, 4055-4068.	1.7	11
16	Structure and properties of AB21, a novel <i>Agaricus bisporus</i> protein with structural relation to bacterial poreâ€forming toxins. Proteins: Structure, Function and Bioinformatics, 2018, 86, 897-911.	1.5	3
17	Selectivity of original C-hexopyranosyl calix[4]arene conjugates towards lectins of different origin. Carbohydrate Research, 2018, 469, 60-72.	1.1	14
18	Cytokinin and Ethylene Signaling. , 2018, , 165-200.		2

#	Article	IF	Citations
19	Terminology of bioanalytical methods (IUPAC Recommendations 2018). Pure and Applied Chemistry, 2018, 90, 1121-1198.	0.9	19
20	Dirigent proteins in plants: modulating cell wall metabolism during abiotic and biotic stress exposure. Journal of Experimental Botany, 2017, 68, 3287-3301.	2.4	159
21	Conformational dynamics are a key factor in signaling mediated by the receiver domain of a sensor histidine kinase from Arabidopsis thaliana. Journal of Biological Chemistry, 2017, 292, 17525-17540.	1.6	9
22	Tri- and tetravalent mannoclusters cross-link and aggregate BC2L-A lectin from Burkholderia cenocepacia. Carbohydrate Research, 2017, 437, 1-8.	1.1	12
23	Step-By-Step In Vitro Mutagenesis: Lessons From Fucose-Binding Lectin PA-IIL. Methods in Molecular Biology, 2017, 1498, 399-419.	0.4	2
24	Characterization of novel bangle lectin from Photorhabdus asymbiotica with dual sugar-binding specificity and its effect on host immunity. PLoS Pathogens, 2017, 13, e1006564.	2.1	18
25	Influence of Trp flipping on carbohydrate binding in lectins. An example on Aleuria aurantia lectin AAL. PLoS ONE, 2017, 12, e0189375.	1.1	10
26	A Novel Fucose-binding Lectin from Photorhabdus luminescens (PLL) with an Unusual Heptabladed Î²-Propeller Tetrameric Structure. Journal of Biological Chemistry, 2016, 291, 25032-25049.	1.6	18
27	Evaluation of anti-PAIIL lectin hen yolk antibody as an agent inhibiting Pseudomonas aeruginosa adherence to epithelial cells. Monatshefte FÃ¼r Chemie, 2016, 147, 889-896.	0.9	1
28	Development and application of a novel recombinant <i>Aleuria aurantia</i> lectin with enhanced core fucose binding for identification of glycoprotein biomarkers of hepatocellular carcinoma. Proteomics, 2016, 16, 3126-3136.	1.3	29
29	FleA Expression in Aspergillus fumigatus Is Recognized by Fucosylated Structures on Mucins and Macrophages to Prevent Lung Infection. PLoS Pathogens, 2016, 12, e1005555.	2.1	44
30	Structural insights into<i>Aspergillus fumigatus</i>lectin specificity: AFL binding sites are functionally non-equivalent. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 442-453.	2.5	27
31	ValidatorDB: database of up-to-date validation results for ligands and non-standard residues from the Protein Data Bank. Nucleic Acids Research, 2015, 43, D369-D375.	6.5	22
32	Fluorescent Cellular Assay for Screening Agents Inhibiting Pseudomonas aeruginosa Adherence. Sensors, 2015, 15, 1945-1953.	2.1	5
33	Protein engineering study of Î²-mannosidase to set up a potential chemically efficient biocatalyst. Glycobiology, 2014, 24, 1301-1311.	1.3	1
34	Engineering the Pseudomonas aeruginosa II lectin: designing mutants with changed affinity and specificity. Journal of Computer-Aided Molecular Design, 2014, 28, 951-960.	1.3	3
35	New sensitive detection method for lectin hemagglutination using microscopy. Microscopy Research and Technique, 2014, 77, 841-849.	1.2	30
36	MotiveValidator: interactive web-based validation of ligand and residue structure in biomolecular complexes. Nucleic Acids Research, 2014, 42, W227-W233.	6.5	11

#	Article	IF	Citations
37	X-ray vs. NMR structure of N-terminal domain of Î´-subunit of RNA polymerase. Journal of Structural Biology, 2014, 187, 174-186.	1.3	8
38	A QM/MM Investigation of the Catalytic Mechanism of Metalâ€Ionâ€Independent Core 2 Î²1,6â€<i>N</i>â€Acetylglucosaminyltransferase. Chemistry - A European Journal, 2013, 19, 8153-8162.	1.7	15
39	Crystallization and preliminary X-ray crystallographic analysis of recombinant Î²-mannosidase fromAspergillus niger. Acta Crystallographica Section F: Structural Biology Communications, 2013, 69, 288-291.	0.7	0
40	A Soluble Fucose-Specific Lectin from Aspergillus fumigatus Conidia - Structure, Specificity and Possible Role in Fungal Pathogenicity. PLoS ONE, 2013, 8, e83077.	1.1	87
41	Fucose-binding Lectin from Opportunistic Pathogen Burkholderia ambifaria Binds to Both Plant and Human Oligosaccharidic Epitopes. Journal of Biological Chemistry, 2012, 287, 4335-4347.	1.6	92
42	Synergism of the Two Myb Domains of Tay1 Protein Results in High Affinity Binding to Telomeres. Journal of Biological Chemistry, 2012, 287, 32206-32215.	1.6	18
43	SiteBinder: An Improved Approach for Comparing Multiple Protein Structural Motifs. Journal of Chemical Information and Modeling, 2012, 52, 343-359.	2.5	10
44	In Silico Mutagenesis and Docking Study of <i>Ralstonia solanacearum</i> RSL Lectin: Performance of Docking Software To Predict Saccharide Binding. Journal of Chemical Information and Modeling, 2012, 52, 1250-1261.	2.5	34
45	Substrate-Assisted Catalytic Mechanism of <i>O</i>-GlcNAc Transferase Discovered by Quantum Mechanics/Molecular Mechanics Investigation. Journal of the American Chemical Society, 2012, 134, 15563-15571.	6.6	39
46	Plant aminoaldehyde dehydrogenases oxidize a wide range of nitrogenous heterocyclic aldehydes. Amino Acids, 2012, 43, 1189-1202.	1.2	5
47	Stacking Interactions between Carbohydrate and Protein Quantified by Combination of Theoretical and Experimental Methods. PLoS ONE, 2012, 7, e46032.	1.1	54
48	In Silico Engineering of Proteins That Recognize Small Molecules. , 2012, , .		0
49	Rational Design and Synthesis of Optimized Glycoclusters for Multivalent Lectinâ€"Carbohydrate Interactions: Influence of the Linker Arm. Chemistry - A European Journal, 2012, 18, 6250-6263.	1.7	100
50	Burkholderia cenocepacia lectin A binding to heptoses from the bacterial lipopolysaccharide. Glycobiology, 2012, 22, 1387-1398.	1.3	31
51	Anion Binding by Bambus[6]uril Probed in the Gas Phase and in Solution. Journal of Physical Chemistry A, 2011, 115, 11378-11386.	1.1	45
52	Bambus[<i>n</i>]urils: a New Family of Macrocyclic Anion Receptors. Organic Letters, 2011, 13, 4000-4003.	2.4	107
53	Selectivity among Two Lectins: Probing the Effect of Topology, Multivalency and Flexibility of â€œClickedâ€•Multivalent Glycoclusters. Chemistry - A European Journal, 2011, 17, 2146-2159.	1.7	108
54	Burkholderia cenocepacia BC2L-C Is a Super Lectin with Dual Specificity and Proinflammatory Activity. PLoS Pathogens, 2011, 7, e1002238.	2.1	61

#	Article	IF	Citations
55	The Five Bacterial Lectins (PA-IL, PA-IIL, RSL, RS-IIL, and CV-IIL): Interactions with Diverse Animal Cells and Glycoproteins. Advances in Experimental Medicine and Biology, 2011, 705, 155-211.	0.8	9
56	Recognition of selected monosaccharides by Pseudomonas aeruginosa Lectin II analyzed by molecular dynamics and free energy calculations. Carbohydrate Research, 2010, 345, 1432-1441.	1.1	17
57	A TNF-like Trimeric Lectin Domain from Burkholderia cenocepacia with Specificity for Fucosylated Human Histo-Blood Group Antigens. Structure, 2010, 18, 59-72.	1.6	76
58	Crystallization and initial X-ray diffraction studies of the flavoenzyme NAD(P)H:(acceptor) oxidoreductase (FerB) from the soil bacteriumParacoccus denitrificans. Acta Crystallographica Section F: Structural Biology Communications, 2010, 66, 431-434.	0.7	2
59	Structural basis of the affinity for oligomannosides and analogs displayed by BC2L-A, a Burkholderia cenocepacia soluble lectin. Glycobiology, 2010, 20, 87-98.	1.3	48
60	Role of LecA and LecB Lectins in <i>Pseudomonas aeruginosa</i> -Induced Lung Injury and Effect of Carbohydrate Ligands. Infection and Immunity, 2009, 77, 2065-2075.	1.0	262
61	Importance of oligomerisation on Pseudomonas aeruginosaLectin-II binding affinity. In silico and in vitro mutagenesis. Journal of Molecular Modeling, 2009, 15, 673-679.	0.8	9
62	Combination of Several Bioinformatics Approaches for the Identification of New Putative Glycosyltransferases in<i>Arabidopsis</i>. Journal of Proteome Research, 2009, 8, 743-753.	1.8	30
63	Heterologous expression and molecular characterization of the NAD(P)H:acceptor oxidoreductase (FerB) of Paracoccus denitrificans. Protein Expression and Purification, 2009, 68, 233-238.	0.6	10
64	Investigation of Thermal Denaturation of Barley Nonspecific Lipid Transfer Protein 1 (ns-LTP1b) by Nuclear Magnetic Resonance and Differential Scanning Calorimetry. Journal of Agricultural and Food Chemistry, 2009, 57, 8444-8452.	2.4	11
65	Single-Myb-histone proteins from Arabidopsis thaliana: a quantitative study of telomere-binding specificity and kinetics. Biochemical Journal, 2009, 419, 221-230.	1.7	18
66	<i>In Silico</i> Mutagenesis and Docking Studies of <i>Pseudomonas aeruginosa</i> PA-IIL Lectin â€” Predicting Binding Modes and Energies. Journal of Chemical Information and Modeling, 2008, 48, 2234-2242.	2.5	19
67	Structural Basis of the Preferential Binding for Globo-Series Glycosphingolipids Displayed by Pseudomonas aeruginosa Lectin I. Journal of Molecular Biology, 2008, 383, 837-853.	2.0	133
68	TRITON: a graphical tool for ligand-binding protein engineering. Bioinformatics, 2008, 24, 1955-1956.	1.8	25
69	Structural basis for mannose recognition by a lectin from opportunistic bacteria <i>Burkholderia cenocepacia</i>. Biochemical Journal, 2008, 411, 307-318.	1.7	74
70	Xâ€ray Structures and Thermodynamics of the Interaction of PAâ€IIL from <i>Pseudomonas aeruginosa</i> with Disaccharide Derivatives. ChemMedChem, 2007, 2, 1328-1338.	1.6	61
71	The mink as an animal model for Pseudomonas aeruginosa adhesion: binding of the bacterial lectins (PA-IL and PA-IIL) to neoglycoproteins and to sections of pancreas and lung tissues from healthy mink. Microbes and Infection, 2007, 9, 566-573.	1.0	16
72	Engineering of PA-IIL lectin from Pseudomonas aeruginosa â€“ Unravelling the role of the specificity loop for sugar preference. BMC Structural Biology, 2007, 7, 36.	2.3	40

#	Article	IF	Citations
73	Molecular Modeling of Glycosyltransferases. , 2006, 347, 145-156.		6
74	Unusual Entropy-Driven Affinity of Chromobacterium violaceum Lectin CV-IIL toward Fucose and Mannose,. Biochemistry, 2006, 45, 7501-7510.	1.2	36
75	Binding of different monosaccharides by lectin PA-IIL fromPseudomonas aeruginosa: Thermodynamics data correlated with X-ray structures. FEBS Letters, 2006, 580, 982-987.	1.3	94
76	Structural basis of high-affinity glycan recognition by bacterial and fungal lectins. Current Opinion in Structural Biology, 2005, 15, 525-534.	2.6	88
77	The Fucose-binding Lectin from Ralstonia solanacearum. Journal of Biological Chemistry, 2005, 280, 27839-27849.	1.6	160
78	Structural basis for the interaction between human milk oligosaccharides and the bacterial lectin PA-IIL of Pseudomonas aeruginosa. Biochemical Journal, 2005, 389, 325-332.	1.7	129
79	Purification and Some Properties of Isocitrate Dehydrogenase fromParacoccus denitrificans. Preparative Biochemistry and Biotechnology, 2004, 34, 279-289.	1.0	0
80	A new Ralstonia solanacearum high-affinity mannose-binding lectin RS-IIL structurally resembling the Pseudomonas aeruginosa fucose-specific lectin PA-IIL. Molecular Microbiology, 2004, 52, 691-700.	1.2	70
81	Structures of the lectins from Pseudomonas aeruginosa: insights into the molecular basis for host glycan recognition. Microbes and Infection, 2004, 6, 221-228.	1.0	271
82	High affinity fucose binding of Pseudomonas aeruginosa lectin PA-IIL: 1.0 Ã… resolution crystal structure of the complex combined with thermodynamics and computational chemistry approaches. Proteins: Structure, Function and Bioinformatics, 2004, 58, 735-746.	1.5	104
83	Structural basis of calcium and galactose recognition by the lectin PA-IL ofPseudomonas aeruginosa. FEBS Letters, 2003, 555, 297-301.	1.3	175
84	Combining fold recognition and exploratory data analysis for searching for glycosyltransferases in the genome of Mycobacterium tuberculosis. Biochimie, 2003, 85, 691-700.	1.3	22
85	Crystal Structure of Fungal Lectin. Journal of Biological Chemistry, 2003, 278, 27059-27067.	1.6	164
86	Structural basis for oligosaccharide-mediated adhesion of Pseudomonas aeruginosa in the lungs of cystic fibrosis patients. Nature Structural Biology, 2002, 9, 918-921.	9.7	247
87	Biochemical characterization of broad-specificity enzymes using multivariate experimental design and a colorimetric microplate assay: characterization of the haloalkane dehalogenase mutants. Journal of Microbiological Methods, 2001, 44, 149-157.	0.7	23
88	Determination of haloalkane dehalogenase activity by capillary zone electrophoresis. Journal of Chromatography A, 2000, 895, 219-225.	1.8	10
89	Sensitive amperometric biosensor for the determination of biogenic and synthetic amines using pea seedlings amine oxidase: a novel approach for enzyme immobilisation. Biosensors and Bioelectronics, 1999, 14, 695-702.	5.3	48
90	Differential pulse polarographic study of the redox centres in pea amine oxidase. Bioelectrochemistry, 1996, 41, 173-179.	1.0	7