Christina SchÃ¤ffer

List of Publications by Year
in descending order

108 papers	3,639 citations	136950 32 h-index	161849 54 g-index
110 all docs	110 docs citations	110 times ranked	3351 citing authors

#	Article	IF	Citations
1	Multivalent glycoconjugates as anti-pathogenic agents. Chemical Society Reviews, 2013, 42, 4709-4727.	38.1	464
2	The structure of secondary cell wall polymers: how Gram-positive bacteria stick their cell walls together. Microbiology (United Kingdom), 2005, 151, 643-651.	1.8	164
3	Emerging facets of prokaryotic glycosylation. FEMS Microbiology Reviews, 2017, 41, 49-91.	8.6	114
4	Prokaryotic glycosylation. Proteomics, 2001, 1, 248-261.	2.2	95
5	Glycobiology of surface layer proteins. Biochimie, 2001, 83, 591-599.	2.6	88
6	Surface-layer glycoproteins: an example for the diversity of bacterial glycosylation with promising impacts on nanobiotechnology. Glycobiology, 2004, 14, 31R-42R.	2.5	84
7	Characterization and Scope of S-layer Protein O-Glycosylation in Tannerella forsythia. Journal of Biological Chemistry, 2011, 286, 38714-38724.	3.4	82
8	Potential of the Tannerella forsythia S-layer to Delay the Immune Response. Journal of Dental Research, 2011, 90, 109-114.	5.2	78
9	S-layer nanoglycobiology of bacteria. Carbohydrate Research, 2008, 343, 1934-1951.	2.3	74
10	The Surface Layer (S-layer) Glycoprotein of Geobacillus stearothermophilus NRS 2004/3a. Journal of Biological Chemistry, 2002, 277, 6230-6239.	3.4	68
11	Sulfoquinovose synthase â€“ an important enzyme in the Nâ€glycosylation pathway of Sulfolobus acidocaldarius. Molecular Microbiology, 2011, 82, 1150-1163.	2.5	68
12	Identification and Functional Analysis of the S-Layer Protein SplA of Paenibacillus larvae, the Causative Agent of American Foulbrood of Honey Bees. PLoS Pathogens, 2012, 8, e1002716.	4.7	68
13	Classification of isolates from locations in Austria and Yellowstone National Park as Geobacillus tepidamans sp. nov.. International Journal of Systematic and Evolutionary Microbiology, 2004, 54, 2361-2368.	1.7	66
14	Protein tyrosine O-glycosylation--A rather unexplored prokaryotic glycosylation system. Glycobiology, 2010, 20, 787-798.	2.5	62
15	The diacetamidodideoxyuronic-acid-containing glycan chain of Bacillus stearothermophilus NRS 2004/3a represents the secondary cell-wall polymer of wild-type B. stearothermophilus strains. Microbiology (United Kingdom), 1999, 145, 1575-1583.	1.8	58
16	Phylumâ€wide general protein <scp>O</scp>â€glycosylation system of the <scp>B</scp>acteroidetes. Molecular Microbiology, 2013, 88, 772-783.	2.5	58
17	The Sâ€layer proteins of Tannerella forsythia are secreted via a typeÂ<scp>IX</scp> secretion system that is decoupled from protein Oâ€glycosylation. Molecular Oral Microbiology, 2014, 29, 307-320.	2.7	54
18	Novel Biocatalysts Based on Sâ€Layer Selfâ€Assembly of Geobacillus Stearothermophilus NRS 2004/3a: A Nanobiotechnological Approach. Small, 2007, 3, 1549-1559.	10.0	53

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19	Exploitation of the S-layer self-assembly system for site directed immobilization of enzymes demonstrated for an extremophilic laminarinase from Pyrococcus furiosus. Journal of Biotechnology, 2008, 133, 403-411.	3.8	53
20	Functional Characterization of the Initiation Enzyme of S-Layer Glycoprotein Glycan Biosynthesis in Geobacillus stearothermophilus NRS 2004/3a. Journal of Bacteriology, 2007, 189, 2590-2598.	2.2	47
21	Construction of a Gene Knockout System for Application in Paenibacillus alvei CCM 2051 ^T , Exemplified by the S-Layer Glycan Biosynthesis Initiation Enzyme WsfP. Applied and Environmental Microbiology, 2009, 75, 3077-3085.	3.1	46
22	Outer membrane vesicles of Tannerella forsythia: biogenesis, composition, and virulence. Molecular Oral Microbiology, 2015, 30, 451-473.	2.7	45
23	Molecular Basis of S-layer Glycoprotein Glycan Biosynthesis in Geobacillus stearothermophilus. Journal of Biological Chemistry, 2008, 283, 21120-21133.	3.4	42
24	Bacterial cell-envelope glycoconjugates. Advances in Carbohydrate Chemistry and Biochemistry, 2013, 69, 209-272.	0.9	41
25	Complete glycan structure of the S-layer glycoprotein of Aneurinibacillus thermoaerophilus GS4-97 cg]. Glycobiology, 1999, 9, 407-414.	2.5	40
26	Are S-Layer Glycoproteins and Lipopolysaccharides Related?. Microbial Drug Resistance, 1996, 2, 17-23.	2.0	39
27	III. Biochemistry of S-layers. FEMS Microbiology Reviews, 1997, 20, 25-46.	8.6	39
28	Biosynthesis of dTDP-3-acetamido-3,6-dideoxy-Î±-D-glucose. Biochemical Journal, 2008, 410, 187-194.	3.7	38
29	Mapping and sequencing of cardiolipins fromGeobacillus stearothermophilusNRS 2004/3a by positive and negative ion nanoESI-QTOF-MS and MS/MS. Journal of Mass Spectrometry, 2002, 37, 1086-1094.	1.6	37
30	Analysis of the cell surface layer ultrastructure of the oral pathogen Tannerella forsythia. Archives of Microbiology, 2012, 194, 525-539.	2.2	37
31	Characterization of the Glycan Structure of a Major Glycopeptide from the Surface Layer Glycoprotein of Clostridium thermosaccharolyticum E207-71. FEBS Journal, 1995, 229, 308-315.	0.2	37
32	Characterization of an Î±-<scp>l</scp>-fucosidase from the periodontal pathogenTannerella forsythia. Virulence, 2015, 6, 282-292.	4.4	35
33	A pyrophosphate bridge links the pyruvate-containing secondary cell wall polymer of Paenibacillus alvei CCM 2051 to muramic acid. Glycoconjugate Journal, 2000, 17, 681-690.	2.7	34
34	S-layer glycan-specific loci on the chromosome of Geobacillus stearothermophilus NRS 2004/3a and dTDP-l-rhamnose biosynthesis potential of G. stearothermophilus strains. Microbiology (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 13	2.8	33
35	The S-Layer Glycomeâ€"Adding to the Sugar Coat of Bacteria. International Journal of Microbiology, 2011, 2011, 1-16.	2.3	31
36	New Insights into the Glycosylation of the Surface Layer Protein SgsE from Geobacillus stearothermophilus NRS 2004/3a. Journal of Bacteriology, 2006, 188, 7914-7921.	2.2	30

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37	Draft Genome Sequence of Tannerella forsythia Type Strain ATCC 43037. Genome Announcements, 2015, 3, .	0.8	30
38	Genetic organization of chromosomal S-layer glycan biosynthesis loci of Bacillaceae. Glycoconjugate Journal, 2003, 20, 435-447.	2.7	29
39	â€œCross-glycosylationâ€•of proteins in Bacteroidales species. Glycobiology, 2013, 23, 568-577.	2.5	29
40	Structure and Immunogenicity of the Rough-Type Lipopolysaccharide from the Periodontal Pathogen Tannerella forsythia. Vaccine Journal, 2013, 20, 945-953.	3.1	28
41	Are the Surface Layer Homology Domains Essential for Cell Surface Display and Glycosylation of the S-Layer Protein from Paenibacillus alvei CCM 2051T?. Journal of Bacteriology, 2013, 195, 565-575.	2.2	28
42	Occurrence, Structure, Chemistry, Genetics, Morphogenesis, and Functions of S-Layers. , 2010, , 53-109.		28
43	A novel type of carbohydrate-protein linkage region in the tyrosine-bound S-layer glycan of Thermoanaerobacterium thermosaccharolyticum D120-70. FEBS Journal, 2000, 267, 5482-5492.	0.2	27
44	Structural basis of cell wall anchoring by SLH domains in Paenibacillus alvei. Nature Communications, 2018, 9, 3120.	12.8	27
45	Behavior of two Tannerella forsythia strains and their cell surface mutants in multispecies oral biofilms. Molecular Oral Microbiology, 2017, 32, 404-418.	2.7	26
46	Prokaryotic Glycoproteins. Progress in the Chemistry of Organic Natural Products, 2003, 85, 51-124.	1.1	26
47	Accurate determination of the molecular weight of the major surface layer protein isolated from Clostridium thermosaccharolyticum by time-of-flight mass spectrometry. Journal of Bacteriology, 1995, 177, 1402-1404.	2.2	25
48	Functional Expression of Enterobacterial O-Polysaccharide Biosynthesis Enzymes in Bacillus subtilis. Applied and Environmental Microbiology, 2002, 68, 4722-4730.	3.1	25
49	N-Acetylmuramic Acid as Capping Element of Î±-D-Fucose-containing S-layer Glycoprotein Glycans from Geobacillus tepidamans GS5â€“97T. Journal of Biological Chemistry, 2005, 280, 20292-20299.	3.4	25
50	Glycobiology Aspects of the Periodontal Pathogen Tannerella forsythia. Biomolecules, 2012, 2, 467-482.	4.0	25
51	Protein O-glucosylation in Lactobacillus buchneri. Glycoconjugate Journal, 2014, 31, 117-131.	2.7	25
52	Recombinant Glycans on an Sâ€Layer Selfâ€Assembly Protein: A New Dimension for Nanopatterned Biomaterials. Small, 2008, 4, 1728-1740.	10.0	24
53	Structural and Functional Studies of QdtC: An N-Acetyltransferase Required for the Biosynthesis of dTDP-3-Acetamido-3,6-dideoxy-Î±-<scp>d</scp>-glucose. Biochemistry, 2009, 48, 2699-2709.	2.5	24
54	Identification of a Novel N -Acetylmuramic Acid Transporter in Tannerella forsythia. Journal of Bacteriology, 2016, 198, 3119-3125.	2.2	24

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55	Characterization of the S-Layer Glycoproteins of Two Lactobacilli. , 1993, , 281-284.		24
56	The first biantennary bacterial secondary cell wall polymer and its influence on S-layer glycoprotein assembly. Biochemical Journal, 2002, 368, 483-494.	3.7	23
57	A General Protein O-Glycosylation Gene Cluster Encodes the Species-Specific Glycan of the Oral Pathogen Tannerella forsythia: O-Glycan Biosynthesis and Immunological Implications. Frontiers in Microbiology, 2018, 9, 2008.	3.5	23
58	Structural Analysis of QdtB, an Aminotransferase Required for the Biosynthesis of dTDP-3-acetamido-3,6-dideoxy-Î±-<scp>d</scp>-glucose. Biochemistry, 2009, 48, 1553-1561.	2.5	22
59	Structural Basis of Substrate Binding in WsaF, a Rhamnosyltransferase from Geobacillus stearothermophilus. Journal of Molecular Biology, 2010, 397, 436-447.	4.2	22
60	A pseudaminic acid or a legionaminic acid derivative transferase is strain-specifically implicated in the general protein O-glycosylation system of the periodontal pathogen Tannerella forsythia. Glycobiology, 2017, 27, 555-567.	2.5	22
61	Gene cloning, functional expression and secretion of the S-layer protein SgsE fromGeobacillus stearothermophilusNRS 2004/3a inLactococcus lactis. FEMS Microbiology Letters, 2005, 242, 27-35.	1.8	21
62	The dTDP-4-dehydro-6-deoxyglucose reductase encoding fcd gene is part of the surface layer glycoprotein glycosylation gene cluster of Geobacillus tepidamans GS5-97T. Glycobiology, 2007, 17, 433-443.	2.5	21
63	Cell surface display of chimeric glycoproteins via the S-layer of Paenibacillus alvei. Carbohydrate Research, 2010, 345, 1422-1431.	2.3	21
64	Tannerella forsythiastrains display different cell-surface nonulosonic acids: biosynthetic pathway characterization and first insight into biological implications. Glycobiology, 2017, 27, 342-357.	2.5	21
65	Lactobacillus buchneri S-layer as carrier for an Ara h 2-derived peptide for peanut allergen-specific immunotherapy. Molecular Immunology, 2017, 85, 81-88.	2.2	21
66	The S-Layer Homology Domain-Containing Protein SlhA from Paenibacillus alvei CCMÂ2051T Is Important for Swarming and Biofilm Formation. PLoS ONE, 2013, 8, e76566.	2.5	21
67	Sequencing of O-Glycopeptides Derived from an S-Layer Glycoprotein of Geobacillus stearothermophilus NRS 2004/3a Containing up to 51 Monosaccharide Residues at a Single Glycosylation Site by Fourier Transform Ion Cyclotron Resonance Infrared Multiphoton Dissociation Mass Spectrometry. Analytical Chemistry, 2007, 79, 3271-3279.	6.5	20
68	Absorption, Steady-State Fluorescence, Fluorescence Lifetime, and 2D Self-Assembly Properties of Engineered Fluorescent S-Layer Fusion Proteins of Geobacillus stearothermophilus NRS 2004/3a. Biomacromolecules, 2010, 11, 207-214.	5.4	19
69	The S-Layer Protein of the Anammox Bacterium Kuenenia stuttgartiensis Is Heavily O-Glycosylated. Frontiers in Microbiology, 2016, 7, 1721.	3.5	19
70	Pyruvate Substitutions on Glycoconjugates. International Journal of Molecular Sciences, 2019, 20, 4929.	4.1	17
71	Isolation and characterization of an amino sugar-rich glycopeptide from the surface layer glycoprotein of Thermoanaerobacterium thermosaccharolyticum E207-71. Carbohydrate Research, 1996, 295, 245-253.	2.3	16
72	Characterizing the Sâ€layer structure and antiâ€Sâ€layer antibody recognition on intact Tannerella forsythia cells by scanning probe microscopy and small angle Xâ€ray scattering. Journal of Molecular Recognition, 2013, 26, 542-549.	2.1	16

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73	Flagellin Glycoproteomics of the Periodontitis Associated Pathogen Selenomonas sputigena Reveals Previously Not Described O-glycans and Rhamnose Fragment Rearrangement Occurring on the Glycopeptides. Molecular and Cellular Proteomics, 2018, 17, 721-736.	3.8	16
74	Lipoteichoic acid mediates binding of a Lactobacillus S-layer protein. Glycobiology, 2018, 28, 148-158.	2.5	16
75	Functional Characterization of Enzymatic Steps Involved in Pyruvylation of Bacterial Secondary Cell Wall Polymer Fragments. Frontiers in Microbiology, 2018, 9, 1356.	3.5	16
76	Nonulosonic acids contribute to the pathogenicity of the oral bacterium Tannerella forsythia. Interface Focus, 2019, 9, 20180064.	3.0	16
77	LytR-CpsA-Psr Glycopolymer Transferases: Essential Bricks in Gram-Positive Bacterial Cell Wall Assembly. International Journal of Molecular Sciences, 2021, 22, 908.	4.1	16
78	Purification and structure elucidation of theN-acetylbacillosamine-containing polysaccharide fromBacillusâ€ƒlicheniformisATCC 9945. FEBS Journal, 2001, 268, 857-864.	0.2	14
79	Prokaryotic Cell Wall Components: Structure and Biochemistry. , 2010, , 459-481.		14
80	Immune response profiling of primary monocytes and oral keratinocytes to different Tannerella forsythia strains and their cell surface mutants. Molecular Oral Microbiology, 2018, 33, 155-167.	2.7	13
81	The secondary cell wall polymer of Geobacillus tepidamans GS5-97T: structure of different glycoforms. Carbohydrate Research, 2005, 340, 2290-2296.	2.3	12
82	Biochemical characterization of the major N-acetylmuramidase from Lactobacillus buchneri. Microbiology (United Kingdom), 2014, 160, 1807-1819.	1.8	12
83	Characterization of the Glycan Structure of a Major Glycopeptide from the Surface Layer Glycoprotein of Clostridium thermosaccharolyticum E207-71. FEBS Journal, 1995, 229, 308-315.	0.2	11
84	N-Acetylmuramic Acid (MurNAc) Auxotrophy of the Oral Pathogen Tannerella forsythia: Characterization of a MurNAc Kinase and Analysis of Its Role in Cell Wall Metabolism. Frontiers in Microbiology, 2018, 9, 19.	3.5	11
85	A temperature-sensitive expression system based on the Geobacillus stearothermophilus NRS 2004/3a sgsE surface-layer gene promoter. Biotechnology and Applied Biochemistry, 2008, 49, 35.	3.1	10
86	UDP-sulfoquinovose formation by Sulfolobus acidocaldarius. Extremophiles, 2015, 19, 451-467.	2.3	10
87	Draft Genome Sequences of Three Clinical Isolates of Tannerella forsythia Isolated from Subgingival Plaque from Periodontitis Patients in the United States. Genome Announcements, 2016, 4, .	0.8	10
88	Isolation of Glucocardiolipins from Geobacillus stearothermophilus NRS 2004/3a. Journal of Bacteriology, 2002, 184, 6709-6713.	2.2	9
89	Small-Angle X-Ray Scattering for Imaging of Surface Layers on Intact Bacteria in the Native Environment. Journal of Bacteriology, 2013, 195, 2408-2414.	2.2	9
90	Flagellin glycosylation inPaenibacillus alveiCCM 2051^T. Glycobiology, 2016, 26, cwv087.	2.5	9

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91	Comparative genome characterization of the periodontal pathogen Tannerella forsythia. BMC Genomics, 2020, 21, 150.	2.8	9
92	Peptidoglycan-type analysis of the N-acetylmuramic acid auxotrophic oral pathogen Tannerella forsythia and reclassification of the peptidoglycan-type of Porphyromonas gingivalis. BMC Microbiology, 2019, 19, 200.	3.3	8
93	The S-layer homology domains of Paenibacillus alvei surface protein SpaA bind to cell wall polysaccharide through the terminal monosaccharide residue. Journal of Biological Chemistry, 2022, 298, 101745.	3.4	7
94	Intracellular targeting of ascomycetous catalase-peroxidases (KatG1s). Archives of Microbiology, 2013, 195, 393-402.	2.2	6
95	Utilization of different MurNAcÂsources by the oral pathogen Tannerella forsythia and role of the inner membrane transporter AmpG. BMC Microbiology, 2020, 20, 352.	3.3	5
96	A Combination of Structural, Genetic, Phenotypic and Enzymatic Analyses Reveals the Importance of a Predicted Fucosyltransferase to Protein O-Glycosylation in the Bacteroidetes. Biomolecules, 2021, 11, 1795.	4.0	5
97	Description of a Putative Oligosaccharyl:S-Layer Protein Transferase from the Tyrosine <i>O</i>-Glycosylation System of <i>Paenibacillus alvei</i> CCM 2051^T. Advances in Microbiology, 2012, 02, 537-546.	0.6	4
98	Shut-Down of Type IX Protein Secretion Alters the Host Immune Response to Tannerella forsythia and Porphyromonas gingivalis. Frontiers in Cellular and Infection Microbiology, 2022, 12, 835509.	3.9	4
99	Purification, crystallization and preliminary crystallographic analysis of WsaF, an essential rhamnosyltransferase fromGeobacillus stearothermophilus. Acta Crystallographica Section F: Structural Biology Communications, 2008, 64, 1163-1165.	0.7	3
100	Inositol-phosphodihydroceramides in the periodontal pathogen Tannerella forsythia: Structural analysis and incorporation of exogenous myo-inositol. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2015, 1851, 1417-1427.	2.4	3
101	Negative Ion Ultraviolet Matrix-Assisted Laser Desorption Ionization Mass Spectrometry and Post Source Decay of Glycosyl Esters of Nucleoside Pyrophosphates. European Journal of Mass Spectrometry, 2008, 14, 401-409.	1.0	2
102	Bacterial surface layer glycoproteins and â€œnon-classicalâ€•secondary cell wall polymers. , 2010, , 109-128.		2
103	Carb loading takes proteins on a ride. Journal of Biological Chemistry, 2018, 293, 5374-5375.	3.4	2
104	A Fusion Tag to Fold on: The S-Layer Protein SgsE Confers Improved Folding Kinetics to Translationally Fused Enhanced Green Fluorescent Protein. Journal of Microbiology and Biotechnology, 2012, 22, 1271-1278.	2.1	2
105	Assaying Paenibacillus alvei CsaB-Catalysed Ketalpyruvyltransfer to Saccharides by Measurement of Phosphate Release. Biomolecules, 2021, 11, 1732.	4.0	2
106	Synthesis of a pyruvylated N-acetyl-Î²-D-mannosamine containing disaccharide repeating unit of a cell wall glycopolymer from Paenibacillus alvei. Arkivoc, 2021, 2021, 137-151.	0.5	1
107	Assaying Fucosidase Activity. Methods in Molecular Biology, 2019, 1954, 269-278.	0.9	0
108	Prokaryotes: Sweet proteins do matter. , 2020, , 3-36.		0