Stephen Bornemann

List of Publications by Year
in descending order

61 papers	2,590 citations	172457 29 h-index	197818 49 g-index
64 all docs	64 docs citations	64 times ranked	2666 citing authors

#	Article	IF	Citations
1	<i>Pseudomonas syringae</i>addresses distinct environmental challenges during plant infection through the coordinated deployment of polysaccharides. Journal of Experimental Botany, 2022, 73, 2206-2221.	4.8	8
2	A temperature-sensitive Mycobacterium smegmatis glgE mutation leads to a loss of GlgE enzyme activity and thermostability and the accumulation of Î±-maltose-1-phosphate. Biochimica Et Biophysica Acta - General Subjects, 2021, 1865, 129783.	2.4	0
3	Trehalose and Î±-glucan mediate distinct abiotic stress responses in Pseudomonas aeruginosa. PLoS Genetics, 2021, 17, e1009524.	3.5	22
4	Structure of the <i>Mycobacterium smegmatis</i> Î±-maltose-1-phosphate synthase GlgM. Acta Crystallographica Section F, Structural Biology Communications, 2020, 76, 175-181.	0.8	7
5	The Production and Utilization of GDP-glucose in the Biosynthesis of Trehalose 6-Phosphate by Streptomyces venezuelae. Journal of Biological Chemistry, 2017, 292, 945-954.	3.4	13
6	Î±-Glucan biosynthesis and the GlgE pathway in <i>Mycobacterium tuberculosis</i>. Biochemical Society Transactions, 2016, 44, 68-73.	3.4	25
7	Ligand-bound Structures and Site-directed Mutagenesis Identify the Acceptor and Secondary Binding Sites of Streptomyces coelicolor Maltosyltransferase GlgE. Journal of Biological Chemistry, 2016, 291, 21531-21540.	3.4	13
8	Assembly of Î±-Glucan by GlgE and GlgB in Mycobacteria and Streptomycetes. Biochemistry, 2016, 55, 3270-3284.	2.5	33
9	Developmental delay in a Streptomyces venezuelae glgE null mutant is associated with the accumulation of Î±-maltose 1-phosphate. Microbiology (United Kingdom), 2016, 162, 1208-1219.	1.8	10
10	Metabolic Network for the Biosynthesis of Intra- and Extracellular Î±-Glucans Required for Virulence of Mycobacterium tuberculosis. PLoS Pathogens, 2016, 12, e1005768.	4.7	46
11	Trehalose-6-Phosphate-Mediated Toxicity Determines Essentiality of OtsB2 in Mycobacterium tuberculosis In Vitro and in Mice. PLoS Pathogens, 2016, 12, e1006043.	4.7	35
12	Allosteric regulation of the partitioning of glucose-1-phosphate between glycogen and trehalose biosynthesis in Mycobacterium tuberculosis. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 13-21.	2.4	27
13	Dual Catalytic Activity of Hydroxycinnamoyl-Coenzyme A Quinate Transferase from Tomato Allows It to Moonlight in the Synthesis of Both Mono- and Dicaffeoylquinic Acids. Plant Physiology, 2014, 166, 1777-1787.	4.8	53
14	Discrimination of large maltooligosaccharides from isobaric dextran and pullulan using ion mobility mass spectrometry. Rapid Communications in Mass Spectrometry, 2014, 28, 191-199.	1.5	18
15	Sugar-coated sensor chip and nanoparticle surfaces for the in vitro enzymatic synthesis of starch-like materials. Chemical Science, 2014, 5, 341-350.	7.4	28
16	Calcium/Calmodulin-Dependent Protein Kinase Is Negatively and Positively Regulated by Calcium, Providing a Mechanism for Decoding Calcium Responses during Symbiosis Signaling Â. Plant Cell, 2014, 25, 5053-5066.	6.6	124
17	Structural Insight into How <i>Streptomyces coelicolor</i> Maltosyl Transferase GlgE Binds Î±-Maltose 1-Phosphate and Forms a Maltosyl-enzyme Intermediate. Biochemistry, 2014, 53, 2494-2504.	2.5	33
18	Flux through Trehalose Synthase Flows from Trehalose to the Alpha Anomer of Maltose in Mycobacteria. Chemistry and Biology, 2013, 20, 487-493.	6.0	41

#	Article	IF	Citations
19	Mycobacterium tuberculosis Maltosyltransferase GlgE, a Genetically Validated Antituberculosis Target, Is Negatively Regulated by Ser/Thr Phosphorylation. Journal of Biological Chemistry, 2013, 288, 16546-16556.	3.4	33
20	Calcium Ion Binding Properties of <i>Medicago truncatula</i> Calcium/Calmodulin-Dependent Protein Kinase. Biochemistry, 2012, 51, 6895-6907.	2.5	19
21	Structure of Streptomyces Maltosyltransferase GlgE, a Homologue of a Genetically Validated Anti-tuberculosis Target*. Journal of Biological Chemistry, 2011, 286, 38298-38310.	3.4	49
22	Unexpected and widespread connections between bacterial glycogen and trehalose metabolism. Microbiology (United Kingdom), 2011, 157, 1565-1572.	1.8	136
23	Self-poisoning of Mycobacterium tuberculosis by targeting GlgE in an Î±-glucan pathway. Nature Chemical Biology, 2010, 6, 376-384.	8.0	141
24	Detection of enzyme-catalyzed polysaccharide synthesis on surfaces. Biocatalysis and Biotransformation, 2010, 28, 64-71.	2.0	4
25	pH-Dependent Structures of the Manganese Binding Sites in Oxalate Decarboxylase as Revealed by High-Field Electron Paramagnetic Resonance. Journal of Physical Chemistry B, 2009, 113, 9016-9025.	2.6	31
26	Replacement of two invariant serine residues in chorismate synthase provides evidence that a proton relay system is essential for intermediate formation and catalytic activity. FEBS Journal, 2008, 275, 1464-1473.	4.7	6
27	Detection of Transglucosidase-Catalyzed Polysaccharide Synthesis on a Surface in Real Time Using Surface Plasmon Resonance Spectroscopy. Journal of the American Chemical Society, 2008, 130, 15234-15235.	13.7	17
28	A germin-like protein with superoxide dismutase activity in pea nodules with high protein sequence identity to a putative rhicadhesin receptor. Journal of Experimental Botany, 2007, 58, 1161-1171.	4.8	76
29	The identity of the active site of oxalate decarboxylase and the importance of the stability of active-site lid conformations. Biochemical Journal, 2007, 407, 397-406.	3.7	31
30	Mutagenic Analysis of an Invariant Aspartate Residue in Chorismate Synthase Supports Its Role as an Active Site Baseâ€. Biochemistry, 2007, 46, 3768-3774.	2.5	12
31	Oxalate Decarboxylase and Oxalate Oxidase Activities Can Be Interchanged with a Specificity Switch of up to 282â€‰000 by Mutating an Active Site Lid[,]. Biochemistry, 2007, 46, 12327-12336.	2.5	51
32	Real-Time Monitoring of the Oxalate Decarboxylase Reaction and Probing Hydron Exchange in the Product, Formate, Using Fourier Transform Infrared Spectroscopy. Biochemistry, 2006, 45, 10667-10673.	2.5	21
33	Characterization of Medicago truncatula (barrel medic) hydroperoxide lyase (CYP74C3), a water-soluble detergent-free cytochrome P450 monomer whose biological activity is defined by monomerâ€“micelle association. Biochemical Journal, 2006, 395, 641-652.	3.7	21
34	Cloning and Sequencing of Two Ceriporiopsis subvermispora Bicupin Oxalate Oxidase Allelic Isoforms: Implications for the Reaction Specificity of Oxalate Oxidases and Decarboxylases. Applied and Environmental Microbiology, 2005, 71, 3608-3616.	3.1	49
35	A Closed Conformation of Bacillus subtilis Oxalate Decarboxylase OxdC Provides Evidence for the True Identity of the Active Site. Journal of Biological Chemistry, 2004, 279, 19867-19874.	3.4	82
36	SAD at home: solving the structure of oxalate decarboxylase with the anomalous signal from manganese using X-ray data collected on a home source. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 2403-2406.	2.5	5

#	Article	IF	Citations
37	Bacillus subtilisYxaG is a novel Fe-containing quercetin 2,3-dioxygenase. FEBS Letters, 2004, 557, 45-48.	2.8	68
38	A Branch Point in Chorismate Synthase Research. Structure, 2003, 11, 1463-1465.	3.3	2
39	Flavoenzymes that Catalyze Reaction with no Net Redox Change. ChemInform, 2003, 34, no.	0.0	0
40	Three Isoforms of Isoamylase Contribute Different Catalytic Properties for the Debranching of Potato Glucans[W]. Plant Cell, 2003, 15, 133-149.	6.6	161
41	Flavoenzymes that catalyse reactions with no net redox change. Natural Product Reports, 2002, 19, 761-772.	10.3	128
42	Oxalate Decarboxylase Requires Manganese and Dioxygen for Activity. Journal of Biological Chemistry, 2001, 276, 43627-43634.	3.4	138
43	A Secondary Î² Deuterium Kinetic Isotope Effect in the Chorismate Synthase Reaction. Bioorganic Chemistry, 2000, 28, 191-204.	4.1	16
44	Bacillus subtilis YvrK Is an Acid-Induced Oxalate Decarboxylase. Journal of Bacteriology, 2000, 182, 5271-5273.	2.2	95
45	Studies with Substrate and Cofactor Analogues Provide Evidence for a Radical Mechanism in the Chorismate Synthase Reaction. Journal of Biological Chemistry, 2000, 275, 35825-35830.	3.4	30
46	Stereochemistry of the decarboxylation of glyoxylic acid by yeast pyruvate decarboxylase. Journal of the Chemical Society, Perkin Transactions 1, 2000, , 2317-2324.	1.3	1
47	Barley (Hordeum vulgare) oxalate oxidase is a manganese-containing enzyme. Biochemical Journal, 1999, 343, 185-190.	3.7	124
48	Specificity of starch synthase isoforms from potato. FEBS Journal, 1999, 266, 724-736.	0.2	62
49	Barley (Hordeum vulgare) oxalate oxidase is a manganese-containing enzyme. Biochemical Journal, 1999, 343, 185.	3.7	42
50	Evidence for a major structural change in Escherichia coli chorismate synthase induced by flavin and substrate binding. Biochemical Journal, 1998, 335, 319-327.	3.7	29
51	Structure and function studies of oxalate oxidase. Biochemical Society Transactions, 1998, 26, S273-S273.	3.4	1
52	Characterisation of the Molybdenum-Responsive ModE Regulatory Protein and its Binding to the Promoter Region of the modABCD (Molybdenum Transport) Operon of Escherichia Coli. FEBS Journal, 1997, 246, 119-126.	0.2	80
53	Binding of the Oxidized, Reduced, and Radical Flavin Species to Chorismate Synthase. An Investigation by Spectrophotometry, Fluorimetry, and Electron Paramagnetic Resonance and Electron Nuclear Double Resonance Spectroscopy. Biochemistry, 1996, 35, 1643-1652.	2.5	48
54	Stereospecific formation of R-aromatic acyloins by Zymomonas mobilis pyruvate decarboxylase. Journal of the Chemical Society Perkin Transactions 1, 1996, , 425.	0.9	30

#	Article	IF	Citations
55	The Transient Kinetics of Escherichia coli Chorismate Synthase:â€‰ Substrate Consumption, Product Formation, Phosphate Dissociation, and Characterization of a Flavin Intermediate. Biochemistry, 1996, 35, 9907-9916.	2.5	42
56	<i>Escherichia coli</i> chorismate synthase. Biochemical Society Transactions, 1996, 24, 84-88.	3.4	20
57	Studies with Flavin Analogs Provide Evidence That a Protonated Reduced FMN Is the Substrate-induced Transient Intermediate in the Reaction of Escherichia coli Chorismate Synthase. Journal of Biological Chemistry, 1996, 271, 25850-25858.	3.4	40
58	Escherichia coli Chorismate Synthase Catalyzes the Conversion of (6S)-6-Fluoro-5-enolpyruvylshikimate-3-phosphate to 6-Fluorochorismate. Journal of Biological Chemistry, 1995, 270, 22811-22815.	3.4	45
59	The Effects of Surfactants on Lipase-Catalysed Hydrolysis of Esters: Activities and Stereoselectivity. Biocatalysis, 1994, 11, 191-221.	0.9	8
60	Stereochemistry of the formation of lactaldehyde and acetoin produced by the pyruvate decarboxylases of yeast (Saccharomyces sp.) and Zymomonas mobilis: different Boltzmann distributions between bound forms of the electrophile, acetaldehyde, in the two enzymatic reactions. Journal of the Chemical Society Perkin Transactions 1, 1993, , 309.	0.9	33
61	Conversion of 2-acetamido-2-deoxy-Î²-D-glucopyranose (N-acetylglucosamine) into 2-acetamido-2-deoxy-Î²-D-galactopyranose (N-acetylgalactosamine) using a biotransformation to generate a selectively deprotected substrate for SN2 inversion. Journal of the Chemical Society Perkin Transactions 1, 1992, , 235-237.	0.9	27