Fabian M Commichau

List of Publications by Year
in descending order

72 papers	3,409 citations	159585 30 h-index	161849 54 g-index
81 all docs	81 docs citations	81 times ranked	3153 citing authors

#	Article	IF	Citations
1	Novel Activities of Glycolytic Enzymes in Bacillus subtilis. Molecular and Cellular Proteomics, 2009, 8, 1350-1360.	3.8	221
2	Regulatory links between carbon and nitrogen metabolism. Current Opinion in Microbiology, 2006, 9, 167-172.	5.1	171
3	Control of potassium homeostasis is an essential function of the second messenger cyclic di-AMP in <i>Bacillus subtilis</i>. Science Signaling, 2017, 10, .	3.6	162
4	Large-scale reduction of the <i>Bacillus subtilis</i> genome: consequences for the transcriptional network, resource allocation, and metabolism. Genome Research, 2017, 27, 289-299.	5.5	137
5	Control of glutamate homeostasis in <i>Bacillus subtilis</i>: a complex interplay between ammonium assimilation, glutamate biosynthesis and degradation. Molecular Microbiology, 2012, 85, 213-224.	2.5	127
6	Bacillus subtilis and Escherichia coli essential genes and minimal cell factories after one decade of genome engineering. Microbiology (United Kingdom), 2014, 160, 2341-2351.	1.8	127
7	A jack of all trades: the multiple roles of the unique essential second messenger cyclic diâ€<scp>AMP</scp>. Molecular Microbiology, 2015, 97, 189-204.	2.5	121
8	Trigger enzymes: bifunctional proteins active in metabolism and in controlling gene expression. Molecular Microbiology, 2008, 67, 692-702.	2.5	116
9	Microbial cell factories for the sustainable manufacturing of B vitamins. Current Opinion in Biotechnology, 2019, 56, 18-29.	6.6	105
10	RNase Y in Bacillus subtilis: a Natively Disordered Protein That Is the Functional Equivalent of RNase E from Escherichia coli. Journal of Bacteriology, 2011, 193, 5431-5441.	2.2	102
11	Essential genes in Bacillus subtilis: a re-evaluation after ten years. Molecular BioSystems, 2013, 9, 1068.	2.9	95
12	Physical interactions between tricarboxylic acid cycle enzymes in Bacillus subtilis: Evidence for a metabolon. Metabolic Engineering, 2011, 13, 18-27.	7.0	94
13	SPINE: A method for the rapid detection and analysis of proteinâ€“protein interactions <i>in vivo</i>. Proteomics, 2007, 7, 4032-4035.	2.2	90
14	Glutamate Metabolism in<i>Bacillus subtilis</i>: Gene Expression and Enzyme Activities Evolved To Avoid Futile Cycles and To Allow Rapid Responses to Perturbations of the System. Journal of Bacteriology, 2008, 190, 3557-3564.	2.2	90
15	Making and Breaking of an Essential Poison: the Cyclases and Phosphodiesterases That Produce and Degrade the Essential Second Messenger Cyclic di-AMP in Bacteria. Journal of Bacteriology, 2019, 201, .	2.2	90
16	A Delicate Connection: c-di-AMP Affects Cell Integrity by Controlling Osmolyte Transport. Trends in Microbiology, 2018, 26, 175-185.	7.7	88
17	A regulatory proteinâ€“protein interaction governs glutamate biosynthesis in <i>Bacillus subtilis</i>: the glutamate dehydrogenase RocG moonlights in controlling the transcription factor GltC. Molecular Microbiology, 2007, 65, 642-654.	2.5	87
18	<i>Subti</i>Wikiâ€“a database for the model organism<i>Bacillus subtilis</i>that links pathway, interaction and expression information. Nucleic Acids Research, 2014, 42, D692-D698.	14.5	77

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19	Structural and Biochemical Analysis of the Essential Diadenylate Cyclase CdaA from Listeria monocytogenes. Journal of Biological Chemistry, 2015, 290, 6596-6606.	3.4	62
20	The Blueprint of a Minimal Cell: MiniBacillus. Microbiology and Molecular Biology Reviews, 2016, 80, 955-987.	6.6	54
21	Vitamin B6 metabolism in microbes and approaches for fermentative production. Biotechnology Advances, 2017, 35, 31-40.	11.7	54
22	Overexpression of a non-native deoxyxylulose-dependent vitamin B6 pathway in Bacillus subtilis for the production of pyridoxine. Metabolic Engineering, 2014, 25, 38-49.	7.0	45
23	Bacillus subtilis Spore Resistance to Simulated Mars Surface Conditions. Frontiers in Microbiology, 2019, 10, 333.	3.5	44
24	Functional Dissection of a Trigger Enzyme: Mutations of the Bacillus subtilis Glutamate Dehydrogenase RocG That Affect Differentially Its Catalytic Activity and Regulatory Properties. Journal of Molecular Biology, 2010, 400, 815-827.	4.2	41
25	A High-Frequency Mutation in Bacillus subtilis: Requirements for the Decryptification of the gudB Glutamate Dehydrogenase Gene. Journal of Bacteriology, 2012, 194, 1036-1044.	2.2	41
26	Perspective of ions and messengers: an intricate link between potassium, glutamate, and cyclic di-AMP. Current Genetics, 2018, 64, 191-195.	1.7	41
27	c-di-AMP assists osmoadaptation by regulating the Listeria monocytogenes potassium transporters KimA and KtrCD. Journal of Biological Chemistry, 2019, 294, 16020-16033.	3.4	41
28	In vitro Phosphorylation of Key Metabolic Enzymes from <i>Bacillus subtilis:</i> PrkC Phosphorylates Enzymes from Different Branches of Basic Metabolism. Journal of Molecular Microbiology and Biotechnology, 2010, 18, 129-140.	1.0	40
29	Engineering Bacillus subtilis for the conversion of the antimetabolite 4-hydroxy-l-threonine to pyridoxine. Metabolic Engineering, 2015, 29, 196-207.	7.0	40
30	Phenotypes Associated with the Essential Diadenylate Cyclase CdaA and Its Potential Regulator CdaR in the Human Pathogen Listeria monocytogenes. Journal of Bacteriology, 2016, 198, 416-426.	2.2	40
31	The KupA and KupB Proteins of <i>Lactococcus lactis</i> IL1403 Are Novel c-di-AMP Receptor Proteins Responsible for Potassium Uptake. Journal of Bacteriology, 2019, 201, .	2.2	38
32	Identification of the first glyphosate transporter by genomic adaptation. Environmental Microbiology, 2019, 21, 1287-1305.	3.8	36
33	A Survey of Pyridoxal 5â€²-Phosphate-Dependent Proteins in the Gram-Positive Model Bacterium Bacillus subtilis. Frontiers in Molecular Biosciences, 2019, 6, 32.	3.5	36
34	Evidence for synergistic control of glutamate biosynthesis by glutamate dehydrogenases and glutamate in <scp><i>B</i></scp><i>acillus subtilis</i>. Environmental Microbiology, 2015, 17, 3379-3390.	3.8	35
35	Trigger Enzymes: Coordination of Metabolism and Virulence Gene Expression. Microbiology Spectrum, 2015, 3, .	3.0	34
36	<i>Bacillus subtilis</i>RecA and its accessory factors, RecF, RecO, RecR and RecX, are required for spore resistance to DNA double-strand break. Nucleic Acids Research, 2014, 42, 2295-2307.	14.5	33

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37	Role of DNA Repair and Protective Components in Bacillus subtilis Spore Resistance to Inactivation by 400-nm-Wavelength Blue Light. Applied and Environmental Microbiology, 2018, 84, .	3.1	30
38	Characterization of <i>Bacillus subtilis</i> Mutants with Carbon Source-Independent Glutamate Biosynthesis. Journal of Molecular Microbiology and Biotechnology, 2007, 12, 106-113.	1.0	29
39	Harnessing Underground Metabolism for Pathway Development. Trends in Biotechnology, 2019, 37, 29-37.	9.3	29
40	The Î³-Aminobutyrate Permease GabP Serves as the Third Proline Transporter of Bacillus subtilis. Journal of Bacteriology, 2014, 196, 515-526.	2.2	27
41	Regulation of citB expression in Bacillus subtilis: integration of multiple metabolic signals in the citrate pool and by the general nitrogen regulatory system. Archives of Microbiology, 2006, 185, 136-146.	2.2	26
42	Saltâ€sensitivity of Ïƒ^H and Spo0A prevents sporulation of <scp><i>B</i></scp><i>acillus subtilis</i> at high osmolarity avoiding death during cellular differentiation. Molecular Microbiology, 2016, 100, 108-124.	2.5	25
43	Molecular mechanisms underlying glyphosate resistance in bacteria. Environmental Microbiology, 2021, 23, 2891-2905.	3.8	24
44	The <i>Bacillus subtilis</i> Minimal Genome Compendium. ACS Synthetic Biology, 2021, 10, 2767-2771.	3.8	23
45	Hierarchical mutational events compensate for glutamate auxotrophy of a <scp><i>B</i></scp><i>acillus subtilis gltC</i> mutant. Environmental Microbiology Reports, 2017, 9, 279-289.	2.4	22
46	Coping with an Essential Poison: a Genetic Suppressor Analysis Corroborates a Key Function of c-di-AMP in Controlling Potassium Ion Homeostasis in Gram-Positive Bacteria. Journal of Bacteriology, 2018, 200, .	2.2	22
47	ThrR, a DNAâ€binding transcription factor involved in controlling threonine biosynthesis in <i>Bacillus subtilis</i>. Molecular Microbiology, 2016, 101, 879-893.	2.5	21
48	Selective Pressure for Biofilm Formation in Bacillus subtilis: Differential Effect of Mutations in the Master Regulator SinR on Bistability. MBio, 2018, 9, .	4.1	21
49	A twoâ€step evolutionary process establishes a nonâ€native vitamin B6 pathway in <i>Bacillus subtilis</i>. Environmental Microbiology, 2018, 20, 156-168.	3.8	20
50	An extracytoplasmic protein and a moonlighting enzyme modulate synthesis of <scp>câ€diâ€AMP</scp> in <i>Listeria monocytogenes</i>. Environmental Microbiology, 2020, 22, 2771-2791.	3.8	20
51	The <i>Bacillus</i> phage <scp>SPÎ²</scp> and its relatives: a temperate phage model system reveals new strains, species, prophage integration loci, conserved proteins and lysogeny management components. Environmental Microbiology, 2022, 24, 2098-2118.	3.8	19
52	Changes of DNA topology affect the global transcription landscape and allow rapid growth of a Bacillus subtilis mutant lacking carbon catabolite repression. Metabolic Engineering, 2018, 45, 171-179.	7.0	18
53	Underground metabolism facilitates the evolution of novel pathways for vitamin B6 biosynthesis. Applied Microbiology and Biotechnology, 2021, 105, 2297-2305.	3.6	17
54	Selection-Driven Accumulation of Suppressor Mutants in Bacillus subtilis: The Apparent High Mutation Frequency of the Cryptic gudB Gene and the Rapid Clonal Expansion of gudB+ Suppressors Are Due to Growth under Selection. PLoS ONE, 2013, 8, e66120.	2.5	16

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55	Complex formation between malate dehydrogenase and isocitrate dehydrogenase from <i>BacillusÂsubtilis</i> is regulated by tricarboxylic acid cycle metabolites. FEBS Journal, 2014, 281, 1132-1143.	4.7	16
56	Aurantimycin resistance genes contribute to survival of <i>Listeria monocytogenes </i>during life in the environment. Molecular Microbiology, 2019, 111, 1009-1024.	2.5	16
57	Factors that mediate and prevent degradation of the inactive and unstable GudB protein in Bacillus subtilis. Frontiers in Microbiology, 2014, 5, 758.	3.5	13
58	Characterization of glyphosateâ€resistant <i>Burkholderia anthina</i> and <i>Burkholderia cenocepacia</i> isolates from a commercial RoundupÂ® solution. Environmental Microbiology Reports, 2022, 14, 70-84.	2.4	11
59	Visualization of tandem repeat mutagenesis in Bacillus subtilis. DNA Repair, 2018, 63, 10-15.	2.8	9
60	L-Proline Synthesis Mutants of Bacillus subtilis Overcome Osmotic Sensitivity by Genetically Adapting L-Arginine Metabolism. Frontiers in Microbiology, 0, 13, .	3.5	9
61	A novel engineering tool in the Bacillus subtilis toolbox: inducer-free activation of gene expression by selection-driven promoter decryptification. Microbiology (United Kingdom), 2015, 161, 354-361.	1.8	8
62	Variants of the Bacillus subtilis LysR-Type Regulator GltC With Altered Activator and Repressor Function. Frontiers in Microbiology, 2019, 10, 2321.	3.5	7
63	A Mystery Unraveled: Essentiality of RNase III in Bacillus subtilis Is Caused by Resident Prophages. PLoS Genetics, 2012, 8, e1003199.	3.5	6
64	Monitoring Intraspecies Competition in a Bacterial Cell Population by Cocultivation of Fluorescently Labelled Strains. Journal of Visualized Experiments, 2014, , e51196.	0.3	5
65	A <i>Bacillus subtilis</i>â€‰<scp>Î”<i>pdxT</i></scp> mutant suppresses vitamin <scp>B6</scp> limitation by acquiring mutations enhancing <scp><i>pdxS</i></scp> gene dosage and ammonium assimilation. Environmental Microbiology Reports, 2021, 13, 218-233.	2.4	5
66	The resuscitation promotion concept extends to firmicutes. Microbiology (United Kingdom), 2013, 159, 1298-1300.	1.8	5
67	Adaptation of<i>Listeria monocytogenes</i>to perturbation of<scp>câ€diâ€AMP</scp>metabolism underpins its role in osmoadaptation and identifies a fosfomycin uptake system. Environmental Microbiology, 2022, 24, 4466-4488.	3.8	5
68	Complete Genome Sequence of the Prototrophic Bacillus subtilis subsp. <i>subtilis</i> Strain SP1. Microbiology Resource Announcements, 2020, 9, .	0.6	4
69	Draft Genome Sequence of the Type Strain Bacillus subtilis subsp. <i>subtilis</i> DSM10. Microbiology Resource Announcements, 2021, 10, .	0.6	4
70	The contribution of bacterial genome engineering to sustainable development. Microbial Biotechnology, 2017, 10, 1259-1263.	4.2	2
71	Trigger Enzymes: Coordination of Metabolism and Virulence Gene Expression. , 2015, , 105-127.		1
72	Fermentative Production of Vitamin B6. , 2020, , 1-34.		0