Matthias Mack

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6105707/publications.pdf

Version: 2024-02-01

60 papers	2,783 citations	186209 28 h-index	175177 52 g-index
66 all docs	66 docs citations	66 times ranked	3178 citing authors

#	Article	IF	Citations
1	Glycerol: A promising and abundant carbon source for industrial microbiology. Biotechnology Advances, 2009, 27, 30-39.	6.0	889
2	Regulation of Riboflavin Biosynthesis in Bacillus subtilis Is Affected by the Activity of the Flavokinase/Flavin Adenine Dinucleotide Synthetase Encoded by ribC. Journal of Bacteriology, 1998, 180, 950-955.	1.0	128
3	Microbial cell factories for the sustainable manufacturing of B vitamins. Current Opinion in Biotechnology, 2019, 56, 18-29.	3.3	105
4	Characterization of Riboflavin (Vitamin B₂) Transport Proteins fromBacillus subtilisandCorynebacterium glutamicum. Journal of Bacteriology, 2007, 189, 7367-7375.	1.0	101
5	The RFN riboswitch ofBacillus subtilisis a target for the antibiotic roseoflavin produced byStreptomyces davawensis. RNA Biology, 2009, 6, 276-280.	1.5	90
6	RibM from Streptomyces davawensis is a riboflavin/roseoflavin transporter and may be useful for the optimization of riboflavin production strains. BMC Biotechnology, 2011, 11, 119.	1.7	84
7	Glutaconate CoA-transferase from Acidaminococcus fermentans: the crystal structure reveals homology with other CoA-transferases. Structure, 1997, 5, 415-426.	1.6	77
8	A highly specialized flavin mononucleotide riboswitch responds differently to similar ligands and confers roseoflavin resistance to Streptomyces davawensis. Nucleic Acids Research, 2012, 40, 8662-8673.	6.5	75
9	Dual-Targeting Small-Molecule Inhibitors of the Staphylococcus aureus FMN Riboswitch Disrupt Riboflavin Homeostasis in an Infectious Setting. Cell Chemical Biology, 2017, 24, 576-588.e6.	2.5	74
10	MicroRNA and proteome expression profiling in earlyâ€symptomatic Î±â€synuclein(A30P)â€transgenic mice. Proteomics - Clinical Applications, 2008, 2, 697-705.	0.8	66
11	The ribB FMN riboswitch from EscherichiaÂcoli operates at the transcriptional and translational level and regulates riboflavin biosynthesis. FEBS Journal, 2015, 282, 3230-3242.	2.2	54
12	Flavoproteins Are Potential Targets for the Antibiotic Roseoflavin in Escherichia coli. Journal of Bacteriology, 2013, 195, 4037-4045.	1.0	51
13	The Bifunctional Flavokinase/Flavin Adenine Dinucleotide Synthetase from Streptomyces davawensis Produces Inactive Flavin Cofactors and Is Not Involved in Resistance to the Antibiotic Roseoflavin. Journal of Bacteriology, 2008, 190, 1546-1553.	1.0	50
14	Mutations in theAUH gene cause 3-methylglutaconic aciduria type I. Human Mutation, 2003, 21, 401-407.	1.1	49
15	Riboflavin analogs and inhibitors of riboflavin biosynthesis. Applied Microbiology and Biotechnology, 2006, 71, 265-275.	1.7	47
16	Location of the Two Genes Encoding Glutaconate Coenzyme A-Transferase at the Beginning of the Hydroxyglutarate Operon in Acidaminococcus fermentans. FEBS Journal, 1994, 226, 41-51.	0.2	46
17	Genome Sequence of the Bacterium Streptomyces davawensis JCM 4913 and Heterologous Production of the Unique Antibiotic Roseoflavin. Journal of Bacteriology, 2012, 194, 6818-6827.	1.0	42
18	The antibiotics roseoflavin and 8-demethyl-8-amino-riboflavin from Streptomyces davawensis are metabolized by human flavokinase and human FAD synthetase. Biochemical Pharmacology, 2011, 82, 1853-1859.	2.0	40

#	Article	IF	Citations
19	Uptake and Metabolism of Antibiotics Roseoflavin and 8-Demethyl-8-Aminoriboflavin in Riboflavin-Auxotrophic Listeria monocytogenes. Journal of Bacteriology, 2016, 198, 3233-3243.	1.0	37
20	Riboflavin Analogs as Antiinfectives: Occurrence, Mode of Action, Metabolism and Resistance. Current Pharmaceutical Design, 2013, 19, 2552-2560.	0.9	37
21	Biochemical characterization of human 3-methylglutaconyl-CoA hydratase and its role in leucine metabolism. FEBS Journal, 2006, 273, 2012-2022.	2.2	36
22	Relevance of allosteric conformations and homocarnosine concentration on carnosinase activity. Amino Acids, 2010, 38, 1607-1615.	1.2	36
23	Diastereomer-specific quantification of bioactive hexosylceramides from bacteria and mammals. Journal of Lipid Research, 2017, 58, 1247-1258.	2.0	36
24	Identification and characterization of two Streptomyces davawensis riboflavin biosynthesis gene clusters. Archives of Microbiology, 2007, 188, 377-387.	1.0	34
25	A dual control mechanism synchronizes riboflavin and sulphur metabolism in Bacillus subtilis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14054-14059.	3.3	34
26	The Flavoenzyme Azobenzene Reductase AzoR from Escherichia coli Binds Roseoflavin Mononucleotide (RoFMN) with High Affinity and Is Less Active in Its RoFMN Form. Biochemistry, 2013, 52, 4288-4295.	1.2	33
27	Identification of the Key Enzyme of Roseoflavin Biosynthesis. Angewandte Chemie - International Edition, 2016, 55, 6103-6106.	7.2	33
28	A Novel N,N-8-Amino-8-demethyl-d-riboflavin Dimethyltransferase (RosA) Catalyzing the Two Terminal Steps of Roseoflavin Biosynthesis in Streptomyces davawensis. Journal of Biological Chemistry, 2011, 286, 38275-38285.	1.6	32
29	A modular autoinduction device for control of gene expression in Bacillus subtilis. Metabolic Engineering, 2020, 61, 326-334.	3.6	28
30	Identification of glutamate Î²54 as the covalent-catalytic residue in the active site of glutaconate CoA-transferase fromAcidaminococcus fermentans. FEBS Letters, 1995, 357, 145-148.	1.3	27
31	Taxonomic analyses of members of the Streptomyces cinnabarinus cluster, description of Streptomyces cinnabarigriseus sp. nov. and Streptomyces davaonensis sp. nov.. International Journal of Systematic and Evolutionary Microbiology, 2018, 68, 382-393.	0.8	26
32	Conversion of glutaconate CoA-transferase from Acidaminococcus fermentans into an acyl-CoA hydrolase by site-directed mutagenesis. FEBS Letters, 1997, 405, 209-212.	1.3	23
33	Natural Riboflavin Analogs. Methods in Molecular Biology, 2014, 1146, 41-63.	0.4	23
34	RibR, a possible regulator of theBacillus subtilisriboflavin biosynthetic operon,in vivointeracts with the 5Ã¢Â€Â²-untranslated leader ofribmRNA. FEMS Microbiology Letters, 2007, 274, 48-54.	0.7	21
35	Rational engineering of transcriptional riboswitches leads to enhanced metabolite levels in Bacillus subtilis. Metabolic Engineering, 2020, 61, 58-68.	3.6	20
36	Bacteriophage T7 RNA polymerase-based expression in Pichia pastoris. Protein Expression and Purification, 2013, 92, 100-104.	0.6	19

#	Article	IF	Citations
37	Metabolic engineering of roseoflavin-overproducing microorganisms. Microbial Cell Factories, 2019, 18, 146.	1.9	18
38	The regulator protein PyrR of Bacillus subtilis specifically interacts in vivo with three untranslated regions within pyr mRNA of pyrimidine biosynthesis. Microbiology (United Kingdom), 2007, 153, 693-700.	0.7	17
39	The Crystal Structure of RosB: Insights into the Reaction Mechanism of the First Member of a Family of Flavodoxinâ€like Enzymes. Angewandte Chemie - International Edition, 2017, 56, 1146-1151.	7.2	16
40	Comparison of two expression platforms in respect to protein yield and quality: Pichia pastoris versus Pichia angusta. Protein Expression and Purification, 2009, 66, 165-171.	0.6	13
41	Structural and kinetic studies on RosA, the enzyme catalysing the methylation of 8â€demethylâ€8â€aminoâ€<scp>d</scp>â€riboflavin to the antibiotic roseoflavin. FEBS Journal, 2016, 283, 1531-1549.	2.2	13
42	Bacterial Flavin Mononucleotide Riboswitches as Targets for Flavin Analogs. Methods in Molecular Biology, 2014, 1103, 165-176.	0.4	12
43	Engineering of Synechococcus sp. strain PCC 7002 for the photoautotrophic production of light-sensitive riboflavin (vitamin B2). Metabolic Engineering, 2020, 62, 275-286.	3.6	10
44	A high-throughput microtiter plate-based screening method for the detection of full-length recombinant proteins. Protein Expression and Purification, 2008, 61, 92-98.	0.6	8
45	Formation of 3-hydroxyglutaric acid in glutaric aciduria type I: in vitro participation of medium chain acyl-CoA dehydrogenase. JIMD Reports, 2019, 47, 30-34.	0.7	8
46	3-Methylglutaconyl-CoA hydratase from Acinetobacter sp. Archives of Microbiology, 2006, 185, 297-306.	1.0	7
47	The novel phosphatase RosC catalyzes the last unknown step of roseoflavin biosynthesis in StreptomycesÂdavaonensis. Molecular Microbiology, 2020, 114, 609-625.	1.2	7
48	Thermodynamic and Probabilistic Metabolic Control Analysis of Riboflavin (Vitamin B2) Biosynthesis in Bacteria. Applied Biochemistry and Biotechnology, 2015, 177, 732-752.	1.4	6
49	Characterization of the small flavin-binding dodecin in the roseoflavin producer Streptomyces davawensis. Microbiology (United Kingdom), 2018, 164, 908-919.	0.7	6
50	Interaction of enzymes of the tricarboxylic acid cycle in Bacillus subtilis and Escherichia coli: a comparative study. FEMS Microbiology Letters, 2018, 365, .	0.7	5
51	Targeting riboswitches with synthetic small RNAs for metabolic engineering. Metabolic Engineering, 2021, 68, 59-67.	3.6	4
52	Comparative biochemical and structural analysis of the flavin-binding dodecins from Streptomyces davaonensis and Streptomyces coelicolor reveals striking differences with regard to multimerization. Microbiology (United Kingdom), 2019, 165, 1095-1106.	0.7	4
53	A coupled thermodynamic and metabolic control analysis methodology and its evaluation on glycerol biosynthesis in Saccharomyces cerevisiae. Biotechnology Letters, 2015, 37, 307-316.	1.1	3
54	Identifizierung des SchlÃ¼sselenzyms der Roseoflavinbiosynthese. Angewandte Chemie, 2016, 128, 6208-6212.	1.6	3

#	Article	IF	Citations
55	Dataset for supporting a modular autoinduction device for control of gene expression in Bacillus subtilis. Data in Brief, 2020, 31, 105736.	0.5	3
56	The roseoflavin producer Streptomyces davaonensis has a high catalytic capacity and specific genetic adaptations with regard to the biosynthesis of riboflavin. Environmental Microbiology, 2020, 22, 3248-3265.	1.8	3
57	A second riboflavin import system is present in flavinogenic StreptomycesÂdavaonensis and supports roseoflavin biosynthesis. Molecular Microbiology, 2021, 116, 470-482.	1.2	3
58	Recovery of roseoflavin from a recombinant Streptomyces davaonensis strain by using biphasic aqueous systems. Journal of Chemical Technology and Biotechnology, 2021, 96, 2529-2536.	1.6	2
59	Die Kristallstruktur von RosB: Einblicke in den Reaktionsmechanismus des ersten Mitglieds einer flavodoxinÄhnlichen Enzymfamilie. Angewandte Chemie, 2017, 129, 1166-1171.	1.6	0
60	The Acetyltransferase RibT From Bacillus subtilis Affects in vivo Dynamics of the Multimeric Heavy Riboflavin Synthase Complex. Frontiers in Microbiology, 2022, 13, 856820.	1.5	0