Matthias Mack

List of Publications by Year
in descending order

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	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
2	Recovery of roseoflavin from a recombinant <i>Streptomyces davaonensis</i> strain by using biphasic aqueous systems. Journal of Chemical Technology and Biotechnology, 2021, 96, 2529-2536.	1.6	2
3	A second riboflavin import system is present in flavinogenic <i>StreptomycesÂdavaonensis</i> and supports roseoflavin biosynthesis. Molecular Microbiology, 2021, 116, 470-482.	1.2	3
4	Targeting riboswitches with synthetic small RNAs for metabolic engineering. Metabolic Engineering, 2021, 68, 59-67.	3.6	4
5	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
6	Dataset for supporting a modular autoinduction device for control of gene expression in Bacillus subtilis. Data in Brief, 2020, 31, 105736.	0.5	3
7	Rational engineering of transcriptional riboswitches leads to enhanced metabolite levels in Bacillus subtilis. Metabolic Engineering, 2020, 61, 58-68.	3.6	20
8	The roseoflavin producer <i>Streptomyces davaonensis</i> 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
9	The novel phosphatase RosC catalyzes the last unknown step of roseoflavin biosynthesis in StreptomycesÂdavaonensis. Molecular Microbiology, 2020, 114, 609-625.	1.2	7
10	A modular autoinduction device for control of gene expression in Bacillus subtilis. Metabolic Engineering, 2020, 61, 326-334.	3.6	28
11	Microbial cell factories for the sustainable manufacturing of B vitamins. Current Opinion in Biotechnology, 2019, 56, 18-29.	3.3	105
12	Metabolic engineering of roseoflavin-overproducing microorganisms. Microbial Cell Factories, 2019, 18, 146.	1.9	18
13	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
14	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
15	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
16	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
17	Characterization of the small flavin-binding dodecin in the roseoflavin producer Streptomyces davawensis. Microbiology (United Kingdom), 2018, 164, 908-919.	0.7	6
18	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

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19	Diastereomer-specific quantification of bioactive hexosylceramides from bacteria and mammals. Journal of Lipid Research, 2017, 58, 1247-1258.	2.0	36
20	The Crystal Structure of RosB: Insights into the Reaction Mechanism of the First Member of a Family of Flavodoxinâ€likke Enzymes. Angewandte Chemie - International Edition, 2017, 56, 1146-1151.	7.2	16
21	Die Kristallstruktur von RosB: Einblicke in den Reaktionsmechanismus des ersten Mitglieds einer flavodoxinÃhnlichen Enzymfamilie. Angewandte Chemie, 2017, 129, 1166-1171.	1.6	0
22	Identification of the Key Enzyme of Roseoflavin Biosynthesis. Angewandte Chemie - International Edition, 2016, 55, 6103-6106.	7.2	33
23	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
24	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
25	Identifizierung des SchlÃ¼sselenzyms der Roseoflavinbiosynthese. Angewandte Chemie, 2016, 128, 6208-6212.	1.6	3
26	The <i>ribB</i> FMN riboswitch from <i>EscherichiaÂcoli</i> operates at the transcriptional and translational level and regulates riboflavin biosynthesis. FEBS Journal, 2015, 282, 3230-3242.	2.2	54
27	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
28	A dual control mechanism synchronizes riboflavin and sulphur metabolism in <i>Bacillus subtilis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14054-14059.	3.3	34
29	Thermodynamic and Probabilistic Metabolic Control Analysis of Riboflavin (Vitamin B2) Biosynthesis in Bacteria. Applied Biochemistry and Biotechnology, 2015, 177, 732-752.	1.4	6
30	Bacterial Flavin Mononucleotide Riboswitches as Targets for Flavin Analogs. Methods in Molecular Biology, 2014, 1103, 165-176.	0.4	12
31	Natural Riboflavin Analogs. Methods in Molecular Biology, 2014, 1146, 41-63.	0.4	23
32	Bacteriophage T7 RNA polymerase-based expression in Pichia pastoris. Protein Expression and Purification, 2013, 92, 100-104.	0.6	19
33	The Flavoenzyme Azobenzene Reductase AzoR from <i>Escherichia coli</i> Binds Roseoflavin Mononucleotide (RoFMN) with High Affinity and Is Less Active in Its RoFMN Form. Biochemistry, 2013, 52, 4288-4295.	1.2	33
34	Flavoproteins Are Potential Targets for the Antibiotic Roseoflavin in Escherichia coli. Journal of Bacteriology, 2013, 195, 4037-4045.	1.0	51
35	Riboflavin Analogs as Antiinfectives: Occurrence, Mode of Action, Metabolism and Resistance. Current Pharmaceutical Design, 2013, 19, 2552-2560.	0.9	37
36	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

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37	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
38	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
39	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
40	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
41	Relevance of allosteric conformations and homocarnosine concentration on carnosinase activity. Amino Acids, 2010, 38, 1607-1615.	1.2	36
42	The RFN riboswitch of<i>Bacillus subtilis</i>is a target for the antibiotic roseoflavin produced by<i>Streptomyces davawensis</i>. RNA Biology, 2009, 6, 276-280.	1.5	90
43	Glycerol: A promising and abundant carbon source for industrial microbiology. Biotechnology Advances, 2009, 27, 30-39.	6.0	889
44	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
45	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
46	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
47	The Bifunctional Flavokinase/Flavin Adenine Dinucleotide Synthetase from <i>Streptomyces davawensis</i> Produces Inactive Flavin Cofactors and Is Not Involved in Resistance to the Antibiotic Roseoflavin. Journal of Bacteriology, 2008, 190, 1546-1553.	1.0	50
48	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
49	Characterization of Riboflavin (Vitamin B₂) Transport Proteins from<i>Bacillus subtilis</i>and<i>Corynebacterium glutamicum</i>. Journal of Bacteriology, 2007, 189, 7367-7375.	1.0	101
50	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
51	Identification and characterization of two Streptomyces davawensis riboflavin biosynthesis gene clusters. Archives of Microbiology, 2007, 188, 377-387.	1.0	34
52	Biochemical characterization of human 3-methylglutaconyl-CoA hydratase and its role in leucine metabolism. FEBS Journal, 2006, 273, 2012-2022.	2.2	36
53	Riboflavin analogs and inhibitors of riboflavin biosynthesis. Applied Microbiology and Biotechnology, 2006, 71, 265-275.	1.7	47
54	3-Methylglutaconyl-CoA hydratase from Acinetobacter sp. Archives of Microbiology, 2006, 185, 297-306.	1.0	7

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55	Mutations in theAUH gene cause 3-methylglutaconic aciduria type I. Human Mutation, 2003, 21, 401-407.	1.1	49
56	Regulation of Riboflavin Biosynthesis in <i>Bacillus subtilis</i> Is Affected by the Activity of the Flavokinase/Flavin Adenine Dinucleotide Synthetase Encoded by <i>ribC</i>. Journal of Bacteriology, 1998, 180, 950-955.	1.0	128
57	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
58	Glutaconate CoA-transferase from Acidaminococcus fermentans: the crystal structure reveals homology with other CoA-transferases. Structure, 1997, 5, 415-426.	1.6	77
59	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
60	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