Wolfgang RenÃ© Hess

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Phycobilisome Breakdown Effector NblD Is Required To Maintain Cellular Amino Acid Composition during Nitrogen Starvation. Journal of Bacteriology, 2022, 204, JB0015821.	1.0	2
2	AtpÎ˜ is an inhibitor of F0F1 ATP synthase to arrest ATP hydrolysis during low-energy conditions in cyanobacteria. Current Biology, 2022, 32, 136-148.e5.	1.8	22
3	â€œLife is short, and art is longâ€: RNA degradation in cyanobacteria and model bacteria. , 2022, 1, 21-39.		13
4	The impact of the cyanobacterial carbonâ€regulator protein SbtBÂ and of the second messengers cAMP and câ€diâ€AMP on CO₂â€dependent gene expression. New Phytologist, 2022, 234, 1801-1816.	3.5	15
5	The transcriptional regulator RbcR controls ribuloseâ€1,5â€bisphosphate carboxylase/oxygenase (RuBisCO) genes in the cyanobacterium <i>Synechocystis</i> sp. PCC 6803. New Phytologist, 2022, 235, 432-445.	3.5	7
6	Expression of the Cyanobacterial F _o F ₁ ATP Synthase Regulator AtpÎ˜ Depends on Small DNA-Binding Proteins and Differential mRNA Stability. Microbiology Spectrum, 2022, 10, e0256221.	1.2	5
7	The sRNA NsiR4 fine-tunes arginine synthesis in the cyanobacterium <i>Synechocystis</i> sp. PCC 6803 by post-transcriptional regulation of PirA. RNA Biology, 2022, 19, 811-818.	1.5	6
8	NsiR3, a nitrogen stressâ€inducible small RNA, regulates proline oxidase expression in the cyanobacterium Nostoc sp. PCC 7120. FEBS Journal, 2021, 288, 1614-1629.	2.2	3
9	Discovery of a small protein factor involved in the coordinated degradation of phycobilisomes in cyanobacteria. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	25
10	The temperature-regulated DEAD-box RNA helicase CrhR interactome: autoregulation and photosynthesis-related transcripts. Journal of Experimental Botany, 2021, , .	2.4	7
11	Analysis of a photosynthetic cyanobacterium rich in internal membrane systems via gradient profiling by sequencing (Grad-seq). Plant Cell, 2021, 33, 248-269.	3.1	26
12	Inverse regulation of light harvesting and photoprotection is mediated by a 3â€²-end-derived sRNA in cyanobacteria. Plant Cell, 2021, 33, 358-380.	3.1	18
13	Genome-wide identification and characterization of Fur-binding sites in the cyanobacteria <i>Synechocystis</i> sp. PCC 6803 and PCC 6714. DNA Research, 2021, 28, .	1.5	2
14	Integrative analysis of the salt stress response in cyanobacteria. Biology Direct, 2021, 16, 26.	1.9	20
15	Approaches to study CRISPR RNA biogenesis and the key players involved. Methods, 2020, 172, 12-26.	1.9	18
16	The power of cooperation: Experimental and computational approaches in the functional characterization of bacterial sRNAs. Molecular Microbiology, 2020, 113, 603-612.	1.2	27
17	mRNA localization, reaction centre biogenesis and thylakoid membrane targeting in cyanobacteria. Nature Plants, 2020, 6, 1179-1191.	4.7	39
18	A framework for the computational prediction and analysis of non-coding RNAs in microbial environmental populations and their experimental validation. ISME Journal, 2020, 14, 1955-1965.	4.4	4

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19	Specificities and functional coordination between the two Cas6 maturation endonucleases in <i>Anabaena</i> sp. PCC 7120 assign orphan CRISPR arrays to three groups. RNA Biology, 2020, 17, 1442-1453.	1.5	7
20	A minimum set of regulators to thrive in the ocean. FEMS Microbiology Reviews, 2020, 44, 232-252.	3.9	8
21	RNA helicaseâ€“regulated processing of the Synechocystis rimOâ€“crhR operon results in differential cistron expression and accumulation of two sRNAs. Journal of Biological Chemistry, 2020, 295, 6372-6386.	1.6	14
22	Comprehensive search for accessory proteins encoded with archaeal and bacterial type III CRISPR-<i>cas</i> gene cassettes reveals 39 new <i>cas</i> gene families. RNA Biology, 2019, 16, 530-542.	1.5	97
23	CRISPR-Cas systems in multicellular cyanobacteria. RNA Biology, 2019, 16, 518-529.	1.5	31
24	Inactivation of the RNA helicase CrhR impacts a specific subset of the transcriptome in the cyanobacterium <i>Synechocystis</i> sp. PCC 6803. RNA Biology, 2019, 16, 1205-1214.	1.5	18
25	Divergent methylation of CRISPR repeats and cas genes in a subtype I-D CRISPR-Cas-system. BMC Microbiology, 2019, 19, 147.	1.3	7
26	Depletion of the FtsH1/3 Proteolytic Complex Suppresses the Nutrient Stress Response in the Cyanobacterium <i>Synechocystis</i> sp strain PCC 6803. Plant Cell, 2019, 31, 2912-2928.	3.1	12
27	Cytosine N4-Methylation via M.Ssp6803II Is Involved in the Regulation of Transcription, Fine- Tuning of DNA Replication and DNA Repair in the Cyanobacterium Synechocystis sp. PCC 6803. Frontiers in Microbiology, 2019, 10, 1233.	1.5	31
28	Genetic and metabolic advances in the engineering of cyanobacteria. Current Opinion in Biotechnology, 2019, 59, 150-156.	3.3	35
29	Biocomputational Analyses and Experimental Validation Identify the Regulon Controlled by the Redox-Responsive Transcription Factor RpaB. IScience, 2019, 15, 316-331.	1.9	29
30	Elements of the heterocystâ€specific transcriptome unravelled by coâ€expression analysis in <i>Nostoc</i> sp. PCC 7120. Environmental Microbiology, 2019, 21, 2544-2558.	1.8	24
31	Transcriptomic responses of the marine cyanobacterium <i>Prochlorococcus</i> to viral lysis products. Environmental Microbiology, 2019, 21, 2015-2028.	1.8	14
32	Genomic and transcriptomic insights into the survival of the subaerial cyanobacterium <i>Nostoc flagelliforme</i> in arid and exposed habitats. Environmental Microbiology, 2019, 21, 845-863.	1.8	32
33	FOXG1 Regulates PRKAR2B Transcriptionally and Posttranscriptionally via miR200 in the Adult Hippocampus. Molecular Neurobiology, 2019, 56, 5188-5201.	1.9	19
34	Biochemical analysis of the Cas6-1 RNA endonuclease associated with the subtype I-D CRISPR-Cas system in Synechocystis sp. PCC 6803. RNA Biology, 2019, 16, 481-491.	1.5	16
35	The ironâ€stress activated RNA 1 (IsaR1) coordinates osmotic acclimation and iron starvation responses in the cyanobacterium <i>Synechocystis</i> sp. PCC 6803. Environmental Microbiology, 2018, 20, 2757-2768.	1.8	15
36	Strains of the toxic and bloom-forming <i>Nodularia spumigena</i> (cyanobacteria) can degrade methylphosphonate and release methane. ISME Journal, 2018, 12, 1619-1630.	4.4	75

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37	The host-encoded RNase E endonuclease as the crRNA maturation enzyme in a CRISPRâ€“Cas subtype III-Bv system. Nature Microbiology, 2018, 3, 367-377.	5.9	73
38	Benefit from decline: the primary transcriptome of <i>Alteromonas macleodii</i> str. Te101 during <i>Trichodesmium</i> demise. ISME Journal, 2018, 12, 981-996.	4.4	30
39	OxyS small <scp>RNA</scp> induces cell cycle arrest to allow <scp>DNA</scp> damage repair. EMBO Journal, 2018, 37, 413-426.	3.5	49
40	Systems and synthetic biology for the biotechnological application of cyanobacteria. Current Opinion in Biotechnology, 2018, 49, 94-99.	3.3	90
41	CRISPR-Based Technologies for Metabolic Engineering in Cyanobacteria. Trends in Biotechnology, 2018, 36, 996-1010.	4.9	103
42	A glutamine riboswitch is a key element for the regulation of glutamine synthetase in cyanobacteria. Nucleic Acids Research, 2018, 46, 10082-10094.	6.5	51
43	Comparative Genomics of the Baltic Sea Toxic Cyanobacteria Nodularia spumigena UHCC 0039 and Its Response to Varying Salinity. Frontiers in Microbiology, 2018, 9, 356.	1.5	15
44	The primary transcriptome of the fast-growing cyanobacterium Synechococcus elongatus UTEX 2973. Biotechnology for Biofuels, 2018, 11, 218.	6.2	50
45	Genome of a giant bacteriophage from a decaying Trichodesmium bloom. Marine Genomics, 2017, 33, 21-25.	0.4	7
46	The Ssl2245-Sll1130 Toxin-Antitoxin System Mediates Heat-induced Programmed Cell Death in Synechocystis sp. PCC6803. Journal of Biological Chemistry, 2017, 292, 4222-4234.	1.6	19
47	Draft Genome Sequences of Nine Cyanobacterial Strains from Diverse Habitats. Genome Announcements, 2017, 5, .	0.8	11
48	Customized workflow development and data modularization concepts for RNA-Sequencing and metatranscriptome experiments. Journal of Biotechnology, 2017, 261, 85-96.	1.9	16
49	Structural constraints and enzymatic promiscuity in the Cas6-dependent generation of crRNAs. Nucleic Acids Research, 2017, 45, 915-925.	6.5	53
50	Type II Toxinâ€“Antitoxin Systems in the Unicellular Cyanobacterium Synechocystis sp. PCC 6803. Toxins, 2016, 8, 228.	1.5	25
51	Regulatory RNAs in photosynthetic cyanobacteria. FEMS Microbiology Reviews, 2015, 39, 301-315.	3.9	106
52	The sRNA NsiR4 is involved in nitrogen assimilation control in cyanobacteria by targeting glutamine synthetase inactivating factor IF7. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E6243-52.	3.3	104
53	Riboregulators and the role of Hfq in photosynthetic bacteria. RNA Biology, 2014, 11, 413-426.	1.5	29
54	Comparative Genome Analysis of the Closely Related Synechocystis Strains PCC 6714 and PCC 6803. DNA Research, 2014, 21, 255-266.	1.5	46

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55	Comparative genomics boosts target prediction for bacterial small RNAs. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E3487-96.	3.3	208
56	Toxin-Antitoxin Systems on the Large Defense Plasmid pSYSA of Synechocystis sp. PCC 6803. Journal of Biological Chemistry, 2013, 288, 7399-7409.	1.6	37
57	Adaptation and modification of three CRISPR loci in two closely related cyanobacteria. RNA Biology, 2013, 10, 852-864.	1.5	106
58	CRISPR-Cas Systems in the Cyanobacterium Synechocystis sp. PCC6803 Exhibit Distinct Processing Pathways Involving at Least Two Cas6 and a Cmr2 Protein. PLoS ONE, 2013, 8, e56470.	1.1	144
59	Insights into the Physiology and Ecology of the Brackish-Water-Adapted Cyanobacterium Nodularia spumigena CCY9414 Based on a Genome-Transcriptome Analysis. PLoS ONE, 2013, 8, e60224.	1.1	95
60	The Antisense RNA As1_flv4 in the Cyanobacterium Synechocystis sp. PCC 6803 Prevents Premature Expression of the flv4-2 Operon upon Shift in Inorganic Carbon Supply*. Journal of Biological Chemistry, 2012, 287, 33153-33162.	1.6	81
61	Small RNAs of theBradyrhizobium/Rhodopseudomonaslineage and their analysis. RNA Biology, 2012, 9, 47-58.	1.5	41
62	The Infinitely Many Genes Model for the Distributed Genome of Bacteria. Genome Biology and Evolution, 2012, 4, 443-456.	1.1	111
63	Microevolution in Cyanobacteria: Re-sequencing a Motile Substrain of Synechocystis sp. PCC 6803. DNA Research, 2012, 19, 435-448.	1.5	138
64	Positive Regulation of <i>psbA</i> Gene Expression by cis-Encoded Antisense RNAs in <i>Synechocystis</i> sp. PCC 6803 Â. Plant Physiology, 2012, 160, 1000-1010.	2.3	92
65	Heterocyst differentiation: from single mutants to global approaches. Trends in Microbiology, 2012, 20, 548-557.	3.5	112
66	Dinitrogen fixation in a unicellular chlorophyll <i>d</i>-containing cyanobacterium. ISME Journal, 2012, 6, 1367-1377.	4.4	29
67	Non-coding RNAs in marine <i>Synechococcus</i> and their regulation under environmentally relevant stress conditions. ISME Journal, 2012, 6, 1544-1557.	4.4	38
68	Cyanobacterial genomics for ecology and biotechnology. Current Opinion in Microbiology, 2011, 14, 608-614.	2.3	64
69	Small RNAâ€mediated control of the <i>Agrobacterium tumefaciens</i> GABA binding protein. Molecular Microbiology, 2011, 80, 492-506.	1.2	65
70	Dynamics of transcriptional start site selection during nitrogen stress-induced cell differentiation in <i>Anabaena</i> sp. PCC7120. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20130-20135.	3.3	241
71	<i>cis</i>-Antisense RNA, Another Level of Gene Regulation in Bacteria. Microbiology and Molecular Biology Reviews, 2011, 75, 286-300.	2.9	383
72	Genomic insights into the physiology and ecology of the marine filamentous cyanobacterium <i>Lyngbya majuscula</i>. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8815-8820.	3.3	99

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73	Regulatory RNAs in cyanobacteria: developmental decisions, stress responses and a plethora of chromosomally encoded cis-antisense RNAs. Biological Chemistry, 2011, 392, 291-7.	1.2	13
74	Hemin and Magnesium-Protoporphyrin IX Induce Global Changes in Gene Expression in <i>Chlamydomonas reinhardtii</i> Â Â. Plant Physiology, 2011, 155, 892-905.	2.3	46
75	Discovery of Cyanophage Genomes Which Contain Mitochondrial DNA Polymerase. Molecular Biology and Evolution, 2011, 28, 2269-2274.	3.5	20
76	Structure of transcription factor HetR required for heterocyst differentiation in cyanobacteria. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10109-10114.	3.3	44
77	An experimentally anchored map of transcriptional start sites in the model cyanobacterium <i>Synechocystis</i> sp. PCC6803. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2124-2129.	3.3	364
78	Computational prediction of sRNAs and their targets in bacteria. RNA Biology, 2010, 7, 33-42.	1.5	97
79	Heterocyst-Specific Transcription of NsiR1, a Non-Coding RNA Encoded in a Tandem Array of Direct Repeats in Cyanobacteria. Journal of Molecular Biology, 2010, 398, 177-188.	2.0	56
80	The Yfr2 ncRNA family, a group of abundant RNA molecules widely conserved in cyanobacteria. RNA Biology, 2009, 6, 222-227.	1.5	24
81	Characterization of trueâ€branching cyanobacteria from geothermal sites and hot springs of Costa Rica. Environmental Microbiology, 2008, 10, 460-473.	1.8	80
82	Phylogenetic analysis of freshwater sponges provide evidence for endemism and radiation in ancient lakes. Molecular Phylogenetics and Evolution, 2007, 45, 875-886.	1.2	63
83	A green light-absorbing phycoerythrin is present in the high-light-adapted marine cyanobacterium Prochlorococcus sp. MED4. Environmental Microbiology, 2005, 7, 1611-1618.	1.8	46