Elke Dittmann

List of Publications by Year in Descending Order

102 papers	9,323 citations	53 h-index	96 g-index
109 ext. papers	10,846 ext. citations	6.3 avg, IF	5.9 L-index

#	Paper	IF	Citations
102	Cyanobacterial Genome Sequencing, Annotation, and Bioinformatics.. *Methods in Molecular Biology*, **2022**, 2489, 269-287	1.4	
101	Species-Level Spatio-Temporal Dynamics of Cyanobacteria in a Hard-Water Temperate Lake in the Southern Baltics. *Frontiers in Microbiology*, **2021**, 12, 761259	5.7	0
100	Diel Variations of Extracellular Microcystin Influence the Subcellular Dynamics of RubisCO in PCC 7806. *Microorganisms*, **2021**, 9,	4.9	2
99	Depth profiles of protein-bound microcystin in K[illegible]kmece Lagoon. *Toxicon*, **2021**, 198, 156-163	2.8	1
98	New developments in RiPP discovery, enzymology and engineering. *Natural Product Reports*, **2021**, 38, 130-239	15.1	146
97	The Landscape of Recombination Events That Create Nonribosomal Peptide Diversity. *Molecular Biology and Evolution*, **2021**, 38, 2116-2130	8.3	17
96	A community resource for paired genomic and metabolomic data mining. *Nature Chemical Biology*, **2021**, 17, 363-368	11.7	32
95	From Water into Sediment-Tracing Freshwater via DNA Analyses. *Microorganisms*, **2021**, 9,	4.9	1
94	Salt Shock Responses of Revealed through Physiological, Transcript, and Metabolomic Analyses. *Toxins*, **2020**, 12,	4.9	7
93	Microviridins **2020**, 193-205		1
92	Unlocking the Spatial Control of Secondary Metabolism Uncovers Hidden Natural Product Diversity in Nostoc punctiforme. *ACS Chemical Biology*, **2019**, 14, 1271-1279	4.9	18
91	Non-canonical localization of RubisCO under high-light conditions in the toxic cyanobacterium Microcystis aeruginosa PCC7806. *Environmental Microbiology*, **2019**, 21, 4836-4851	5.2	7
90	Unique Biosynthetic Pathway in Bloom-Forming Cyanobacterial Genus Microcystis Jointly Assembles Cytotoxic Aeruginoguanidines and Microguanidines. *ACS Chemical Biology*, **2019**, 14, 67-75	4.9	9
89	Microcystin interferes with defense against high oxidative stress in harmful cyanobacteria. *Harmful Algae*, **2018**, 78, 47-55	5.3	41
88	Mycosporine-like amino acids (MAAs)-producing Microcystis in Lake Erie: Development of a qPCR assay and insight into its ecology. *Harmful Algae*, **2018**, 77, 1-10	5.3	6
87	Structural and functional insights into the unique CBS-CP12 fusion protein family in cyanobacteria. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 7141-7146	11.5	10
86	Phylogenomic Analysis of the Microviridin Biosynthetic Pathway Coupled with Targeted Chemo-Enzymatic Synthesis Yields Potent Protease Inhibitors. *ACS Chemical Biology*, **2017**, 12, 1538-1546	4.9	30

85	Draft Genome Sequences of Two Uncultured Associated with a sp. () Isolate. *Genome Announcements*, **2017**, 5,		1
84	High-Density Cultivation of Terrestrial Nostoc Strains Leads to Reprogramming of Secondary Metabolome. *Applied and Environmental Microbiology*, **2017**, 83,	4.8	18
83	Prerequisites of Isopeptide Bond Formation in Microcystin Biosynthesis. *ChemBioChem*, **2017**, 18, 2376-2379	3.8	3
82	Nucleic Acid Extraction **2017**, 135-161		
81	Conventional PCR **2017**, 163-203		1
80	A Genetic and Chemical Perspective on Symbiotic Recruitment of Cyanobacteria of the Genus into the Host Plant L. *Frontiers in Microbiology*, **2016**, 7, 1693	5.7	19
79	Leader Peptide-Free In Vitro Reconstitution of Microviridin Biosynthesis Enables Design of Synthetic Protease-Targeted Libraries. *Angewandte Chemie - International Edition*, **2016**, 55, 9398-401	16.4	33
78	Leader Peptide-Free In Vitro Reconstitution of Microviridin Biosynthesis Enables Design of Synthetic Protease-Targeted Libraries. *Angewandte Chemie*, **2016**, 128, 9544-9547	3.6	3
77	Biochemical Dissection of the Natural Diversification of Microcystin Provides Lessons for Synthetic Biology of NRPS. *Cell Chemical Biology*, **2016**, 23, 462-71	8.2	63
76	The genetics, biosynthesis and regulation of toxic specialized metabolites of cyanobacteria. *Harmful Algae*, **2016**, 54, 98-111	5.3	72
75	Biosynthesis and function of extracellular glycans in cyanobacteria. *Life*, **2015**, 5, 164-80	3	70
74	Natural Product Biosynthetic Diversity and Comparative Genomics of the Cyanobacteria. *Trends in Microbiology*, **2015**, 23, 642-652	12.4	172
73	Metabolomic analysis indicates a pivotal role of the hepatotoxin microcystin in high light adaptation of Microcystis. *Environmental Microbiology*, **2015**, 17, 1497-509	5.2	66
72	Transcriptomics-aided dissection of the intracellular and extracellular roles of microcystin in Microcystis aeruginosa PCC 7806. *Applied and Environmental Microbiology*, **2015**, 81, 544-54	4.8	53
71	Functional assessment of mycosporine-like amino acids in Microcystis aeruginosa strain PCC 7806. *Environmental Microbiology*, **2015**, 17, 1548-59	5.2	31
70	Protective tunicate endosymbiont with extreme genome reduction. *Environmental Microbiology*, **2015**, 17, 3430-2	5.2	5
69	Nostopeptolide plays a governing role during cellular differentiation of the symbiotic cyanobacterium Nostoc punctiforme. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 1862-7	11.5	39
68	Harnessing the evolvability of tricyclic microviridins to dissect protease-inhibitor interactions. *Angewandte Chemie - International Edition*, **2014**, 53, 3735-8	16.4	34

67	Functional analysis of environmental DNA-derived microviridins provides new insights into the diversity of the tricyclic peptide family. *Applied and Environmental Microbiology*, **2014**, 80, 1380-7	4.8	24
66	Analyse von Protease-Inhibitor-Interaktionen unter Nutzung evolvierbarer tricyclischer Microviridine. *Angewandte Chemie*, **2014**, 126, 3810-3813	3.6	5
65	Cyanobakterielle Toxine Von der Biosynthese zur Funktion. *BioSpektrum*, **2013**, 19, 16-18	0.1	0
64	Ribosomally synthesized and post-translationally modified peptide natural products: overview and recommendations for a universal nomenclature. *Natural Product Reports*, **2013**, 30, 108-60	15.1	1298
63	Environmental conditions that influence toxin biosynthesis in cyanobacteria. *Environmental Microbiology*, **2013**, 15, 1239-53	5.2	218
62	Microcystin production revisited: conjugate formation makes a major contribution. *Environmental Microbiology*, **2013**, 15, 1810-20	5.2	73
61	Cyanobacterial toxins: biosynthetic routes and evolutionary roots. *FEMS Microbiology Reviews*, **2013** , 37, 23-43	15.1	229
60	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	3.7	66
59	Casting a net: fibres produced by Microcystis sp. in field and laboratory populations. *Environmental Microbiology Reports*, **2012**, 4, 342-9	3.7	8
58	Cyanobacteria as a source of natural products. *Methods in Enzymology*, **2012**, 517, 23-46	1.7	19
57	Unique properties of eukaryote-type actin and profilin horizontally transferred to cyanobacteria. *PLoS ONE*, **2012**, 7, e29926	3.7	6
56	The languages spoken in the water body (or the biological role of cyanobacterial toxins). *Frontiers in Microbiology*, **2012**, 3, 138	5.7	70
55	The cyanobacterial hepatotoxin microcystin binds to proteins and increases the fitness of microcystis under oxidative stress conditions. *PLoS ONE*, **2011**, 6, e17615	3.7	269
54	A polyketide interferes with cellular differentiation in the symbiotic cyanobacterium Nostoc punctiforme. *Environmental Microbiology Reports*, **2011**, 3, 550-8	3.7	15
53	Natural product biosyntheses in cyanobacteria: A treasure trove of unique enzymes. *Beilstein Journal of Organic Chemistry*, **2011**, 7, 1622-35	2.5	98
52	Synergistic in vitro anti-HIV type 1 activity of tenofovir with carbohydrate-binding agents (CBAs). *Antiviral Research*, **2011**, 90, 200-4	10.8	14
51	Leader peptide and a membrane protein scaffold guide the biosynthesis of the tricyclic peptide microviridin. *Chemistry and Biology*, **2011**, 18, 1413-21		41
50	Microvirin, a novel alpha(1,2)-mannose-specific lectin isolated from Microcystis aeruginosa, has anti-HIV-1 activity comparable with that of cyanovirin-N but a much higher safety profile. *Journal of Biological Chemistry*, **2010**, 285, 24845-54	5.4	88

49	Exploiting the natural diversity of microviridin gene clusters for discovery of novel tricyclic depsipeptides. *Applied and Environmental Microbiology*, **2010**, 76, 3568-74	4.8	74
48	Evolution of metabolic diversity: insights from microbial polyketide synthases. *Phytochemistry*, **2009**, 70, 1858-66	4	92
47	Plasticity and evolution of aeruginosin biosynthesis in cyanobacteria. *Applied and Environmental Microbiology*, **2009**, 75, 2017-26	4.8	76
46	Bioinformatic perspectives on NRPS/PKS megasynthases: advances and challenges. *Natural Product Reports*, **2009**, 26, 874-83	15.1	59
45	Exploiting the mosaic structure of trans-acyltransferase polyketide synthases for natural product discovery and pathway dissection. *Nature Biotechnology*, **2008**, 26, 225-33	44.5	310
44	Highly plastic genome of Microcystis aeruginosa PCC 7806, a ubiquitous toxic freshwater cyanobacterium. *BMC Genomics*, **2008**, 9, 274	4.5	148
43	Microcyclamide biosynthesis in two strains of Microcystis aeruginosa: from structure to genes and vice versa. *Applied and Environmental Microbiology*, **2008**, 74, 1791-7	4.8	97
42	Evolutionary mechanisms underlying secondary metabolite diversity. *Progress in Drug Research Fortschritte Der Arzneimittelforschung Progres Des Recherches Pharmaceutiques*, **2008**, 65, 119, 121-40		21
41	An extracellular glycoprotein is implicated in cell-cell contacts in the toxic cyanobacterium Microcystis aeruginosa PCC 7806. *Journal of Bacteriology*, **2008**, 190, 2871-9	3.5	56
40	Ribosomal synthesis of tricyclic depsipeptides in bloom-forming cyanobacteria. *Angewandte Chemie - International Edition*, **2008**, 47, 7756-9	16.4	115
39	Inside Cover: Ribosomal Synthesis of Tricyclic Depsipeptides in Bloom-Forming Cyanobacteria (Angew. Chem. Int. Ed. 40/2008). *Angewandte Chemie - International Edition*, **2008**, 47, 7566-7566	16.4	
38	Ribosomal Synthesis of Tricyclic Depsipeptides in Bloom-Forming Cyanobacteria. *Angewandte Chemie*, **2008**, 120, 7870-7873	3.6	10
37	Non-colinear polyketide biosynthesis in the aureothin and neoaureothin pathways: an evolutionary perspective. *ChemBioChem*, **2007**, 8, 1841-9	3.8	61
36	A Type II polyketide synthase from the gram-negative Bacterium Stigmatella aurantiaca is involved in Aurachin alkaloid biosynthesis. *Angewandte Chemie - International Edition*, **2007**, 46, 2712-6	16.4	65
35	Aurachin-Biosynthese im Gram-negativen Bakterium Stigmatella aurantiaca: Beteiligung einer Typ-II-Polyketidsynthase. *Angewandte Chemie*, **2007**, 119, 2768-2772	3.6	21
34	Biosynthesis and structure of aeruginoside 126A and 126B, cyanobacterial peptide glycosides bearing a 2-carboxy-6-hydroxyoctahydroindole moiety. *Chemistry and Biology*, **2007**, 14, 565-576		85
33	Towards clarification of the biological role of microcystins, a family of cyanobacterial toxins. *Environmental Microbiology*, **2007**, 9, 965-70	5.2	160
32	Horizontal gene transfer of two cytoskeletal elements from a eukaryote to a cyanobacterium. *Current Biology*, **2007**, 17, R757-9	6.3	38

31	Bacterial type III polyketide synthases: phylogenetic analysis and potential for the production of novel secondary metabolites by heterologous expression in pseudomonads. *Archives of Microbiology*, **2006**, 185, 28-38	3	84
30	Cyanobacterial toxins--occurrence, biosynthesis and impact on human affairs. *Molecular Nutrition and Food Research*, **2006**, 50, 7-17	5.9	277
29	Natural biocombinatorics in the polyketide synthase genes of the actinobacterium Streptomyces avermitilis. *PLoS Computational Biology*, **2006**, 2, e132	5	92
28	A new rubisco-like protein coexists with a photosynthetic rubisco in the planktonic cyanobacteria Microcystis. *Journal of Biological Chemistry*, **2006**, 281, 24462-71	5.4	20
27	A mannan binding lectin is involved in cell-cell attachment in a toxic strain of Microcystis aeruginosa. *Molecular Microbiology*, **2006**, 59, 893-906	4.1	98
26	Evolutionary implications of bacterial polyketide synthases. *Molecular Biology and Evolution*, **2005**, 22, 2027-39	8.3	266
25	Molecular Biology of Cyanobacterial Toxins **2005**, 25-40		20
24	Ingestion of microcystins by Daphnia: Intestinal uptake and toxic effects. *Limnology and Oceanography*, **2005**, 50, 440-448	4.8	78
23	Variation between strains of the cyanobacterium Microcystis aeruginosa isolated from a Portuguese river. *Journal of Applied Microbiology*, **2005**, 99, 749-57	4.7	61
22	Genetic contributions to the risk assessment of microcystin in the environment. *Toxicology and Applied Pharmacology*, **2005**, 203, 192-200	4.6	78
21	The microcystin composition of the cyanobacterium Planktothrix agardhii changes toward a more toxic variant with increasing light intensity. *Applied and Environmental Microbiology*, **2005**, 71, 5177-81	4.8	130
20	Inactivation of an ABC transporter gene, mcyH, results in loss of microcystin production in the cyanobacterium Microcystis aeruginosa PCC 7806. *Applied and Environmental Microbiology*, **2004**, 70, 6370-8	4.8	130
19	Distribution of microcystin-producing and non-microcystin-producing Microcystis sp. in European freshwater bodies: detection of microcystins and microcystin genes in individual colonies. *Systematic and Applied Microbiology*, **2004**, 27, 592-602	4.2	157
18	The mcyF gene of the microcystin biosynthetic gene cluster from Microcystis aeruginosa encodes an aspartate racemase. *Biochemical Journal*, **2003**, 373, 909-16	3.8	47
17	Microcystin biosynthesis in planktothrix: genes, evolution, and manipulation. *Journal of Bacteriology*, **2003**, 185, 564-72	3.5	277
16	Diversity of microcystin genes within a population of the toxic cyanobacterium Microcystis spp. in Lake Wannsee (Berlin, Germany). *Microbial Ecology*, **2002**, 43, 107-18	4.4	177
15	Multiple alternate transcripts direct the biosynthesis of microcystin, a cyanobacterial nonribosomal peptide. *Applied and Environmental Microbiology*, **2002**, 68, 449-55	4.8	106
14	Nonribosomal peptide synthetase genes occur in most cyanobacterial genera as evidenced by their distribution in axenic strains of the PCC. *Archives of Microbiology*, **2001**, 176, 452-8	3	41

13	Molecular biology of peptide and polyketide biosynthesis in cyanobacteria. *Applied Microbiology and Biotechnology*, **2001**, 57, 467-73	5.7	73
12	Consequences of impaired microcystin production for light-dependent growth and pigmentation of Microcystis aeruginosa PCC 7806. *FEMS Microbiology Ecology*, **2001**, 37, 39-43	4.3	66
11	Effects of cell-bound microcystins on survival and feeding of Daphnia spp. *Applied and Environmental Microbiology*, **2001**, 67, 3523-9	4.8	145
10	Altered expression of two light-dependent genes in a microcystin-lacking mutant of Microcystis aeruginosa PCC 7806. *Microbiology (United Kingdom)*, **2001**, 147, 3113-9	2.9	90
9	Structural organization of microcystin biosynthesis in Microcystis aeruginosa PCC7806: an integrated peptide-polyketide synthetase system. *Chemistry and Biology*, **2000**, 7, 753-64		671
8	Light and the transcriptional response of the microcystin biosynthesis gene cluster. *Applied and Environmental Microbiology*, **2000**, 66, 3387-92	4.8	290
7	Role of microcystins in poisoning and food ingestion inhibition of Daphnia galeata caused by the cyanobacterium Microcystis aeruginosa. *Applied and Environmental Microbiology*, **1999**, 65, 737-9	4.8	168
6	Nonribosomal peptide synthesis and toxigenicity of cyanobacteria. *Journal of Bacteriology*, **1999**, 181, 4089-97	3.5	205
5	Peptide Synthetase Genes Occur in Various Species of Cyanobacteria **1999**, 615-621		5
4	Insertional mutagenesis of a peptide synthetase gene that is responsible for hepatotoxin production in the cyanobacterium Microcystis aeruginosa PCC 7806. *Molecular Microbiology*, **1997**, 26, 779-87	4.1	312
3	Toxic and non-toxic strains of the cyanobacterium Microcystis aeruginosa contain sequences homologous to peptide synthetase genes. *FEMS Microbiology Letters*, **1996**, 135, 295-303	2.9	16
2	Conserved sequences of peptide synthetase genes in the cyanobacterium Microcystis aeruginosa. *Phycologia*, **1996**, 35, 62-67	2.7	21
1	Toxic and non-toxic strains of the cyanobacterium Microcystis aeruginosa contain sequences homologous to peptide synthetase genes. *FEMS Microbiology Letters*, **1996**, 135, 295-303	2.9	76