Dirk Hoffmeister

List of Publications by Year
in descending order

95 papers	5,049 citations	126907 33 h-index	98798 67 g-index
97 all docs	97 docs citations	97 times ranked	5189 citing authors

#	Article	IF	Citations
1	Comparative Genomic and Metabolomic Analysis of Termitomyces Species Provides Insights into the Terpenome of the Fungal Cultivar and the Characteristic Odor of the Fungus Garden of Macrotermes natalensis Termites. MSystems, 2022, 7, e0121421.	3.8	8
2	Unprecedented Mushroom Polyketide Synthases Produce the Universal Anthraquinone Precursor. Angewandte Chemie - International Edition, 2022, 61, .	13.8	12
3	Assessment of Bioactivityâ€Modulating Pseudoâ€Ring Formation in Psilocin and Related Tryptamines. ChemBioChem, 2022, 23, .	2.6	9
4	Genetic Survey of Psilocybe Natural Products. ChemBioChem, 2022, 23, .	2.6	16
5	Ectomycorrhizal Influence on the Dynamics of Sesquiterpene Release by Tricholoma vaccinum. Journal of Fungi (Basel, Switzerland), 2022, 8, 555.	3.5	6
6	Taking Different Roads: <scp>l</scp>â€Tryptophan as the Origin of Psilocybe Natural Products. ChemPlusChem, 2021, 86, 28-35.	2.8	20
7	Mind the mushroom: natural product biosynthetic genes and enzymes of Basidiomycota. Natural Product Reports, 2021, 38, 702-722.	10.3	54
8	Chemoenzymatic Synthesis of 5-Methylpsilocybin: A Tryptamine with Potential Psychedelic Activity. Journal of Natural Products, 2021, 84, 1403-1408.	3.0	7
9	Frankobactin Metallophores Produced by Nitrogen-Fixing Frankia Actinobacteria Function in Toxic Metal Sequestration. Journal of Natural Products, 2021, 84, 1216-1225.	3.0	8
10	Bacterial cell wallâ€degrading enzymes induce basidiomycete natural product biosynthesis. Environmental Microbiology, 2021, 23, 4360-4371.	3.8	5
11	Structure Elucidation and Spectroscopic Analysis of Chromophores Produced by Oxidative Psilocin Dimerization. Chemistry - A European Journal, 2021, 27, 12166-12171.	3.3	7
12	Secretion of Iron(III)-Reducing Metabolites during Protein Acquisition by the Ectomycorrhizal Fungus Paxillus involutus. Microorganisms, 2021, 9, 35.	3.6	9
13	Injuryâ€Triggered Blueing Reactions of Psilocybe â€œMagicâ€•Mushrooms. Angewandte Chemie - International Edition, 2020, 59, 1450-1454.	13.8	34
14	Simultaneous Production of Psilocybin and a Cocktail of Î²â€Carboline Monoamine Oxidase Inhibitors in â€œMagicâ€•Mushrooms. Chemistry - A European Journal, 2020, 26, 729-734.	3.3	43
15	Injuryâ€Triggered Blueing Reactions of Psilocybe â€œMagicâ€•Mushrooms. Angewandte Chemie, 2020, 132, 1466-1470.	2.0	14
16	Sâ€Adenosylâ€<scp>l</scp>â€Methionine Salvage Impacts Psilocybin Formation in â€œMagicâ€• Mushrooms. ChemBioChem, 2020, 21, 1364-1371.	2.6	15
17	The Laetiporus polyketide synthase LpaA produces a series of antifungal polyenes. Journal of Antibiotics, 2020, 73, 711-720.	2.0	16
18	Scalable Hybrid Synthetic/Biocatalytic Route to Psilocybin. Chemistry - A European Journal, 2020, 26, 8281-8285.	3.3	21

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19	Kein Hokuspokus â€“ Inhaltsstoffe der Zauberpilze. Nachrichten Aus Der Chemie, 2020, 68, 61-63.	0.0	1
20	A genomics perspective on natural product biosynthesis in plant pathogenic bacteria. Natural Product Reports, 2019, 36, 307-325.	10.3	8
21	Production Options for Psilocybin: Making of the Magic. Chemistry - A European Journal, 2019, 25, 897-903.	3.3	31
22	Diketopiperazine Formation in Fungi Requires Dedicated Cyclization and Thiolation Domains. Angewandte Chemie - International Edition, 2019, 58, 14589-14593.	13.8	31
23	Diketopiperazine Formation in Fungi Requires Dedicated Cyclization and Thiolation Domains. Angewandte Chemie, 2019, 131, 14731-14735.	2.0	7
24	Diversity and bioactivity of Armillaria sesquiterpene aryl ester natural products. Mycological Progress, 2019, 18, 1027-1037.	1.4	18
25	Enzymatic Route toward 6â€Methylated Baeocystin and Psilocybin. ChemBioChem, 2019, 20, 2824-2829.	2.6	17
26	Melleolides impact fungal translation via elongation factor 2. Organic and Biomolecular Chemistry, 2019, 17, 4906-4916.	2.8	16
27	Melleolides from Honey Mushroom Inhibit 5-Lipoxygenase via Cys159. Cell Chemical Biology, 2019, 26, 60-70.e4.	5.2	13
28	Analysis of basidiomycete pigments in situ by Raman spectroscopy. Journal of Biophotonics, 2018, 11, e201700369.	2.3	8
29	Multi-genome analysis identifies functional and phylogenetic diversity of basidiomycete adenylate-forming reductases. Fungal Genetics and Biology, 2018, 112, 55-63.	2.1	26
30	Facile assembly and fluorescence-based screening method for heterologous expression of biosynthetic pathways in fungi. Metabolic Engineering, 2018, 48, 44-51.	7.0	57
31	Biocatalytic Production of Psilocybin and Derivatives in Tryptophan Synthaseâ€Enhanced Reactions. Chemistry - A European Journal, 2018, 24, 10028-10031.	3.3	29
32	Iterative <scp>l</scp>â€Tryptophan Methylation in Psilocybe Evolved by Subdomain Duplication. ChemBioChem, 2018, 19, 2160-2166.	2.6	16
33	Dissimilar pigment regulation in Serpula lacrymans and Paxillus involutus during inter-kingdom interactions. Microbiology (United Kingdom), 2018, 164, 65-77.	1.8	23
34	Induzierte chemische Verteidigung eines StÃnderpilzes durch eine doppelbindungsverschiebende Polyensynthase. Angewandte Chemie, 2017, 129, 6031-6035.	2.0	9
35	Induced Chemical Defense of a Mushroom by a Doubleâ€Bondâ€Shifting Polyene Synthase. Angewandte Chemie - International Edition, 2017, 56, 5937-5941.	13.8	34
36	Biochemical and genetic basis of orsellinic acid biosynthesis and prenylation in a stereaceous basidiomycete. Fungal Genetics and Biology, 2017, 98, 12-19.	2.1	28

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37	Fungal variegatic acid and extracellular polysaccharides promote the site-specific generation of reactive oxygen species. Journal of Industrial Microbiology and Biotechnology, 2017, 44, 329-338.	3.0	16
38	A Highly Conserved Basidiomycete Peptide Synthetase Produces a Trimeric Hydroxamate Siderophore. Applied and Environmental Microbiology, 2017, 83, .	3.1	27
39	Structure of Ralsolamycin, the Interkingdom Morphogen from the Crop Plant Pathogen Ralstonia solanacearum. Organic Letters, 2017, 19, 4868-4871.	4.6	25
40	Identification of Ï‰-N-Methyl-4-hydroxytryptamine (Norpsilocin) as a Psilocybe Natural Product. Journal of Natural Products, 2017, 80, 2835-2838.	3.0	38
41	Enzymatic Synthesis of Psilocybin. Angewandte Chemie - International Edition, 2017, 56, 12352-12355.	13.8	125
42	Enzymatische Synthese von Psilocybin. Angewandte Chemie, 2017, 129, 12524-12527.	2.0	21
43	A non-canonical peptide synthetase adenylates 3-methyl-2-oxovaleric acid for auriculamide biosynthesis. Beilstein Journal of Organic Chemistry, 2016, 12, 2766-2770.	2.2	6
44	Globally distributed root endophyte Phialocephala subalpina links pathogenic and saprophytic lifestyles. BMC Genomics, 2016, 17, 1015.	2.8	54
45	Ectomycorrhizal fungi decompose soil organic matter using oxidative mechanisms adapted from saprotrophic ancestors. New Phytologist, 2016, 209, 1705-1719.	7.3	264
46	Unexpected Metabolic Versatility in a Combined Fungal Fomannoxin/Vibralactone Biosynthesis. Journal of Natural Products, 2016, 79, 1407-1414.	3.0	22
47	Plant-like biosynthesis of isoquinoline alkaloids in Aspergillus fumigatus. Nature Chemical Biology, 2016, 12, 419-424.	8.0	79
48	Bacteria induce pigment formation in the basidiomycete Serpula lacrymans. Environmental Microbiology, 2016, 18, 5218-5227.	3.8	29
49	An Iterative Oâ€Methyltransferase Catalyzes 1,11â€Dimethylation of Aspergillus fumigatus Fumaric Acid Amides. ChemBioChem, 2016, 17, 1813-1817.	2.6	8
50	Activeâ€Site Engineering Expands the Substrate Profile of the Basidiomycete <scp>l</scp>â€Tryptophan Decarboxylase CsTDC. ChemBioChem, 2016, 17, 132-136.	2.6	31
51	A Fivefold Parallelized Biosynthetic Process Secures Chlorination of Armillaria mellea (Honey) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	3.1	31
52	Activity of Î±â€Aminoadipate Reductase Depends on the Nâ€Terminally Extending Domain. ChemBioChem, 2015, 16, 1426-1430.	2.6	14
53	Insights on the Evolution of Mycoparasitism from the Genome of Clonostachys rosea. Genome Biology and Evolution, 2015, 7, 465-480.	2.5	150
54	Fungal natural productsÃ¢â‚¬â€the mushroom perspective. Frontiers in Microbiology, 2015, 6, 127.	3.5	49

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55	Three Redundant Synthetases Secure Redox-Active Pigment Production in the Basidiomycete Paxillus involutus. Chemistry and Biology, 2015, 22, 1325-1334.	6.0	44
56	Involutin Is an Fe ³⁺ Reductant Secreted by the Ectomycorrhizal Fungus Paxillus involutus during Fenton-Based Decomposition of Organic Matter. Applied and Environmental Microbiology, 2015, 81, 8427-8433.	3.1	49
57	Genetic Engineering Activates Biosynthesis of Aromatic Fumaric Acid Amides in the Human Pathogen Aspergillus fumigatus. Applied and Environmental Microbiology, 2015, 81, 1594-1600.	3.1	10
58	Analysis of the Phlebiopsis gigantea Genome, Transcriptome and Secretome Provides Insight into Its Pioneer Colonization Strategies of Wood. PLoS Genetics, 2014, 10, e1004759.	3.5	90
59	Injury-Induced Biosynthesis of Methyl-Branched Polyene Pigments in a White-Rotting Basidiomycete. Journal of Natural Products, 2014, 77, 2658-2663.	3.0	16
60	Functional and Phylogenetic Divergence of Fungal Adenylate-Forming Reductases. Applied and Environmental Microbiology, 2014, 80, 6175-6183.	3.1	32
61	Comments on the distribution and phylogeny of type I polyketide synthases and nonribosomal peptide synthetases in eukaryotes. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E3946-E3946.	7.1	4
62	Ralfuranone Is Produced by an Alternative Aryl-Substituted Î³-Lactone Biosynthetic Route in Ralstonia solanacearum. Journal of Natural Products, 2014, 77, 1967-1971.	3.0	10
63	Melleolides induce rapid cell death in human primary monocytes and cancer cells. Bioorganic and Medicinal Chemistry, 2014, 22, 3856-3861.	3.0	17
64	Cytotoxic and antifungal activities of melleolide antibiotics follow dissimilar structureâ€“activity relationships. Phytochemistry, 2014, 105, 101-108.	2.9	43
65	Biosynthesis of the Halogenated Mycotoxin Aspirochlorine in Koji Mold Involves a Cryptic Amino Acid Conversion. Angewandte Chemie - International Edition, 2014, 53, 13409-13413.	13.8	90
66	Assembly of Melleolide Antibiotics Involves a Polyketide Synthase with Cross-Coupling Activity. Chemistry and Biology, 2013, 20, 1101-1106.	6.0	66
67	Fungal peptide synthetases: an update on functions and specificity signatures. Fungal Biology Reviews, 2013, 27, 43-50.	4.7	27
68	Homologous NRPSâ€like Gene Clusters Mediate Redundant Smallâ€Molecule Biosynthesis in Aspergillus flavus. Angewandte Chemie - International Edition, 2013, 52, 1590-1594.	13.8	101
69	An Iterative Type I Polyketide Synthase Initiates the Biosynthesis of the Antimycoplasma Agent Micacocidin. Chemistry and Biology, 2013, 20, 764-771.	6.0	22
70	The fusarin analog NG-391 impairs nucleic acid formation in K-562 leukemia cells. Phytochemistry Letters, 2013, 6, 189-192.	1.2	7
71	Ralfuranone Thioether Production by the Plant Pathogen Ralstonia solanacearum. ChemBioChem, 2013, 14, 2169-2178.	2.6	28
72	Bimodular Peptide Synthetase SidE Produces Fumarylalanine in the Human Pathogen Aspergillus fumigatus. Applied and Environmental Microbiology, 2013, 79, 6670-6676.	3.1	25

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73	Genome mining reveals the evolutionary origin and biosynthetic potential of basidiomycete polyketide synthases. Fungal Genetics and Biology, 2012, 49, 996-1003.	2.1	71
74	Insight into tradeâ€off between wood decay and parasitism from the genome of a fungal forest pathogen. New Phytologist, 2012, 194, 1001-1013.	7.3	210
75	Comparative genomics of Ceriporiopsis subvermispora and Phanerochaete chrysosporium provide insight into selective ligninolysis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5458-5463.	7.1	259
76	Characterization of the Suillus grevillei Quinone Synthetase GreA Supports a Nonribosomal Code for Aromatic Î±â€Keto Acids. ChemBioChem, 2012, 13, 1798-1804.	2.6	34
77	Sesquiterpene aryl ester natural products in North American Armillaria species. Mycological Progress, 2012, 11, 7-15.	1.4	22
78	Characterisation of the ArmA adenylation domain implies a more diverse secondary metabolism in the genus Armillaria. Fungal Biology, 2011, 115, 775-781.	2.5	17
79	Secrets of the subterranean pathosystem of Armillaria. Molecular Plant Pathology, 2011, 12, 515-534.	4.2	143
80	Ralfuranone Biosynthesis in Ralstonia solanacearum Suggests Functional Divergence in the Quinone Synthetase Family of Enzymes. Chemistry and Biology, 2011, 18, 354-360.	6.0	41
81	In vitro cytotoxicity of melleolide antibiotics: Structural and mechanistic aspects. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 2003-2006.	2.2	44
82	Biosynthesis of a Complex Yersiniabactin-Like Natural Product via the mic Locus in Phytopathogen Ralstonia solanacearum. Applied and Environmental Microbiology, 2011, 77, 6117-6124.	3.1	52
83	The Plant Cell Wallâ€“Decomposing Machinery Underlies the Functional Diversity of Forest Fungi. Science, 2011, 333, 762-765.	12.6	512
84	Spotlights on advances in mycotoxin research. Applied Microbiology and Biotechnology, 2010, 87, 1-7.	3.6	22
85	The Global Virulence Regulators VsrAD and PhcA Control Secondary Metabolism in the Plant Pathogen Ralstonia solanacearum. ChemBioChem, 2009, 10, 2730-2732.	2.6	38
86	Structure and Cytotoxicity of Arnamial and Related Fungal Sesquiterpene Aryl Esters. Journal of Natural Products, 2009, 72, 1888-1891.	3.0	45
87	Processing sites involved in intron splicing of Armillaria natural product genes. Mycological Research, 2008, 112, 216-224.	2.5	18
88	Characterization of the atromentin biosynthesis genes and enzymes in the homobasidiomycete Tapinella panuoides. Fungal Genetics and Biology, 2008, 45, 1487-1496.	2.1	63
89	In Vivo and In Vitro Production Options for Fungal Secondary Metabolites. Molecular Pharmaceutics, 2008, 5, 234-242.	4.6	62
90	Fungal Genetics, Genomics, and Secondary Metabolites in Pharmaceutical Sciences. Planta Medica, 2007, 73, 103-115.	1.3	49

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91	Accurate prediction of the Aspergillus nidulans terrequinone gene cluster boundaries using the transcriptional regulator LaeA. Fungal Genetics and Biology, 2007, 44, 1134-1145.	2.1	99
92	Natural products of filamentous fungi: enzymes, genes, and their regulation. Natural Product Reports, 2007, 24, 393-416.	10.3	519
93	A One-Pot Chemoenzymatic Synthesis for the Universal Precursor of Antidiabetes and Antiviral Bis-Indolylquinones. Chemistry and Biology, 2007, 14, 635-644.	6.0	51
94	Genomic Mining for Aspergillus Natural Products. Chemistry and Biology, 2006, 13, 31-37.	6.0	324
95	Unprecedented Mushroom Polyketide Synthases Produce the Universal Anthraquinone Precursor. Angewandte Chemie, 0, , .	2.0	1