

# Dirk Hoffmeister

## List of Publications by Year in descending order

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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	Natural products of filamentous fungi: enzymes, genes, and their regulation. <i>Natural Product Reports</i> , 2007, 24, 393-416.	10.3	519
2	The Plant Cell Wallâ€œDecomposing Machinery Underlies the Functional Diversity of Forest Fungi. <i>Science</i> , 2011, 333, 762-765.	12.6	512
3	Genomic Mining for <i>Aspergillus</i> Natural Products. <i>Chemistry and Biology</i> , 2006, 13, 31-37.	6.0	324
4	Ectomycorrhizal fungi decompose soil organic matter using oxidative mechanisms adapted from saprotrophic ancestors. <i>New Phytologist</i> , 2016, 209, 1705-1719.	7.3	264
5	Comparative genomics of <i>Ceriporiopsis subvermispora</i> and <i>Phanerochaete chrysosporium</i> provide insight into selective ligninolysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 5458-5463.	7.1	259
6	Insight into trade-off between wood decay and parasitism from the genome of a fungal forest pathogen. <i>New Phytologist</i> , 2012, 194, 1001-1013.	7.3	210
7	Insights on the Evolution of Mycoparasitism from the Genome of <i>Clonostachys rosea</i> . <i>Genome Biology and Evolution</i> , 2015, 7, 465-480.	2.5	150
8	Secrets of the subterranean pathosystem of <i>Armillaria</i> . <i>Molecular Plant Pathology</i> , 2011, 12, 515-534.	4.2	143
9	Enzymatic Synthesis of Psilocybin. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 12352-12355.	13.8	125
10	Homologous NRPS-like Gene Clusters Mediate Redundant Small-Molecule Biosynthesis in <i>Aspergillus flavus</i> . <i>Angewandte Chemie - International Edition</i> , 2013, 52, 1590-1594.	13.8	101
11	Accurate prediction of the <i>Aspergillus nidulans</i> terrequinone gene cluster boundaries using the transcriptional regulator <i>LaeA</i> . <i>Fungal Genetics and Biology</i> , 2007, 44, 1134-1145.	2.1	99
12	Analysis of the <i>Phlebiopsis gigantea</i> Genome, Transcriptome and Secretome Provides Insight into Its Pioneer Colonization Strategies of Wood. <i>PLoS Genetics</i> , 2014, 10, e1004759.	3.5	90
13	Biosynthesis of the Halogenated Mycotoxin Aspirochlorine in Koji Mold Involves a Cryptic Amino Acid Conversion. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 13409-13413.	13.8	90
14	Plant-like biosynthesis of isoquinoline alkaloids in <i>Aspergillus fumigatus</i> . <i>Nature Chemical Biology</i> , 2016, 12, 419-424.	8.0	79
15	Genome mining reveals the evolutionary origin and biosynthetic potential of basidiomycete polyketide synthases. <i>Fungal Genetics and Biology</i> , 2012, 49, 996-1003.	2.1	71
16	Assembly of Melleolide Antibiotics Involves a Polyketide Synthase with Cross-Coupling Activity. <i>Chemistry and Biology</i> , 2013, 20, 1101-1106.	6.0	66
17	Characterization of the atromentin biosynthesis genes and enzymes in the homobasidiomycete <i>Tapinella panuoides</i> . <i>Fungal Genetics and Biology</i> , 2008, 45, 1487-1496.	2.1	63
18	In Vivo and In Vitro Production Options for Fungal Secondary Metabolites. <i>Molecular Pharmaceutics</i> , 2008, 5, 234-242.	4.6	62

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19	Facile assembly and fluorescence-based screening method for heterologous expression of biosynthetic pathways in fungi. <i>Metabolic Engineering</i> , 2018, 48, 44-51.	7.0	57
20	Globally distributed root endophyte <i>Phialocephala subalpina</i> links pathogenic and saprophytic lifestyles. <i>BMC Genomics</i> , 2016, 17, 1015.	2.8	54
21	Mind the mushroom: natural product biosynthetic genes and enzymes of Basidiomycota. <i>Natural Product Reports</i> , 2021, 38, 702-722.	10.3	54
22	Biosynthesis of a Complex Yersiniabactin-Like Natural Product via the <i>mic</i> Locus in Phytopathogen <i>Ralstonia solanacearum</i> . <i>Applied and Environmental Microbiology</i> , 2011, 77, 6117-6124.	3.1	52
23	A One-Pot Chemoenzymatic Synthesis for the Universal Precursor of Antidiabetes and Antiviral Bis-Indolyquinones. <i>Chemistry and Biology</i> , 2007, 14, 635-644.	6.0	51
24	Fungal Genetics, Genomics, and Secondary Metabolites in Pharmaceutical Sciences. <i>Planta Medica</i> , 2007, 73, 103-115.	1.3	49
25	Fungal natural products – the mushroom perspective. <i>Frontiers in Microbiology</i> , 2015, 6, 127.	3.5	49
26	Involutin Is an Fe <sup>3+</sup> Reductant Secreted by the Ectomycorrhizal Fungus <i>Paxillus involutus</i> during Fenton-Based Decomposition of Organic Matter. <i>Applied and Environmental Microbiology</i> , 2015, 81, 8427-8433.	3.1	49
27	Structure and Cytotoxicity of Arnamiol and Related Fungal Sesquiterpene Aryl Esters. <i>Journal of Natural Products</i> , 2009, 72, 1888-1891.	3.0	45
28	In vitro cytotoxicity of melleolide antibiotics: Structural and mechanistic aspects. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 2003-2006.	2.2	44
29	Three Redundant Synthetases Secure Redox-Active Pigment Production in the Basidiomycete <i>Paxillus involutus</i> . <i>Chemistry and Biology</i> , 2015, 22, 1325-1334.	6.0	44
30	Cytotoxic and antifungal activities of melleolide antibiotics follow dissimilar structure-activity relationships. <i>Phytochemistry</i> , 2014, 105, 101-108.	2.9	43
31	Simultaneous Production of Psilocybin and a Cocktail of <sup>12</sup> C-Labelled Carboline Monoamine Oxidase Inhibitors in Magic Mushrooms. <i>Chemistry - A European Journal</i> , 2020, 26, 729-734.	3.3	43
32	Ralfuranone Biosynthesis in <i>Ralstonia solanacearum</i> Suggests Functional Divergence in the Quinone Synthetase Family of Enzymes. <i>Chemistry and Biology</i> , 2011, 18, 354-360.	6.0	41
33	The Global Virulence Regulators VsrAD and PhcA Control Secondary Metabolism in the Plant Pathogen <i>Ralstonia solanacearum</i> . <i>ChemBioChem</i> , 2009, 10, 2730-2732.	2.6	38
34	Identification of N-Methyl-4-hydroxytryptamine (Norpsilocin) as a <i>Psilocybe</i> Natural Product. <i>Journal of Natural Products</i> , 2017, 80, 2835-2838.	3.0	38
35	Characterization of the <i>Suillus grevillei</i> Quinone Synthetase GreA Supports a Nonribosomal Code for Aromatic Keto Acids. <i>ChemBioChem</i> , 2012, 13, 1798-1804.	2.6	34
36	Induced Chemical Defense of a Mushroom by a Double-Bond Shifting Polyene Synthase. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 5937-5941.	13.8	34

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37	Injury-Triggered Blueing Reactions of <i>Psilocybe</i> "Magic" Mushrooms. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 1450-1454.	13.8	34
38	Functional and Phylogenetic Divergence of Fungal Adenylate-Forming Reductases. <i>Applied and Environmental Microbiology</i> , 2014, 80, 6175-6183.	3.1	32
39	Active-Site Engineering Expands the Substrate Profile of the Basidiomycete <i>Trichothyrus</i> Tryptophan Decarboxylase CsTDC. <i>ChemBioChem</i> , 2016, 17, 132-136.	2.6	31
40	A Fivefold Parallelized Biosynthetic Process Secures Chlorination of <i>Armillaria mellea</i> (Honey) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622	3.1	31
41	Production Options for Psilocybin: Making of the Magic. <i>Chemistry - A European Journal</i> , 2019, 25, 897-903.	3.3	31
42	Diketopiperazine Formation in Fungi Requires Dedicated Cyclization and Thiolation Domains. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 14589-14593.	13.8	31
43	Bacteria induce pigment formation in the basidiomycete <i>Serpula lacrymans</i> . <i>Environmental Microbiology</i> , 2016, 18, 5218-5227.	3.8	29
44	Biocatalytic Production of Psilocybin and Derivatives in Tryptophan Synthase-Enhanced Reactions. <i>Chemistry - A European Journal</i> , 2018, 24, 10028-10031.	3.3	29
45	Ralfuranone Thioether Production by the Plant Pathogen <i>Ralstonia solanacearum</i> . <i>ChemBioChem</i> , 2013, 14, 2169-2178.	2.6	28
46	Biochemical and genetic basis of orsellinic acid biosynthesis and prenylation in a steraceous basidiomycete. <i>Fungal Genetics and Biology</i> , 2017, 98, 12-19.	2.1	28
47	Fungal peptide synthetases: an update on functions and specificity signatures. <i>Fungal Biology Reviews</i> , 2013, 27, 43-50.	4.7	27
48	A Highly Conserved Basidiomycete Peptide Synthetase Produces a Trimeric Hydroxamate Siderophore. <i>Applied and Environmental Microbiology</i> , 2017, 83, .	3.1	27
49	Multi-genome analysis identifies functional and phylogenetic diversity of basidiomycete adenylate-forming reductases. <i>Fungal Genetics and Biology</i> , 2018, 112, 55-63.	2.1	26
50	Bimodular Peptide Synthetase SidE Produces Fumarylalanine in the Human Pathogen <i>Aspergillus fumigatus</i> . <i>Applied and Environmental Microbiology</i> , 2013, 79, 6670-6676.	3.1	25
51	Structure of Ralsolamycin, the Interkingdom Morphogen from the Crop Plant Pathogen <i>Ralstonia solanacearum</i> . <i>Organic Letters</i> , 2017, 19, 4868-4871.	4.6	25
52	Dissimilar pigment regulation in <i>Serpula lacrymans</i> and <i>Paxillus involutus</i> during inter-kingdom interactions. <i>Microbiology (United Kingdom)</i> , 2018, 164, 65-77.	1.8	23
53	Spotlights on advances in mycotoxin research. <i>Applied Microbiology and Biotechnology</i> , 2010, 87, 1-7.	3.6	22
54	Sesquiterpene aryl ester natural products in North American <i>Armillaria</i> species. <i>Mycological Progress</i> , 2012, 11, 7-15.	1.4	22

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55	An Iterative Type I Polyketide Synthase Initiates the Biosynthesis of the Antimycoplasma Agent Micacocidin. <i>Chemistry and Biology</i> , 2013, 20, 764-771.	6.0	22
56	Unexpected Metabolic Versatility in a Combined Fungal Fomannoxin/Vibrilactone Biosynthesis. <i>Journal of Natural Products</i> , 2016, 79, 1407-1414.	3.0	22
57	Enzymatische Synthese von Psilocybin. <i>Angewandte Chemie</i> , 2017, 129, 12524-12527.	2.0	21
58	Scalable Hybrid Synthetic/Biocatalytic Route to Psilocybin. <i>Chemistry - A European Journal</i> , 2020, 26, 8281-8285.	3.3	21
59	Taking Different Roads: $\epsilon$ -Tryptophan as the Origin of <i>Psilocybe</i> Natural Products. <i>ChemPlusChem</i> , 2021, 86, 28-35.	2.8	20
60	Processing sites involved in intron splicing of <i>Armillaria</i> natural product genes. <i>Mycological Research</i> , 2008, 112, 216-224.	2.5	18
61	Diversity and bioactivity of <i>Armillaria</i> sesquiterpene aryl ester natural products. <i>Mycological Progress</i> , 2019, 18, 1027-1037.	1.4	18
62	Characterisation of the ArmA adenylation domain implies a more diverse secondary metabolism in the genus <i>Armillaria</i> . <i>Fungal Biology</i> , 2011, 115, 775-781.	2.5	17
63	Melleolides induce rapid cell death in human primary monocytes and cancer cells. <i>Bioorganic and Medicinal Chemistry</i> , 2014, 22, 3856-3861.	3.0	17
64	Enzymatic Route toward $\epsilon$ -Methylated Baeocystin and Psilocybin. <i>ChemBioChem</i> , 2019, 20, 2824-2829.	2.6	17
65	Injury-Induced Biosynthesis of Methyl-Branched Polyene Pigments in a White-Rotting Basidiomycete. <i>Journal of Natural Products</i> , 2014, 77, 2658-2663.	3.0	16
66	Fungal variegatic acid and extracellular polysaccharides promote the site-specific generation of reactive oxygen species. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2017, 44, 329-338.	3.0	16
67	Iterative $\epsilon$ -Tryptophan Methylation in <i>Psilocybe</i> Evolved by Subdomain Duplication. <i>ChemBioChem</i> , 2018, 19, 2160-2166.	2.6	16
68	Melleolides impact fungal translation <i>via</i> elongation factor 2. <i>Organic and Biomolecular Chemistry</i> , 2019, 17, 4906-4916.	2.8	16
69	The <i>Laetiporus</i> polyketide synthase LpaA produces a series of antifungal polyenes. <i>Journal of Antibiotics</i> , 2020, 73, 711-720.	2.0	16
70	Genetic Survey of <i>Psilocybe</i> Natural Products. <i>ChemBioChem</i> , 2022, 23, .	2.6	16
71	<i>S</i> -Adenosyl-Methionine Salvage Impacts Psilocybin Formation in <i>Magic</i> Mushrooms. <i>ChemBioChem</i> , 2020, 21, 1364-1371.	2.6	15
72	Activity of $\epsilon$ -Aminoacidopate Reductase Depends on the N-Terminally Extending Domain. <i>ChemBioChem</i> , 2015, 16, 1426-1430.	2.6	14

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73	Injuryâ€Triggered Blueing Reactions of <i>Psilocybe</i> â€Magicâ€Mushrooms. <i>Angewandte Chemie</i> , 2020, 132, 1466-1470.	2.0	14
74	Melleolides from Honey Mushroom Inhibit 5-Lipoxygenase via Cys159. <i>Cell Chemical Biology</i> , 2019, 26, 60-70.e4.	5.2	13
75	Unprecedented Mushroom Polyketide Synthases Produce the Universal Anthraquinone Precursor. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	12
76	Ralfuranone Is Produced by an Alternative Aryl-Substituted Î³-Lactone Biosynthetic Route in <i>Ralstonia solanacearum</i> . <i>Journal of Natural Products</i> , 2014, 77, 1967-1971.	3.0	10
77	Genetic Engineering Activates Biosynthesis of Aromatic Fumaric Acid Amides in the Human Pathogen <i>Aspergillus fumigatus</i> . <i>Applied and Environmental Microbiology</i> , 2015, 81, 1594-1600.	3.1	10
78	Induzierte chemische Verteidigung eines StÃnderpilzes durch eine doppelbindungsverschiebende Polyensynthese. <i>Angewandte Chemie</i> , 2017, 129, 6031-6035.	2.0	9
79	Secretion of Iron(III)-Reducing Metabolites during Protein Acquisition by the Ectomycorrhizal Fungus <i>Paxillus involutus</i> . <i>Microorganisms</i> , 2021, 9, 35.	3.6	9
80	Assessment of Bioactivityâ€Modulating Pseudoâ€Ring Formation in Psilocin and Related Tryptamines. <i>ChemBioChem</i> , 2022, 23, .	2.6	9
81	An Iterative <i>O</i> -Methyltransferase Catalyzes 1,11â€Dimethylation of <i>Aspergillus fumigatus</i> Fumaric Acid Amides. <i>ChemBioChem</i> , 2016, 17, 1813-1817.	2.6	8
82	Analysis of basidiomycete pigments in situ by Raman spectroscopy. <i>Journal of Biophotonics</i> , 2018, 11, e201700369.	2.3	8
83	A genomics perspective on natural product biosynthesis in plant pathogenic bacteria. <i>Natural Product Reports</i> , 2019, 36, 307-325.	10.3	8
84	Frankobactin Metallophores Produced by Nitrogen-Fixing <i>Frankia</i> Actinobacteria Function in Toxic Metal Sequestration. <i>Journal of Natural Products</i> , 2021, 84, 1216-1225.	3.0	8
85	Comparative Genomic and Metabolomic Analysis of <i>Termitomyces</i> Species Provides Insights into the Terpenome of the Fungal Cultivar and the Characteristic Odor of the Fungus Garden of <i>Macrotermes natalensis</i> Termites. <i>MSystems</i> , 2022, 7, e0121421.	3.8	8
86	The fusarin analog NG-391 impairs nucleic acid formation in K-562 leukemia cells. <i>Phytochemistry Letters</i> , 2013, 6, 189-192.	1.2	7
87	Diketopiperazine Formation in Fungi Requires Dedicated Cyclization and Thiolation Domains. <i>Angewandte Chemie</i> , 2019, 131, 14731-14735.	2.0	7
88	Chemoenzymatic Synthesis of 5-Methylpsilocybin: A Tryptamine with Potential Psychedelic Activity. <i>Journal of Natural Products</i> , 2021, 84, 1403-1408.	3.0	7
89	Structure Elucidation and Spectroscopic Analysis of Chromophores Produced by Oxidative Psilocin Dimerization. <i>Chemistry - A European Journal</i> , 2021, 27, 12166-12171.	3.3	7
90	A non-canonical peptide synthetase adenylates 3-methyl-2-oxovaleric acid for auriculamide biosynthesis. <i>Beilstein Journal of Organic Chemistry</i> , 2016, 12, 2766-2770.	2.2	6

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91	Ectomycorrhizal Influence on the Dynamics of Sesquiterpene Release by <i>Tricholoma vaccinum</i> . <i>Journal of Fungi</i> (Basel, Switzerland), 2022, 8, 555.	3.5	6
92	Bacterial cell wall-degrading enzymes induce basidiomycete natural product biosynthesis. <i>Environmental Microbiology</i> , 2021, 23, 4360-4371.	3.8	5
93	Comments on the distribution and phylogeny of type I polyketide synthases and nonribosomal peptide synthetases in eukaryotes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E3946-E3946.	7.1	4
94	Kein Hokusfokus – Inhaltsstoffe der Zauberpilze. <i>Nachrichten Aus Der Chemie</i> , 2020, 68, 61-63.	0.0	1
95	Unprecedented Mushroom Polyketide Synthases Produce the Universal Anthraquinone Precursor. <i>Angewandte Chemie</i> , 0, , .	2.0	1