Gerhard Adam

List of Publications by Year
in descending order

108 papers	7,623 citations	57631 44 h-index	53109 85 g-index
111 all docs	111 docs citations	111 times ranked	5893 citing authors

#	Article	IF	Citations
1	The <i>Fusarium graminearum</i> Genome Reveals a Link Between Localized Polymorphism and Pathogen Specialization. Science, 2007, 317, 1400-1402.	6.0	837
2	Detoxification of the Fusarium Mycotoxin Deoxynivalenol by a UDP-glucosyltransferase from Arabidopsis thaliana. Journal of Biological Chemistry, 2003, 278, 47905-47914.	1.6	472
3	The Ability to Detoxify the Mycotoxin Deoxynivalenol Colocalizes With a Major Quantitative Trait Locus for Fusarium Head Blight Resistance in Wheat. Molecular Plant-Microbe Interactions, 2005, 18, 1318-1324.	1.4	362
4	Masked Mycotoxins:Â Determination of a Deoxynivalenol Glucoside in Artificially and Naturally Contaminated Wheat by Liquid Chromatographyâˆ'Tandem Mass Spectrometry. Journal of Agricultural and Food Chemistry, 2005, 53, 3421-3425.	2.4	346
5	The UGT73C5 of Arabidopsis thaliana glucosylates brassinosteroids. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 15253-15258.	3.3	217
6	Hydrolytic fate of deoxynivalenol-3-glucoside during digestion. Toxicology Letters, 2011, 206, 264-267.	0.4	216
7	Formation, determination and significance of masked and other conjugated mycotoxins. Analytical and Bioanalytical Chemistry, 2009, 395, 1243-1252.	1.9	192
8	Development of a Fusarium graminearum Affymetrix GeneChip for profiling fungal gene expression in vitro and in planta. Fungal Genetics and Biology, 2006, 43, 316-325.	0.9	164
9	Metabolism of the masked mycotoxin deoxynivalenol-3-glucoside in rats. Toxicology Letters, 2012, 213, 367-373.	0.4	146
10	Assessment of human deoxynivalenol exposure using an LCâ€"MS/MS based biomarker method. Toxicology Letters, 2012, 211, 85-90.	0.4	145
11	New tricks of an old enemy: isolates of <scp><i>F</i></scp><i>usarium graminearum</i> produce a type <scp>A</scp> trichothecene mycotoxin. Environmental Microbiology, 2015, 17, 2588-2600.	1.8	145
12	Transcriptome Analysis of the Barleyâ€"Deoxynivalenol Interaction: Evidence for a Role of Glutathione in Deoxynivalenol Detoxification. Molecular Plant-Microbe Interactions, 2010, 23, 962-976.	1.4	140
13	Metabolism of the masked mycotoxin deoxynivalenol-3-glucoside in pigs. Toxicology Letters, 2014, 229, 190-197.	0.4	140
14	Transformation System for <i>Hypocrea jecorina</i> (<i>Trichoderma reesei</i>) That Favors Homologous Integration and Employs Reusable Bidirectionally Selectable Markers. Applied and Environmental Microbiology, 2011, 77, 114-121.	1.4	136
15	Simultaneous determination of major type A and B trichothecenes, zearalenone and certain modified metabolites in Finnish cereal grains with a novel liquid chromatography-tandem mass spectrometric method. Analytical and Bioanalytical Chemistry, 2015, 407, 4745-4755.	1.9	133
16	Transcriptomic characterization of two major <i><scp>F</scp>usarium</i> resistance quantitative trait loci (<scp>QTL</scp>s), <i><scp>F</scp>hb1</i> and <i><scp>Q</scp>fhs.ifaâ€«scp>5A</scp></i>, identifies novel candidate genes. Molecular Plant Pathology, 2013, 14, 772-785.	2.0	132
17	Validation of a Candidate Deoxynivalenol-Inactivating UDP-Glucosyltransferase from Barley by Heterologous Expression in Yeast. Molecular Plant-Microbe Interactions, 2010, 23, 977-986.	1.4	126
18	The Fusarium graminearum Genome Reveals More Secondary Metabolite Gene Clusters and Hints of Horizontal Gene Transfer. PLoS ONE, 2014, 9, e110311.	1.1	124

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19	Development and validation of a rapid multiâ€biomarker liquid chromatography/tandem mass spectrometry method to assess human exposure to mycotoxins. Rapid Communications in Mass Spectrometry, 2012, 26, 1533-1540.	0.7	121
20	Metabolism of Zearalenone and Its Major Modified Forms in Pigs. Toxins, 2017, 9, 56.	1.5	121
21	GCâ€"MS based targeted metabolic profiling identifies changes in the wheat metabolome following deoxynivalenol treatment. Metabolomics, 2015, 11, 722-738.	1.4	117
22	CESTA, a positive regulator of brassinosteroid biosynthesis. EMBO Journal, 2011, 30, 1149-1161.	3.5	115
23	Stable isotopic labelling-assisted untargeted metabolic profiling reveals novel conjugates of the mycotoxin deoxynivalenol in wheat. Analytical and Bioanalytical Chemistry, 2013, 405, 5031-5036.	1.9	102
24	Control of peroxisome proliferation inSaccharomyces cerevisiae byADR1, SNF1 (CAT1, CCR1) andSNF4 (CAT3). Yeast, 1992, 8, 303-309.	0.8	96
25	Biotransformation of the Mycotoxin Deoxynivalenol in Fusarium Resistant and Susceptible Near Isogenic Wheat Lines. PLoS ONE, 2015, 10, e0119656.	1.1	93
26	Cleavage of Zearalenone by <i>Trichosporon mycotoxinivorans</i> to a Novel Nonestrogenic Metabolite. Applied and Environmental Microbiology, 2010, 76, 2353-2359.	1.4	92
27	Transgenic Arabidopsis thaliana expressing a barley UDP-glucosyltransferase exhibit resistance to the mycotoxin deoxynivalenol. Journal of Experimental Botany, 2012, 63, 4731-4740.	2.4	92
28	Functional Characterization of Two Clusters of <i>Brachypodium distachyon</i> UDP-Glycosyltransferases Encoding Putative Deoxynivalenol Detoxification Genes. Molecular Plant-Microbe Interactions, 2013, 26, 781-792.	1.4	85
29	A novel stable isotope labelling assisted workflow for improved untargeted LCâ€"HRMS based metabolomics research. Metabolomics, 2014, 10, 754-769.	1.4	84
30	FGDB: revisiting the genome annotation of the plant pathogen Fusarium graminearum. Nucleic Acids Research, 2011, 39, D637-D639.	6.5	81
31	Zearalenone-16-<i>O</i>-glucoside: A New Masked Mycotoxin. Journal of Agricultural and Food Chemistry, 2014, 62, 1181-1189.	2.4	81
32	Metabolism of the Fusarium Mycotoxins T-2 Toxin and HT-2 Toxin in Wheat. Journal of Agricultural and Food Chemistry, 2015, 63, 7862-7872.	2.4	78
33	FGDB: a comprehensive fungal genome resource on the plant pathogen Fusarium graminearum. Nucleic Acids Research, 2006, 34, D456-D458.	6.5	77
34	In vivo contribution of deoxynivalenol-3-Î²-d-glucoside to deoxynivalenol exposure in broiler chickens and pigs: oral bioavailability, hydrolysis and toxicokinetics. Archives of Toxicology, 2017, 91, 699-712.	1.9	75
35	Heterologous Expression of Arabidopsis UDP-Glucosyltransferases in Saccharomyces cerevisiae for Production of Zearalenone-4-O-Glucoside. Applied and Environmental Microbiology, 2006, 72, 4404-4410.	1.4	74
36	A barley UDP-glucosyltransferase inactivates nivalenol and provides Fusarium Head Blight resistance in transgenic wheat. Journal of Experimental Botany, 2017, 68, 2187-2197.	2.4	74

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37	Identification of Two GDP-6-deoxy-d-lyxo-4-hexulose Reductases Synthesizing GDP-d-rhamnose in Aneurinibacillus thermoaerophilus L420-91T. Journal of Biological Chemistry, 2001, 276, 5577-5583.	1.6	71
38	Deoxynivalenol-sulfates: identification and quantification of novel conjugated (masked) mycotoxins in wheat. Analytical and Bioanalytical Chemistry, 2015, 407, 1033-1039.	1.9	68
39	Individual and combined roles of malonichrome, ferricrocin, and TAFC siderophores in Fusarium graminearum pathogenic and sexual development. Frontiers in Microbiology, 2014, 5, 759.	1.5	60
40	Direct quantification of deoxynivalenol glucuronide in human urine as biomarker of exposure to the Fusarium mycotoxin deoxynivalenol. Analytical and Bioanalytical Chemistry, 2011, 401, 195-200.	1.9	57
41	Tracing the metabolism of HT-2 toxin and T-2 toxin in barley by isotope-assisted untargeted screening and quantitative LC-HRMS analysis. Analytical and Bioanalytical Chemistry, 2015, 407, 8019-8033.	1.9	56
42	Comparative inÂvitro cytotoxicity of modified deoxynivalenol on porcine intestinal epithelial cells. Food and Chemical Toxicology, 2016, 95, 103-109.	1.8	55
43	Untargeted Profiling of Tracer-Derived Metabolites Using Stable Isotopic Labeling and Fast Polarity-Switching LCâ€“ESI-HRMS. Analytical Chemistry, 2014, 86, 11533-11537.	3.2	52
44	Crystal Structure of Os79 (Os04g0206600) from <i>Oryza sativa</i>: A UDP-glucosyltransferase Involved in the Detoxification of Deoxynivalenol. Biochemistry, 2016, 55, 6175-6186.	1.2	49
45	Effects of oral exposure to naturally-occurring and synthetic deoxynivalenol congeners on proinflammatory cytokine and chemokine mRNA expression in the mouse. Toxicology and Applied Pharmacology, 2014, 278, 107-115.	1.3	44
46	Biochemical Characterization of a Recombinant UDP-glucosyltransferase from Rice and Enzymatic Production of Deoxynivalenol-3-O-Î²-D-glucoside. Toxins, 2015, 7, 2685-2700.	1.5	40
47	Identification of a novel human deoxynivalenol metabolite enhancing proliferation of intestinal and urinary bladder cells. Scientific Reports, 2016, 6, 33854.	1.6	40
48	A Sensitive and Inexpensive Yeast Bioassay for the Mycotoxin Zearalenone and Other Compounds with Estrogenic Activity. Applied and Environmental Microbiology, 2003, 69, 805-811.	1.4	39
49	Comparison of Anorectic and Emetic Potencies of Deoxynivalenol (Vomitoxin) to the Plant Metabolite Deoxynivalenol-3-Glucoside and Synthetic Deoxynivalenol Derivatives EN139528 and EN139544. Toxicological Sciences, 2014, 142, 167-181.	1.4	38
50	Saccharomyces cerevisiae URH1 (Encoding Uridine-Cytidine N -Ribohydrolase): Functional Complementation by a Nucleoside Hydrolase from a Protozoan Parasite and by a Mammalian Uridine Phosphorylase. Applied and Environmental Microbiology, 2002, 68, 1336-1343.	1.4	37
51	Metabolically Independent and Accurately Adjustable Aspergillus sp. Expression System. Applied and Environmental Microbiology, 2005, 71, 672-678.	1.4	37
52	Synthesis of deoxynivalenol-3-ÃŸ-D-O-glucuronide for its use as biomarker for dietary deoxynivalenol exposure. World Mycotoxin Journal, 2012, 5, 127-132.	0.8	37
53	Determination of the Mycotoxin Content in Distillerâ€™s Dried Grain with Solubles Using a Multianalyte UHPLCâ€“MS/MS Method. Journal of Agricultural and Food Chemistry, 2015, 63, 9441-9451.	2.4	36
54	UDP-Glucosyltransferases from Rice, Brachypodium, and Barley: Substrate Specificities and Synthesis of Type A and B Trichothecene-3-O-Î²-d-glucosides. Toxins, 2018, 10, 111.	1.5	35

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55	Stable Isotope-Assisted Plant Metabolomics: Investigation of Phenylalanine-Related Metabolic Response in Wheat Upon Treatment With the Fusarium Virulence Factor Deoxynivalenol. Frontiers in Plant Science, 2019, 10, 1137.	1.7	35
56	Biotransformation of the Mycotoxin Zearalenone to its Metabolites Hydrolyzed Zearalenone (HZEN) and Decarboxylated Hydrolyzed Zearalenone (DHZEN) Diminishes its Estrogenicity In Vitro and In Vivo. Toxins, 2019, 11, 481.	1.5	35
57	Title is missing!. European Journal of Plant Pathology, 2002, 108, 699-703.	0.8	33
58	Short review: Metabolism of theFusarium mycotoxins deoxynivalenol and zearalenone in plants. Mycotoxin Research, 2007, 23, 68-72.	1.3	31
59	The Metabolic Fate of Deoxynivalenol and Its Acetylated Derivatives in a Wheat Suspension Culture: Identification and Detection of DON-15-O-Glucoside, 15-Acetyl-DON-3-O-Glucoside and 15-Acetyl-DON-3-Sulfate. Toxins, 2015, 7, 3112-3126.	1.5	30
60	Determinants and Expansion of Specificity in a Trichothecene UDP-Glucosyltransferase from <i>Oryza sativa</i>. Biochemistry, 2017, 56, 6585-6596.	1.2	30
61	The Fusarium metabolite culmorin suppresses the in vitro glucuronidation of deoxynivalenol. Archives of Toxicology, 2019, 93, 1729-1743.	1.9	30
62	Toxin-dependent utilization of engineered ribosomal protein L3 limits trichothecene resistance in transgenic plants. Plant Biotechnology Journal, 2004, 2, 329-340.	4.1	29
63	Engineered bakers yeast as a sensitive bioassay indicator organism for the trichothecene toxin deoxynivalenol. Journal of Microbiological Methods, 2008, 72, 306-312.	0.7	29
64	Study on the uptake and deglycosylation of the masked forms of zearalenone in human intestinal Caco-2 cells. Food and Chemical Toxicology, 2016, 98, 232-239.	1.8	29
65	Fast and reproducible chemical synthesis of zearalenone-14-Î²,D-glucuronide. World Mycotoxin Journal, 2012, 5, 289-296.	0.8	28
66	A Versatile Family 3 Glycoside Hydrolase from Bifidobacterium adolescentis Hydrolyzes Î²-Glucosides of the Fusarium Mycotoxins Deoxynivalenol, Nivalenol, and HT-2 Toxin in Cereal Matrices. Applied and Environmental Microbiology, 2015, 81, 4885-4893.	1.4	26
67	Response of intestinal HT-29 cells to the trichothecene mycotoxin deoxynivalenol and its sulfated conjugates. Toxicology Letters, 2018, 295, 424-437.	0.4	26
68	Stable Isotope-Assisted Metabolomics for Deciphering Xenobiotic Metabolism in Mammalian Cell Culture. ACS Chemical Biology, 2020, 15, 970-981.	1.6	25
69	Synthesis of Mono- and Di-Glucosides of Zearalenone and Î±-/Î²-Zearalenol by Recombinant Barley Glucosyltransferase HvUGT14077. Toxins, 2017, 9, 58.	1.5	24
70	Ribosome quality control is a central protection mechanism for yeast exposed to deoxynivalenol and trichothecin. BMC Genomics, 2016, 17, 417.	1.2	23
71	Stable Isotopeâ€“Assisted Plant Metabolomics: Combination of Global and Tracer-Based Labeling for Enhanced Untargeted Profiling and Compound Annotation. Frontiers in Plant Science, 2019, 10, 1366.	1.7	23
72	DON-glycosides: Characterisation of synthesis products and screening for their occurrence in DON-treated wheat samples. Mycotoxin Research, 2005, 21, 123-127.	1.3	20

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73	Isolation and Characterization of a New Less-Toxic Derivative of theFusariumMycotoxin Diacetoxyscirpenol after Thermal Treatment. Journal of Agricultural and Food Chemistry, 2011, 59, 9709-9714.	2.4	20
74	Methylthiodeoxynivalenol (MTD): insight into the chemistry, structure and toxicity of thia-Michael adducts of trichothecenes. Organic and Biomolecular Chemistry, 2014, 12, 5144.	1.5	20
75	Critical evaluation of indirect methods for the determination of deoxynivalenol and its conjugated forms in cereals. Analytical and Bioanalytical Chemistry, 2015, 407, 6009-6020.	1.9	20
76	Title is missing!. Molecular Breeding, 1998, 4, 449-457.	1.0	18
77	Synthesis of deoxynivalenol-glucosides and their characterization using a QTrap LC-MS/MS. Mycotoxin Research, 2003, 19, 47-50.	1.3	18
78	Chemical synthesis of culmorin metabolites and their biologic role in culmorin and acetyl-culmorin treated wheat cells. Organic and Biomolecular Chemistry, 2018, 16, 2043-2048.	1.5	18
79	Less-toxic rearrangement products of NX-toxins are formed during storage and food processing. Toxicology Letters, 2018, 284, 205-212.	0.4	18
80	Identification and Characterization of Carboxylesterases from Brachypodium distachyon Deacetylating Trichothecene Mycotoxins. Toxins, 2016, 8, 6.	1.5	17
81	New Plasmids for Fusarium Transformation Allowing Positive-Negative Selection and Efficient Cre-loxP Mediated Marker Recycling. Frontiers in Microbiology, 2018, 9, 1954.	1.5	17
82	Impact of glutathione modulation on the toxicity of the Fusarium mycotoxins deoxynivalenol (DON), NX-3 and butenolide in human liver cells. Toxicology Letters, 2018, 299, 104-117.	0.4	17
83	Cloning and characterization of the ribosomal protein L3 (RPL3) gene family from Triticum aestivum. Molecular Genetics and Genomics, 2007, 277, 507-517.	1.0	16
84	Sulfation of deoxynivalenol, its acetylated derivatives, and T2-toxin. Tetrahedron, 2014, 70, 5260-5266.	1.0	16
85	The role of roughage provision on the absorption and disposition of the mycotoxin deoxynivalenol and its acetylated derivatives in calves: from field observations to toxicokinetics. Archives of Toxicology, 2019, 93, 293-310.	1.9	16
86	Sulfation of Î²-resorcylic acid estersâ€"first synthesis of zearalenone-14-sulfate. Tetrahedron Letters, 2013, 54, 3290-3293.	0.7	15
87	Synthesis of zearalenone-16-Î²,D-glucoside and zearalenone-16-sulfate: A tale of protecting resorcylic acid lactones for regiocontrolled conjugation. Beilstein Journal of Organic Chemistry, 2014, 10, 1129-1134.	1.3	15
88	Retrofitting YACs for direct DNA transfer into plant cells. Plant Journal, 1997, 11, 1349-1358.	2.8	13
89	Fusarium Mycotoxins and Their Role in Plantâ€"Pathogen Interactions. Fungal Biology, 2015, , 199-233.	0.3	13
90	Hydrophilic interaction liquid chromatography coupled with tandem mass spectrometry for the quantification of uridine diphosphate-glucose, uridine diphosphate-glucuronic acid, deoxynivalenol and its glucoside: In-house validation and application to wheat. Journal of Chromatography A, 2015, 1423, 183-189.	1.8	13

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91	Stereoselective Luche Reduction of Deoxynivalenol and Three of Its Acetylated Derivatives at C8. Toxins, 2014, 6, 325-336.	1.5	11
92	Development and Validation of an LC-MS/MS Based Method for the Determination of Deoxynivalenol and Its Modified Forms in Maize. Toxins, 2021, 13, 600.	1.5	11
93	Production of zearalenone-4-glucoside, a-zearalenol-4-glucoside and ÃŸ-zearalenol-4-glucoside. Mycotoxin Research, 2007, 23, 180-184.	1.3	10
94	Isolation and Structure Elucidation of Pentahydroxyscirpene, a Trichothecene Fusarium Mycotoxin. Journal of Natural Products, 2014, 77, 188-192.	1.5	10
95	Cross-reactivity of commercial and non-commercial deoxynivalenol-antibodies to emerging trichothecenes and common deoxynivalenol-derivatives. World Mycotoxin Journal, 2019, 12, 45-53.	0.8	10
96	Pro-Inflammatory Effects of NX-3 Toxin Are Comparable to Deoxynivalenol and not Modulated by the Co-Occurring Pro-Oxidant Aurofusarin. Microorganisms, 2020, 8, 603.	1.6	10
97	Biochemical Characterization of the Fusarium graminearum Candidate ACC-Deaminases and Virulence Testing of Knockout Mutant Strains. Frontiers in Plant Science, 2019, 10, 1072.	1.7	9
98	Metabolism of nivalenol and nivalenol-3-glucoside in rats. Toxicology Letters, 2019, 306, 43-52.	0.4	9
99	Elucidation of xenoestrogen metabolism by non-targeted, stable isotope-assisted mass spectrometry in breast cancer cells. Environment International, 2022, 158, 106940.	4.8	9
100	Identification and Functional Characterization of the Gene Cluster Responsible for Fusaproliferin Biosynthesis in Fusarium proliferatum. Toxins, 2021, 13, 468.	1.5	8
101	Double Mutation in Tomato Ribosomal Protein L3 cDNA Confers Tolerance to Deoxynivalenol (DON) in Transgenic Tobacco. Pakistan Journal of Biological Sciences, 2007, 10, 2327-2333.	0.2	6
102	Zearalenone and ÃŸ-Zearalenol But Not Their Glucosides Inhibit Heat Shock Protein 90 ATPase Activity. Frontiers in Pharmacology, 2019, 10, 1160.	1.6	5
103	Identification and Functional Characterisation of Two Oat UDP-Glucosyltransferases Involved in Deoxynivalenol Detoxification. Toxins, 2022, 14, 446.	1.5	5
104	Suppression of Trichothecene-Mediated Immune Response by the Fusarium Secondary Metabolite Butenolide in Human Colon Epithelial Cells. Frontiers in Nutrition, 2020, 7, 127.	1.6	4
105	Ubiquitin and fusarium resistance: Lessons from wheat cDNAS conferring deoxynivalenol resistance in yeast. Cereal Research Communications, 2008, 36, 437-441.	0.8	3
106	First results of GEN-AU: Cloning of Deoxynivalenol- and Zearalenone-inactivating UDP-glucosyltransferase genes fromArabidopsis thaliana and expression in yeast for production of mycotoxin-glucosides. Mycotoxin Research, 2005, 21, 108-111.	1.3	2
107	Cloning and heterologous expression of candidate DON-inactivating UDP-glucosyltranferases from rice and wheat in yeast. Plant Breeding and Seed Science, 2011, 64, .	0.1	2
108	Pentahydroxyscirpeneâ€"Producing Strains, Formation In Planta, and Natural Occurrence. Toxins, 2016, 8, 295.	1.5	1