Gerhard Adam

List of Publications by Citations

Source: https://exaly.com/author-pdf/3836190/gerhard-adam-publications-by-citations.pdf
Version: 2024-04-25

106 papers	6,003 citations	40 h-index	76 g-index
111 ext. papers	7,046 ext. citations	5.1 avg, IF	5.18 L-index

#	Paper	IF	Citations
106	The Fusarium graminearum genome reveals a link between localized polymorphism and pathogen specialization. *Science*, **2007**, 317, 1400-2	33.3	668
105	Detoxification of the Fusarium mycotoxin deoxynivalenol by a UDP-glucosyltransferase from Arabidopsis thaliana. *Journal of Biological Chemistry*, **2003**, 278, 47905-14	5.4	396
104	Masked mycotoxins: determination of a deoxynivalenol glucoside in artificially and naturally contaminated wheat by liquid chromatography-tandem mass spectrometry. *Journal of Agricultural and Food Chemistry*, **2005**, 53, 3421-5	5.7	317
103	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, 1318-24	3.6	299
102	Hydrolytic fate of deoxynivalenol-3-glucoside during digestion. *Toxicology Letters*, **2011**, 206, 264-7	4.4	186
101	The UGT73C5 of Arabidopsis thaliana glucosylates brassinosteroids. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 15253-8	11.5	174
100	Formation, determination and significance of masked and other conjugated mycotoxins. *Analytical and Bioanalytical Chemistry*, **2009**, 395, 1243-52	4.4	165
99	Development of a Fusarium graminearum Affymetrix GeneChip for profiling fungal gene expression in vitro and in planta. *Fungal Genetics and Biology*, **2006**, 43, 316-25	3.9	150
98	Assessment of human deoxynivalenol exposure using an LC-MS/MS based biomarker method. *Toxicology Letters*, **2012**, 211, 85-90	4.4	131
97	Transformation system for Hypocrea jecorina (Trichoderma reesei) that favors homologous integration and employs reusable bidirectionally selectable markers. *Applied and Environmental Microbiology*, **2011**, 77, 114-21	4.8	119
96	Metabolism of the masked mycotoxin deoxynivalenol-3-glucoside in pigs. *Toxicology Letters*, **2014**, 229, 190-7	4.4	116
95	Development and validation of a rapid multi-biomarker liquid chromatography/tandem mass spectrometry method to assess human exposure to mycotoxins. *Rapid Communications in Mass Spectrometry*, **2012**, 26, 1533-40	2.2	112
94	New tricks of an old enemy: isolates of Fusarium graminearum produce a type A trichothecene mycotoxin. *Environmental Microbiology*, **2015**, 17, 2588-600	5.2	111
93	Transcriptome analysis of the barley-deoxynivalenol interaction: evidence for a role of glutathione in deoxynivalenol detoxification. *Molecular Plant-Microbe Interactions*, **2010**, 23, 962-76	3.6	110
92	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, 4745-55	4.4	109
91	Metabolism of the masked mycotoxin deoxynivalenol-3-glucoside in rats. *Toxicology Letters*, **2012**, 213, 367-73	4.4	107
90	Validation of a candidate deoxynivalenol-inactivating UDP-glucosyltransferase from barley by heterologous expression in yeast. *Molecular Plant-Microbe Interactions*, **2010**, 23, 977-86	3.6	98

89	Metabolism of Zearalenone and Its Major Modified Forms in Pigs. *Toxins*, **2017**, 9,	4.9	94
88	CESTA, a positive regulator of brassinosteroid biosynthesis. *EMBO Journal*, **2011**, 30, 1149-61	13	90
87	Stable isotopic labelling-assisted untargeted metabolic profiling reveals novel conjugates of the mycotoxin deoxynivalenol in wheat. *Analytical and Bioanalytical Chemistry*, **2013**, 405, 5031-6	4.4	88
86	Control of peroxisome proliferation in Saccharomyces cerevisiae by ADR1, SNF1 (CAT1, CCR1) and SNF4 (CAT3). *Yeast*, **1992**, 8, 303-9	3.4	86
85	Transcriptomic characterization of two major Fusarium resistance quantitative trait loci (QTLs), Fhb1 and Qfhs.ifa-5A, identifies novel candidate genes. *Molecular Plant Pathology*, **2013**, 14, 772-85	5.7	85
84	The Fusarium graminearum genome reveals more secondary metabolite gene clusters and hints of horizontal gene transfer. *PLoS ONE*, **2014**, 9, e110311	3.7	80
83	FGDB: revisiting the genome annotation of the plant pathogen Fusarium graminearum. *Nucleic Acids Research*, **2011**, 39, D637-9	20.1	73
82	Transgenic Arabidopsis thaliana expressing a barley UDP-glucosyltransferase exhibit resistance to the mycotoxin deoxynivalenol. *Journal of Experimental Botany*, **2012**, 63, 4731-40	7	70
81	FGDB: a comprehensive fungal genome resource on the plant pathogen Fusarium graminearum. *Nucleic Acids Research*, **2006**, 34, D456-8	20.1	69
80	GC-MS based targeted metabolic profiling identifies changes in the wheat metabolome following deoxynivalenol treatment. *Metabolomics*, **2015**, 11, 722-738	4.7	66
79	Biotransformation of the mycotoxin deoxynivalenol in fusarium resistant and susceptible near isogenic wheat lines. *PLoS ONE*, **2015**, 10, e0119656	3.7	65
78	Zearalenone-16-O-glucoside: a new masked mycotoxin. *Journal of Agricultural and Food Chemistry*, **2014**, 62, 1181-9	5.7	63
77	Cleavage of zearalenone by Trichosporon mycotoxinivorans to a novel nonestrogenic metabolite. *Applied and Environmental Microbiology*, **2010**, 76, 2353-9	4.8	62
76	Heterologous expression of Arabidopsis UDP-glucosyltransferases in Saccharomyces cerevisiae for production of zearalenone-4-O-glucoside. *Applied and Environmental Microbiology*, **2006**, 72, 4404-10	4.8	61
75	In vivo contribution of deoxynivalenol-3-βD-glucoside to deoxynivalenol exposure in broiler chickens and pigs: oral bioavailability, hydrolysis and toxicokinetics. *Archives of Toxicology*, **2017**, 91, 699-712	5.8	58
74	A novel stable isotope labelling assisted workflow for improved untargeted LC-HRMS based metabolomics research. *Metabolomics*, **2014**, 10, 754-769	4.7	57
73	Deoxynivalenol-sulfates: identification and quantification of novel conjugated (masked) mycotoxins in wheat. *Analytical and Bioanalytical Chemistry*, **2015**, 407, 1033-9	4.4	56
72	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	4.4	56

71	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, 5577-83	5.4	55
70	Metabolism of the Fusarium Mycotoxins T-2 Toxin and HT-2 Toxin in Wheat. *Journal of Agricultural and Food Chemistry*, **2015**, 63, 7862-72	5.7	54
69	Functional characterization of two clusters of Brachypodium distachyon UDP-glycosyltransferases encoding putative deoxynivalenol detoxification genes. *Molecular Plant-Microbe Interactions*, **2013**, 26, 781-92	3.6	52
68	A barley UDP-glucosyltransferase inactivates nivalenol and provides Fusarium Head Blight resistance in transgenic wheat. *Journal of Experimental Botany*, **2017**, 68, 2187-2197	7	47
67	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, 8019-33	4.4	46
66	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, 107-15	4.6	39
65	Comparative in vitro cytotoxicity of modified deoxynivalenol on porcine intestinal epithelial cells. *Food and Chemical Toxicology*, **2016**, 95, 103-9	4.7	37
64	Identification of a novel human deoxynivalenol metabolite enhancing proliferation of intestinal and urinary bladder cells. *Scientific Reports*, **2016**, 6, 33854	4.9	36
63	Individual and combined roles of malonichrome, ferricrocin, and TAFC siderophores in Fusarium graminearum pathogenic and sexual development. *Frontiers in Microbiology*, **2014**, 5, 759	5.7	35
62	Untargeted profiling of tracer-derived metabolites using stable isotopic labeling and fast polarity-switching LC-ESI-HRMS. *Analytical Chemistry*, **2014**, 86, 11533-7	7.8	35
61	Synthesis of deoxynivalenol-3-β-D-O-glucuronide for its use as biomarker for dietary deoxynivalenol exposure. *World Mycotoxin Journal*, **2012**, 5, 127-132	2.5	34
60	A sensitive and inexpensive yeast bioassay for the mycotoxin zearalenone and other compounds with estrogenic activity. *Applied and Environmental Microbiology*, **2003**, 69, 805-11	4.8	33
59	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, 1336-43	4.8	33
58	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, 167-81	4.4	32
57	Metabolically independent and accurately adjustable Aspergillus sp. expression system. *Applied and Environmental Microbiology*, **2005**, 71, 672-8	4.8	32
56	Crystal Structure of Os79 (Os04g0206600) from Oryza sativa: A UDP-glucosyltransferase Involved in the Detoxification of Deoxynivalenol. *Biochemistry*, **2016**, 55, 6175-6186	3.2	32
55	Saccharomyces Cerevisae and Arabidopsis Thaliana: Useful Model Systems for the Identification of Molecular Mechanisms Involved in Resistance of Plants to Toxins. *European Journal of Plant Pathology*, **2002**, 108, 699-703	2.1	30
54	Toxin-dependent utilization of engineered ribosomal protein L3 limits trichothecene resistance in transgenic plants. *Plant Biotechnology Journal*, **2004**, 2, 329-40	11.6	29

53	Biochemical Characterization of a Recombinant UDP-glucosyltransferase from Rice and Enzymatic Production of Deoxynivalenol-3-O-D-glucoside. *Toxins*, **2015**, 7, 2685-700	4.9	28
52	Short review: Metabolism of theFusarium mycotoxins deoxynivalenol and zearalenone in plants. *Mycotoxin Research*, **2007**, 23, 68-72	4	28
51	Determination of the Mycotoxin Content in Distillers Dried Grain with Solubles Using a Multianalyte UHPLC-MS/MS Method. *Journal of Agricultural and Food Chemistry*, **2015**, 63, 9441-51	5.7	26
50	Fast and reproducible chemical synthesis of zearalenone-14-D-glucuronide. *World Mycotoxin Journal*, **2012**, 5, 289-296	2.5	26
49	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, 3112-26	4.9	25
48	Engineered bakers yeast as a sensitive bioassay indicator organism for the trichothecene toxin deoxynivalenol. *Journal of Microbiological Methods*, **2008**, 72, 306-12	2.8	22
47	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	4.7	20
46	Response of intestinal HT-29 cells to the trichothecene mycotoxin deoxynivalenol and its sulfated conjugates. *Toxicology Letters*, **2018**, 295, 424-437	4.4	20
45	The Fusarium metabolite culmorin suppresses the in vitro glucuronidation of deoxynivalenol. *Archives of Toxicology*, **2019**, 93, 1729-1743	5.8	19
44	DON-glycosides: Characterisation of synthesis products and screening for their occurrence in DON-treated wheat samples. *Mycotoxin Research*, **2005**, 21, 123-7	4	19
43	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	3.9	18
42	A Versatile Family 3 Glycoside Hydrolase from Bifidobacterium adolescentis Hydrolyzes Glucosides of the Fusarium Mycotoxins Deoxynivalenol, Nivalenol, and HT-2 Toxin in Cereal Matrices. *Applied and Environmental Microbiology*, **2015**, 81, 4885-93	4.8	18
41	Methylthiodeoxynivalenol (MTD): insight into the chemistry, structure and toxicity of thia-Michael adducts of trichothecenes. *Organic and Biomolecular Chemistry*, **2014**, 12, 5144-50	3.9	18
40	Isolation and characterization of a new less-toxic derivative of the Fusarium mycotoxin diacetoxyscirpenol after thermal treatment. *Journal of Agricultural and Food Chemistry*, **2011**, 59, 9709-14	5.7	17
39	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,	4.9	16
38	Stable Isotope-Assisted Plant Metabolomics: Investigation of Phenylalanine-Related Metabolic Response in Wheat Upon Treatment With the Virulence Factor Deoxynivalenol. *Frontiers in Plant Science*, **2019**, 10, 1137	6.2	16
37	Synthesis of deoxynivalenol-glucosides and their characterization using a QTrap LC-MS/MS. *Mycotoxin Research*, **2003**, 19, 47-50	4	16
36	Synthesis of Mono- and Di-Glucosides of Zearalenone and /Zearalenol by Recombinant Barley Glucosyltransferase HvUGT14077. *Toxins*, **2017**, 9,	4.9	15

35	Sulfation of deoxynivalenol, its acetylated derivatives, and T2-toxin. *Tetrahedron*, **2014**, 70, 5260-5266	2.4	15
34	Synthesis of zearalenone-16-βD-glucoside and zearalenone-16-sulfate: A tale of protecting resorcylic acid lactones for regiocontrolled conjugation. *Beilstein Journal of Organic Chemistry*, **2014** , 10, 1129-34	2.5	15
33	Sulfation of β-resorcylic acid esters—first synthesis of zearalenone-14-sulfate. *Tetrahedron Letters*, **2013**, 54, 3290-3293	2	15
32	Determinants and Expansion of Specificity in a Trichothecene UDP-Glucosyltransferase from Oryza sativa. *Biochemistry*, **2017**, 56, 6585-6596	3.2	14
31	Cloning and characterization of the ribosomal protein L3 (RPL3) gene family from Triticum aestivum. *Molecular Genetics and Genomics*, **2007**, 277, 507-17	3.1	14
30	Critical evaluation of indirect methods for the determination of deoxynivalenol and its conjugated forms in cereals. *Analytical and Bioanalytical Chemistry*, **2015**, 407, 6009-20	4.4	13
29	Stable Isotope-Assisted Metabolomics for Deciphering Xenobiotic Metabolism in Mammalian Cell Culture. *ACS Chemical Biology*, **2020**, 15, 970-981	4.9	13
28	Less-toxic rearrangement products of NX-toxins are formed during storage and food processing. *Toxicology Letters*, **2018**, 284, 205-212	4.4	12
27	UDP-Glucosyltransferases from Rice, Brachypodium, and Barley: Substrate Specificities and Synthesis of Type A and B Trichothecene-3-O-βd-glucosides. *Toxins*, **2018**, 10,	4.9	12
26	Retrofitting YACs for direct DNA transfer into plant cells. *Plant Journal*, **1997**, 11, 1349-58	6.9	12
25	Biolistic transfer of large DNA fragments to tobacco cells using YACs retrofitted for plant transformation. *Molecular Breeding*, **1998**, 4, 449-457	3.4	12
24	New Plasmids for Transformation Allowing Positive-Negative Selection and Efficient Cre- Mediated Marker Recycling. *Frontiers in Microbiology*, **2018**, 9, 1954	5.7	12
23	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	4.4	12
22	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	5.8	10
21	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, 183-9	4.5	9
20	Isolation and structure elucidation of pentahydroxyscirpene, a trichothecene Fusarium mycotoxin. *Journal of Natural Products*, **2014**, 77, 188-92	4.9	9
19	Stereoselective Luche reduction of deoxynivalenol and three of its acetylated derivatives at C8. *Toxins*, **2014**, 6, 325-36	4.9	9
18	Production of zearalenone-4-glucoside, a-zearalenol-4-glucoside and βzearalenol-4-glucoside. *Mycotoxin Research*, **2007**, 23, 180-4	4	9

17	Identification and Characterization of Carboxylesterases from Brachypodium distachyon Deacetylating Trichothecene Mycotoxins. *Toxins*, **2015**, 8,	4.9	9
16	Ribosome quality control is a central protection mechanism for yeast exposed to deoxynivalenol and trichothecin. *BMC Genomics*, **2016**, 17, 417	4.5	8
15	Stable Isotope-Assisted Plant Metabolomics: Combination of Global and Tracer-Based Labeling for Enhanced Untargeted Profiling and Compound Annotation. *Frontiers in Plant Science*, **2019**, 10, 1366	6.2	7
14	Biochemical Characterization of the Candidate ACC-Deaminases and Virulence Testing of Knockout Mutant Strains. *Frontiers in Plant Science*, **2019**, 10, 1072	6.2	6
13	Metabolism of nivalenol and nivalenol-3-glucoside in rats. *Toxicology Letters*, **2019**, 306, 43-52	4.4	6
12	Double mutation in tomato ribosomal protein L3 cDNA confers tolerance to deoxynivalenol (DON) in transgenic tobacco. *Pakistan Journal of Biological Sciences*, **2007**, 10, 2327-33	0.8	6
11	Fusarium Mycotoxins and Their Role in Plant‐Pathogen Interactions. *Fungal Biology*, **2015**, 199-233	2.3	5
10	Pro-Inflammatory Effects of NX-3 Toxin Are Comparable to Deoxynivalenol and not Modulated by the Co-Occurring Pro-Oxidant Aurofusarin. *Microorganisms*, **2020**, 8,	4.9	4
9	Identification and Functional Characterization of the Gene Cluster Responsible for Fusaproliferin Biosynthesis in. *Toxins*, **2021**, 13,	4.9	4
8	Cross-reactivity of commercial and non-commercial deoxynivalenol-antibodies to emerging trichothecenes and common deoxynivalenol-derivatives. *World Mycotoxin Journal*, **2019**, 12, 45-53	2.5	4
7	Ubiquitin and fusarium resistance: Lessons from wheat cDNAS conferring deoxynivalenol resistance in yeast. *Cereal Research Communications*, **2008**, 36, 437-441	1.1	3
6	Suppression of Trichothecene-Mediated Immune Response by the Secondary Metabolite Butenolide in Human Colon Epithelial Cells. *Frontiers in Nutrition*, **2020**, 7, 127	6.2	3
5	Zearalenone and ‐Zearalenol But Not Their Glucosides Inhibit Heat Shock Protein 90 ATPase Activity. *Frontiers in Pharmacology*, **2019**, 10, 1160	5.6	2
4	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	1
3	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, 108-11	4	1
2	Elucidation of xenoestrogen metabolism by non-targeted, stable isotope-assisted mass spectrometry in breast cancer cells. *Environment International*, **2021**, 158, 106940	12.9	1
1	Immunosuppressive effect of the Fusarium secondary metabolite butenolide in human colon epithelial cells		1