

Thomas Moritz

List of Publications by Year in descending order

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111
papers

9,767
citations

53794

45
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37204

96
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113
all docs

113
docs citations

113
times ranked

12218
citing authors

#	ARTICLE	IF	CITATIONS
1	Visualization of GC/TOF-MS-Based Metabolomics Data for Identification of Biochemically Interesting Compounds Using OPLS Class Models. <i>Analytical Chemistry</i> , 2008, 80, 115-122.	6.5	1,053
2	GC-MS libraries for the rapid identification of metabolites in complex biological samples. <i>FEBS Letters</i> , 2005, 579, 1332-1337.	2.8	596
3	Increased gibberellin biosynthesis in transgenic trees promotes growth, biomass production and xylem fiber length. <i>Nature Biotechnology</i> , 2000, 18, 784-788.	17.5	497
4	Extraction and GC/MS Analysis of the Human Blood Plasma Metabolome. <i>Analytical Chemistry</i> , 2005, 77, 8086-8094.	6.5	464
5	An Auxin Gradient and Maximum in the <i>Arabidopsis</i> Root Apex Shown by High-Resolution Cell-Specific Analysis of IAA Distribution and Synthesis. <i>Plant Cell</i> , 2009, 21, 1659-1668.	6.6	439
6	Design of experiments: an efficient strategy to identify factors influencing extraction and derivatization of <i>Arabidopsis thaliana</i> samples in metabolomic studies with gas chromatography/mass spectrometry. <i>Analytical Biochemistry</i> , 2004, 331, 283-295.	2.4	424
7	High-Throughput Data Analysis for Detecting and Identifying Differences between Samples in GC/MS-Based Metabolomic Analyses. <i>Analytical Chemistry</i> , 2005, 77, 5635-5642.	6.5	383
8	Biosynthesis of cellulose-enriched tension wood in <i>Populus</i> : global analysis of transcripts and metabolites identifies biochemical and developmental regulators in secondary wall biosynthesis. <i>Plant Journal</i> , 2006, 45, 144-165.	5.7	347
9	Ectopic expression of oat phytochrome A in hybrid aspen changes critical daylength for growth and prevents cold acclimatization. <i>Plant Journal</i> , 1997, 12, 1339-1350.	5.7	264
10	Gibberellins Are Not Required for Normal Stem Growth in <i>Arabidopsis thaliana</i> in the Absence of GAI and RGA. <i>Genetics</i> , 2001, 159, 767-776.	2.9	244
11	<i>AtGA3ox2</i> , a Key Gene Responsible for Bioactive Gibberellin Biosynthesis, Is Regulated during Embryogenesis by <i>LEAFY COTYLEDON2</i> and <i>FUSCA3</i> in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2004, 136, 3660-3669.	4.8	216
12	Data integration in plant biology: the O2PLS method for combined modeling of transcript and metabolite data. <i>Plant Journal</i> , 2007, 52, 1181-1191.	5.7	209
13	Function and Dynamics of Auxin and Carbohydrates during Earlywood/Latewood Transition in Scots Pine. <i>Plant Physiology</i> , 2001, 125, 2029-2039.	4.8	208
14	Crosstalk between gibberellin and auxin in development of <i>Populus</i> wood: gibberellin stimulates polar auxin transport and has a common transcriptome with auxin. <i>Plant Journal</i> , 2007, 52, 499-511.	5.7	208
15	Independent Activation of Cold Acclimation by Low Temperature and Short Photoperiod in Hybrid Aspen. <i>Plant Physiology</i> , 2002, 129, 1633-1641.	4.8	175
16	Compensation for Systematic Cross-Contribution Improves Normalization of Mass Spectrometry Based Metabolomics Data. <i>Analytical Chemistry</i> , 2009, 81, 7974-7980.	6.5	173
17	Analyses of <i>GA20ox</i> and <i>GID1</i> overexpressing aspen suggest that gibberellins play two distinct roles in wood formation. <i>Plant Journal</i> , 2009, 58, 989-1003.	5.7	161
18	The <i>Arabidopsis</i> Dwarf Mutant <i>shi</i> Exhibits Reduced Gibberellin Responses Conferred by Overexpression of a New Putative Zinc Finger Protein. <i>Plant Cell</i> , 1999, 11, 1019-1031.	6.6	158

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19	Tissue-specific localization of gibberellins and expression of gibberellin-biosynthetic and signaling genes in wood-forming tissues in aspen. <i>Plant Journal</i> , 2005, 44, 494-504.	5.7	153
20	The sucrose-regulated Arabidopsis transcription factor bZIP11 reprograms metabolism and regulates trehalose metabolism. <i>New Phytologist</i> , 2011, 191, 733-745.	7.3	138
21	Multi-platform mass spectrometry analysis of the CSF and plasma metabolomes of rigorously matched amyotrophic lateral sclerosis, Parkinson's disease and control subjects. <i>Molecular BioSystems</i> , 2016, 12, 1287-1298.	2.9	108
22	Gibberellins inhibit adventitious rooting in hybrid aspen and Arabidopsis by affecting auxin transport. <i>Plant Journal</i> , 2014, 78, 372-384.	5.7	105
23	Metabolite and Peptide Levels in Plasma and CSF Differentiating Healthy Controls from Patients with Newly Diagnosed Parkinson's Disease. <i>Journal of Parkinson's Disease</i> , 2014, 4, 549-560.	2.8	99
24	Strategy for Optimizing LC-MS Data Processing in Metabolomics: A Design of Experiments Approach. <i>Analytical Chemistry</i> , 2012, 84, 6869-6876.	6.5	92
25	Dissecting the Metabolic Role of Mitochondria during Developmental Leaf Senescence. <i>Plant Physiology</i> , 2016, 172, 2132-2153.	4.8	91
26	Derivatization for LC-Electrospray Ionization-MS: A Tool for Improving Reversed-Phase Separation and ESI Responses of Bases, Ribosides, and Intact Nucleotides. <i>Analytical Chemistry</i> , 2004, 76, 2869-2877.	6.5	89
27	Atlas of exercise metabolism reveals time-dependent signatures of metabolic homeostasis. <i>Cell Metabolism</i> , 2022, 34, 329-345.e8.	16.2	86
28	Silencing C ₁₉ -GA 2-oxidases induces parthenocarpic development and inhibits lateral branching in tomato plants. <i>Journal of Experimental Botany</i> , 2015, 66, 5897-5910.	4.8	82
29	Enhanced Secondary- and Hormone Metabolism in Leaves of Arbuscular Mycorrhizal <i>Medicago truncatula</i> . <i>Plant Physiology</i> , 2017, 175, 392-411.	4.8	81
30	Daylength and spatial expression of a gibberellin 20-oxidase isolated from hybrid aspen (<i>Populus</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.2	80
31	A Metabolomic Approach to Study Major Metabolite Changes during Acclimation to Limiting CO ₂ in <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , 2010, 154, 187-196.	4.8	80
32	Multivariate curve resolution provides a high-throughput data processing pipeline for pyrolysis-gas chromatography/mass spectrometry. <i>Journal of Analytical and Applied Pyrolysis</i> , 2012, 95, 95-100.	5.5	79
33	At HLH68 transcription factor contributes to the regulation of ABA homeostasis and drought stress tolerance in <i>Arabidopsis thaliana</i> . <i>Physiologia Plantarum</i> , 2017, 160, 312-327.	5.2	76
34	Plasma Metabolome Profiling of Resistance Exercise and Endurance Exercise in Humans. <i>Cell Reports</i> , 2020, 33, 108554.	6.4	74
35	Cloning and Overproduction of Gibberellin 3-Oxidase in Hybrid Aspen Trees. Effects on Gibberellin Homeostasis and Development. <i>Plant Physiology</i> , 2004, 135, 221-230.	4.8	71
36	Proper gibberellin localization in vascular tissue is required to control auxin-dependent leaf development and bud outgrowth in hybrid aspen. <i>Plant Journal</i> , 2011, 67, 805-816.	5.7	71

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37	CHOLINE TRANSPORTER-LIKE1 is required for sieve plate development to mediate long-distance cell-to-cell communication. <i>Nature Communications</i> , 2014, 5, 4276.	12.8	69
38	Transgenic tobacco plants co-expressing <i>Agrobacterium</i> <i>iaa</i> and <i>ipt</i> genes have wild-type hormone levels but display both auxin- and cytokinin-overproducing phenotypes. <i>Plant Journal</i> , 2000, 23, 279-284.	5.7	66
39	UHPLC-ESI/TOFMS Determination of Salicylate-like Phenolic Glycosides in <i>Populus tremula</i> Leaves. <i>Journal of Chemical Ecology</i> , 2011, 37, 857-870.	1.8	66
40	Integration of molecular profiles in a longitudinal wellness profiling cohort. <i>Nature Communications</i> , 2020, 11, 4487.	12.8	66
41	Alteration of PHYA expression change circadian rhythms and timing of bud set in <i>Populus</i> . <i>Plant Molecular Biology</i> , 2010, 73, 143-156.	3.9	63
42	Metabolite profiling reveals clear metabolic changes during somatic embryo development of Norway spruce (<i>Picea abies</i>). <i>Tree Physiology</i> , 2012, 32, 232-244.	3.1	63
43	OnPLS integration of transcriptomic, proteomic and metabolomic data shows multi-level oxidative stress responses in the cambium of transgenic hipl- superoxide dismutase <i>Populus</i> plants. <i>BMC Genomics</i> , 2013, 14, 893.	2.8	63
44	Darkened Leaves Use Different Metabolic Strategies for Senescence and Survival. <i>Plant Physiology</i> , 2018, 177, 132-150.	4.8	62
45	Reduced mitochondrial malate dehydrogenase activity has a strong effect on photorespiratory metabolism as revealed by ¹³ C labelling. <i>Journal of Experimental Botany</i> , 2016, 67, 3123-3135.	4.8	54
46	Lipidomics in Ulcerative Colitis Reveal Alteration in Mucosal Lipid Composition Associated With the Disease State. <i>Inflammatory Bowel Diseases</i> , 2019, 25, 1780-1787.	1.9	51
47	Defense Responses in Aspen with Altered Pectin Methyltransferase Activity Reveal the Hormonal Inducers of Tyloses. <i>Plant Physiology</i> , 2017, 173, 1409-1419.	4.8	46
48	Serum Metabolomic Biomarkers of Dementia. <i>Dementia and Geriatric Cognitive Disorders Extra</i> , 2014, 4, 252-262.	1.3	43
49	Simultaneous determination of ribonucleoside and deoxyribonucleoside triphosphates in biological samples by hydrophilic interaction liquid chromatography coupled with tandem mass spectrometry. <i>Nucleic Acids Research</i> , 2018, 46, e66-e66.	14.5	40
50	No Evidence of Geographical Structure of Salicinoid Chemotypes within <i>Populus Tremula</i> . <i>PLoS ONE</i> , 2014, 9, e107189.	2.5	39
51	Precolumn derivatization and capillary liquid chromatographic/frit-fast atom bombardment mass spectrometric analysis of cytokinins in <i>Arabidopsis thaliana</i> . , 1998, 33, 892-902.		38
52	Liquid chromatography/mass spectrometry of conjugates and oxidative metabolites of indole-3-acetic acid. <i>Biological Mass Spectrometry</i> , 1992, 21, 292-298.	0.5	37
53	Transgenic hybrid aspen trees with increased gibberellin (<sc>GA</sc>) concentrations suggest that <sc>GA</sc> acts in parallel with <sc>FLOWERING LOCUS T</sc>2 to control shoot elongation. <i>New Phytologist</i> , 2015, 205, 1288-1295.	7.3	36
54	Quantitative proteomics reveals protein profiles underlying major transitions in aspen wood development. <i>BMC Genomics</i> , 2016, 17, 119.	2.8	35

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55	A metabolite roadmap of the wood-forming tissue in <i>Populus tremula</i> . <i>New Phytologist</i> , 2020, 228, 1559-1572.	7.3	32
56	Relations between cytokinin level, bud development and apical control in Norway spruce, <i>Picea abies</i> . <i>Physiologia Plantarum</i> , 1995, 95, 563-568.	5.2	29
57	Endogenous cytokinins in the vascular cambial region of <i>Pinus sylvestris</i> during activity and dormancy. <i>Physiologia Plantarum</i> , 1996, 98, 693-698.	5.2	29
58	Central Metabolic Responses to Ozone and Herbivory Affect Photosynthesis and Stomatal Closure. <i>Plant Physiology</i> , 2016, 172, 2057-2078.	4.8	29
59	Leaf metabolic signatures induced by real and simulated herbivory in black mustard (<i>Brassica nigra</i>). <i>Metabolomics</i> , 2019, 15, 130.	3.0	29
60	A Quantitative Analysis of Colonic Mucosal Oxylipins and Endocannabinoids in Treatment-Naïve and Deep Remission Ulcerative Colitis Patients and the Potential Link With Cytokine Gene Expression. <i>Inflammatory Bowel Diseases</i> , 2019, 25, 490-497.	1.9	29
61	Heterologous phosphoketolase expression redirects flux towards acetate, perturbs sugar phosphate pools and increases respiratory demand in <i>Saccharomyces cerevisiae</i> . <i>Microbial Cell Factories</i> , 2019, 18, 25.	4.0	27
62	PECTIN ACETYLESTERASE9 Affects the Transcriptome and Metabolome and Delays Aphid Feeding. <i>Plant Physiology</i> , 2019, 181, 1704-1720.	4.8	27
63	Targeted Multiple Reaction Monitoring Analysis of CSF Identifies UCHL1 and GPNMB as Candidate Biomarkers for ALS. <i>Journal of Molecular Neuroscience</i> , 2019, 69, 643-657.	2.3	27
64	Detection and identification of gibberellins in Sitka spruce (<i>Picea sitchensis</i>) of different ages and coning ability by bioassay, radioimmunoassay and gas chromatography - mass spectrometry. <i>Physiologia Plantarum</i> , 1989, 75, 325-332.	5.2	26
65	Metabolism of tritiated and deuterated gibberellins A1, A4 and A9 in Sitka spruce (<i>Picea sitchensis</i>) shoots during the period of cone-bud differentiation. <i>Physiologia Plantarum</i> , 1989, 77, 39-45.	5.2	25
66	A multi-omics approach reveals function of Secretory Carrier-Associated Membrane Proteins in wood formation of <i>Populus</i> trees. <i>BMC Genomics</i> , 2018, 19, 11.	2.8	25
67	Mucosal Metabolomic Profiling and Pathway Analysis Reveal the Metabolic Signature of Ulcerative Colitis. <i>Metabolites</i> , 2019, 9, 291.	2.9	25
68	Comparative analysis of oral and intraperitoneal glucose tolerance tests in mice. <i>Molecular Metabolism</i> , 2022, 57, 101440.	6.5	25
69	A strategy for modelling dynamic responses in metabolic samples characterized by GC/MS. <i>Metabolomics</i> , 2006, 2, 135-143.	3.0	24
70	LC-MS/MS profiling for detection of endogenous steroids and prostaglandins in tissue samples. <i>Journal of Separation Science</i> , 2011, 34, 2650-2658.	2.5	24
71	Metabolome and transcriptome profiling reveal new insights into somatic embryo germination in Norway spruce (<i>Picea abies</i>). <i>Tree Physiology</i> , 2017, 37, 1752-1766.	3.1	24
72	Cell-type specific metabolic profiling of <i>Arabidopsis thaliana</i> protoplasts as a tool for plant systems biology. <i>Metabolomics</i> , 2015, 11, 1679-1689.	3.0	23

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73	Multi-Organ Contribution to the Metabolic Plasma Profile Using Hierarchical Modelling. PLoS ONE, 2015, 10, e0129260.	2.5	22
74	Metabolomic Quality Assessment of EDTA Plasma and Serum Samples. Biopreservation and Biobanking, 2016, 14, 416-423.	1.0	22
75	Two-step derivatization for determination of sugar phosphates in plants by combined reversed phase chromatography/tandem mass spectrometry. Plant Methods, 2019, 15, 127.	4.3	22
76	Impaired phosphocreatine metabolism in white adipocytes promotes inflammation. Nature Metabolism, 2022, 4, 190-202.	11.9	21
77	Branched-chain amino acid metabolism is regulated by ERR α in primary human myotubes and is further impaired by glucose loading in type 2 diabetes. Diabetologia, 2021, 64, 2077-2091.	6.3	20
78	Metabolism of tritiated and deuterated gibberellin A9 in Norway spruce (<i>Picea abies</i>) shoots during the period of cone-bud differentiation. Physiologia Plantarum, 1990, 79, 242-249.	5.2	19
79	The use of combined capillary liquid chromatography/mass spectrometry for the identification of a gibberellin glucosyl conjugate. Phytochemical Analysis, 1992, 3, 32-37.	2.4	19
80	Statistical multivariate metabolite profiling for aiding biomarker pattern detection and mechanistic interpretations in GC/MS based metabolomics. Metabolomics, 2007, 2, 257-268.	3.0	19
81	Metabolomics as a tool to evaluate exercise-induced improvements in insulin sensitivity. Metabolomics, 2008, 4, 273-282.	3.0	18
82	Nitrogen uptake and assimilation in proliferating embryogenic cultures of Norway spruce—Investigating the specific role of glutamine. PLoS ONE, 2017, 12, e0181785.	2.5	18
83	Quantitation of gibberellins A1, A3, A4, A9 and an A9-conjugate in good- and poor-flowering clones of Sitka spruce (<i>Picea sitchensis</i>) during the period of flower-bud differentiation. Planta, 1990, 181, 538-42.	3.2	17
84	Deuterium in vivo labelling of cytokinins in <i>Arabidopsis thaliana</i> analysed by capillary liquid chromatography/fast atom bombardment mass spectrometry. , 2000, 35, 13-22.		17
85	Reduced gibberellin response affects ethylene biosynthesis and responsiveness in the <i>Arabidopsis thaliana</i> double mutant. New Phytologist, 2008, 177, 128-141.	7.3	17
86	Quantitation of Gibberellins A1, A3, A4, A9 and a Putative A9-Conjugate in Grafts of Sitka Spruce (<i>Picea</i>) Tj ETQq0 0 0 rgBT /Overlock 10	4.8	16
87	Metabolic control of arginine and ornithine levels paces the progression of leaf senescence. Plant Physiology, 2022, 189, 1943-1960.	4.8	15
88	Capillary liquid chromatography/fast atom bombardment mass spectrometry of gibberellin glucosyl conjugates. Biological Mass Spectrometry, 1992, 21, 554-559.	0.5	14
89	Separation and identification of cytokinins using combined capillary liquid chromatography/mass spectrometry. Biological Mass Spectrometry, 1993, 22, 201-210.	0.5	14
90	Altered Metabolic Signature in Pre-Diabetic NOD Mice. PLoS ONE, 2012, 7, e35445.	2.5	14

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91	Functional metabolomics as a tool to analyze Mediator function and structure in plants. <i>PLoS ONE</i> , 2017, 12, e0179640.	2.5	13
92	Intravenous nicotinamide riboside elevates mouse skeletal muscle NAD ⁺ without impacting respiratory capacity or insulin sensitivity. <i>iScience</i> , 2022, 25, 103863.	4.1	12
93	Gibberellins and the floral transition in <i>Sinapis alba</i> . <i>Physiologia Plantarum</i> , 2004, 122, 152-158.	5.2	11
94	Serum metabolite signature predicts the acute onset of diabetes in spontaneously diabetic congenic BB rats. <i>Metabolomics</i> , 2011, 7, 593-603.	3.0	11
95	¹³ C Tracking after ¹³ CO ₂ Supply Revealed Diurnal Patterns of Wood Formation in Aspen. <i>Plant Physiology</i> , 2015, 168, 478-489.	4.8	10
96	Overexpression of vesicle-associated membrane protein PttVAP27-17 as a tool to improve biomass production and the overall saccharification yields in <i>Populus</i> trees. <i>Biotechnology for Biofuels</i> , 2021, 14, 43.	6.2	10
97	Changes in lipid and carotenoid metabolism in <i>Chlamydomonas reinhardtii</i> during induction of CO ₂ -concentrating mechanism: Cellular response to low CO ₂ stress. <i>Algal Research</i> , 2020, 52, 102099.	4.6	9
98	Loss of Sucrase-Isomaltase Function Increases Acetate Levels and Improves Metabolic Health in Greenlandic Cohorts. <i>Gastroenterology</i> , 2022, 162, 1171-1182.e3.	1.3	9
99	Sucrose synthase activity is not required for cellulose biosynthesis in <i>Arabidopsis</i> . <i>Plant Journal</i> , 2022, 110, 1493-1497.	5.7	9
100	Seasonal Variation of Carbon Metabolism in the Cambial Zone of <i>Eucalyptus grandis</i> . <i>Frontiers in Plant Science</i> , 2016, 7, 932.	3.6	8
101	Optimising methods for the recovery and quantification of di- and tripeptides in soil. <i>Soil Research</i> , 2018, 56, 404.	1.1	8
102	Multimiomics and digital monitoring during lifestyle changes reveal independent dimensions of human biology and health. <i>Cell Systems</i> , 2022, 13, 241-255.e7.	6.2	8
103	Liquid chromatography/fast atom bombardment and electrospray ionization mass spectrometry of gibberellin A ₃ 1,2-trans-glycosyl esters. <i>Journal of Mass Spectrometry</i> , 1995, 30, 1489-1494.	1.6	6
104	Colonic Lactulose Fermentation Has No Impact on Glucagon-like Peptide-1 and Peptide-YY Secretion in Healthy Young Men. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2022, 107, 77-87.	3.6	6
105	Metabolic Profiling and Compound-Class Identification Reveal Alterations in Serum Triglyceride Levels in Mice Immunized with Human Vaccine Adjuvant Alum. <i>Journal of Proteome Research</i> , 2020, 19, 269-278.	3.7	5
106	Ecological Adaptation and Succession of Human Fecal Microbial Communities in an Automated <i>In Vitro</i> Fermentation System. <i>MSystems</i> , 2021, 6, e0023221.	3.8	5
107	Longitudinal analysis of hepatic transcriptome and serum metabolome demonstrates altered lipid metabolism following the onset of hyperglycemia in spontaneously diabetic biobreeding rats. <i>PLoS ONE</i> , 2017, 12, e0171372.	2.5	5
108	Metabolic Profiling of Multiorgan Samples: Evaluation of MODY5/RCAD Mutant Mice. <i>Journal of Proteome Research</i> , 2018, 17, 2293-2306.	3.7	4

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109	Differentiation of two <i>Maytenus</i> species and their hybrid via untargeted metabolomics. <i>Industrial Crops and Products</i> , 2020, 158, 113014.	5.2	3
110	Mixed-mode chromatography-mass spectrometry enables targeted and untargeted screening of carboxylic acids in biological samples. <i>Analytical Methods</i> , 2022, 14, 1015-1022.	2.7	1
111	A metabolomic study of <i>Gomphrena agrestis</i> in Brazilian Cerrado suggests drought-adaptive strategies on metabolism. <i>Scientific Reports</i> , 2021, 11, 12933.	3.3	0