Eric A Schmelz

List of Publications by Year
in descending order

114 papers	10,796 citations	28190 55 h-index	32761 100 g-index
119 all docs	119 docs citations	119 times ranked	9299 citing authors

#	Article	IF	Citations
1	ABA Is an Essential Signal for Plant Resistance to Pathogens Affecting JA Biosynthesis and the Activation of Defenses in Arabidopsis. Plant Cell, 2007, 19, 1665-1681.	3.1	755
2	Airborne signals prime plants against insect herbivore attack. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 1781-1785.	3.3	745
3	Fragments of ATP synthase mediate plant perception of insect attack. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 8894-8899.	3.3	375
4	Simultaneous analysis of phytohormones, phytotoxins, and volatile organic compounds in plants. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 10552-10557.	3.3	311
5	Quantification, correlations and manipulations of wound-induced changes in jasmonic acid and nicotine in Nicotiana sylvestris. Planta, 1997, 201, 397-404.	1.6	288
6	<i>tasselseed1</i> Is a Lipoxygenase Affecting Jasmonic Acid Signaling in Sex Determination of Maize. Science, 2009, 323, 262-265.	6.0	275
7	Circadian Regulation of the PhCCD1 Carotenoid Cleavage Dioxygenase Controls Emission of Î^{2}-Ionone, a Fragrance Volatile of Petunia Flowers. Plant Physiology, 2004, 136, 3504-3514.	2.3	269
8	The use of vapor phase extraction in metabolic profiling of phytohormones and other metabolites. Plant Journal, 2004, 39, 790-808.	2.8	247
9	Identity, regulation, and activity of inducible diterpenoid phytoalexins in maize. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5455-5460.	3.3	241
10	Biosynthesis, elicitation and roles of monocot terpenoid phytoalexins. Plant Journal, 2014, 79, 659-678.	2.8	233
11	Disulfooxy fatty acids from the American bird grasshopper Schistocerca americana, elicitors of plant volatiles. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 12976-12981.	3.3	230
12	Phytohormone-based activity mapping of insect herbivore-produced elicitors. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 653-657.	3.3	229
13	Identification of loci affecting flavour volatile emissions in tomato fruits. Journal of Experimental Botany, 2006, 57, 887-896.	2.4	226
14	Wound-induced changes in root and shoot jasmonic acid pools correlate with induced nicotine synthesis inNicotiana sylvestris spegazzini and comes. Journal of Chemical Ecology, 1994, 20, 2139-2157.	0.9	223
15	Novel Acidic Sesquiterpenoids Constitute a Dominant Class of Pathogen-Induced Phytoalexins in Maize Â Â. Plant Physiology, 2011, 156, 2082-2097.	2.3	193
16	Quantitative relationships between induced jasmonic acid levels and volatile emission in Zea mays during Spodoptera exigua herbivory. Planta, 2003, 216, 665-673.	1.6	179
17	Plant elicitor peptides are conserved signals regulating direct and indirect antiherbivore defense. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5707-5712.	3.3	179
18	The influence of intact-plant and excised-leaf bioassay designs on volicitin- and jasmonic acid-induced sesquiterpene volatile release in Zea mays. Planta, 2001, 214, 171-179.	1.6	169

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19	XopD SUMO Protease Affects Host Transcription, Promotes Pathogen Growth, and Delays Symptom Development in<i>Xanthomonas</i>-Infected Tomato Leaves Â. Plant Cell, 2008, 20, 1915-1929.	3.1	164
20	Attraction of Spodoptera frugiperda Larvae to Volatiles from Herbivore-Damaged Maize Seedlings. Journal of Chemical Ecology, 2006, 32, 1911-1924.	0.9	162
21	ZmPep1, an Ortholog of Arabidopsis Elicitor Peptide 1, Regulates Maize Innate Immunity and Enhances Disease Resistance Â Â. Plant Physiology, 2011, 155, 1325-1338.	2.3	160
22	Susceptible to intolerance - a range of hormonal actions in a susceptibleArabidopsispathogen response. Plant Journal, 2003, 33, 245-257.	2.8	152
23	A 13-lipoxygenase, TomloxC, is essential for synthesis of C5 flavour volatiles in tomato. Journal of Experimental Botany, 2014, 65, 419-428.	2.4	147
24	Dynamic maize responses to aphid feeding are revealed by a time series of transcriptomic and metabolomic assays. Plant Physiology, 2015, 169, pp.01039.2015.	2.3	142
25	Ethylene-Regulated Floral Volatile Synthesis in Petunia Corollas. Plant Physiology, 2005, 138, 255-266.	2.3	140
26	Simultaneous quantification of jasmonic acid and salicylic acid in plants by vapor-phase extraction and gas chromatography-chemical ionization-mass spectrometry. Analytical Biochemistry, 2003, 312, 242-250.	1.1	138
27	Accumulation of terpenoid phytoalexins in maize roots is associated with drought tolerance. Plant, Cell and Environment, 2015, 38, 2195-2207.	2.8	137
28	Synergistic interactions between volicitin, jasmonic acid and ethylene mediate insect-induced volatile emission in Zea mays. Physiologia Plantarum, 2003, 117, 403-412.	2.6	133
29	Functional analysis of a tomato salicylic acid methyl transferase and its role in synthesis of the flavor volatile methyl salicylate. Plant Journal, 2010, 62, 113-123.	2.8	133
30	Multiple Hormones Act Sequentially to Mediate a Susceptible Tomato Pathogen Defense Response. Plant Physiology, 2003, 133, 1181-1189.	2.3	130
31	Nitrogen Deficiency Increases Volicitin-Induced Volatile Emission, Jasmonic Acid Accumulation, and Ethylene Sensitivity in Maize. Plant Physiology, 2003, 133, 295-306.	2.3	128
32	Maize death acids, 9-lipoxygenaseâ€"derived cyclopente(a)nones, display activity as cytotoxic phytoalexins and transcriptional mediators. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11407-11412.	3.3	128
33	Differential volatile emissions and salicylic acid levels from tobacco plants in response to different strains of Pseudomonas syringae. Planta, 2003, 217, 767-775.	1.6	124
34	Cowpea Chloroplastic ATP Synthase Is the Source of Multiple Plant Defense Elicitors during Insect Herbivory Â. Plant Physiology, 2007, 144, 793-805.	2.3	121
35	Pythium infection activates conserved plant defense responses in mosses. Planta, 2009, 230, 569-579.	1.6	110
36	Effects of elevated [<scp><scp>CO₂</scp></scp>] on maize defence against mycotoxigenic <i><scp>F</scp>usarium verticillioides</i>. Plant, Cell and Environment, 2014, 37, 2691-2706.	2.8	107

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37	<i>Physcomitrella patens</i> activates reinforcement of the cell wall, programmed cell death and accumulation of evolutionary conserved defence signals, such as salicylic acid and 12â€oxoâ€phytodienoic acid, but not jasmonic acid, upon <i>Botrytis cinerea</i> infection. Molecular Plant Pathology, 2012, 13, 960-974.	2.0	105
38	Biosynthesis and function of terpenoid defense compounds in maize (Zea mays). Planta, 2019, 249, 21-30.	1.6	103
39	Identification of Genes in the Phenylalanine Metabolic Pathway by Ectopic Expression of a MYB Transcription Factor in Tomato Fruit. Plant Cell, 2011, 23, 2738-2753.	3.1	97
40	An apoplastic peptide activates salicylic acid signalling in maize. Nature Plants, 2018, 4, 172-180.	4.7	97
41	The effects of climate change associated abiotic stresses on maize phytochemical defenses. Phytochemistry Reviews, 2018, 17, 37-49.	3.1	96
42	Discovery, Biosynthesis and Stress-Related Accumulation of Dolabradiene-Derived Defenses in Maize. Plant Physiology, 2018, 176, 2677-2690.	2.3	94
43	Immunological "Memory" in the Induced Accumulation of Nicotine in Wild Tobacco. Ecology, 1996, 77, 236-246.	1.5	89
44	The Novel Monocot-Specific 9-Lipoxygenase ZmLOX12 Is Required to Mount an Effective Jasmonate-Mediated Defense Against <i>Fusarium verticillioides</i> in Maize. Molecular Plant-Microbe Interactions, 2014, 27, 1263-1276.	1.4	89
45	Homologous RXLR effectors from <i>Hyaloperonospora arabidopsidis</i> and <i>Phytophthora sojae</i> suppress immunity in distantly related plants. Plant Journal, 2012, 72, 882-893.	2.8	88
46	A receptor-like protein mediates plant immune responses to herbivore-associated molecular patterns. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31510-31518.	3.3	86
47	Allocation of nitrogen to an inducible defense and seed production in Nicotiana attenuata. Oecologia, 1998, 115, 541-552.	0.9	83
48	Effects of octadecanoid metabolites and inhibitors on induced nicotine accumulation inNicotiana sylvestris. Journal of Chemical Ecology, 1996, 22, 61-74.	0.9	80
49	Coronatine and salicylic acid: the battle between Arabidopsis andPseudomonasfor phytohormone control. Molecular Plant Pathology, 2005, 6, 79-83.	2.0	78
50	Systemic Acquired Tolerance to Virulent Bacterial Pathogens in Tomato. Plant Physiology, 2005, 138, 1481-1490.	2.3	78
51	Interactions betweenSpinacia oleraceaandBradysia impatiens: A role for phytoecdysteroids. Archives of Insect Biochemistry and Physiology, 2002, 51, 204-221.	0.6	76
52	Rapidly Induced Chemical Defenses in Maize Stems and Their Effects on Short-term Growth of Ostrinia nubilalis. Journal of Chemical Ecology, 2011, 37, 984-991.	0.9	75
53	The Attraction of Spodoptera frugiperda Neonates to Cowpea Seedlings is Mediated by Volatiles Induced by Conspecific Herbivory and the Elicitor Inceptin. Journal of Chemical Ecology, 2008, 34, 291-300.	0.9	74
54	Fungal-induced protein hyperacetylation in maize identified by acetylome profiling. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 210-215.	3.3	71

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55	Cotton Plant, Gossypium hirsutum L., Defense in Response to Nitrogen Fertilization. Journal of Chemical Ecology, 2008, 34, 1553-1564.	0.9	62
56	Selinene Volatiles Are Essential Precursors for Maize Defense Promoting Fungal Pathogen Resistance. Plant Physiology, 2017, 175, 1455-1468.	2.3	61
57	Impacts of insect oral secretions on defoliation-induced plant defense. Current Opinion in Insect Science, 2015, 9, 7-15.	2.2	60
58	Multiple genes recruited from hormone pathways partition maize diterpenoid defences. Nature Plants, 2019, 5, 1043-1056.	4.7	60
59	Insect-Induced Synthesis of Phytoecdysteroids in Spinach, Spinacia oleracea. Journal of Chemical Ecology, 1999, 25, 1739-1757.	0.9	58
60	Insect-Induced Daidzein, Formononetin and Their Conjugates in Soybean Leaves. Metabolites, 2014, 4, 532-546.	1.3	53
61	Genetic elucidation of interconnected antibiotic pathways mediating maize innate immunity. Nature Plants, 2020, 6, 1375-1388.	4.7	52
62	The maizeviviparous15locus encodes the molybdopterin synthase small subunit. Plant Journal, 2006, 45, 264-274.	2.8	50
63	Cell wall invertase-deficient miniature1 kernels have altered phytohormone levels. Phytochemistry, 2008, 69, 692-699.	1.4	49
64	European Corn Borer (Ostrinia nubilalis) Induced Responses Enhance Susceptibility in Maize. PLoS ONE, 2013, 8, e73394.	1.1	49
65	An Amino Acid Substitution Inhibits Specialist Herbivore Production of an Antagonist Effector and Recovers Insect-Induced Plant Defenses Â Â. Plant Physiology, 2012, 160, 1468-1478.	2.3	48
66	Title is missing!. Journal of Chemical Ecology, 1998, 24, 339-360.	0.9	44
67	Activation of Shikimate, Phenylpropanoid, Oxylipins, and Auxin Pathways in Pectobacterium carotovorum Elicitors-Treated Moss. Frontiers in Plant Science, 2016, 7, 328.	1.7	43
68	Commercial hybrids and mutant genotypes reveal complex protective roles for inducible terpenoid defenses in maize. Journal of Experimental Botany, 2018, 69, 1693-1705.	2.4	42
69	Ethylene signaling regulates natural variation in the abundance of antifungal acetylated diferuloylsucroses and <i>Fusarium graminearum</i> resistance in maize seedling roots. New Phytologist, 2019, 221, 2096-2111.	3.5	42
70	The maizeViviparous10/Viviparous13locus encodes theCnx1gene required for molybdenum cofactor biosynthesis. Plant Journal, 2006, 45, 250-263.	2.8	41
71	Development of a Lesion-Mimic Phenotype in a Transgenic Wheat Line Overexpressing Genes for Pathogenesis-Related (PR) Proteins Is Dependent on Salicylic Acid Concentration. Molecular Plant-Microbe Interactions, 2003, 16, 916-925.	1.4	39
72	Interactive Effects of Elevated [CO2] and Drought on the Maize Phytochemical Defense Response against Mycotoxigenic Fusarium verticillioides. PLoS ONE, 2016, 11, e0159270.	1.1	39

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73	Spatial Patterns of Aflatoxin Levels in Relation to Ear-Feeding Insect Damage in Pre-Harvest Corn. Toxins, 2011, 3, 920-931.	1.5	38
74	Effects of Soldier-Derived Terpenes on Soldier Caste Differentiation in the Termite Reticulitermes flavipes. Journal of Chemical Ecology, 2009, 35, 256-264.	0.9	37
75	Accumulation of 5-hydroxynorvaline in maize (Zea mays) leaves is induced by insect feeding and abiotic stress. Journal of Experimental Botany, 2015, 66, 593-602.	2.4	36
76	Biosynthesis and antifungal activity of fungus-induced <i>O</i>-methylated flavonoids in maize. Plant Physiology, 2022, 188, 167-190.	2.3	32
77	Functional Characterization of Two Class II Diterpene Synthases Indicates Additional Specialized Diterpenoid Pathways in Maize (Zea mays). Frontiers in Plant Science, 2018, 9, 1542.	1.7	29
78	Synthesis of Caeliferins, Elicitors of Plant Immune Responses: Accessing Lipophilic Natural Products via Cross Metathesis. Organic Letters, 2011, 13, 5900-5903.	2.4	27
79	Inducible De Novo Biosynthesis of Isoflavonoids in Soybean Leaves by Spodoptera litura Derived Elicitors: Tracer Techniques Aided by High Resolution LCMS. Journal of Chemical Ecology, 2016, 42, 1226-1236.	0.9	27
80	Soldier caste influences on candidate primer pheromone levels and juvenile hormone-dependent caste differentiation in workers of the termite Reticulitermes flavipes. Journal of Insect Physiology, 2011, 57, 771-777.	0.9	24
81	Fungal and herbivore elicitation of the novel maize sesquiterpenoid, zealexin A4, is attenuated by elevated CO2. Planta, 2018, 247, 863-873.	1.6	24
82	Phytoecdysteroid Turnover in Spinach: Long-term Stability Supports a Plant Defense Hypothesis. Journal of Chemical Ecology, 2000, 26, 2883-2896.	0.9	21
83	Phytohormones Mediate Volatile Emissions During The Interaction Of Compatible and Incompatible Pathogens: The Role Of Ethylene In Pseudomonas syringae Infected Tobacco. Journal of Chemical Ecology, 2005, 31, 439-459.	0.9	21
84	Tissue-specificPhBPBTexpression is differentially regulated in response to endogenous ethylene. Journal of Experimental Botany, 2008, 59, 609-618.	2.4	20
85	Headâ€group acylation of monogalactosyldiacylglycerol is a common stress response, and the acylâ€galactose acyl composition varies with the plant species and applied stress. Physiologia Plantarum, 2014, 150, 517-528.	2.6	18
86	Phenolic Compounds Accumulate Specifically in Maternallyâ€Derived Tissues of Developing Maize Kernels. Cereal Chemistry, 2007, 84, 350-356.	1.1	16
87	A maize death acid, 10-oxo-11-phytoenoic acid, is the predominant cyclopentenone signal present during multiple stress and developmental conditions. Plant Signaling and Behavior, 2016, 11, e1120395.	1.2	16
88	<i>Brachypodium</i> Phenylalanine Ammonia Lyase (PAL) Promotes Antiviral Defenses against <i>Panicum mosaic virus</i> and Its Satellites. MBio, 2021, 12, .	1.8	16
89	The Arabidopsis MAP kinase kinase 7. Plant Signaling and Behavior, 2008, 3, 272-274.	1.2	14
90	Getting back to the grass roots: harnessing specialized metabolites for improved crop stress resilience. Current Opinion in Biotechnology, 2021, 70, 174-186.	3.3	13

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91	A fragmentation study of isoflavones by IT-TOF-MS using biosynthesized isotopes. Bioscience, Biotechnology and Biochemistry, 2018, 82, 1309-1315.	0.6	12
92	Plant height heterosis is quantitatively associated with expression levels of plastid ribosomal proteins. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	10
93	A sorghum genome-wide association study (GWAS) identifies a WRKY transcription factor as a candidate gene underlying sugarcane aphid (Melanaphis sacchari) resistance. Planta, 2022, 255, 37.	1.6	10
94	Biosynthetic pathway of aliphatic formates via a Baeyerâ€"Villiger oxidation in mechanism present in astigmatid mites. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2616-2621.	3.3	9
95	Comparative analyses of responses to exogenous and endogenous antiherbivore elicitors enable a forward genetics approach to identify maize gene candidates mediating sensitivity to herbivoreâ€associated molecular patterns. Plant Journal, 2021, 108, 1295-1316.	2.8	9
96	Survey of Sensitivity to Fatty Acid-Amino Acid Conjugates in the Solanaceae. Journal of Chemical Ecology, 2020, 46, 330-343.	0.9	5
97	Signatures of plant defense response specificity mediated by herbivoreâ€associated molecular patterns in legumes. Plant Journal, 2022, 110, 1255-1270.	2.8	5
98	Evaluation of spatial and temporal patterns of insect damage and aflatoxin level in the preâ€harvest corn fields to improve management tactics. Insect Science, 2014, 21, 572-583.	1.5	3
99	Influence of brown stink bug feeding, planting date and sampling time on common smut infection of maize. Insect Science, 2014, 21, 564-571.	1.5	3
100	<i>Fusarium verticillioides</i> Induces Maize-Derived Ethylene to Promote Virulence by Engaging Fungal G-Protein Signaling. Molecular Plant-Microbe Interactions, 2021, 34, 1157-1166.	1.4	3
101	Seed Treatment with Live or Dead <i><scp>F</scp>usarium verticillioides</i> Equivalently Reduces the Severity of Subsequent Stalk Rot. Journal of Phytopathology, 2014, 162, 201-204.	0.5	2
102	Synthesis and Determination of Absolute Configuration of Zealexin A1, a Sesquiterpenoid Phytoalexin from Zea mays. European Journal of Organic Chemistry, 2021, 2021, 1174-1178.	1.2	2
103	Efficient synthesis of zealexin B1, a maize sesquiterpenoid phytoalexin, viaSuzuki-Miyaura coupling. Tetrahedron Letters, 2022, 91, 153641.	0.7	2
104	A nonproteinogenic amino acid, Î²-tyrosine, accumulates in young rice leaves via long-distance phloem transport from mature leaves. Bioscience, Biotechnology and Biochemistry, 2022, 86, 427-434.	0.6	2
105	Shielding the oil reserves: the scutellum as a source of chemical defenses. Plant Physiology, 2022, 188, 1944-1949.	2.3	2
106	Acoustical Communication in Heteroptera (Hemiptera: Heteroptera). , 2008, , 23-33.		1
107	Augmentative Biological Control. , 2008, , 327-334.		1
108	Acrididae. , 2008, , 38-38.		0

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109	American Grasshopper, Schistocerca americana (Drury) (Orthoptera: Acrididae). , 2008, , 141-144.		0
110	Aleyrodidae. , 2008, , 97-97.		0
111	Assassin Bugs, Kissing Bugs and Others (Hemiptera: Reduviidae). , 2008, , 311-319.		0
112	Abafi-Aigner, Lajos (Ludwig Aigner). , 2008, , 1-1.		0
113	Abbott, John. , 2008, , 2-2.		0
114	Active Dispersal. , 2008, , 39-39.		0