

# Eric A Schmelz

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

104  
papers

8,441  
citations

51  
h-index

91  
g-index

119  
ext. papers

9,894  
ext. citations

6.2  
avg, IF

5.77  
L-index

#	Paper	IF	Citations
104	A sorghum genome-wide association study (GWAS) identifies a WRKY transcription factor as a candidate gene underlying sugarcane aphid ( <i>Melanaphis sacchari</i> ) resistance.. <i>Planta</i> , <b>2022</b> , 255, 37	4.7	0
103	Efficient synthesis of zealexin B1, a maize sesquiterpenoid phytoalexin, via Suzuki-Miyaura coupling. <i>Tetrahedron Letters</i> , <b>2022</b> , 91, 153641	2	
102	Plant height heterosis is quantitatively associated with expression levels of plastid ribosomal proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	2
101	Biosynthesis and antifungal activity of fungus-induced O-methylated flavonoids in maize. <i>Plant Physiology</i> , <b>2021</b> ,	6.6	4
100	Induces Maize-Derived Ethylene to Promote Virulence by Engaging Fungal G-Protein Signaling. <i>Molecular Plant-Microbe Interactions</i> , <b>2021</b> , 34, 1157-1166	3.6	0
99	Synthesis and Determination of Absolute Configuration of Zealexin A1, a Sesquiterpenoid Phytoalexin from <i>Zea mays</i> . <i>European Journal of Organic Chemistry</i> , <b>2021</b> , 2021, 1174-1178	3.2	0
98	Getting back to the grass roots: harnessing specialized metabolites for improved crop stress resilience. <i>Current Opinion in Biotechnology</i> , <b>2021</b> , 70, 174-186	11.4	2
97	Comparative analyses of responses to exogenous and endogenous antiherbivore elicitors enable a forward genetics approach to identify maize gene candidates mediating sensitivity to herbivore-associated molecular patterns. <i>Plant Journal</i> , <b>2021</b> , 108, 1295-1316	6.9	3
96	Survey of Sensitivity to Fatty Acid-Amino Acid Conjugates in the Solanaceae. <i>Journal of Chemical Ecology</i> , <b>2020</b> , 46, 330-343	2.7	3
95	A receptor-like protein mediates plant immune responses to herbivore-associated molecular patterns. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 31510-31518	11.5	33
94	Genetic elucidation of interconnected antibiotic pathways mediating maize innate immunity. <i>Nature Plants</i> , <b>2020</b> , 6, 1375-1388	11.5	23
93	Multiple genes recruited from hormone pathways partition maize diterpenoid defences. <i>Nature Plants</i> , <b>2019</b> , 5, 1043-1056	11.5	36
92	Biosynthesis and function of terpenoid defense compounds in maize ( <i>Zea mays</i> ). <i>Planta</i> , <b>2019</b> , 249, 21-30	4.7	52
91	Ethylene signaling regulates natural variation in the abundance of antifungal acetylated diferuloylsucroses and <i>Fusarium graminearum</i> resistance in maize seedling roots. <i>New Phytologist</i> , <b>2019</b> , 221, 2096-2111	9.8	26
90	Discovery, Biosynthesis and Stress-Related Accumulation of Dolabradiene-Derived Defenses in Maize. <i>Plant Physiology</i> , <b>2018</b> , 176, 2677-2690	6.6	55
89	An apoplastic peptide activates salicylic acid signalling in maize. <i>Nature Plants</i> , <b>2018</b> , 4, 172-180	11.5	50
88	Commercial hybrids and mutant genotypes reveal complex protective roles for inducible terpenoid defenses in maize. <i>Journal of Experimental Botany</i> , <b>2018</b> , 69, 1693-1705	7	26

87	Fungal-induced protein hyperacetylation in maize identified by acetylome profiling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 210-215	11.5	55
86	Fungal and herbivore elicitation of the novel maize sesquiterpenoid, zealexin A4, is attenuated by elevated CO <sub>2</sub> . <i>Planta</i> , <b>2018</b> , 247, 863-873	4.7	13
85	A fragmentation study of isoflavones by IT-TOF-MS using biosynthesized isotopes. <i>Bioscience, Biotechnology and Biochemistry</i> , <b>2018</b> , 82, 1309-1315	2.1	8
84	The effects of climate change associated abiotic stresses on maize phytochemical defenses. <i>Phytochemistry Reviews</i> , <b>2018</b> , 17, 37-49	7.7	51
83	Functional Characterization of Two Class II Diterpene Synthases Indicates Additional Specialized Diterpenoid Pathways in Maize (). <i>Frontiers in Plant Science</i> , <b>2018</b> , 9, 1542	6.2	18
82	Biosynthetic pathway of aliphatic formates via a Baeyer-Villiger oxidation in mechanism present in astigmatid mites. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 2616-2621	11.5	6
81	Selinene Volatiles Are Essential Precursors for Maize Defense Promoting Fungal Pathogen Resistance. <i>Plant Physiology</i> , <b>2017</b> , 175, 1455-1468	6.6	38
80	A maize death acid, 10-oxo-11-phytoenoic acid, is the predominant cyclopentenone signal present during multiple stress and developmental conditions. <i>Plant Signaling and Behavior</i> , <b>2016</b> , 11, e1120395	2.5	11
79	Interactive Effects of Elevated [CO <sub>2</sub> ] and Drought on the Maize Phytochemical Defense Response against Mycotoxigenic <i>Fusarium verticillioides</i> . <i>PLoS ONE</i> , <b>2016</b> , 11, e0159270	3.7	29
78	Activation of Shikimate, Phenylpropanoid, Oxylipins, and Auxin Pathways in <i>Pectobacterium carotovorum</i> Elicitors-Treated Moss. <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 328	6.2	26
77	Inducible De Novo Biosynthesis of Isoflavonoids in Soybean Leaves by <i>Spodoptera litura</i> Derived Elicitors: Tracer Techniques Aided by High Resolution LCMS. <i>Journal of Chemical Ecology</i> , <b>2016</b> , 42, 1226-1236	2.7	12
76	Accumulation of 5-hydroxynorvaline in maize ( <i>Zea mays</i> ) leaves is induced by insect feeding and abiotic stress. <i>Journal of Experimental Botany</i> , <b>2015</b> , 66, 593-602	7	28
75	Dynamic Maize Responses to Aphid Feeding Are Revealed by a Time Series of Transcriptomic and Metabolomic Assays. <i>Plant Physiology</i> , <b>2015</b> , 169, 1727-43	6.6	94
74	Maize death acids, 9-lipoxygenase-derived cyclopente(a)nonenes, display activity as cytotoxic phytoalexins and transcriptional mediators. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 11407-12	11.5	83
73	Accumulation of terpenoid phytoalexins in maize roots is associated with drought tolerance. <i>Plant, Cell and Environment</i> , <b>2015</b> , 38, 2195-207	8.4	88
72	Impacts of insect oral secretions on defoliation-induced plant defense. <i>Current Opinion in Insect Science</i> , <b>2015</b> , 9, 7-15	5.1	47
71	Biosynthesis, elicitation and roles of monocot terpenoid phytoalexins. <i>Plant Journal</i> , <b>2014</b> , 79, 659-78	6.9	151
70	Seed Treatment with Live or Dead <i>Fusarium verticillioides</i> Equivalently Reduces the Severity of Subsequent Stalk Rot. <i>Journal of Phytopathology</i> , <b>2014</b> , 162, 201-204	1.8	2

69	Influence of brown stink bug feeding, planting date and sampling time on common smut infection of maize. <i>Insect Science</i> , <b>2014</b> , 21, 564-71	3.6	3
68	The novel monocot-specific 9-lipoxygenase ZmLOX12 is required to mount an effective jasmonate-mediated defense against <i>Fusarium verticillioides</i> in maize. <i>Molecular Plant-Microbe Interactions</i> , <b>2014</b> , 27, 1263-76	3.6	61
67	Insect-induced daidzein, formononetin and their conjugates in soybean leaves. <i>Metabolites</i> , <b>2014</b> , 4, 532-46	3.6	33
66	Head-group acylation of monogalactosyldiacylglycerol is a common stress response, and the acyl-galactose acyl composition varies with the plant species and applied stress. <i>Physiologia Plantarum</i> , <b>2014</b> , 150, 517-28	4.6	15
65	A 13-lipoxygenase, TomloxC, is essential for synthesis of C5 flavour volatiles in tomato. <i>Journal of Experimental Botany</i> , <b>2014</b> , 65, 419-28	7	111
64	Effects of elevated [CO <sub>2</sub> ] on maize defence against mycotoxigenic <i>Fusarium verticillioides</i> . <i>Plant, Cell and Environment</i> , <b>2014</b> , 37, 2691-706	8.4	81
63	Evaluation of spatial and temporal patterns of insect damage and aflatoxin level in the pre-harvest corn fields to improve management tactics. <i>Insect Science</i> , <b>2014</b> , 21, 572-83	3.6	2
62	Plant elicitor peptides are conserved signals regulating direct and indirect antiherbivore defense. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 5707-12	11.5	137
61	European corn borer ( <i>Ostrinia nubilalis</i> ) induced responses enhance susceptibility in maize. <i>PLoS ONE</i> , <b>2013</b> , 8, e73394	3.7	39
60	<i>Phycomitrella patens</i> activates reinforcement of the cell wall, programmed cell death and accumulation of evolutionary conserved defence signals, such as salicylic acid and 12-oxo-phytodienoic acid, but not jasmonic acid, upon <i>Botrytis cinerea</i> infection. <i>Molecular Plant Pathology</i> , <b>2012</b> , 13, 960-74	5.7	78
59	Homologous RXLR effectors from <i>Hyaloperonospora arabidopsidis</i> and <i>Phytophthora sojae</i> suppress immunity in distantly related plants. <i>Plant Journal</i> , <b>2012</b> , 72, 882-93	6.9	59
58	An amino acid substitution inhibits specialist herbivore production of an antagonist effector and recovers insect-induced plant defenses. <i>Plant Physiology</i> , <b>2012</b> , 160, 1468-78	6.6	38
57	Soldier caste influences on candidate primer pheromone levels and juvenile hormone-dependent caste differentiation in workers of the termite <i>Reticulitermes flavipes</i> . <i>Journal of Insect Physiology</i> , <b>2011</b> , 57, 771-7	2.4	19
56	Rapidly induced chemical defenses in maize stems and their effects on short-term growth of <i>Ostrinia nubilalis</i> . <i>Journal of Chemical Ecology</i> , <b>2011</b> , 37, 984-91	2.7	55
55	Synthesis of caeliferins, elicitors of plant immune responses: accessing lipophilic natural products via cross metathesis. <i>Organic Letters</i> , <b>2011</b> , 13, 5900-3	6.2	23
54	Novel acidic sesquiterpenoids constitute a dominant class of pathogen-induced phytoalexins in maize. <i>Plant Physiology</i> , <b>2011</b> , 156, 2082-97	6.6	156
53	ZmPep1, an ortholog of Arabidopsis elicitor peptide 1, regulates maize innate immunity and enhances disease resistance. <i>Plant Physiology</i> , <b>2011</b> , 155, 1325-38	6.6	129
52	Identity, regulation, and activity of inducible diterpenoid phytoalexins in maize. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 5455-60	11.5	179

51	Identification of genes in the phenylalanine metabolic pathway by ectopic expression of a MYB transcription factor in tomato fruit. <i>Plant Cell</i> , <b>2011</b> , 23, 2738-53	11.6	82
50	Spatial patterns of aflatoxin levels in relation to ear-feeding insect damage in pre-harvest corn. <i>Toxins</i> , <b>2011</b> , 3, 920-31	4.9	26
49	Functional analysis of a tomato salicylic acid methyl transferase and its role in synthesis of the flavor volatile methyl salicylate. <i>Plant Journal</i> , <b>2010</b> , 62, 113-23	6.9	98
48	Phytohormone-based activity mapping of insect herbivore-produced elicitors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 653-7	11.5	205
47	Pythium infection activates conserved plant defense responses in mosses. <i>Planta</i> , <b>2009</b> , 230, 569-79	4.7	69
46	Effects of soldier-derived terpenes on soldier caste differentiation in the termite <i>Reticulitermes flavipes</i> . <i>Journal of Chemical Ecology</i> , <b>2009</b> , 35, 256-64	2.7	25
45	tasselseed1 is a lipoxygenase affecting jasmonic acid signaling in sex determination of maize. <i>Science</i> , <b>2009</b> , 323, 262-5	33.3	198
44	XopD SUMO protease affects host transcription, promotes pathogen growth, and delays symptom development in xanthomonas-infected tomato leaves. <i>Plant Cell</i> , <b>2008</b> , 20, 1915-29	11.6	132
43	The Arabidopsis MAP kinase kinase 7: A crosstalk point between auxin signaling and defense responses?. <i>Plant Signaling and Behavior</i> , <b>2008</b> , 3, 272-4	2.5	13
42	Tissue-specific PhBPBT expression is differentially regulated in response to endogenous ethylene. <i>Journal of Experimental Botany</i> , <b>2008</b> , 59, 609-18	7	20
41	The attraction of <i>Spodoptera frugiperda</i> neonates to cowpea seedlings is mediated by volatiles induced by conspecific herbivory and the elicitor inceptin. <i>Journal of Chemical Ecology</i> , <b>2008</b> , 34, 291-300	2.7	60
40	Cotton plant, <i>Gossypium hirsutum</i> L., defense in response to nitrogen fertilization. <i>Journal of Chemical Ecology</i> , <b>2008</b> , 34, 1553-64	2.7	49
39	Cell wall invertase-deficient miniature1 kernels have altered phytohormone levels. <i>Phytochemistry</i> , <b>2008</b> , 69, 692-9	4	39
38	Phenolic Compounds Accumulate Specifically in Maternally-Derived Tissues of Developing Maize Kernels. <i>Cereal Chemistry</i> , <b>2007</b> , 84, 350-356	2.4	15
37	Disulfoxy fatty acids from the American bird grasshopper <i>Schistocerca americana</i> , elicitors of plant volatiles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 12976-81	11.5	182
36	Cowpea chloroplastic ATP synthase is the source of multiple plant defense elicitors during insect herbivory. <i>Plant Physiology</i> , <b>2007</b> , 144, 793-805	6.6	103
35	ABA is an essential signal for plant resistance to pathogens affecting JA biosynthesis and the activation of defenses in Arabidopsis. <i>Plant Cell</i> , <b>2007</b> , 19, 1665-81	11.6	621
34	Fragments of ATP synthase mediate plant perception of insect attack. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 8894-9	11.5	300

33	Identification of loci affecting flavour volatile emissions in tomato fruits. <i>Journal of Experimental Botany</i> , <b>2006</b> , 57, 887-96	7	194
32	The maize viviparous15 locus encodes the molybdopterin synthase small subunit. <i>Plant Journal</i> , <b>2006</b> , 45, 264-74	6.9	45
31	The maize Viviparous10/Viviparous13 locus encodes the Cnx1 gene required for molybdenum cofactor biosynthesis. <i>Plant Journal</i> , <b>2006</b> , 45, 250-63	6.9	38
30	Attraction of <i>Spodoptera frugiperda</i> larvae to volatiles from herbivore-damaged maize seedlings. <i>Journal of Chemical Ecology</i> , <b>2006</b> , 32, 1911-24	2.7	124
29	Coronatine and salicylic acid: the battle between <i>Arabidopsis</i> and <i>Pseudomonas</i> for phytohormone control. <i>Molecular Plant Pathology</i> , <b>2005</b> , 6, 79-83	5.7	69
28	Phytohormones mediate volatile emissions during the interaction of compatible and incompatible pathogens: the role of ethylene in <i>Pseudomonas syringae</i> infected tobacco. <i>Journal of Chemical Ecology</i> , <b>2005</b> , 31, 439-59	2.7	19
27	Systemic acquired tolerance to virulent bacterial pathogens in tomato. <i>Plant Physiology</i> , <b>2005</b> , 138, 1481-690	6.9	65
26	Ethylene-regulated floral volatile synthesis in petunia corollas. <i>Plant Physiology</i> , <b>2005</b> , 138, 255-66	6.6	120
25	Airborne signals prime plants against insect herbivore attack. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 1781-5	11.5	627
24	Circadian regulation of the PhCCD1 carotenoid cleavage dioxygenase controls emission of beta-ionone, a fragrance volatile of petunia flowers. <i>Plant Physiology</i> , <b>2004</b> , 136, 3504-14	6.6	221
23	The use of vapor phase extraction in metabolic profiling of phytohormones and other metabolites. <i>Plant Journal</i> , <b>2004</b> , 39, 790-808	6.9	208
22	Development of a lesion-mimic phenotype in a transgenic wheat line overexpressing genes for pathogenesis-related (PR) proteins is dependent on salicylic acid concentration. <i>Molecular Plant-Microbe Interactions</i> , <b>2003</b> , 16, 916-25	3.6	35
21	Quantitative relationships between induced jasmonic acid levels and volatile emission in <i>Zea mays</i> during <i>Spodoptera exigua</i> herbivory. <i>Planta</i> , <b>2003</b> , 216, 665-73	4.7	155
20	Differential volatile emissions and salicylic acid levels from tobacco plants in response to different strains of <i>Pseudomonas syringae</i> . <i>Planta</i> , <b>2003</b> , 217, 767-75	4.7	106
19	Simultaneous quantification of jasmonic acid and salicylic acid in plants by vapor-phase extraction and gas chromatography-chemical ionization-mass spectrometry. <i>Analytical Biochemistry</i> , <b>2003</b> , 312, 242-50	3.1	121
18	Synergistic interactions between volicitin, jasmonic acid and ethylene mediate insect-induced volatile emission in <i>Zea mays</i> . <i>Physiologia Plantarum</i> , <b>2003</b> , 117, 403-412	4.6	117
17	Susceptible to intolerance--a range of hormonal actions in a susceptible <i>Arabidopsis</i> pathogen response. <i>Plant Journal</i> , <b>2003</b> , 33, 245-57	6.9	133
16	Multiple hormones act sequentially to mediate a susceptible tomato pathogen defense response. <i>Plant Physiology</i> , <b>2003</b> , 133, 1181-9	6.6	117

15	Nitrogen deficiency increases volicitin-induced volatile emission, jasmonic acid accumulation, and ethylene sensitivity in maize. <i>Plant Physiology</i> , <b>2003</b> , 133, 295-306	6.6	116
14	Simultaneous analysis of phytohormones, phytotoxins, and volatile organic compounds in plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2003</b> , 100, 10552-7	11.5	280
13	Interactions between <i>Spinacia oleracea</i> and <i>Bradysia impatiens</i> : a role for phytoecdysteroids. <i>Archives of Insect Biochemistry and Physiology</i> , <b>2002</b> , 51, 204-21	2.3	61
12	The influence of intact-plant and excised-leaf bioassay designs on volicitin- and jasmonic acid-induced sesquiterpene volatile release in <i>Zea mays</i> . <i>Planta</i> , <b>2001</b> , 214, 171-9	4.7	148
11	Phytoecdysteroid Turnover in Spinach: Long-term Stability Supports a Plant Defense Hypothesis. <i>Journal of Chemical Ecology</i> , <b>2000</b> , 26, 2883-2896	2.7	19
10	Insect-Induced Synthesis of Phytoecdysteroids in Spinach, <i>Spinacia oleracea</i> . <i>Journal of Chemical Ecology</i> , <b>1999</b> , 25, 1739-1757	2.7	48
9	Damage-Induced Accumulation of Phytoecdysteroids in Spinach: A Rapid Root Response Involving the Octadecanoic Acid Pathway. <i>Journal of Chemical Ecology</i> , <b>1998</b> , 24, 339-360	2.7	32
8	Allocation of nitrogen to an inducible defense and seed production in <i>Nicotiana attenuata</i> . <i>Oecologia</i> , <b>1998</b> , 115, 541-552	2.9	71
7	Quantification, correlations and manipulations of wound-induced changes in jasmonic acid and nicotine in <i>Nicotiana sylvestris</i> . <i>Planta</i> , <b>1997</b> , 201, 397-404	4.7	261
6	Immunological "Memory" in the Induced Accumulation of Nicotine in Wild Tobacco. <i>Ecology</i> , <b>1996</b> , 77, 236-246	4.6	74
5	Effects of octadecanoid metabolites and inhibitors on induced nicotine accumulation in <i>Nicotiana sylvestris</i> . <i>Journal of Chemical Ecology</i> , <b>1996</b> , 22, 61-74	2.7	72
4	Wound-induced changes in root and shoot jasmonic acid pools correlate with induced nicotine synthesis in <i>Nicotiana sylvestris</i> ssp. <i>sp. gazzini</i> and <i>comes</i> . <i>Journal of Chemical Ecology</i> , <b>1994</b> , 20, 2139-57	2.7	203
3	Genetic elucidation of complex biochemical traits mediating maize innate immunity		1
2	A receptor for herbivore-associated molecular patterns mediates plant immunity		6
1	Plant trait heterosis is quantitatively associated with expression heterosis of the plastid ribosomal proteins		2