Gavin R Flematti

List of Publications by Year
in descending order

70 papers	5,714 citations	117453 34 h-index	95083 68 g-index
74 all docs	74 docs citations	74 times ranked	3275 citing authors

#	Article	IF	Citations
1	A Compound from Smoke That Promotes Seed Germination. Science, 2004, 305, 977-977.	6.0	595
2	Specialisation within the DWARF14 protein family confers distinct responses to karrikins and strigolactones in <i>Arabidopsis</i>. Development (Cambridge), 2012, 139, 1285-1295.	1.2	477
3	F-box protein MAX2 has dual roles in karrikin and strigolactone signaling in <i>Arabidopsis thaliana</i>. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8897-8902.	3.3	394
4	Rice cytochrome P450 MAX1 homologs catalyze distinct steps in strigolactone biosynthesis. Nature Chemical Biology, 2014, 10, 1028-1033.	3.9	340
5	Strigolactone Hormones and Their Stereoisomers Signal through Two Related Receptor Proteins to Induce Different Physiological Responses in Arabidopsis Â. Plant Physiology, 2014, 165, 1221-1232.	2.3	260
6	Karrikins Discovered in Smoke Trigger Arabidopsis Seed Germination by a Mechanism Requiring Gibberellic Acid Synthesis and Light Â Â. Plant Physiology, 2009, 149, 863-873.	2.3	254
7	Regulation of Seed Germination and Seedling Growth by Chemical Signals from Burning Vegetation. Annual Review of Plant Biology, 2012, 63, 107-130.	8.6	242
8	Karrikins enhance light responses during germination and seedling development in <i>Arabidopsis thaliana</i>. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7095-7100.	3.3	223
9	<i>LATERAL BRANCHING OXIDOREDUCTASE</i> acts in the final stages of strigolactone biosynthesis in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6301-6306.	3.3	219
10	Karrikins: A new family of plant growth regulators in smoke. Plant Science, 2009, 177, 252-256.	1.7	175
11	Destabilization of strigolactone receptor DWARF14 by binding of ligand and E3-ligase signaling effector DWARF3. Cell Research, 2015, 25, 1219-1236.	5.7	152
12	Identification of Alkyl Substituted 2<i>H</i>-Furo[2,3-<i>c</i>]pyran-2-ones as Germination Stimulants Present in Smoke. Journal of Agricultural and Food Chemistry, 2009, 57, 9475-9480.	2.4	129
13	A <i>Selaginella moellendorffii</i> Ortholog of KARRIKIN INSENSITIVE2 Functions in Arabidopsis Development but Cannot Mediate Responses to Karrikins or Strigolactones. Plant Cell, 2015, 27, 1925-1944.	3.1	122
14	Carlactoneâ€independent seedling morphogenesis inÂArabidopsis. Plant Journal, 2013, 76, 1-9.	2.8	115
15	The karrikin response system of <scp>A</scp>rabidopsis. Plant Journal, 2014, 79, 623-631.	2.8	102
16	Karrikin and Cyanohydrin Smoke Signals Provide Clues to New Endogenous Plant Signaling Compounds. Molecular Plant, 2013, 6, 29-37.	3.9	101
17	Burning vegetation produces cyanohydrins that liberate cyanide and stimulate seed germination. Nature Communications, 2011, 2, 360.	5.8	98
18	Synthesis of the seed germination stimulant 3-methyl-2H-furo[2,3-c]pyran-2-one. Tetrahedron Letters, 2005, 46, 5719-5721.	0.7	97

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19	Stereospecificity in strigolactone biosynthesis and perception. Planta, 2016, 243, 1361-1373.	1.6	95
20	Discovery of pyrazines as pollinator sex pheromones and orchid semiochemicals: implications for the evolution of sexual deception. New Phytologist, 2014, 203, 939-952.	3.5	93
21	Structureâ€"Function Analysis of SMAX1 Reveals Domains That Mediate Its Karrikin-Induced Proteolysis and Interaction with the Receptor KAI2. Plant Cell, 2020, 32, 2639-2659.	3.1	90
22	Preparation of 2H-Furo[2,3-c]pyran-2-one Derivatives and Evaluation of Their Germination-Promoting Activity. Journal of Agricultural and Food Chemistry, 2007, 55, 2189-2194.	2.4	84
23	What are karrikins and how were they â€˜discoveredâ€™ by plants?. BMC Biology, 2015, 13, 108.	1.7	84
24	Pollination by sexual deception â€" it takes chemistry to work. Current Opinion in Plant Biology, 2016, 32, 37-46.	3.5	84
25	Exploring the molecular mechanism of karrikins and strigolactones. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 3743-3746.	1.0	78
26	Complex Sexual Deception in an Orchid Is Achieved by Co-opting Two Independent Biosynthetic Pathways for Pollinator Attraction. Current Biology, 2017, 27, 1867-1877.e5.	1.8	67
27	Substrate-Induced Degradation of the Î±/Î²-Fold Hydrolase KARRIKIN INSENSITIVE2 Requires a Functional Catalytic Triad but Is Independent of MAX2. Molecular Plant, 2015, 8, 814-817.	3.9	63
28	The origins and mechanisms of karrikin signalling. Current Opinion in Plant Biology, 2013, 16, 667-673.	3.5	55
29	The Structure of the Karrikin-Insensitive Protein (KAI2) in Arabidopsis thaliana. PLoS ONE, 2013, 8, e54758.	1.1	54
30	The Discovery of 2-Hydroxymethyl-3-(3-methylbutyl)-5-methylpyrazine: A Semiochemical in Orchid Pollination. Organic Letters, 2012, 14, 2576-2578.	2.4	53
31	Discovery of Tetrasubstituted Pyrazines As Semiochemicals in a Sexually Deceptive Orchid. Journal of Natural Products, 2012, 75, 1589-1594.	1.5	49
32	Reporter Gene-Facilitated Detection of Compounds in Arabidopsis Leaf Extracts that Activate the Karrikin Signaling Pathway. Frontiers in Plant Science, 2016, 7, 1799.	1.7	48
33	Karrikins Identified in Biochars Indicate Post-Fire Chemical Cues Can Influence Community Diversity and Plant Development. PLoS ONE, 2016, 11, e0161234.	1.1	48
34	An allelic series at the <i><scp>KARRIKIN INSENSITIVE</scp>Â2</i> locus of <i>Arabidopsis thaliana</i> decouples ligand hydrolysis and receptor degradation from downstream signalling. Plant Journal, 2018, 96, 75-89.	2.8	41
35	Production of the Seed Germination Stimulant Karrikinolide from Combustion of Simple Carbohydrates. Journal of Agricultural and Food Chemistry, 2011, 59, 1195-1198.	2.4	37
36	Structureâ^'Activity Relationship of Karrikin Germination Stimulants. Journal of Agricultural and Food Chemistry, 2010, 58, 8612-8617.	2.4	35

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37	Antimicrobial Activity of Several Cineole-Rich Western Australian Eucalyptus Essential Oils. Microorganisms, 2018, 6, 122.	1.6	33
38	The Spider Orchid <i>Caladenia crebra</i> Produces Sulfurous Pheromone Mimics to Attract its Male Wasp Pollinator. Angewandte Chemie - International Edition, 2017, 56, 8455-8458.	7.2	31
39	Hit-to-Lead Optimization of a Novel Class of Potent, Broad-Spectrum Trypanosomacides. Journal of Medicinal Chemistry, 2016, 59, 9686-9720.	2.9	30
40	Crambescidin 800, Isolated from the Marine Sponge Monanchora viridis, Induces Cell Cycle Arrest and Apoptosis in Triple-Negative Breast Cancer Cells. Marine Drugs, 2018, 16, 53.	2.2	30
41	Divergent receptor proteins confer responses to different karrikins in two ephemeral weeds. Nature Communications, 2020, 11, 1264.	5.8	29
42	Desmethyl butenolides are optimal ligands for karrikin receptor proteins. New Phytologist, 2021, 230, 1003-1016.	3.5	29
43	Karrikins force a rethink of strigolactone mode of action. Plant Signaling and Behavior, 2012, 7, 969-972.	1.2	21
44	Aurantoside C Targets and Induces Apoptosis in Triple Negative Breast Cancer Cells. Marine Drugs, 2018, 16, 361.	2.2	19
45	An unusual tricosatriene is crucial for male fungus gnat attraction and exploitation by sexually deceptive Pterostylis orchids. Current Biology, 2021, 31, 1954-1961.e7.	1.8	19
46	Antibacterial compounds from the Australian native plant Eremophila glabra. FÃ¬toterapÃ¬Ã¢, 2018, 126, 45-52.	1.1	16
47	The synthesis and biological evaluation of labelled karrikinolides for the elucidation of the mode of action of the seed germination stimulant. Tetrahedron, 2011, 67, 152-157.	1.0	14
48	Structure Reassignment of Echinosulfone A and the Echinosulfonic Acids Aâ€“D Supported by Single-Crystal X-ray Diffraction and Density Functional Theory Analysis. Journal of Natural Products, 2020, 83, 105-110.	1.5	14
49	Investigation of volatile organic biomarkers derived from Plasmodium falciparum in vitro. Malaria Journal, 2012, 11, 314.	0.8	13
50	A new selective fluorescent probe based on tamoxifen. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 4879-4883.	1.0	13
51	A Specific Blend of Drakolide and Hydroxymethylpyrazines: An Unusual Pollinator Sexual Attractant Used by the Endangered Orchid <i>Drakaea micrantha</i>. Angewandte Chemie - International Edition, 2020, 59, 1124-1128.	7.2	13
52	(Methylthio)phenol semiochemicals are exploited by deceptive orchids as sexual attractants for Campylothynnus thynnine wasps. FÃ¬toterapÃ¬Ã¢, 2018, 126, 78-82.	1.1	12
53	Albanitriles Aâ€“G: Antiprotozoal Polyacetylene Nitriles from a <i>Mycale</i> Marine Sponge. Journal of Natural Products, 2019, 82, 3450-3455.	1.5	12
54	Access to 1,2,3,4-Tetraoxygenated Benzenes via a Double Baeyerâ€“Villiger Reaction of Quinizarin Dimethyl Ether: Application to the Synthesis of Bioactive Natural Products from <i>Antrodia camphorata</i>. Journal of Organic Chemistry, 2016, 81, 3127-3135.	1.7	11

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55	Identification of the Cat Attractants Isodihydronepetalactone and Isoiridomyrmecin from Acalypha indica. Australian Journal of Chemistry, 2016, 69, 169.	0.5	11
56	2-(Tetrahydrofuran-2-yl)acetic Acid and Ester Derivatives as Long-Range Pollinator Attractants in the Sexually Deceptive Orchid Cryptostylis ovata. Journal of Natural Products, 2019, 82, 1107-1113.	1.5	11
57	Structure-Activity Studies of Semiochemicals from the Spider Orchid Caladenia plicata for Sexual Deception. Journal of Chemical Ecology, 2018, 44, 436-443.	0.9	9
58	Pyroxasulfone-Resistant Annual Ryegrass (<i>Lolium rigidum</i>) Has Enhanced Capacity for Glutathione Transferase-Mediated Pyroxasulfone Conjugation. Journal of Agricultural and Food Chemistry, 2021, 69, 6414-6422.	2.4	9
59	Assaying Germination and Seedling Responses of Arabidopsis to Karrikins. Methods in Molecular Biology, 2017, 1497, 29-36.	0.4	9
60	Bioactive fractions from the pasture legume Biserrula pelecinus L. have an anti-methanogenic effect against key rumen methanogens. Anaerobe, 2016, 39, 173-182.	1.0	8
61	Solar irradiation of the seed germination stimulant karrikinolide produces two novel head-to-head cage dimers. Organic and Biomolecular Chemistry, 2012, 10, 4069.	1.5	7
62	Investigation of an Unusual Crystal Habit of Hydrochlorothiazide Reveals Large Polar Enantiopure Domains and a Possible Crystal Nucleation Mechanism. Angewandte Chemie - International Edition, 2019, 58, 10255-10259.	7.2	7
63	Floral Volatiles for Pollinator Attraction and Speciation in Sexually Deceptive Orchids. , 2020, , 271-295.		7
64	Identification of hydroxymethylpyrazines using mass spectrometry. Journal of Mass Spectrometry, 2015, 50, 987-993.	0.7	5
65	Investigation of an Unusual Crystal Habit of Hydrochlorothiazide Reveals Large Polar Enantiopure Domains and a Possible Crystal Nucleation Mechanism. Angewandte Chemie, 2019, 131, 10361-10365.	1.6	5
66	Three Chemically Distinct Floral Ecotypes in Drakaea livida, an Orchid Pollinated by Sexual Deception of Thynnine Wasps. Plants, 2022, 11, 260.	1.6	5
67	Sharing of Pyrazine Semiochemicals between Genera of Sexually Deceptive Orchids. Natural Product Communications, 2013, 8, 1934578X1300800.	0.2	3
68	A Merry Dance Across the Ï€-Cloud: Tracking the Transformation of a 2,7-Substituted Dihydropyrene Through a Thermally Stimulated Single-Crystal-to-Single-Crystal Reaction. Crystal Growth and Design, 0, , .	1.4	2
69	Drakolide Structure-activity Relationships for Sexual Attraction of Zeleboria Wasp Pollinator. Journal of Chemical Ecology, 2022, 48, 323-336.	0.9	2
70	A Specific Blend of Drakolide and Hydroxymethylpyrazines: An Unusual Pollinator Sexual Attractant Used by the Endangered Orchid <i>Drakaea micrantha</i>. Angewandte Chemie, 2020, 132, 1140-1144.	1.6	1