Yukihiro Sugimoto

List of Publications by Year
in descending order

71 papers	2,458 citations	218662 26 h-index	223791 46 g-index
72 all docs	72 docs citations	72 times ranked	1784 citing authors

#	Article	IF	Citations
1	Nitrogen deficiency as well as phosphorus deficiency in sorghum promotes the production and exudation of 5-deoxystrigol, the host recognition signal for arbuscular mycorrhizal fungi and root parasites. Planta, 2007, 227, 125-132.	3.2	353
2	Generation of Î±-solanine-free hairy roots of potato by CRISPR/Cas9 mediated genome editing of the St16DOX gene. Plant Physiology and Biochemistry, 2018, 131, 70-77.	5.8	150
3	Heliolactone, a non-sesquiterpene lactone germination stimulant for root parasitic weeds from sunflower. Phytochemistry, 2014, 108, 122-128.	2.9	122
4	Direct conversion of carlactonoic acid to orobanchol by cytochrome P450 CYP722C in strigolactone biosynthesis. Science Advances, 2019, 5, eaax9067.	10.3	122
5	Practicality of the suicidal germination approach for controlling <i>Striga hermonthica</i>. Pest Management Science, 2016, 72, 2035-2042.	3.4	91
6	Synthesis of All Eight Stereoisomers of the Germination Stimulant Sorgolactone. Journal of Organic Chemistry, 1998, 63, 1259-1267.	3.2	90
7	Biosynthetic considerations could assist the structure elucidation of host plant produced rhizosphere signalling compounds (strigolactones) for arbuscular mycorrhizal fungi and parasitic plants. Plant Physiology and Biochemistry, 2008, 46, 617-626.	5.8	83
8	<i>Ent</i>-2â€²-<i>epi</i>-Orobanchol and Its Acetate, As Germination Stimulants for <i>Striga gesnerioides</i> Seeds Isolated from Cowpea and Red Clover. Journal of Agricultural and Food Chemistry, 2011, 59, 10485-10490.	5.2	82
9	Sorgomol, germination stimulant for root parasitic plants, produced by Sorghum bicolor. Tetrahedron Letters, 2008, 49, 2066-2068.	1.4	70
10	CYP722C from Gossypium arboreum catalyzes the conversion of carlactonoic acid to 5-deoxystrigol. Planta, 2020, 251, 97.	3.2	69
11	Germination strategy of Striga hermonthica involves regulation of ethylene biosynthesis. Physiologia Plantarum, 2003, 119, 137-145.	5.2	63
12	Damage to photosystem II due to heat stress without light-driven electron flow: involvement of enhanced introduction of reducing power into thylakoid membranes. Planta, 2012, 236, 753-761.	3.2	63
13	Structural requirements of strigolactones for germination induction and inhibition of Striga gesnerioides seeds. Plant Cell Reports, 2013, 32, 829-838.	5.6	59
14	Synthesis and Seed Germination Stimulating Activity of Some Imino Analogs of Strigolactones. Bioscience, Biotechnology and Biochemistry, 2007, 71, 2781-2786.	1.3	57
15	A Dioxygenase Catalyzes Steroid 16Î±-Hydroxylation in Steroidal Glycoalkaloid Biosynthesis. Plant Physiology, 2017, 175, 120-133.	4.8	52
16	(+)-Strigol, a witchweed seed germination stimulant, from Menispermum dauricum root culture. Phytochemistry, 2003, 62, 1115-1119.	2.9	47
17	Evidence for species-dependent biosynthetic pathways for converting carlactone to strigolactones in plants. Journal of Experimental Botany, 2018, 69, 2305-2318.	4.8	43
18	Structural Requirements of Strigolactones for Germination Induction of Striga gesnerioides Seeds. Journal of Agricultural and Food Chemistry, 2011, 59, 9226-9231.	5.2	39

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19	Chlorinated Alkaloids inMenispermum dauricumDC. Root Culture. Journal of Organic Chemistry, 2001, 66, 3299-3302.	3.2	38
20	Production of (+)-5-deoxystrigol by Lotus japonicus root culture. Phytochemistry, 2008, 69, 212-217.	2.9	35
21	Identification of a 3Î²-Hydroxysteroid Dehydrogenase/ 3-Ketosteroid Reductase Involved in Î±-Tomatine Biosynthesis in Tomato. Plant and Cell Physiology, 2019, 60, 1304-1315.	3.1	33
22	Planteose as a storage carbohydrate required for early stage of germination of Orobanche minor and its metabolism as a possible target for selective control. Journal of Experimental Botany, 2015, 66, 3085-3097.	4.8	32
23	Synthetic disproof of the structure proposed for solanacol, the germination stimulant for seeds of root parasitic weeds. Tetrahedron Letters, 2009, 50, 4549-4551.	1.4	31
24	Dechloroacutumine from cultured roots of menispermum dauricum. Phytochemistry, 1998, 49, 1293-1297.	2.9	30
25	Molecular responses of Lotus japonicus to parasitism by the compatible species Orobanche aegyptiaca and the incompatible species Striga hermonthica. Journal of Experimental Botany, 2009, 60, 641-650.	4.8	30
26	The bioconversion of 5-deoxystrigol to sorgomol by the sorghum, Sorghum bicolor (L.) Moench. Phytochemistry, 2013, 93, 41-48.	2.9	30
27	Identification and characterization of sorgomol synthase in sorghum strigolactone biosynthesis. Plant Physiology, 2021, 185, 902-913.	4.8	30
28	Aberrant protein phosphatase 2C leads to abscisic acid insensitivity and high transpiration in parasitic Striga. Nature Plants, 2019, 5, 258-262.	9.3	29
29	Identification of Î±-Tomatine 23-Hydroxylase Involved in the Detoxification of a Bitter Glycoalkaloid. Plant and Cell Physiology, 2020, 61, 21-28.	3.1	29
30	Recent research progress in combatting root parasitic weeds. Biotechnology and Biotechnological Equipment, 2018, 32, 221-240.	1.3	28
31	The biosynthetic pathway of potato solanidanes diverged from that of spirosolanes due to evolution of a dioxygenase. Nature Communications, 2021, 12, 1300.	12.8	25
32	Identification of Striga hermonthica-Resistant Upland Rice Varieties in Sudan and Their Resistance Phenotypes. Frontiers in Plant Science, 2016, 7, 634.	3.6	24
33	Conditioning period, CO2 and GR24 influence ethylene biosynthesis and germination of Striga hermonthica. Physiologia Plantarum, 2000, 109, 75-80.	5.2	23
34	Characterization of steroid 5Î±-reductase involved in Î±-tomatine biosynthesis in tomatoes. Plant Biotechnology, 2019, 36, 253-263.	1.0	22
35	Bioconversion of 5-deoxystrigol stereoisomers to monohydroxylated strigolactones by plants. Journal of Pesticide Sciences, 2018, 43, 198-206.	1.4	21
36	Reactions of Lotus japonicus ecotypes and mutants to root parasitic plants. Journal of Plant Physiology, 2009, 166, 353-362.	3.5	20

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37	The genuine structure of alectrol: end of a long controversy. Phytochemistry Reviews, 2015, 14, 835-847.	6.5	20
38	Molecular Responses of Sorghum to Purple Witchweed (<i>Striga hermonthica</i>) Parasitism. Weed Science, 2008, 56, 356-363.	1.5	19
39	Dauricine production in cultured roots of Menispermum dauricum. Phytochemistry, 1994, 36, 679-683.	2.9	18
40	Specific methylation of (11R)-carlactonoic acid by an Arabidopsis SABATH methyltransferase. Planta, 2021, 254, 88.	3.2	18
41	Dechlorodauricumine from cultured roots of Menispermum dauricum. Phytochemistry, 2005, 66, 2627-2631.	2.9	17
42	First synthesis of (Â±)-sorgomol, the germination stimulant for root parasitic weeds isolated from Sorghum bicolor. Tetrahedron Letters, 2011, 52, 724-726.	1.4	15
43	Biosynthetic Relationship between Acutumine and Dechloroacutumine inMenispermum dauricumRoot Cultures. Bioscience, Biotechnology and Biochemistry, 1999, 63, 515-518.	1.3	14
44	Tomato <i>E8</i> Encodes a C-27 Hydroxylase in Metabolic Detoxification of Î±-Tomatine during Fruit Ripening. Plant and Cell Physiology, 2021, 62, 775-783.	3.1	14
45	Vestitol as a Chemical Barrier against Intrusion of Parasitic Plant<i>Striga hermonthica</i>into<i>Lotus japonicus</i>Roots. Bioscience, Biotechnology and Biochemistry, 2010, 74, 1662-1667.	1.3	13
46	Regulation of Photochemical Energy Transfer Accompanied by Structural Changes in Thylakoid Membranes of Heat-Stressed Wheat. International Journal of Molecular Sciences, 2014, 15, 23042-23058.	4.1	12
47	Conversion of dechlorodauricumine into chlorinated alkaloids in Menispermum dauricum root culture. Phytochemistry, 2007, 68, 493-498.	2.9	10
48	Hatching stimulation activity of steroidal glycoalkaloids toward the potato cyst nematode, <i>Globodera rostochiensis</i>. Plant Biotechnology, 2020, 37, 319-325.	1.0	10
49	Structure Elucidation and Biosynthesis of Orobanchol. Frontiers in Plant Science, 2022, 13, 835160.	3.6	10
50	Regioselective and stereospecific hydroxylation of GR24 by Sorghum bicolor and evaluation of germination inducing activities of hydroxylated GR24 stereoisomers toward seeds of Striga species. Bioorganic and Medicinal Chemistry, 2015, 23, 6100-6110.	3.0	9
51	Conversion of methyl carlactonoate to heliolactone in sunflower. Natural Product Research, 2022, 36, 2215-2222.	1.8	9
52	Concise synthesis of heliolactone, a non-canonical strigolactone isolated from sunflower. Bioscience, Biotechnology and Biochemistry, 2020, 84, 1113-1118.	1.3	9
53	Essential role of the PSIâ€“LHCII supercomplex in photosystem acclimation to light and/or heat conditions by state transitions. Photosynthesis Research, 2017, 131, 41-50.	2.9	8
54	Studies on strigolactone BC-ring formation: Chemical conversion of an 18-hydroxycarlactonoate derivative into racemic 4-deoxyorobanchol/5-deoxystrigol via the acid-mediated cascade cyclization. Tetrahedron Letters, 2021, 68, 152922.	1.4	8

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55	Germination stimulatory activity of bacterial butenolide hormones from <i>Streptomyces albus</i> J1074 on seeds of the root parasitic weed <i>Orobanche minor</i>. Journal of Pesticide Sciences, 2021, 46, 242-247.	1.4	8
56	Synthesis of 7-Oxo-5-deoxystrigol, a 7-Oxygenated Strigolactone Analog. Bioscience, Biotechnology and Biochemistry, 2013, 77, 832-835.	1.3	7
57	Characterization of Câ€26 aminotransferase, indispensable for steroidal glycoalkaloid biosynthesis. Plant Journal, 2021, 108, 81-92.	5.7	7
58	How does <i>Striga hermonthica</i> Bewitch its hosts?. Plant Signaling and Behavior, 2019, 14, 1605810.	2.4	6
59	Enhanced production of nojirimycin <i>via</i> <i>Streptomyces ficellus</i> cultivation using marine broth and inhibitory activity of the culture for seeds of parasitic weeds. Journal of Pesticide Sciences, 2017, 42, 166-171.	1.4	5
60	The effect of nojirimycin on the transcriptome of germinating <i>Orobanche minor</i> seeds. Journal of Pesticide Sciences, 2020, 45, 230-237.	1.4	5
61	Involvement of Î±-galactosidase OmAGAL2 in planteose hydrolysis during seed germination of <i>Orobanche minor</i>. Journal of Experimental Botany, 2022, 73, 1992-2004.	4.8	5
62	Tandem Gene Duplication of Dioxygenases Drives the Structural Diversity of Steroidal Glycoalkaloids in the Tomato Clade. Plant and Cell Physiology, 2022, 63, 981-990.	3.1	5
63	Stereospecific reduction of the butenolide in strigolactones in plants. Bioorganic and Medicinal Chemistry, 2018, 26, 4225-4233.	3.0	4
64	Synthesis of racemic orobanchols via acid-mediated cascade cyclization: Insight into the process of BC-ring formation in strigolactone biosynthesis. Tetrahedron Letters, 2021, 85, 153469.	1.4	3
65	Conversion of Dechlorodauricumine into Miharumine by a Cell-Free Preparation from Cultured Roots ofMenispermum dauricum. Bioscience, Biotechnology and Biochemistry, 2009, 73, 440-442.	1.3	2
66	Improvement of Food Security in Semiarid Regions of Sudan Through Management of Root Parasitic Weeds. , 2018, , 159-175.		1
67	Isolation and Identification of Naturally Occurring Strigolactones. Methods in Molecular Biology, 2021, 2309, 13-23.	0.9	1
68	Identification of 6-<i>epi</i>-heliolactone as a biosynthetic precursor of avenaol in <i>Avena strigosa</i>. Bioscience, Biotechnology and Biochemistry, 2022, , .	1.3	1
69	Root Parasitic Weeds, a Potential Risk to Japanese Agriculture and Plausible Management Practices Based on Their Life Cycles. Trends in the Sciences, 2016, 21, 8_18-8_23.	0.0	0
70	å…¸åž‹çš„ã‚¹ãƒˆãƒªã‚´ãƒ©ã‚¯ãƒˆãƒ³ã®ç”Ÿåˆæˆ. Kagaku To Seibutsu, 2020, 58, 628-634.	0.0	0
71	Structural and configurational diversity of strigolactones. Japanese Journal of Pesticide Science, 2021, 46, 136-142.	0.0	0