

# Yukihiro Sugimoto

## List of Publications by Citations

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68

papers

1,724

citations

24

h-index

40

g-index

72

ext. papers

2,082

ext. citations

4.3

avg, IF

4.62

L-index

#	Paper	IF	Citations
68	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. <i>Planta</i> , <b>2007</b> , 227, 125-32	4.7	289
67	Heliolactone, a non-sesquiterpene lactone germination stimulant for root parasitic weeds from sunflower. <i>Phytochemistry</i> , <b>2014</b> , 108, 122-8	4	89
66	Generation of $\beta$ -solanine-free hairy roots of potato by CRISPR/Cas9 mediated genome editing of the St16DOX gene. <i>Plant Physiology and Biochemistry</i> , <b>2018</b> , 131, 70-77	5.4	86
65	Biosynthetic considerations could assist the structure elucidation of host plant produced rhizosphere signalling compounds (strigolactones) for arbuscular mycorrhizal fungi and parasitic plants. <i>Plant Physiology and Biochemistry</i> , <b>2008</b> , 46, 617-626	5.4	77
64	Synthesis of All Eight Stereoisomers of the Germination Stimulant Sorgolactone. <i>Journal of Organic Chemistry</i> , <b>1998</b> , 63, 1259-1267	4.2	75
63	Ent-2Sepi-Orobanchol and its acetate, as germination stimulants for <i>Striga gesnerioides</i> seeds isolated from cowpea and red clover. <i>Journal of Agricultural and Food Chemistry</i> , <b>2011</b> , 59, 10485-90	5.7	73
62	Sorgomol, germination stimulant for root parasitic plants, produced by <i>Sorghum bicolor</i> . <i>Tetrahedron Letters</i> , <b>2008</b> , 49, 2066-2068	2	62
61	Direct conversion of carlactonoic acid to orobanchol by cytochrome P450 CYP722C in strigolactone biosynthesis. <i>Science Advances</i> , <b>2019</b> , 5, eaax9067	14.3	52
60	Practicality of the suicidal germination approach for controlling <i>Striga hermonthica</i> . <i>Pest Management Science</i> , <b>2016</b> , 72, 2035-2042	4.6	50
59	Synthesis and seed germination stimulating activity of some imino analogs of strigolactones. <i>Bioscience, Biotechnology and Biochemistry</i> , <b>2007</b> , 71, 2781-6	2.1	50
58	Structural requirements of strigolactones for germination induction and inhibition of <i>Striga gesnerioides</i> seeds. <i>Plant Cell Reports</i> , <b>2013</b> , 32, 829-38	5.1	46
57	Germination strategy of <i>Striga hermonthica</i> involves regulation of ethylene biosynthesis. <i>Physiologia Plantarum</i> , <b>2003</b> , 119, 137-145	4.6	46
56	Damage to photosystem II due to heat stress without light-driven electron flow: involvement of enhanced introduction of reducing power into thylakoid membranes. <i>Planta</i> , <b>2012</b> , 236, 753-61	4.7	42
55	(+)-Strigol, a witchweed seed germination stimulant, from <i>Menispermum dauricum</i> root culture. <i>Phytochemistry</i> , <b>2003</b> , 62, 1115-9	4	40
54	A Dioxygenase Catalyzes Steroid 16 $\beta$ -Hydroxylation in Steroidal Glycoalkaloid Biosynthesis. <i>Plant Physiology</i> , <b>2017</b> , 175, 120-133	6.6	37
53	Chlorinated alkaloids in <i>Menispermum dauricum</i> DC: root culture. <i>Journal of Organic Chemistry</i> , <b>2001</b> , 66, 3299-302	4.2	33
52	Structural requirements of strigolactones for germination induction of <i>Striga gesnerioides</i> seeds. <i>Journal of Agricultural and Food Chemistry</i> , <b>2011</b> , 59, 9226-31	5.7	32

51	Production of (+)-5-deoxystrigol by <i>Lotus japonicus</i> root culture. <i>Phytochemistry</i> , <b>2008</b> , 69, 212-7	4	32
50	Evidence for species-dependent biosynthetic pathways for converting carlactone to strigolactones in plants. <i>Journal of Experimental Botany</i> , <b>2018</b> , 69, 2305-2318	7	31
49	Synthetic disproof of the structure proposed for solanacol, the germination stimulant for seeds of root parasitic weeds. <i>Tetrahedron Letters</i> , <b>2009</b> , 50, 4549-4551	2	31
48	CYP722C from <i>Gossypium arboreum</i> catalyzes the conversion of carlactonoic acid to 5-deoxystrigol. <i>Planta</i> , <b>2020</b> , 251, 97	4.7	29
47	Molecular responses of <i>Lotus japonicus</i> to parasitism by the compatible species <i>Orobanche aegyptiaca</i> and the incompatible species <i>Striga hermonthica</i> . <i>Journal of Experimental Botany</i> , <b>2009</b> , 60, 641-50	7	27
46	Dechloroacutumine from cultured roots of <i>menispermum dauricum</i> . <i>Phytochemistry</i> , <b>1998</b> , 49, 1293-1297		25
45	The bioconversion of 5-deoxystrigol to sorgomol by the sorghum, <i>Sorghum bicolor</i> (L.) Moench. <i>Phytochemistry</i> , <b>2013</b> , 93, 41-8	4	24
44	Aberrant protein phosphatase 2C leads to abscisic acid insensitivity and high transpiration in parasitic <i>Striga</i> . <i>Nature Plants</i> , <b>2019</b> , 5, 258-262	11.5	19
43	Reactions of <i>Lotus japonicus</i> ecotypes and mutants to root parasitic plants. <i>Journal of Plant Physiology</i> , <b>2009</b> , 166, 353-62	3.6	19
42	The genuine structure of alectrol: end of a long controversy. <i>Phytochemistry Reviews</i> , <b>2015</b> , 14, 835-847	7.7	18
41	Conditioning period, CO <sub>2</sub> and GR24 influence ethylene biosynthesis and germination of <i>Striga hermonthica</i> . <i>Physiologia Plantarum</i> , <b>2000</b> , 109, 75-80	4.6	18
40	Identification of <i>Striga hermonthica</i> -Resistant Upland Rice Varieties in Sudan and Their Resistance Phenotypes. <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 634	6.2	18
39	Planteose as a storage carbohydrate required for early stage of germination of <i>Orobanche minor</i> and its metabolism as a possible target for selective control. <i>Journal of Experimental Botany</i> , <b>2015</b> , 66, 3085-97	7	17
38	Dauricine production in cultured roots of <i>Menispermum dauricum</i> . <i>Phytochemistry</i> , <b>1994</b> , 36, 679-683	4	17
37	Identification of a $\beta$ -Hydroxysteroid Dehydrogenase/ $\beta$ -Ketosteroid Reductase Involved in $\beta$ -Tomatine Biosynthesis in Tomato. <i>Plant and Cell Physiology</i> , <b>2019</b> , 60, 1304-1315	4.9	16
36	Molecular Responses of Sorghum to Purple Witchweed ( <i>Striga hermonthica</i> ) Parasitism. <i>Weed Science</i> , <b>2008</b> , 56, 356-363	2	16
35	Recent research progress in combatting root parasitic weeds. <i>Biotechnology and Biotechnological Equipment</i> , <b>2018</b> , 32, 221-240	1.6	14
34	Dechlorodauricumine from cultured roots of <i>Menispermum dauricum</i> . <i>Phytochemistry</i> , <b>2005</b> , 66, 2627-314		14

33	Bioconversion of 5-deoxystrigol stereoisomers to monohydroxylated strigolactones by plants. <i>Journal of Pesticide Sciences</i> , <b>2018</b> , 43, 198-206	2.7	13
32	First synthesis of (11)-sorgomol, the germination stimulant for root parasitic weeds isolated from <i>Sorghum bicolor</i> . <i>Tetrahedron Letters</i> , <b>2011</b> , 52, 724-726	2	13
31	Regulation of photochemical energy transfer accompanied by structural changes in thylakoid membranes of heat-stressed wheat. <i>International Journal of Molecular Sciences</i> , <b>2014</b> , 15, 23042-58	6.3	12
30	Biosynthetic Relationship between Acutumine and Dechloroacutumine in <i>Menispermum dauricum</i> Root Cultures. <i>Bioscience, Biotechnology and Biochemistry</i> , <b>1999</b> , 63, 515-8	2.1	11
29	Identification of $\beta$ -Tomatine 23-Hydroxylase Involved in the Detoxification of a Bitter Glycoalkaloid. <i>Plant and Cell Physiology</i> , <b>2020</b> , 61, 21-28	4.9	10
28	The biosynthetic pathway of potato solanidanes diverged from that of spirosolanes due to evolution of a dioxygenase. <i>Nature Communications</i> , <b>2021</b> , 12, 1300	17.4	10
27	Vestitol as a chemical barrier against intrusion of parasitic plant <i>Striga hermonthica</i> into <i>Lotus japonicus</i> roots. <i>Bioscience, Biotechnology and Biochemistry</i> , <b>2010</b> , 74, 1662-7	2.1	9
26	Conversion of dechlorodauricumine into chlorinated alkaloids in <i>Menispermum dauricum</i> root culture. <i>Phytochemistry</i> , <b>2007</b> , 68, 493-8	4	9
25	Characterization of steroid 5 $\beta$ -reductase involved in $\beta$ -tomatine biosynthesis in tomatoes. <i>Plant Biotechnology</i> , <b>2019</b> , 36, 253-263	1.3	9
24	Identification and characterization of sorgomol synthase in sorghum strigolactone biosynthesis. <i>Plant Physiology</i> , <b>2021</b> , 185, 902-913	6.6	8
23	Synthesis of 7-oxo-5-deoxystrigol, a 7-oxygenated strigolactone analog. <i>Bioscience, Biotechnology and Biochemistry</i> , <b>2013</b> , 77, 832-5	2.1	7
22	Regioselective and stereospecific hydroxylation of GR24 by <i>Sorghum bicolor</i> and evaluation of germination inducing activities of hydroxylated GR24 stereoisomers toward seeds of <i>Striga</i> species. <i>Bioorganic and Medicinal Chemistry</i> , <b>2015</b> , 23, 6100-10	3.4	6
21	Concise synthesis of heliolactone, a non-canonical strigolactone isolated from sunflower. <i>Bioscience, Biotechnology and Biochemistry</i> , <b>2020</b> , 84, 1113-1118	2.1	6
20	Hatching stimulation activity of steroidal glycoalkaloids toward the potato cyst nematode. <i>Plant Biotechnology</i> , <b>2020</b> , 37, 319-325	1.3	6
19	Conversion of methyl carlactonoate to heliolactone in sunflower. <i>Natural Product Research</i> , <b>2020</b> , 1-8	2.3	5
18	Stereospecific reduction of the butenolide in strigolactones in plants. <i>Bioorganic and Medicinal Chemistry</i> , <b>2018</b> , 26, 4225-4233	3.4	4
17	Essential role of the PSI-LHCII supercomplex in photosystem acclimation to light and/or heat conditions by state transitions. <i>Photosynthesis Research</i> , <b>2017</b> , 131, 41-50	3.7	4
16	Specific methylation of (11R)-carlactonoic acid by an <i>Arabidopsis</i> SABATH methyltransferase. <i>Planta</i> , <b>2021</b> , 254, 88	4.7	4

15	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. <i>Tetrahedron Letters</i> , <b>2021</b> , 68, 152922	2	3
14	Tomato E8 Encodes a C-27 Hydroxylase in Metabolic Detoxification of $\beta$ -Tomatine during Fruit Ripening. <i>Plant and Cell Physiology</i> , <b>2021</b> , 62, 775-783	4.9	3
13	How does Bewitch its hosts?. <i>Plant Signaling and Behavior</i> , <b>2019</b> , 14, 1605810	2.5	2
12	Conversion of dechlorodauricumine into miharumine by a cell-free preparation from cultured roots of <i>Menispermum dauricum</i> . <i>Bioscience, Biotechnology and Biochemistry</i> , <b>2009</b> , 73, 440-2	2.1	1
11	Enhanced production of nojirimycin cultivation using marine broth and inhibitory activity of the culture for seeds of parasitic weeds. <i>Journal of Pesticide Sciences</i> , <b>2017</b> , 42, 166-171	2.7	1
10	The effect of nojirimycin on the transcriptome of germinating seeds. <i>Journal of Pesticide Sciences</i> , <b>2020</b> , 45, 230-237	2.7	1
9	Germination stimulatory activity of bacterial butenolide hormones from J1074 on seeds of the root parasitic weed. <i>Journal of Pesticide Sciences</i> , <b>2021</b> , 46, 242-247	2.7	1
8	Structure Elucidation and Biosynthesis of Orobanchol.. <i>Frontiers in Plant Science</i> , <b>2022</b> , 13, 835160	6.2	0
7	Synthesis of racemic orobanchols via acid-mediated cascade cyclization: Insight into the process of BC-ring formation in strigolactone biosynthesis. <i>Tetrahedron Letters</i> , <b>2021</b> , 153469	2	0
6	Isolation and Identification of Naturally Occurring Strigolactones. <i>Methods in Molecular Biology</i> , <b>2021</b> , 2309, 13-23	1.4	0
5	Characterization of C-26 aminotransferase, indispensable for steroidal glycoalkaloid biosynthesis. <i>Plant Journal</i> , <b>2021</b> , 108, 81-92	6.9	0
4	Improvement of Food Security in Semiarid Regions of Sudan Through Management of Root Parasitic Weeds <b>2018</b> , 159-175		
3	?????????????????. <i>Kagaku To Seibutsu</i> , <b>2020</b> , 58, 628-634	0	
2	Root Parasitic Weeds, a Potential Risk to Japanese Agriculture and Plausible Management Practices Based on Their Life Cycles. <i>Trends in the Sciences</i> , <b>2016</b> , 21, 8_18-8_23	0	
1	Structural and configurational diversity of strigolactones. <i>Japanese Journal of Pesticide Science</i> , <b>2021</b> , 46, 136-142	0	