

# Takaki Yamauchi

## List of Publications by Year in descending order

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Version: 2024-02-01

42  
papers

2,388  
citations

257450

24  
h-index

361022

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g-index

44  
all docs

44  
docs citations

44  
times ranked

2222  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms of lysigenous aerenchyma formation under abiotic stress. <i>Trends in Plant Science</i> , 2022, 27, 13-15.	8.8	22
2	Modeling-based age-dependent analysis reveals the net patterns of ethylene-dependent and -independent aerenchyma formation in rice and maize roots. <i>Plant Science</i> , 2022, 321, 111340.	3.6	7
3	Key root traits of Poaceae for adaptation to soil water gradients. <i>New Phytologist</i> , 2021, 229, 3133-3140.	7.3	49
4	Climate-smart crops: key root anatomical traits that confer flooding tolerance. <i>Breeding Science</i> , 2021, 71, 51-61.	1.9	24
5	Measurement of plant tissue porosity: I. Pycnometer method. <i>Root Research</i> , 2021, 30, 8-12.	0.1	0
6	Measurement of plant tissue porosity: II. Archimedes method. <i>Root Research</i> , 2021, 30, 41-45.	0.1	0
7	Measurement of plant tissue porosity: III. Cross-section method. <i>Root Research</i> , 2021, 30, 76-82.	0.1	1
8	Measurement of plant tissue porosity: IV. Characteristic and selection of each method. <i>Root Research</i> , 2021, 30, 124-128.	0.1	0
9	Targeted gene disruption of <i>ATP synthases 6</i> and <i>6</i> in the mitochondrial genome of <i>Arabidopsis thaliana</i> by mitoTALENs. <i>Plant Journal</i> , 2020, 104, 1459-1471.	5.7	57
10	A Role for Auxin in Ethylene-Dependent Inducible Aerenchyma Formation in Rice Roots. <i>Plants</i> , 2020, 9, 610.	3.5	41
11	Distance-to-Time Conversion Using Gompertz Model Reveals Age-Dependent Aerenchyma Formation in Rice Roots. <i>Plant Physiology</i> , 2020, 183, 1424-1427.	4.8	12
12	Technologies for the understanding and control of biological phenomena in field-grown plants. <i>Ikushugaku Kenkyu</i> , 2020, 22, 75-82.	0.3	0
13	Fine control of aerenchyma and lateral root development through AUX/IAA- and ARF-dependent auxin signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 20770-20775.	7.1	107
14	Root Cortex Provides a Venue for Gas-Space Formation and Is Essential for Plant Adaptation to Waterlogging. <i>Frontiers in Plant Science</i> , 2019, 10, 259.	3.6	56
15	<i>OsPIN2</i> , which encodes a member of the auxin efflux carrier proteins, is involved in root elongation growth and lateral root formation patterns via the regulation of auxin distribution in rice. <i>Physiologia Plantarum</i> , 2018, 164, 216-225.	5.2	57
16	Regulation of Root Traits for Internal Aeration and Tolerance to Soil Waterlogging-Flooding Stress. <i>Plant Physiology</i> , 2018, 176, 1118-1130.	4.8	218
17	An NADPH Oxidase RBOH Functions in Rice Roots during Lysigenous Aerenchyma Formation under Oxygen-Deficient Conditions. <i>Plant Cell</i> , 2017, 29, 775-790.	6.6	195
18	<i>METALLOTHIONEIN</i> genes encoding ROS scavenging enzymes are down-regulated in the root cortex during inducible aerenchyma formation in rice. <i>Plant Signaling and Behavior</i> , 2017, 12, e1388976.	2.4	23

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19	Ethylene-dependent aerenchyma formation in adventitious roots is regulated differently in rice and maize. <i>Plant, Cell and Environment</i> , 2016, 39, 2145-2157.	5.7	65
20	Mechanisms of morphological adaptation of roots to waterlogging in gramineous plants. <i>Root Research</i> , 2015, 24, 23-35.	0.1	1
21	Transcript profiles in cortical cells of maize primary root during ethylene-induced lysigenous aerenchyma formation under aerobic conditions. <i>Annals of Botany</i> , 2015, 115, 879-894.	2.9	46
22	Gene Targeting in Crop Species with Effective Selection Systems. , 2015, , 91-111.		2
23	Ethylene Biosynthesis Is Promoted by Very-Long-Chain Fatty Acids during Lysigenous Aerenchyma Formation in Rice Roots. <i>Plant Physiology</i> , 2015, 169, 180-193.	4.8	46
24	The rice RCN11 gene encodes 1,2-xylosyltransferase and is required for plant responses to abiotic stresses and phytohormones. <i>Plant Science</i> , 2015, 236, 75-88.	3.6	38
25	Gene Expression Profiles in <i>Jatropha</i> Under Drought Stress and During Recovery. <i>Plant Molecular Biology Reporter</i> , 2015, 33, 1075-1087.	1.8	9
26	Adventitious roots of wheat seedlings that emerge in oxygen-deficient conditions have increased root diameters with highly developed lysigenous aerenchyma. <i>Plant Signaling and Behavior</i> , 2014, 9, e28506.	2.4	24
27	Biochemical and molecular characterization of rice ( <i>Oryza</i> ) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 427 2014, 37, 2406-2420.	5.7	44
28	Ethylene and reactive oxygen species are involved in root aerenchyma formation and adaptation of wheat seedlings to oxygen-deficient conditions. <i>Journal of Experimental Botany</i> , 2014, 65, 261-273.	4.8	180
29	The MET1b gene encoding a maintenance DNA methyltransferase is indispensable for normal development in rice. <i>Plant Molecular Biology</i> , 2014, 85, 219-232.	3.9	62
30	Strigolactone and Cytokinin Act Antagonistically in Regulating Rice Mesocotyl Elongation in Darkness. <i>Plant and Cell Physiology</i> , 2014, 55, 30-41.	3.1	100
31	Microarray analysis of laser-microdissected tissues indicates the biosynthesis of suberin in the outer part of roots during formation of a barrier to radial oxygen loss in rice ( <i>Oryza sativa</i> ). <i>Journal of Experimental Botany</i> , 2014, 65, 4795-4806.	4.8	83
32	Aerenchyma Formation in Plants. <i>Plant Cell Monographs</i> , 2014, , 247-265.	0.4	55
33	Genetics and breeding for next generation II. <i>Ikushugaku Kenkyu</i> , 2014, 16, 86-92.	0.3	0
34	Aerenchyma formation in crop species: A review. <i>Field Crops Research</i> , 2013, 152, 8-16.	5.1	200
35	Genetics and breeding for next generation. <i>Ikushugaku Kenkyu</i> , 2013, 15, 115-121.	0.3	0
36	Screening of candidate genes associated with constitutive aerenchyma formation in adventitious roots of the teosinte <i>Zea nicaraguensis</i> . <i>Plant Root</i> , 2012, 6, 19-27.	0.3	7

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37	Mechanisms for coping with submergence and waterlogging in rice. <i>Rice</i> , 2012, 5, 2.	4.0	206
38	Identification of genes expressed in maize root cortical cells during lysigenous aerenchyma formation using laser microdissection and microarray analyses. <i>New Phytologist</i> , 2011, 190, 351-368.	7.3	185
39	Lysigenous aerenchyma formation in maize root is confined to cortical cells by regulation of genes related to generation and scavenging of reactive oxygen species. <i>Plant Signaling and Behavior</i> , 2011, 6, 759-761.	2.4	66
40	Homologous recombination-mediated knock-in targeting of the <i>MET1a</i> gene for a maintenance DNA methyltransferase reproducibly reveals dosage-dependent spatiotemporal gene expression in rice. <i>Plant Journal</i> , 2009, 60, 386-396.	5.7	53
41	Alternative splicing of the rice <i>OsMET1</i> genes encoding maintenance DNA methyltransferase. <i>Journal of Plant Physiology</i> , 2008, 165, 1774-1782.	3.5	37
42	Homologous Recombination-dependent Gene Targeting and an Active DNA Transposon nDart-promoted Gene Tagging for Rice Functional Genomics. <i>Biotechnology in Agriculture and Forestry</i> , 2008, , 81-94.	0.2	10