Takaki Yamauchi

List of Publications by Year
in descending order

42 papers	2,388 citations	257450 24 h-index	361022 35 g-index
44 all docs	44 docs citations	44 times ranked	2222 citing authors

#	Article	IF	Citations
1	Regulation of Root Traits for Internal Aeration and Tolerance to Soil Waterlogging-Flooding Stress. Plant Physiology, 2018, 176, 1118-1130.	4.8	218
2	Mechanisms for coping with submergence and waterlogging in rice. Rice, 2012, 5, 2.	4.0	206
3	Aerenchyma formation in crop species: A review. Field Crops Research, 2013, 152, 8-16.	5.1	200
4	An NADPH Oxidase RBOH Functions in Rice Roots during Lysigenous Aerenchyma Formation under Oxygen-Deficient Conditions. Plant Cell, 2017, 29, 775-790.	6.6	195
5	Identification of genes expressed in maize root cortical cells during lysigenous aerenchyma formation using laser microdissection and microarray analyses. New Phytologist, 2011, 190, 351-368.	7.3	185
6	Ethylene and reactive oxygen species are involved in root aerenchyma formation and adaptation of wheat seedlings to oxygen-deficient conditions. Journal of Experimental Botany, 2014, 65, 261-273.	4.8	180
7	Fine control of aerenchyma and lateral root development through AUX/IAA- and ARF-dependent auxin signaling. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20770-20775.	7.1	107
8	Strigolactone and Cytokinin Act Antagonistically in Regulating Rice Mesocotyl Elongation in Darkness. Plant and Cell Physiology, 2014, 55, 30-41.	3.1	100
9	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 (Oryza sativa). Journal of Experimental Botany, 2014, 65, 4795-4806.	4.8	83
10	Lysigenous aerenchyma formation in maize root is confined to cortical cells by regulation of genes related to generation and scavenging of reactive oxygen species. Plant Signaling and Behavior, 2011, 6, 759-761.	2.4	66
11	Ethyleneâ€dependent aerenchyma formation in adventitious roots is regulated differently in rice and maize. Plant, Cell and Environment, 2016, 39, 2145-2157.	5.7	65
12	The MET1b gene encoding a maintenance DNA methyltransferase is indispensable for normal development in rice. Plant Molecular Biology, 2014, 85, 219-232.	3.9	62
13	<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. Physiologia Plantarum, 2018, 164, 216-225.	5.2	57
14	Targeted gene disruption of <i>ATP synthases 6â€1</i> and <i>6â€2</i> in the mitochondrial genome of <i>Arabidopsis thaliana</i> by mitoTALENs. Plant Journal, 2020, 104, 1459-1471.	5.7	57
15	Root Cortex Provides a Venue for Gas-Space Formation and Is Essential for Plant Adaptation to Waterlogging. Frontiers in Plant Science, 2019, 10, 259.	3.6	56
16	Aerenchyma Formation in Plants. Plant Cell Monographs, 2014, , 247-265.	0.4	55
17	Homologous recombinationâ€mediated knockâ€in targeting of the <i>MET1a</i> gene for a maintenance DNA methyltransferase reproducibly reveals dosageâ€dependent spatiotemporal gene expression in rice. Plant Journal, 2009, 60, 386-396.	5.7	53
18	Key root traits of Poaceae for adaptation to soil water gradients. New Phytologist, 2021, 229, 3133-3140.	7.3	49

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19	Transcript profiles in cortical cells of maize primary root during ethylene-induced lysigenous aerenchyma formation under aerobic conditions. Annals of Botany, 2015, 115, 879-894.	2.9	46
20	Ethylene Biosynthesis Is Promoted by Very-Long-Chain Fatty Acids during Lysigenous Aerenchyma Formation in Rice Roots. Plant Physiology, 2015, 169, 180-193.	4.8	46
21	Biochemical and molecular characterization of rice (<scp><i>O</i></scp><i>ryza) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 667 Td 2014, 37, 2406-2420.	5.7	44
22	A Role for Auxin in Ethylene-Dependent Inducible Aerenchyma Formation in Rice Roots. Plants, 2020, 9, 610.	3.5	41
23	The rice RCN11 gene encodes Î²1,2-xylosyltransferase and is required for plant responses to abiotic stresses and phytohormones. Plant Science, 2015, 236, 75-88.	3.6	38
24	Alternative splicing of the rice OsMET1 genes encoding maintenance DNA methyltransferase. Journal of Plant Physiology, 2008, 165, 1774-1782.	3.5	37
25	Adventitious roots of wheat seedlings that emerge in oxygen-deficient conditions have increased root diameters with highly developed lysigenous aerenchyma. Plant Signaling and Behavior, 2014, 9, e28506.	2.4	24
26	Climate-smart crops: key root anatomical traits that confer flooding tolerance. Breeding Science, 2021, 71, 51-61.	1.9	24
27	<i>METALLOTHIONEIN</i> genes encoding ROS scavenging enzymes are down-regulated in the root cortex during inducible aerenchyma formation in rice. Plant Signaling and Behavior, 2017, 12, e1388976.	2.4	23
28	Mechanisms of lysigenous aerenchyma formation under abiotic stress. Trends in Plant Science, 2022, 27, 13-15.	8.8	22
29	Distance-to-Time Conversion Using Gompertz Model Reveals Age-Dependent Aerenchyma Formation in Rice Roots. Plant Physiology, 2020, 183, 1424-1427.	4.8	12
30	Homologous Recombination-dependent Gene Targeting and an Active DNA Transposon nDart-promoted Gene Tagging for Rice Functional Genomics. Biotechnology in Agriculture and Forestry, 2008, , 81-94.	0.2	10
31	Gene Expression Profiles in Jatropha Under Drought Stress and During Recovery. Plant Molecular Biology Reporter, 2015, 33, 1075-1087.	1.8	9
32	Screening of candidate genes associated with constitutive aerenchyma formation in adventitious roots of the teosinte Zea nicaraguensis. Plant Root, 2012, 6, 19-27.	0.3	7
33	Modeling-based age-dependent analysis reveals the net patterns of ethylene-dependent and -independent aerenchyma formation in rice and maize roots. Plant Science, 2022, 321, 111340.	3.6	7
34	Gene Targeting in Crop Species with Effective Selection Systems. , 2015, , 91-111.		2
35	Mechanisms of morphological adaptation of roots to waterlogging in gramineous plants. Root Research, 2015, 24, 23-35.	0.1	1
36	Measurement of plant tissue porosity: III. Cross-section method. Root Research, 2021, 30, 76-82.	0.1	1

#	Article	IF	Citations
37	Measurement of plant tissue porosity: I. Pycnometer method. Root Research, 2021, 30, 8-12.	0.1	0
38	Measurement of plant tissue porosity: II. Archimedes method. Root Research, 2021, 30, 41-45.	0.1	0
39	Genetics and breeding for next generation. Ikushugaku Kenkyu, 2013, 15, 115-121.	0.3	0
40	Genetics and breeding for next generation II. Ikushugaku Kenkyu, 2014, 16, 86-92.	0.3	0
41	Technologies for the understanding and control of biological phenomena in field-grown plants. Ikushugaku Kenkyu, 2020, 22, 75-82.	0.3	0
42	Measurement of plant tissue porosity: IV. Characteristic and selection of each method. Root Research, 2021, 30, 124-128.	0.1	0