

Kiminori Toyooka

List of Publications by Year in descending order

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115
papers

8,507
citations

76326

40
h-index

48315

88
g-index

125
all docs

125
docs citations

125
times ranked

15801
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of series of gateway binary vectors, pGWBs, for realizing efficient construction of fusion genes for plant transformation. <i>Journal of Bioscience and Bioengineering</i> , 2007, 104, 34-41.	2.2	1,492
2	Th17 Cell Induction by Adhesion of Microbes to Intestinal Epithelial Cells. <i>Cell</i> , 2015, 163, 367-380.	28.9	846
3	Ectopic colonization of oral bacteria in the intestine drives T _H 1 cell induction and inflammation. <i>Science</i> , 2017, 358, 359-365.	12.6	612
4	Contribution of NAC Transcription Factors to Plant Adaptation to Land. <i>Science</i> , 2014, 343, 1505-1508.	12.6	222
5	SNACs, stress-responsive NAC transcription factors, mediate ABA-inducible leaf senescence. <i>Plant Journal</i> , 2015, 84, 1114-1123.	5.7	202
6	A Chloroplastic UDP-Glucose Pyrophosphorylase from <i>Arabidopsis</i> Is the Committed Enzyme for the First Step of Sulfolipid Biosynthesis. <i>Plant Cell</i> , 2009, 21, 892-909.	6.6	199
7	The Ets transcription factor Spi-B is essential for the differentiation of intestinal microfold cells. <i>Nature Immunology</i> , 2012, 13, 729-736.	14.5	196
8	Multidrug and Toxic Compound Extrusion-Type Transporters Implicated in Vacuolar Sequestration of Nicotine in Tobacco Roots. <i>Plant Physiology</i> , 2009, 149, 708-718.	4.8	184
9	Regulation of Root Greening by Light and Auxin/Cytokinin Signaling in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2012, 24, 1081-1095.	6.6	180
10	Mass Transport of Proform of a Kdel-Tailed Cysteine Proteinase (Sh-EP) to Protein Storage Vacuoles by Endoplasmic Reticulum-Derived Vesicle Is Involved in Protein Mobilization in Germinating Seeds. <i>Journal of Cell Biology</i> , 2000, 148, 453-464.	5.2	174
11	Temporal and spatial changes in gene expression, metabolite accumulation and phytohormone content in rice seedlings grown under drought stress conditions. <i>Plant Journal</i> , 2017, 90, 61-78.	5.7	173
12	A Mobile Secretory Vesicle Cluster Involved in Mass Transport from the Golgi to the Plant Cell Exterior. <i>Plant Cell</i> , 2009, 21, 1212-1229.	6.6	172
13	EFC/F-BAR proteins and the N-WASP-WIP complex induce membrane curvature-dependent actin polymerization. <i>EMBO Journal</i> , 2008, 27, 2817-2828.	7.8	169
14	Closing Plant Stomata Requires a Homolog of an Aluminum-Activated Malate Transporter. <i>Plant and Cell Physiology</i> , 2010, 51, 354-365.	3.1	159
15	Novel regulation of MHC class II function in B cells. <i>EMBO Journal</i> , 2007, 26, 846-854.	7.8	158
16	The karrikin receptor KAI2 promotes drought resistance in <i>Arabidopsis thaliana</i> . <i>PLoS Genetics</i> , 2017, 13, e1007076.	3.5	140
17	Deficiency of Starch Synthase IIIa and IVb Alters Starch Granule Morphology from Polyhedral to Spherical in Rice Endosperm. <i>Plant Physiology</i> , 2016, 170, 1255-1270.	4.8	131
18	The Rice α -Amylase Glycoprotein Is Targeted from the Golgi Apparatus through the Secretory Pathway to the Plastids. <i>Plant Cell</i> , 2009, 21, 2844-2858.	6.6	128

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19	Subcellular membrane curvature mediated by the BAR domain superfamily proteins. <i>Seminars in Cell and Developmental Biology</i> , 2010, 21, 340-349.	5.0	126
20	Membrane-anchored prolyl hydroxylase with an export signal from the endoplasmic reticulum. <i>Plant Journal</i> , 2004, 41, 81-94.	5.7	120
21	Lysine Decarboxylase Catalyzes the First Step of Quinolizidine Alkaloid Biosynthesis and Coevolved with Alkaloid Production in Leguminosae. <i>Plant Cell</i> , 2012, 24, 1202-1216.	6.6	115
22	Quality control of plant peroxisomes in organ specific manner via autophagy. <i>Journal of Cell Science</i> , 2014, 127, 1161-8.	2.0	105
23	Protein Aggregates are Transported to Vacuoles by Macroautophagic Mechanism in Nutrient-Starved Plant Cells. <i>Autophagy</i> , 2006, 2, 96-106.	9.1	100
24	Photosynthesis of Root Chloroplasts Developed in Arabidopsis Lines Overexpressing GOLDEN2-LIKE Transcription Factors. <i>Plant and Cell Physiology</i> , 2013, 54, 1365-1377.	3.1	94
25	A Novel Plasma Membrane-Anchored Protein Regulates Xylem Cell-Wall Deposition through Microtubule-Dependent Lateral Inhibition of Rho GTPase Domains. <i>Current Biology</i> , 2017, 27, 2522-2528.e4.	3.9	91
26	A whole-cell electron tomography model of vacuole biogenesis in Arabidopsis root cells. <i>Nature Plants</i> , 2019, 5, 95-105.	9.3	89
27	Excessive ammonium assimilation by plastidic glutamine synthetase causes ammonium toxicity in Arabidopsis thaliana. <i>Nature Communications</i> , 2021, 12, 4944.	12.8	87
28	Cotyledon cells of Vigna mungo seedlings use at least two distinct autophagic machineries for degradation of starch granules and cellular components. <i>Journal of Cell Biology</i> , 2001, 154, 973-982.	5.2	86
29	Cytological and Biochemical Analysis of COF1, an Arabidopsis Mutant of an ABC Transporter Gene. <i>Plant and Cell Physiology</i> , 2007, 48, 1524-1533.	3.1	84
30	Role of galactolipid biosynthesis in coordinated development of photosynthetic complexes and thylakoid membranes during chloroplast biogenesis in Arabidopsis. <i>Plant Journal</i> , 2013, 73, 250-261.	5.7	76
31	Rhodococcus equi can survive a phagolysosomal environment in macrophages by suppressing acidification of the phagolysosome. <i>Journal of Medical Microbiology</i> , 2005, 54, 1007-1015.	1.8	72
32	Haustorial Hairs Are Specialized Root Hairs That Support Parasitism in the Facultative Parasitic Plant Phtheirospermum japonicum. <i>Plant Physiology</i> , 2016, 170, 1492-1503.	4.8	72
33	Synthesis of High-Molecular-Weight Polyhydroxyalkanoates by Marine Photosynthetic Purple Bacteria. <i>PLoS ONE</i> , 2016, 11, e0160981.	2.5	71
34	Mapping of the basic amino acid residues responsible for tubulation and cellular protrusion by the EFC/FacBAR domain of pacsin2/Syndapin II. <i>FEBS Letters</i> , 2010, 584, 1111-1118.	2.8	66
35	Comparative functional analyses of DWARF14 and KARRIKIN INSENSITIVE2 in drought adaptation of Arabidopsis thaliana. <i>Plant Journal</i> , 2020, 103, 111-127.	5.7	58
36	Cargo sorting zones in the trans-Golgi network visualized by super-resolution confocal live imaging microscopy in plants. <i>Nature Communications</i> , 2021, 12, 1901.	12.8	57

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37	Specific role of phosphatidylglycerol and functional overlaps with other thylakoid lipids in Arabidopsis chloroplast biogenesis. <i>Plant Cell Reports</i> , 2015, 34, 631-642.	5.6	54
38	Identifying New Components Participating in the Secondary Cell Wall Formation of Vessel Elements in Zinnia and Arabidopsis. <i>Plant Cell</i> , 2009, 21, 1155-1165.	6.6	53
39	A Rho-actin signaling pathway shapes cell wall boundaries in Arabidopsis xylem vessels. <i>Nature Communications</i> , 2019, 10, 468.	12.8	52
40	Liquid Crystalline Granules Align in a Hierarchical Structure To Produce Spider Dragline Microfibrils. <i>Biomacromolecules</i> , 2017, 18, 1350-1355.	5.4	49
41	Characterization of Shikonin Derivative Secretion in Lithospermum erythrorhizon Hairy Roots as a Model of Lipid-Soluble Metabolite Secretion from Plants. <i>Frontiers in Plant Science</i> , 2016, 7, 1066.	3.6	44
42	Wound-inducible WUSCHEL-RELATED HOMEODOMAIN 13 is required for callus growth and organ reconnection. <i>Plant Physiology</i> , 2022, 188, 425-441.	4.8	44
43	Oligouridylyl Binding Protein 1b Plays an Integral Role in Plant Heat Stress Tolerance. <i>Frontiers in Plant Science</i> , 2016, 7, 853.	3.6	43
44	Characterization of Arabidopsis CTP:3-Deoxy-d-manno-2-Octulosonate Cytidylyltransferase (CMP-KDO) Tj ETQq0 0 0 rgBT /Overlock 10 T <i>Plant Physiology</i> , 2011, 52, 1832-1843.	3.1	40
45	Asymmetric cell division of rice zygotes located in embryo sac and produced by in vitro fertilization. <i>Sexual Plant Reproduction</i> , 2010, 23, 211-217.	2.2	38
46	Pleiotropic effect of <i>sigE</i> overexpression on cell morphology, photosynthesis and hydrogen production in <i>Synechocystis</i> sp. PCC 6803. <i>Plant Journal</i> , 2013, 76, 456-465.	5.7	37
47	Subnuclear gene positioning through lamina association affects copper tolerance. <i>Nature Communications</i> , 2020, 11, 5914.	12.8	37
48	ANGUSTIFOLIA, a plant homolog of CtBP/BARS, functions outside the nucleus. <i>Plant Journal</i> , 2011, 68, 788-799.	5.7	34
49	A conserved regulatory mechanism mediates the convergent evolution of plant shoot lateral organs. <i>PLoS Biology</i> , 2019, 17, e3000560.	5.6	34
50	Determination of growth stages and metabolic profiles in <i>Brachypodium distachyon</i> for comparison of developmental context with Triticeae crops. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2015, 282, 20150964.	2.6	33
51	The <i>Arabidopsis</i> NRT1/PTR FAMILY protein NPF7.3/NRT1.5 is an indole-3-butyric acid transporter involved in root gravitropism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 31500-31509.	7.1	32
52	A unique mode of keratinocyte death requires intracellular acidification. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	29
53	RECG Maintains Plastid and Mitochondrial Genome Stability by Suppressing Extensive Recombination between Short Dispersed Repeats. <i>PLoS Genetics</i> , 2015, 11, e1005080.	3.5	27
54	Stress granule formation is induced by a threshold temperature rather than a temperature difference in Arabidopsis. <i>Journal of Cell Science</i> , 2018, 131, .	2.0	27

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55	Keeping the shape of plant tissue for visualizing metabolite features in segmentation and correlation analysis of imaging mass spectrometry in <i>Asparagus officinalis</i> . <i>Metabolomics</i> , 2019, 15, 24.	3.0	26
56	Immunohistochemical observation of indole-3-acetic acid at the IAA synthetic maize coleoptile tips. <i>Plant Signaling and Behavior</i> , 2011, 6, 2013-2022.	2.4	25
57	Top-down Metabolomic Approaches for Nitrogen-Containing Metabolites. <i>Analytical Chemistry</i> , 2017, 89, 2698-2703.	6.5	25
58	Chloroplast aggregation during the cold-positioning response in the liverwort <i>Marchantia polymorpha</i> . <i>Journal of Plant Research</i> , 2017, 130, 1061-1070.	2.4	25
59	Abscisic Acid Acts as a Regulator of Molecular Trafficking through Plasmodesmata in the Moss <i>Physcomitrella patens</i> . <i>Plant and Cell Physiology</i> , 2019, 60, 738-751.	3.1	25
60	Cytosolic GLUTAMINE SYNTHETASE1;1 Modulates Metabolism and Chloroplast Development in Roots. <i>Plant Physiology</i> , 2020, 182, 1894-1909.	4.8	25
61	Protonema of the moss <i>Funaria hygrometrica</i> can function as a lead (Pb) adsorbent. <i>PLoS ONE</i> , 2017, 12, e0189726.	2.5	25
62	Plasma Membrane Aquaporin AqpZ Protein Is Essential for Glucose Metabolism during Photomixotrophic Growth of <i>Synechocystis</i> sp. PCC 6803. <i>Journal of Biological Chemistry</i> , 2011, 286, 25224-25235.	3.4	23
63	Wide-Range High-Resolution Transmission Electron Microscopy Reveals Morphological and Distributional Changes of Endomembrane Compartments during Log to Stationary Transition of Growth Phase in Tobacco BY-2 Cells. <i>Plant and Cell Physiology</i> , 2014, 55, 1544-1555.	3.1	23
64	The RopGEF KARAPPO Is Essential for the Initiation of Vegetative Reproduction in <i>Marchantia polymorpha</i> . <i>Current Biology</i> , 2019, 29, 3525-3531.e7.	3.9	23
65	Plastid translation is essential for lateral root stem-cell patterning in <i>Arabidopsis thaliana</i> . <i>Biology Open</i> , 2018, 7, .	1.2	22
66	Developmental changes and organelle biogenesis in the reproductive organs of thermogenic skunk cabbage (<i>Symplocarpus renifolius</i>). <i>Journal of Experimental Botany</i> , 2009, 60, 3909-3922.	4.8	21
67	¹⁵ N-Glycomic and Microscopic Subcellular Localization Analyses of NPP1, 2 and 6 Strongly Indicate that trans-Golgi Compartments Participate in the Golgi to Plastid Traffic of Nucleotide Pyrophosphatase/Phosphodiesterases in Rice. <i>Plant and Cell Physiology</i> , 2016, 57, 1610-1628.	3.1	21
68	Reconstructing Plant Cells in 3D by Serial Section Electron Tomography. <i>Methods in Molecular Biology</i> , 2014, 1080, 159-170.	0.9	21
69	Identification of a Membrane-associated Cysteine Protease with Possible Dual Roles in the Endoplasmic Reticulum and Protein Storage Vacuole. <i>Journal of Biological Chemistry</i> , 2001, 276, 742-751.	3.4	20
70	Micro-CT observations of the 3D distribution of calcium oxalate crystals in cotyledons during maturation and germination in <i>Lotus miyajokijima</i> seeds. <i>Microscopy (Oxford, England)</i> , 2013, 62, 353-361.	1.5	19
71	The trans-Golgi Network and the Golgi Stacks Behave Independently During Regeneration After Brefeldin A Treatment in Tobacco BY-2 Cells. <i>Plant and Cell Physiology</i> , 2017, 58, 811-821.	3.1	19
72	VISUAL-CC system uncovers the role of GSK3 as an orchestrator of vascular cell type ratio in plants. <i>Communications Biology</i> , 2020, 3, 184.	4.4	19

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73	Dimorphic Leaf Development of the Aquatic Plant <i>Callitriche palustris</i> L. Through Differential Cell Division and Expansion. <i>Frontiers in Plant Science</i> , 2020, 11, 269.	3.6	19
74	Metabolomics with ¹⁵ N Labeling for Characterizing Missing Monoterpene Indole Alkaloids in Plants. <i>Analytical Chemistry</i> , 2020, 92, 5670-5675.	6.5	19
75	Five <i>Cyanophora</i> (<i>Cyanophorales</i> , <i>Glaucophyta</i>) species delineated based on morphological and molecular data. <i>Journal of Phycology</i> , 2014, 50, 1058-1069.	2.3	18
76	Alternative Oxidase Capacity of Mitochondria in Microsporophylls May Function in Cycad Thermogenesis. <i>Plant Physiology</i> , 2019, 180, 743-756.	4.8	18
77	Three-dimensional reconstructions of haustoria in two parasitic plant species in the Orobanchaceae. <i>Plant Physiology</i> , 2021, 185, 1429-1442.	4.8	17
78	Carotenoids in the eyespot apparatus are required for triggering phototaxis in <i>Euglena gracilis</i> . <i>Plant Journal</i> , 2020, 101, 1091-1102.	5.7	16
79	Carotenoid accumulation in the eyespot apparatus required for phototaxis is independent of chloroplast development in <i>Euglena gracilis</i> . <i>Plant Science</i> , 2020, 298, 110564.	3.6	15
80	Exo- and Endocytotic trafficking of SCAMP2. <i>Plant Signaling and Behavior</i> , 2009, 4, 1196-1198.	2.4	13
81	Delineation of six species of the primitive algal genus <i>Glaucocystis</i> based on in situ ultrastructural characteristics. <i>Scientific Reports</i> , 2016, 6, 29209.	3.3	13
82	Mitochondrial movement during its association with chloroplasts in <i>Arabidopsis thaliana</i> . <i>Communications Biology</i> , 2021, 4, 292.	4.4	13
83	Surface Ornamentation of <i>Cyanophora paradoxa</i> (<i>Cyanophorales</i> , <i>Glaucophyta</i>) Cells as Revealed by Ultra-High Resolution Field Emission Scanning Electron Microscopy. <i>Cytologia</i> , 2014, 79, 119-123.	0.6	11
84	Ultrastructure of the rickettsial endosymbiont <i>MIDORIKO</i> in the green alga <i>Carteria cerasiformis</i> as revealed by high-pressure freezing and freeze-substitution fixation. <i>Protoplasma</i> , 2013, 250, 949-953.	2.1	10
85	A Synthetic Multidomain Peptide That Drives a Macropinocytosis-Like Mechanism for Cytosolic Transport of Exogenous Proteins into Plants. <i>Jacs Au</i> , 2022, 2, 223-233.	7.9	10
86	Characterization of Frond and Flower Development and Identification of FT and FD Genes From Duckweed <i>Lemna aequinoctialis</i> Nd. <i>Frontiers in Plant Science</i> , 2021, 12, 697206.	3.6	9
87	Syringic Acid Alleviates Cesium-Induced Growth Defect in <i>Arabidopsis</i> . <i>International Journal of Molecular Sciences</i> , 2020, 21, 9116.	4.1	8
88	Cell wall accumulation of fluorescent proteins derived from a trans-Golgi cisternal membrane marker and paramural bodies in interdigitated <i>Arabidopsis</i> leaf epidermal cells. <i>Protoplasma</i> , 2017, 254, 367-377.	2.1	7
89	A multimodal metabolomics approach using imaging mass spectrometry and liquid chromatography-tandem mass spectrometry for spatially characterizing monoterpene indole alkaloids secreted from roots. <i>Plant Biotechnology</i> , 2021, 38, 305-310.	1.0	7
90	Efficient fluorescence recovery using antifade reagents in correlative light and electron microscopy. <i>Microscopy (Oxford, England)</i> , 2019, 68, 417-421.	1.5	6

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91	Spatial metabolomics using imaging mass spectrometry to identify the localization of asparagine A in <i>Asparagus officinalis</i> . <i>Plant Biotechnology</i> , 2021, 38, 311-315.	1.0	6
92	Development of high resolution TEM image acquisition system by using high-pressure freezing method. <i>Plant Morphology</i> , 2014, 26, 3-8.	0.1	6
93	Generation and Characterization of Monoclonal Antibodies That Specifically Recognize p65/L-Plastin Isoform but Not T-Plastin Isoform. <i>Bioscience, Biotechnology and Biochemistry</i> , 2006, 70, 1402-1407.	1.3	5
94	Semi-automatic organelle detection on transmission electron microscopic images. <i>Scientific Reports</i> , 2015, 5, 7794.	3.3	5
95	Acclimation process of the chlorophyll <i>d</i> -bearing cyanobacterium <i>Acaryochloris marina</i> to an orange light environment revealed by transcriptomic analysis and electron microscopic observation. <i>Journal of General and Applied Microbiology</i> , 2020, 66, 106-115.	0.7	5
96	High Humidity Causes Abnormalities in the Process of Appressorial Formation of <i>Blumeria graminis</i> f. sp. <i>hordei</i> . <i>Pathogens</i> , 2020, 9, 45.	2.8	5
97	Polarized localization and borate-dependent degradation of the Arabidopsis borate transporter BOR1 in tobacco BY-2 cells. <i>Frontiers in Plant Science</i> , 2013, 2, 185.	1.6	5
98	Morphological and quantitative changes in mitochondria, plastids, and peroxisomes during the log-to-stationary transition of the growth phase in cultured tobacco BY-2 cells. <i>Plant Signaling and Behavior</i> , 2016, 11, e1149669.	2.4	4
99	3D in vivo imaging of the keratin filament network in the mouse stratum granulosum reveals profilaggrin-dependent regulation of keratin bundling. <i>Journal of Dermatological Science</i> , 2019, 94, 346-349.	1.9	3
100	Development of correlative light and electron microscopy to observe green fluorescent protein-labeled organelles embedded in resin using field-emission electron scanning microscope. <i>Plant Morphology</i> , 2016, 28, 15-21.	0.1	3
101	C5-P-02 Distribution of intercellular spaces in plant seeds during imbibition and germination observed using X-ray micro-CT. <i>Microscopy (Oxford, England)</i> , 2015, 64, i139.2-i139.	1.5	1
102	C2-P-02 The ER body in the lateral root cap is involved in mass transport of (K/H)DEL proteins to the vacuole: Using Gigapixel TEM images. <i>Microscopy (Oxford, England)</i> , 2015, 64, i123.2-i123.	1.5	1
103	OB-III-1 Development of wide-range and high-resolution transmission electron microscope acquisition system and correlative light & electron microscope system: Applications for ultrastructural analyses of intracellular compartments and trafficking pathways in plant growth and development. <i>Microscopy (Oxford, England)</i> , 2016, 65, i13.1-i13.	1.5	1
104	Protective Effect of OK432 on Mice against Endotoxemia and Infection with <i>Pseudomonas aeruginosa</i> and <i>Salmonella enteritidis</i> . <i>Microbiology and Immunology</i> , 2001, 45, 425-432.	1.4	0
105	The RopGEF KARAPPO is Essential for the Initiation of Vegetative Reproduction in <i>Marchantia</i> . <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
106	Various biological phenomena to be observed with electron microscopy. <i>Plant Morphology</i> , 2019, 31, 1-2.	0.1	0
107	Electron microscopy of plant samples by using high-pressure freezing/freeze substitution method. <i>Plant Morphology</i> , 2019, 31, 25-29.	0.1	0
108	Latest microscope technique for plant biology; to obtain ultrastructure, molecular mechanism, and biological function. <i>Plant Morphology</i> , 2020, 32, 1-2.	0.1	0

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109	New methods for capturing life phenomena using scanning electron microscopy. <i>Plant Morphology</i> , 2020, 32, 3-9.	0.1	0
110	A conserved regulatory mechanism mediates the convergent evolution of plant shoot lateral organs. , 2019, 17, e3000560.		0
111	A conserved regulatory mechanism mediates the convergent evolution of plant shoot lateral organs. , 2019, 17, e3000560.		0
112	A conserved regulatory mechanism mediates the convergent evolution of plant shoot lateral organs. , 2019, 17, e3000560.		0
113	A conserved regulatory mechanism mediates the convergent evolution of plant shoot lateral organs. , 2019, 17, e3000560.		0
114	A conserved regulatory mechanism mediates the convergent evolution of plant shoot lateral organs. , 2019, 17, e3000560.		0
115	A conserved regulatory mechanism mediates the convergent evolution of plant shoot lateral organs. , 2019, 17, e3000560.		0