Tomokazu Koshiba

List of Publications by Year
in descending order

98 papers	10,825 citations	50276 46 h-index	39675 94 g-index
98 all docs	98 docs citations	98 times ranked	10244 citing authors

#	Article	IF	Citations
1	The Arabidopsis cytochrome P450 CYP707A encodes ABA 8â€²-hydroxylases: key enzymes in ABA catabolism. EMBO Journal, 2004, 23, 1647-1656.	7.8	872
2	A Unique Short-Chain Dehydrogenase/Reductase in Arabidopsis Glucose Signaling and Abscisic Acid Biosynthesis and Functions. Plant Cell, 2002, 14, 2723-2743.	6.6	764
3	Complex regulation of ABA biosynthesis in plants. Trends in Plant Science, 2002, 7, 41-48.	8.8	703
4	Genome-wide profiling of stored mRNA in Arabidopsis thaliana seed germination: epigenetic and genetic regulation of transcription in seed. Plant Journal, 2005, 41, 697-709.	5.7	528
5	CYP707A1 and CYP707A2, Which Encode Abscisic Acid 8â€²-Hydroxylases, Are Indispensable for Proper Control of Seed Dormancy and Germination in Arabidopsis. Plant Physiology, 2006, 141, 97-107.	4.8	473
6	Identification of an abscisic acid transporter by functional screening using the receptor complex as a sensor. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9653-9658.	7.1	421
7	Regulation of hormone metabolism in Arabidopsis seeds: phytochrome regulation of abscisic acid metabolism and abscisic acid regulation of gibberellin metabolism. Plant Journal, 2006, 48, 354-366.	5.7	403
8	Drought Induction of Arabidopsis 9-cis-Epoxycarotenoid Dioxygenase Occurs in Vascular Parenchyma Cells Â Â. Plant Physiology, 2008, 147, 1984-1993.	4.8	310
9	Biochemical analyses of indole-3-acetaldoxime-dependent auxin biosynthesis in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5430-5435.	7.1	304
10	CYP707A3, a major ABA 8â€²-hydroxylase involved in dehydration and rehydration response inArabidopsis thaliana. Plant Journal, 2006, 46, 171-182.	5.7	294
11	<i>NAL1</i> allele from a rice landrace greatly increases yield in modern <i>indica</i> cultivars. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20431-20436.	7.1	249
12	Disruption and overexpression of auxin response factor 8 gene of Arabidopsis affect hypocotyl elongation and root growth habit, indicating its possible involvement in auxin homeostasis in light condition. Plant Journal, 2004, 40, 333-343.	5.7	235
13	AtSWEET13 and AtSWEET14 regulate gibberellin-mediated physiological processes. Nature Communications, 2016, 7, 13245.	12.8	229
14	Brassinolide Induces IAA5, IAA19, and DR5, a Synthetic Auxin Response Element in Arabidopsis, Implying a Cross Talk Point of Brassinosteroid and Auxin Signaling. Plant Physiology, 2003, 133, 1843-1853.	4.8	226
15	Tissue-Specific Localization of an Abscisic Acid Biosynthetic Enzyme, AAO3, in Arabidopsis. Plant Physiology, 2004, 134, 1697-1707.	4.8	217
16	NARROW LEAF 7 controls leaf shape mediated by auxin in rice. Molecular Genetics and Genomics, 2008, 279, 499-507.	2.1	207
17	Identification of Arabidopsis thaliana NRT1/PTR FAMILY (NPF) proteins capable of transporting plant hormones. Journal of Plant Research, 2015, 128, 679-686.	2.4	205
18	Comparative Studies on the Arabidopsis Aldehyde Oxidase (AAO) Gene Family Revealed a Major Role of AAO3 in ABA Biosynthesis in Seeds. Plant and Cell Physiology, 2004, 45, 1694-1703.	3.1	175

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19	Abscisic aldehyde oxidase in leaves of Arabidopsis thaliana. Plant Journal, 2000, 23, 481-488.	5.7	174
20	A Novel Rice PR10 Protein, RSOsPR10, Specifically Induced in Roots by Biotic and Abiotic Stresses, Possibly via the Jasmonic Acid Signaling Pathway. Plant and Cell Physiology, 2004, 45, 550-559.	3.1	172
21	Higher Activity of an Aldehyde Oxidase in the Auxin-Overproducing superroot1 Mutant ofArabidopsis thaliana1. Plant Physiology, 1998, 116, 687-693.	4.8	167
22	Yucasin is a potent inhibitor of <scp>YUCCA</scp>, a key enzyme in auxin biosynthesis. Plant Journal, 2014, 77, 352-366.	5.7	167
23	The HAT2 gene, a member of the HD-Zip gene family, isolated as an auxin inducible gene by DNA microarray screening, affects auxin response in Arabidopsis. Plant Journal, 2002, 32, 1011-1022.	5.7	165
24	Spatially selective hormonal control of RAP2.6L and ANAC071 transcription factors involved in tissue reunion in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16128-16132.	7.1	145
25	Ectopic Expression of ABSCISIC ACID 2/GLUCOSE INSENSITIVE 1 in Arabidopsis Promotes Seed Dormancy and Stress Tolerance. Plant Physiology, 2007, 143, 745-758.	4.8	134
26	Identification of a novel E3 ubiquitin ligase that is required for suppression of premature senescence in Arabidopsis. Plant Journal, 2009, 59, 39-51.	5.7	126
27	Activation of abscisic acid biosynthesis in the leaves of Arabidopsis thaliana in response to water deficit. Journal of Plant Research, 2009, 122, 235-243.	2.4	125
28	Transport of ABA from the site of biosynthesis to the site of action. Journal of Plant Research, 2011, 124, 501-507.	2.4	120
29	Interaction of Auxin and ERECTA in Elaborating Arabidopsis Inflorescence Architecture Revealed by the Activation Tagging of a New Member of the YUCCA Family Putative Flavin Monooxygenases. Plant Physiology, 2005, 139, 192-203.	4.8	112
30	A Plant Growth Retardant, Uniconazole, Is a Potent Inhibitor of ABA Catabolism inArabidopsis. Bioscience, Biotechnology and Biochemistry, 2006, 70, 1731-1739.	1.3	109
31	Cold acclimation in bryophytes: low-temperature-induced freezing tolerance in Physcomitrella patens is associated with increases in expression levels of stress-related genes but not with increase in level of endogenous abscisic acid. Planta, 2005, 220, 414-423.	3.2	100
32	The rice <scp><i>FISH BONE</i></scp> gene encodes a tryptophan aminotransferase, which affects pleiotropic auxinâ€related processes. Plant Journal, 2014, 78, 927-936.	5.7	100
33	Cytosolic Ascorbate Peroxidase in Seedlings and Leaves of Maize (Zea mays). Plant and Cell Physiology, 1993, 34, 713-721.	3.1	99
34	RSOsPR10 Expression in Response to Environmental Stresses is Regulated Antagonistically by Jasmonate/Ethylene and Salicylic Acid Signaling Pathways in Rice Roots. Plant and Cell Physiology, 2011, 52, 1686-1696.	3.1	95
35	Contribution of salicylic acid glucosyltransferase, OsSGT1, to chemically induced disease resistance in rice plants. Plant Journal, 2009, 57, 463-472.	5.7	90
36	A rice <i>tryptophan deficient dwarf</i> mutant, <i>tdd1,</i> contains a reduced level of indole acetic acid and develops abnormal flowers and organless embryos. Plant Journal, 2009, 60, 227-241.	5.7	88

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37	Phytochrome- and Gibberellin-Mediated Regulation of Abscisic Acid Metabolism during Germination of Photoblastic Lettuce Seeds. Plant Physiology, 2008, 146, 1386-1396.	4.8	79
38	Abscisic acid and stress treatment are essential for the acquisition of embryogenic competence by carrot somatic cells. Planta, 2006, 223, 637-645.	3.2	78
39	Transcriptional Regulation ofPS-IAA4/5andPS-IAA6Early Gene Expression by Indoleacetic Acid and Protein Synthesis Inhibitors in Pea(Pisum sativum). Journal of Molecular Biology, 1995, 253, 396-413.	4.2	76
40	Cloning and Molecular Characterization of Plant Aldehyde Oxidase. Journal of Biological Chemistry, 1997, 272, 15280-15285.	3.4	76
41	Phytochromes and cryptochromes regulate the differential growth of Arabidopsis hypocotyls in both a PGP19â€dependent and a PGP19â€independent manner. Plant Journal, 2008, 53, 516-529.	5.7	74
42	Identification of Major Proteins in Maize Egg Cells. Plant and Cell Physiology, 2004, 45, 1406-1412.	3.1	65
43	Effects of ethylene and abscisic acid upon heterophylly in Ludwigia arcuata (Onagraceae). Planta, 2003, 217, 880-887.	3.2	63
44	Isolation of gametes and central cells from Oryza sativa L.. Sexual Plant Reproduction, 2006, 19, 37-45.	2.2	56
45	Alkoxy-auxins Are Selective Inhibitors of Auxin Transport Mediated by PIN, ABCB, and AUX1 Transporters. Journal of Biological Chemistry, 2011, 286, 2354-2364.	3.4	52
46	Involvement of peroxidase in differential sensitivity to Î³-radiation in seedlings of two Nicotiana species. Plant Science, 1998, 132, 109-119.	3.6	50
47	Differential Downward Stream of Auxin Synthesized at the Tip Has a Key Role in Gravitropic Curvature via TIR1/AFBs-Mediated Auxin Signaling Pathways. Plant and Cell Physiology, 2009, 50, 1874-1885.	3.1	48
48	Genetic Characterization of Mutants Resistant to the Antiauxin<i>p</i>-Chlorophenoxyisobutyric Acid Reveals That<i>AAR3</i>, a Gene Encoding a DCN1-Like Protein, Regulates Responses to the Synthetic Auxin 2,4-Dichlorophenoxyacetic Acid in Arabidopsis Roots. Plant Physiology, 2007, 145, 773-785.	4.8	46
49	Effect of ABA upon anthocyanin synthesis in regenerated torenia shoots. Journal of Plant Research, 2006, 119, 137-144.	2.4	45
50	Yucasin DF, a potent and persistent inhibitor of auxin biosynthesis in plants. Scientific Reports, 2017, 7, 13992.	3.3	44
51	Transient expression of AtNCED3 and AAO3 genes in guard cells causes stomatal closure in Vicia faba. Journal of Plant Research, 2008, 121, 125-131.	2.4	43
52	Proteome analysis of proteins responsive to ambient and elevated ozone in rice seedlings. Agriculture, Ecosystems and Environment, 2008, 125, 255-265.	5.3	41
53	Live Single-Cell Plant Hormone Analysis by Video-Mass Spectrometry. Plant and Cell Physiology, 2015, 56, 1287-1296.	3.1	39
54	NPH3- and PGP-like genes are exclusively expressed in the apical tip region essential for blue-light perception and lateral auxin transport in maize coleoptiles. Journal of Experimental Botany, 2011, 62, 3459-3466.	4.8	38

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55	Functional Expression of Two Arabidopsis Aldehyde Oxidases in the Yeast Pichia pastoris. Journal of Biochemistry, 2000, 127, 659-664.	1.7	37
56	Vigorous synthesis of indole-3-acetic acid in the apical very tip leads to a constant basipetal flow of the hormone in maize coleoptiles. Plant Science, 2005, 168, 467-473.	3.6	36
57	Purification of two forms of the associated 3-dehydroquinate hydro-lyase and shikimate:NADP+ oxidoreductase in Phaseolus mungo seedlings. Biochimica Et Biophysica Acta - Biomembranes, 1978, 522, 10-18.	2.6	34
58	Aldehyde oxidase in roots, leaves and seeds of barley (Hordeum vulgare L.). Journal of Experimental Botany, 1999, 50, 63-69.	4.8	34
59	Aldehyde Oxidase (AO) in the Root Nodules of Lupinus albus and Medicago truncatula: Identification of AO in Meristematic and Infection Zones. Molecular Plant-Microbe Interactions, 2005, 18, 405-413.	2.6	34
60	Identification of IAA Transport Inhibitors Including Compounds Affecting Cellular PIN Trafficking by Two Chemical Screening Approaches Using Maize Coleoptile Systems. Plant and Cell Physiology, 2012, 53, 1671-1682.	3.1	34
61	Red light causes a reduction in IAA levels at the apical tip by inhibiting de novo biosynthesis from tryptophan in maize coleoptiles. Planta, 2006, 224, 1427-1435.	3.2	29
62	Aldehyde Oxidase in Wild Type and abal Mutant Leaves of Nicotiana plumbaginifolia. Plant and Cell Physiology, 1998, 39, 1281-1286.	3.1	28
63	Root cap-dependent gravitropic U-turn of maize root requires light-induced auxin biosynthesis via the YUC pathway in the root apex. Journal of Experimental Botany, 2016, 67, 4581-4591.	4.8	28
64	Molecular cloning and expression patterns of three putative functional aldehyde oxidase genes and isolation of two aldehyde oxidase pseudogenes in tomato. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 2000, 1493, 337-341.	2.4	27
65	Activity and protein level of AO isoforms in pea plants (Pisum sativum L.) during vegetative development and in response to stress conditions. Journal of Experimental Botany, 2004, 55, 1361-1369.	4.8	25
66	Immunohistochemical observation of indole-3-acetic acid at the IAA synthetic maize coleoptile tips. Plant Signaling and Behavior, 2011, 6, 2013-2022.	2.4	25
67	Possible involvement of abscisic acid in the induction of secondary somatic embryogenesis on seed-coat-derived carrot somatic embryos. Planta, 2005, 221, 417-423.	3.2	22
68	Identification of superoxide production by Arabidopsis thaliana aldehyde oxidases AAO1 and AAO3. Plant Molecular Biology, 2012, 80, 659-671.	3.9	22
69	L- and D-tryptophan aminotransferases from maize coleoptiles. Journal of Plant Research, 1993, 106, 25-29.	2.4	21
70	Differential Expression of Two Cytosolic Ascorbate Peroxidases and Two Superoxide Dismutase Genes in Response to Abiotic Stress in Rice. Rice Science, 2011, 18, 157-166.	3.9	21
71	ABA Biosynthetic and Catabolic Pathways. , 2014, , 21-45.		20
72	Vascular system is a node of systemic stress responses. Plant Signaling and Behavior, 2008, 3, 1138-1140.	2.4	19

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73	Multiple Forms of Acid Phosphatase in Cotyledons ofVigna mungoSeedlings. Journal of Experimental Botany, 1982, 33, 1332-1339.	4.8	18
74	Light-dependent control of redox balance and auxin biosynthesis in plants. Plant Signaling and Behavior, 2014, 9, e29522.	2.4	18
75	Overexpression of RSOsPR10, a root-specific rice PR10 gene, confers tolerance against drought stress in rice and drought and salt stresses in bentgrass. Plant Cell, Tissue and Organ Culture, 2016, 127, 35-46.	2.3	18
76	Effects of Î³-irradiation on elongation and indole-3-acetic acid level of maize (Zea mays) coleoptiles. Environmental and Experimental Botany, 1999, 41, 131-143.	4.2	17
77	Compositional changes in germinating spores ofAdiantum capillus-veneris L.. Botanical Magazine, 1984, 97, 313-322.	0.6	15
78	Aldehyde oxidase in roots, leaves and seeds of barley (Hordeum vulgare L.). Journal of Experimental Botany, 1999, 50, 63-69.	4.8	15
79	Î³-Irradiation damage to leaf vacuole membranes of Chelidonium majus. Environmental and Experimental Botany, 1995, 35, 71-81.	4.2	12
80	Gravistimulation Changes the Accumulation Pattern of the CsPIN1 Auxin Efflux Facilitator in the Endodermis of the Transition Zone in Cucumber Seedlings Â. Plant Physiology, 2012, 158, 239-251.	4.8	10
81	Flavin-photosensitized production of indole-3-acetaldehyde from tryptophan. Tetrahedron Letters, 1993, 34, 7603-7604.	1.4	9
82	Blue-light regulation of ZmPHOT1 and ZmPHOT2 gene expression and the possible involvement of Zmphot1 in phototropism in maize coleoptiles. Planta, 2014, 240, 251-261.	3.2	9
83	Expression of <i>RSOsPR10</i> in rice roots is antagonistically regulated by jasmonate/ethylene and salicylic acid via the activator OsERF87 and the repressor OsWRKY76, respectively. Plant Direct, 2018, 2, e00049.	1.9	9
84	Low-fluence blue light-induced phosphorylation of Zmphot1 mediates the first positive phototropism. Journal of Experimental Botany, 2019, 70, 5929-5941.	4.8	9
85	Hydrolytic enzyme activities in germinating spores ofAdiantum capillus-veneris L.. Botanical Magazine, 1984, 97, 323-331.	0.6	8
86	Effects of anti-auxins on secondary aerenchyma formation in flooded soybean hypocotyls. Plant Production Science, 2016, 19, 154-160.	2.0	8
87	Histochemical studies on mobilization of storage components in cotyledons of germinatingPhaseolus mungo seeds. Botanical Magazine, 1979, 92, 325-332.	0.6	7
88	Expression of cDNA for a bark lectin ofRobiniain transgenic tobacco plants. FEBS Letters, 1995, 377, 54-58.	2.8	6
89	A 2,4-dichlorophenoxyacetic acid analog screened using a maize coleoptile system potentially inhibits indole-3-acetic acid influx inArabidopsis thaliana. Plant Signaling and Behavior, 2014, 9, e29077.	2.4	5
90	Characterization and Role of RNAs Synthesized during Early Spore Germination of the Fern Cyathea. Journal of Plant Physiology, 1986, 123, 487-495.	3.5	4

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91	Effect of Î³-radiation on the plasma and vacuolar membranes of cultured spinach cells. Phytochemistry, 1998, 48, 1281-1286.	2.9	4
92	Î³-Irradiation damage to the tonoplast in cultured spinach cells. Environmental and Experimental Botany, 1998, 39, 97-104.	4.2	4
93	Micro-spot assay and detection on polyacrylamide gel of mung bean endopeptidase activity by substrate-polyacrylamide gel plate method.. Agricultural and Biological Chemistry, 1984, 48, 2387-2388.	0.3	3
94	Auxin biosynthesis site and polar transport in maize coleoptiles. Plant Signaling and Behavior, 2010, 5, 573-575.	2.4	3
95	Immunolocalization of IAA Using an Anti-IAA-C-Antibody Raised Against Carboxyl-Linked IAA. Methods in Molecular Biology, 2019, 1924, 165-172.	0.9	2
96	Micro-spot Assay and Detection on Polyacrylamide Gel of Mung Bean Endopeptidase Activity by Substrateâ€"Polyacrylamide Gel Plate Method. Agricultural and Biological Chemistry, 1984, 48, 2387-2388.	0.3	0
97	Indole-3-Acetic Acid Biosynthesis and Gravitropic Response in Maize Coleoptiles. Uchu Seibutsu Kagaku, 2011, 25, 37-43.	0.3	0
98	Auxin Biosynthesis and Polar Auxin Transport During Tropisms in Maize Coleoptiles. Signaling and Communication in Plants, 2013, , 221-238.	0.7	0