Takahiro Ishikawa

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Activation of ascorbate metabolism by nitrogen starvation and its physiological impacts in <i>Arabidopsis thaliana</i>. Bioscience, Biotechnology and Biochemistry, 2022, 86, 476-489.	1.3	6
2	Analysis of Ascorbate Metabolism in Arabidopsis Under High-Light Stress. Methods in Molecular Biology, 2022, , 15-24.	0.9	2
3	Cooperation of chloroplast ascorbate peroxidases and proton gradient regulation 5 is critical for protecting Arabidopsis plants from photoâ€oxidative stress. Plant Journal, 2021, 107, 876-892.	5.7	15
4	The <scp>d</scp>â€mannose/<scp>l</scp>â€galactose pathway is the dominant ascorbate biosynthetic route in the moss <i>Physcomitrium patens</i>. Plant Journal, 2021, 107, 1724-1738.	5.7	14
5	Genome-wide Characterization Deciphers Distinct Properties of Aquaporins in Six Phytophthora Species. Current Bioinformatics, 2021, 16, 880-898.	1.5	2
6	Distribution and Functions of Monodehydroascorbate Reductases in Plants: Comprehensive Reverse Genetic Analysis of Arabidopsis thaliana Enzymes. Antioxidants, 2021, 10, 1726.	5.1	13
7	Suppression of the Lycopene Cyclase Gene Causes Downregulation of Ascorbate Peroxidase Activity and Decreased Glutathione Pool Size, Leading to H2O2 Accumulation in Euglena gracilis. Frontiers in Plant Science, 2021, 12, 786208.	3.6	4
8	Extracellular transglutaminase 2 induces myotube hypertrophy through G protein-coupled receptor 56. Biochimica Et Biophysica Acta - Molecular Cell Research, 2020, 1867, 118563.	4.1	15
9	Carotenoid accumulation in the eyespot apparatus required for phototaxis is independent of chloroplast development in Euglena gracilis. Plant Science, 2020, 298, 110564.	3.6	15
10	Dehydroascorbate Reductases and Glutathione Set a Threshold for High-Lightâ€“Induced Ascorbate Accumulation. Plant Physiology, 2020, 183, 112-122.	4.8	32
11	A major isoform of mitochondrial trans-2-enoyl-CoA reductase is dispensable for wax ester production in Euglena gracilis under anaerobic conditions. PLoS ONE, 2019, 14, e0210755.	2.5	13
12	Visualizing wax ester fermentation in single Euglena gracilis cells by Raman microspectroscopy and multivariate curve resolution analysis. Biotechnology for Biofuels, 2019, 12, 128.	6.2	10
13	Chloroplast development activates the expression of ascorbate biosynthesis-associated genes in Arabidopsis roots. Plant Science, 2019, 284, 185-191.	3.6	16
14	Taming chlorophylls by early eukaryotes underpinned algal interactions and the diversification of the eukaryotes on the oxygenated Earth. ISME Journal, 2019, 13, 1899-1910.	9.8	10
15	Comparative proteomic analysis of mitochondria isolated from Euglena gracilis under aerobic and hypoxic conditions. PLoS ONE, 2019, 14, e0227226.	2.5	5
16	Physiological role of Î²-carotene monohydroxylase (CYP97H1) in carotenoid biosynthesis in Euglena gracilis. Plant Science, 2019, 278, 80-87.	3.6	24
17	Ascorbate Peroxidase Functions in Higher Plants: The Control of the Balance Between Oxidative Damage and Signaling. , 2018, , 41-59.		8
18	Biosynthesis and Regulation of Ascorbic Acid in Plants. , 2018, , 163-179.		18

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19	Prediction of arsenic and antimony transporter major intrinsic proteins from the genomes of crop plants. International Journal of Biological Macromolecules, 2018, 107, 2630-2642.	7.5	14
20	Suppression of DYRK ortholog expression affects wax ester fermentation in Euglena gracilis. Journal of Applied Phycology, 2018, 30, 367-373.	2.8	11
21	Anaerobic respiration coupled with mitochondrial fatty acid synthesis in wax ester fermentation by Euglena gracilis. FEBS Letters, 2018, 592, 4020-4027.	2.8	16
22	Alterations of Membrane Lipid Content Correlated With Chloroplast and Mitochondria Development in Euglena gracilis. Frontiers in Plant Science, 2018, 9, 370.	3.6	12
23	Glucan synthaseâ€like 2 is indispensable for paramylon synthesis in <i>EuglenaÂgracilis</i>. FEBS Letters, 2017, 591, 1360-1370.	2.8	43
24	Wax Ester Fermentation and Its Application for Biofuel Production. Advances in Experimental Medicine and Biology, 2017, 979, 269-283.	1.6	41
25	Biochemistry and Physiology of Reactive Oxygen Species in Euglena. Advances in Experimental Medicine and Biology, 2017, 979, 47-64.	1.6	7
26	Physiological functions of pyruvate:NADP+ oxidoreductase and 2-oxoglutarate decarboxylase in Euglena gracilis under aerobic and anaerobic conditions. Bioscience, Biotechnology and Biochemistry, 2017, 81, 1386-1393.	1.3	17
27	Vitamin B12 deficiency results in severe oxidative stress, leading to memory retention impairment in Caenorhabditis elegans. Redox Biology, 2017, 11, 21-29.	9.0	66
28	Wax Ester Synthase/Diacylglycerol Acyltransferase Isoenzymes Play a Pivotal Role in Wax Ester Biosynthesis in Euglena gracilis. Scientific Reports, 2017, 7, 13504.	3.3	35
29	Chemistry and Metabolism of Ascorbic Acid in Plants. , 2017, , 1-23.		3
30	Temporal change of photophobic step-up responses of Euglena gracilis investigated through motion analysis. PLoS ONE, 2017, 12, e0172813.	2.5	17
31	Suppression of the phytoene synthase gene (EgcrtB) alters carotenoid content and intracellular structure of Euglena gracilis. BMC Plant Biology, 2017, 17, 125.	3.6	29
32	Ascorbate Peroxidases: Crucial Roles of Antioxidant Enzymes in Plant Stress Responses. , 2017, , 111-127.		3
33	De novo assembly and comparative transcriptome analysis of Euglena gracilis in response to anaerobic conditions. BMC Genomics, 2016, 17, 182.	2.8	78
34	Identification and functional analysis of the geranylgeranyl pyrophosphate synthase gene (crtE) and phytoene synthase gene (crtB) for carotenoid biosynthesis in Euglena gracilis. BMC Plant Biology, 2016, 16, 4.	3.6	30
35	Diversity and Evolution of Ascorbate Peroxidase Functions in Chloroplasts: More Than Just a Classical Antioxidant Enzyme?. Plant and Cell Physiology, 2016, 57, pcv203.	3.1	83
36	Genome-Wide Characterization of Major Intrinsic Proteins in Four Grass Plants and Their Non-Aqua Transport Selectivity Profiles with Comparative Perspective. PLoS ONE, 2016, 11, e0157735.	2.5	46

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37	Identification and enzymatic characterization of an endo-1,3-Î²-glucanase from Euglena gracilis. Phytochemistry, 2015, 116, 21-27.	2.9	34
38	Characterization and physiological role of two types of chloroplastic fructose-1,6-bisphosphatases in Euglena gracilis. Archives of Biochemistry and Biophysics, 2015, 575, 61-68.	3.0	9
39	Evolution of alternative biosynthetic pathways for vitamin C following plastid acquisition in photosynthetic eukaryotes. ELife, 2015, 4, .	6.0	140
40	Biochemical and physiological analyses of NADPH-dependent thioredoxin reductase isozymes in Euglena gracilis. Plant Science, 2015, 236, 29-36.	3.6	12
41	Identification and characterization of cytosolic fructose-1,6-bisphosphatase in <i>Euglena gracilis</i>. Bioscience, Biotechnology and Biochemistry, 2015, 79, 1957-1964.	1.3	10
42	Transcriptional control of vitamin C defective 2 and tocopherol cyclase genes by light and plastid-derived signals: The partial involvement of GENOMES UNCOUPLED 1. Plant Science, 2015, 231, 20-29.	3.6	13
43	Transient expression analysis revealed the importance of <i>VTC2</i> expression level in light/dark regulation of ascorbate biosynthesis in Arabidopsis. Bioscience, Biotechnology and Biochemistry, 2014, 78, 60-66.	1.3	51
44	Identification and functional analysis of peroxiredoxin isoforms in <i>Euglena gracilis</i>. Bioscience, Biotechnology and Biochemistry, 2014, 78, 593-601.	1.3	11
45	Ferulic acid 5-hydroxylase 1 is essential for expression of anthocyanin biosynthesis-associated genes and anthocyanin accumulation under photooxidative stress in Arabidopsis. Plant Science, 2014, 219-220, 61-68.	3.6	33
46	Activation of Î³-Aminobutyrate Production by Chloroplastic H₂O₂ Is Associated with the Oxidative Stress Response. Bioscience, Biotechnology and Biochemistry, 2013, 77, 422-425.	1.3	12
47	Analysis of Two l-Galactono-1,4-Lactone-Responsive Genes with Complementary Expression During the Development of Arabidopsis thaliana. Plant and Cell Physiology, 2012, 53, 592-601.	3.1	14
48	Translocation and the alternative D-galacturonate pathway contribute to increasing the ascorbate level in ripening tomato fruits together with the D-mannose/L-galactose pathway. Journal of Experimental Botany, 2012, 63, 229-239.	4.8	144
49	Cytosolic ascorbate peroxidase 1 protects organelles against oxidative stress by wounding- and jasmonate-induced H2O2 in Arabidopsis plants. Biochimica Et Biophysica Acta - General Subjects, 2012, 1820, 1901-1907.	2.4	35
50	H2O2-triggered Retrograde Signaling from Chloroplasts to Nucleus Plays Specific Role in Response to Stress. Journal of Biological Chemistry, 2012, 287, 11717-11729.	3.4	188
51	Expression Analysis of the<i>VTC2</i>and<i>VTC5</i>Genes Encoding GDP-<scp>L</scp>-Galactose Phosphorylase, an Enzyme Involved in Ascorbate Biosynthesis, in<i>Arabidopsis thaliana</i>. Bioscience, Biotechnology and Biochemistry, 2011, 75, 1783-1788.	1.3	40
52	Expression of aspartyl protease and C3HC4-type RING zinc finger genes are responsive to ascorbic acid in Arabidopsis thaliana. Journal of Experimental Botany, 2011, 62, 3647-3657.	4.8	27
53	<i>Euglena gracilis</i>ascorbate peroxidase forms an intramolecular dimeric structure: its unique molecular characterization. Biochemical Journal, 2010, 426, 125-134.	3.7	35
54	The Contribution of<i>Arabidopsis</i>Homologs of<scp>L</scp>-Gulono-1,4-lactone Oxidase to the Biosynthesis of Ascorbic Acid. Bioscience, Biotechnology and Biochemistry, 2010, 74, 1494-1497.	1.3	54

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55	Arabidopsis Chloroplastic Ascorbate Peroxidase Isoenzymes Play a Dual Role in Photoprotection and Gene Regulation under Photooxidative Stress. Plant and Cell Physiology, 2010, 51, 190-200.	3.1	140
56	Conversion of<scp>L</scp>-Galactono-1,4-lactone to<scp>L</scp>-Ascorbate Is Regulated by the Photosynthetic Electron Transport Chain in<i>Arabidopsis</i>. Bioscience, Biotechnology and Biochemistry, 2008, 72, 2598-2607.	1.3	28
57	Recent Advances in Ascorbate Biosynthesis and the Physiological Significance of Ascorbate Peroxidase in Photosynthesizing Organisms. Bioscience, Biotechnology and Biochemistry, 2008, 72, 1143-1154.	1.3	242
58	Arabidopsis Phosphomannose Isomerase 1, but Not Phosphomannose Isomerase 2, Is Essential for Ascorbic Acid Biosynthesis. Journal of Biological Chemistry, 2008, 283, 28842-28851.	3.4	92
59	The Pathway via D-Galacturonate/L-Galactonate Is Significant for Ascorbate Biosynthesis in Euglena gracilis. Journal of Biological Chemistry, 2008, 283, 31133-31141.	3.4	58
60	Intracellular energy depletion triggers programmed cell death during petal senescence in tulip. Journal of Experimental Botany, 2008, 59, 2085-2095.	4.8	84
61	Light regulation of ascorbate biosynthesis is dependent on the photosynthetic electron transport chain but independent of sugars in Arabidopsis. Journal of Experimental Botany, 2007, 58, 2661-2671.	4.8	220
62	Two genes in <i>Arabidopsis thaliana</i> encoding GDPâ€‹<scp>l</scp>â€galactose phosphorylase are required for ascorbate biosynthesis and seedling viability. Plant Journal, 2007, 52, 673-689.	5.7	371
63	Progress in manipulating ascorbic acid biosynthesis and accumulation in plants. Physiologia Plantarum, 2006, 126, 343-355.	5.2	199
64	Functional Characterization ofD-Galacturonic Acid Reductase, a Key Enzyme of the Ascorbate Biosynthesis Pathway, fromEuglena gracilis. Bioscience, Biotechnology and Biochemistry, 2006, 70, 2720-2726.	1.3	22
65	Acclimation to Diverse Environmental Stresses Caused by a Suppression of Cytosolic Ascorbate Peroxidase in Tobacco BY-2 cells. Plant and Cell Physiology, 2005, 46, 1264-1271.	3.1	32
66	Two Distinct Redox Signaling Pathways for Cytosolic APX Induction under Photooxidative Stress. Plant and Cell Physiology, 2004, 45, 1586-1594.	3.1	95
67	Feedback Inhibition of Spinach l-Galactose Dehydrogenase by l-Ascorbate. Plant and Cell Physiology, 2004, 45, 1271-1279.	3.1	73
68	Characterization of an ascorbate peroxidase in plastids of tobacco BY-2 cells. Physiologia Plantarum, 2003, 117, 550-557.	5.2	62
69	Effect of iron on the expression of ascorbate peroxidase in Euglena gracilis. Plant Science, 2003, 165, 1363-1367.	3.6	17
70	Post-transcriptional regulation of ascorbate peroxidase during light adaptation of Euglena gracilis. Plant Science, 2003, 165, 233-238.	3.6	18
71	Crystal Structure of Chloroplastic Ascorbate Peroxidase from Tobacco Plants and Structural Insights into its Instability. Journal of Biochemistry, 2003, 134, 239-244.	1.7	45
72	Identification of a cis Element for Tissue-specific Alternative Splicing of Chloroplast Ascorbate Peroxidase Pre-mRNA in Higher Plants. Journal of Biological Chemistry, 2002, 277, 40623-40632.	3.4	83

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73	Thylakoid membrane-bound ascorbate peroxidase is a limiting factor of antioxidative systems under photo-oxidative stress. Plant Journal, 2002, 32, 915-925.	5.7	207
74	Regulation and function of ascorbate peroxidase isoenzymes. Journal of Experimental Botany, 2002, 53, 1305-1319.	4.8	60
75	Regulation and function of ascorbate peroxidase isoenzymes. Journal of Experimental Botany, 2002, 53, 1305-19.	4.8	257
76	Characterization of monoclonal antibodies against ascorbate peroxidase isoenzymes: purification and epitope-mapping using immunoaffinity column chromatography. Biochimica Et Biophysica Acta - General Subjects, 2001, 1526, 168-174.	2.4	16
77	Expression of Spinach Ascorbate Peroxidase Isoenzymes in Response to Oxidative Stresses. Plant Physiology, 2000, 123, 223-234.	4.8	326
78	Alternatively spliced mRNA variants of chloroplast ascorbate peroxidase isoenzymes in spinach leaves. Biochemical Journal, 1999, 338, 41-48.	3.7	66
79	Molecular Cloning and Functional Expression of Rat Liver Glutathione-dependent Dehydroascorbate Reductase. Journal of Biological Chemistry, 1998, 273, 28708-28712.	3.4	72
80	Alternative mRNA splicing of 3â€²-terminal exons generates ascorbate peroxidase isoenzymes in spinach (Spinacia oleracea) chloroplasts. Biochemical Journal, 1997, 328, 795-800.	3.7	63
81	Metabolism of hydrogen peroxide by the scavenging system in Chlamydomonas reinhardtii. Physiologia Plantarum, 1997, 99, 49-55.	5.2	48
82	cDNAs encoding spinach stromal and thylakoid-bound ascorbate peroxidase, differing in the presence or absence of their 3â€²-coding regions. FEBS Letters, 1996, 384, 289-293.	2.8	79
83	Purification and characterization of cytosolic ascorbate peroxidase from komatsuna (Brassica rapa). Plant Science, 1996, 120, 11-18.	3.6	26
84	The catalase-peroxidase of <i>Synechococcus</i> PCC 7942: purification, nucleotide sequence analysis and expression in <i>Escherichia coli</i>. Biochemical Journal, 1996, 316, 251-257.	3.7	75
85	Enzymic and molecular characterization of NADP-dependent glyceraldehyde-3-phosphate dehydrogenase from <i>Synechococcus</i> PCC 7942: resistance of the enzyme to hydrogen peroxide. Biochemical Journal, 1996, 316, 685-690.	3.7	38
86	Cloning and expression of cDNA encoding a new type of ascorbate peroxidase from spinach. FEBS Letters, 1995, 367, 28-32.	2.8	62
87	Hydrogen peroxide generation in organelles of Euglena gracilis. Phytochemistry, 1993, 33, 1297-1299.	2.9	50
88	Requirement for iron and its effect on ascorbate peroxidase in Euglena gracilis. Plant Science, 1993, 93, 25-29.	3.6	11