

# Amane Makino

## List of Publications by Year in descending order

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95  
papers

7,847  
citations

44042

48  
h-index

51562

86  
g-index

96  
all docs

96  
docs citations

96  
times ranked

8000  
citing authors

#	ARTICLE	IF	CITATIONS
1	Suppression of chloroplast triose phosphate isomerase evokes inorganic phosphate-limited photosynthesis in rice. <i>Plant Physiology</i> , 2022, 188, 1550-1562.	2.3	13
2	Expression of flavodiiron protein rescues defects in electron transport around PSI resulting from overproduction of Rubisco activase in rice. <i>Journal of Experimental Botany</i> , 2022, 73, 2589-2600.	2.4	7
3	Photosynthetic Enhancement, Lifespan Extension, and Leaf Area Enlargement in Flag Leaves Increased the Yield of Transgenic Rice Plants Overproducing Rubisco Under Sufficient N Fertilization. <i>Rice</i> , 2022, 15, 10.	1.7	14
4	Contribution of the grain size QTL <i>GS3</i> to yield properties and physiological nitrogen-use efficiency in the large-grain rice cultivar 'Akita 63'. <i>Breeding Science</i> , 2022, 72, 124-131.	0.9	4
5	Effects of suppression of chloroplast phosphoglycerate kinase on photosynthesis in rice. <i>Photosynthesis Research</i> , 2022, 153, 83-91.	1.6	4
6	The <i>gs3</i> allele from a large-grain rice cultivar, Akita 63, increases yield and improves nitrogen-use efficiency. <i>Plant Direct</i> , 2022, 6, .	0.8	6
7	Overproduction of Chloroplast Glyceraldehyde-3-Phosphate Dehydrogenase Improves Photosynthesis Slightly under Elevated [CO <sub>2</sub> ] Conditions in Rice. <i>Plant and Cell Physiology</i> , 2021, 62, 156-165.	1.5	21
8	Photochemistry of Photosystems II and I in Rice Plants Grown under Different N Levels at Normal and High Temperature. <i>Plant and Cell Physiology</i> , 2021, 62, 1121-1130.	1.5	13
9	Overexpression of both Rubisco and Rubisco activase rescues rice photosynthesis and biomass under heat stress. <i>Plant, Cell and Environment</i> , 2021, 44, 2308-2320.	2.8	63
10	Effects of co-overproduction of Rubisco and chloroplast glyceraldehyde-3-phosphate dehydrogenase on photosynthesis in rice. <i>Soil Science and Plant Nutrition</i> , 2021, 67, 283-287.	0.8	8
11	GFS9 Affects Piecemeal Autophagy of Plastids in Young Seedlings of <i>Arabidopsis thaliana</i> . <i>Plant and Cell Physiology</i> , 2021, 62, 1372-1386.	1.5	3
12	Photosynthesis improvement for enhancing productivity in rice. <i>Soil Science and Plant Nutrition</i> , 2021, 67, 513-519.	0.8	20
13	Co-overproducing Rubisco and Rubisco activase enhances photosynthesis in the optimal temperature range in rice. <i>Plant Physiology</i> , 2021, 185, 108-119.	2.3	25
14	Manganese toxicity disrupts indole acetic acid homeostasis and suppresses the CO <sub>2</sub> assimilation reaction in rice leaves. <i>Scientific Reports</i> , 2021, 11, 20922.	1.6	6
15	Oxidation of the reaction center chlorophyll of photosystem I is induced via close cooperation of photosystems II and I with progress of drought stress in soybean seedlings. <i>Soil Science and Plant Nutrition</i> , 2021, 67, 662-669.	0.8	8
16	Effects of overexpression of the Rubisco small subunit gene under the control of the Rubisco activase promoter on Rubisco contents of rice leaves at different positions. <i>Soil Science and Plant Nutrition</i> , 2020, 66, 569-578.	0.8	2
17	Photorespiration Coupled With CO <sub>2</sub> Assimilation Protects Photosystem I From Photoinhibition Under Moderate Poly(Ethylene Glycol)-Induced Osmotic Stress in Rice. <i>Frontiers in Plant Science</i> , 2020, 11, 1121.	1.7	19
18	High yielding ability of a large-grain rice cultivar, Akita 63. <i>Scientific Reports</i> , 2020, 10, 12231.	1.6	21

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19	Intrinsic Fluctuations in Transpiration Induce Photorespiration to Oxidize P700 in Photosystem I. <i>Plants</i> , 2020, 9, 1761.	1.6	15
20	P700 oxidation suppresses the production of reactive oxygen species in photosystem I. <i>Advances in Botanical Research</i> , 2020, 96, 151-176.	0.5	15
21	Overproduction of PGR5 enhances the electron sink downstream of photosystem I in a <i>C<sub>4</sub></i> plant, <i>Flaveria bidentis</i> . <i>Plant Journal</i> , 2020, 103, 814-823.	2.8	20
22	Effects of Overproduction of Rubisco Activase on Rubisco Content in Transgenic Rice Grown at Different N Levels. <i>International Journal of Molecular Sciences</i> , 2020, 21, 1626.	1.8	24
23	Transgenic rice overproducing Rubisco exhibits increased yields with improved nitrogen-use efficiency in an experimental paddy field. <i>Nature Food</i> , 2020, 1, 134-139.	6.2	107
24	Phosphorus toxicity disrupts Rubisco activation and reactive oxygen species defence systems by phytic acid accumulation in leaves. <i>Plant, Cell and Environment</i> , 2020, 43, 2033-2053.	2.8	32
25	Oxidation of P700 Induces Alternative Electron Flow in Photosystem I in Wheat Leaves. <i>Plants</i> , 2019, 8, 152.	1.6	29
26	Responses of the Photosynthetic Electron Transport Reactions Stimulate the Oxidation of the Reaction Center Chlorophyll of Photosystem I, P700, under Drought and High Temperatures in Rice. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2068.	1.8	63
27	Effects of co-overproduction of sedoheptulose-1,7-bisphosphatase and Rubisco on photosynthesis in rice. <i>Soil Science and Plant Nutrition</i> , 2019, 65, 36-40.	0.8	13
28	New insights into the cellular mechanisms of plant growth at elevated atmospheric carbon dioxide concentrations. <i>Plant, Cell and Environment</i> , 2018, 41, 1233-1246.	2.8	118
29	Relationship between Rubisco activase and Rubisco contents in transgenic rice plants with overproduced or decreased Rubisco content. <i>Soil Science and Plant Nutrition</i> , 2018, 64, 352-359.	0.8	18
30	Impacts of autophagy on nitrogen use efficiency in plants. <i>Soil Science and Plant Nutrition</i> , 2018, 64, 100-105.	0.8	11
31	Flavodiiron Protein Substitutes for Cyclic Electron Flow without Competing CO <sub>2</sub> Assimilation in Rice. <i>Plant Physiology</i> , 2018, 176, 1509-1518.	2.3	91
32	Effects of genetic manipulation of the activity of photorespiration on the redox state of photosystem I and its robustness against excess light stress under CO <sub>2</sub> -limited conditions in rice. <i>Photosynthesis Research</i> , 2018, 137, 431-441.	1.6	23
33	Land plants drive photorespiration as higher electron sink: comparative study of post-illumination transient O <sub>2</sub> uptake rates from liverworts to angiosperms through ferns and gymnosperms. <i>Physiologia Plantarum</i> , 2017, 161, 138-149.	2.6	45
34	Effects of co-overexpression of the genes of Rubisco and transketolase on photosynthesis in rice. <i>Photosynthesis Research</i> , 2017, 131, 281-289.	1.6	43
35	A Small Decrease in Rubisco Content by Individual Suppression of RBCS Genes Leads to Improvement of Photosynthesis and Greater Biomass Production in Rice Under Conditions of Elevated CO <sub>2</sub> . <i>Plant and Cell Physiology</i> , 2017, 58, 635-642.	1.5	41
36	Post-illumination transient O <sub>2</sub> uptake is driven by photorespiration in tobacco leaves. <i>Physiologia Plantarum</i> , 2016, 156, 227-238.	2.6	30

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37	A physiological role of cyclic electron transport around photosystem I in sustaining photosynthesis under fluctuating light in rice. <i>Scientific Reports</i> , 2016, 6, 20147.	1.6	237
38	Photorespiration provides the chance of cyclic electron flow to operate for the redox-regulation of P700 in photosynthetic electron transport system of sunflower leaves. <i>Photosynthesis Research</i> , 2016, 129, 279-290.	1.6	35
39	Differential Expression of Genes of the Calvin-Benson Cycle and its Related Genes During Leaf Development in Rice. <i>Plant and Cell Physiology</i> , 2016, 57, 115-124.	1.5	22
40	Enhanced leaf photosynthesis as a target to increase grain yield: insights from transgenic rice lines with variable Rieske FeS protein content in the cytochrome <i>b<sub>6</sub>/f</i> complex. <i>Plant, Cell and Environment</i> , 2016, 39, 80-87.	2.8	125
41	FLAVODIIRON2 and FLAVODIIRON4 Proteins Mediate an Oxygen-Dependent Alternative Electron Flow in <i>Synechocystis</i> sp. PCC 6803 under CO <sub>2</sub> -Limited Conditions. <i>Plant Physiology</i> , 2015, 167, 472-480.	2.3	77
42	Establishment of Monitoring Methods for Autophagy in Rice Reveals Autophagic Recycling of Chloroplasts and Root Plastids during Energy Limitation. <i>Plant Physiology</i> , 2015, 167, 1307-1320.	2.3	97
43	Autophagy Supports Biomass Production and Nitrogen Use Efficiency at the Vegetative Stage in Rice. <i>Plant Physiology</i> , 2015, 168, 60-73.	2.3	130
44	OsATG7 is required for autophagy-dependent lipid metabolism in rice postmeiotic anther development. <i>Autophagy</i> , 2014, 10, 878-888.	4.3	176
45	Roles of autophagy in chloroplast recycling. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2014, 1837, 512-521.	0.5	110
46	O <sub>2</sub> -dependent large electron flow functioned as an electron sink, replacing the steady-state electron flux in photosynthesis in the cyanobacterium <i>Synechocystis</i> sp. PCC 6803, but not in the cyanobacterium <i>Synechococcus</i> sp. PCC 7942. <i>Bioscience, Biotechnology and Biochemistry</i> , 2014, 78, 384-393.	0.6	35
47	Repetitive Short-Pulse Light Mainly Inactivates Photosystem I in Sunflower Leaves. <i>Plant and Cell Physiology</i> , 2014, 55, 1184-1193.	1.5	148
48	Whole-Plant Growth and N Utilization in Transgenic Rice Plants with Increased or Decreased Rubisco Content under Different CO <sub>2</sub> Partial Pressures. <i>Plant and Cell Physiology</i> , 2014, 55, 1905-1911.	1.5	29
49	Evidence for contribution of autophagy to Rubisco degradation during leaf senescence in <i>Arabidopsis thaliana</i> . <i>Plant, Cell and Environment</i> , 2013, 36, 1147-1159.	2.8	79
50	Translational downregulation of RBCL is operative in the coordinated expression of Rubisco genes in senescent leaves in rice. <i>Journal of Experimental Botany</i> , 2013, 64, 1145-1152.	2.4	34
51	Rice cultivar responses to elevated CO <sub>2</sub> at two free-air CO <sub>2</sub> enrichment (FACE) sites in Japan. <i>Functional Plant Biology</i> , 2013, 40, 148.	1.1	213
52	Autophagy Contributes to Nighttime Energy Availability for Growth in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2013, 161, 1682-1693.	2.3	124
53	Availability of Rubisco Small Subunit Up-Regulates the Transcript Levels of Large Subunit for Stoichiometric Assembly of Its Holoenzyme in Rice. <i>Plant Physiology</i> , 2012, 160, 533-540.	2.3	55
54	PGR5-Dependent Cyclic Electron Transport Around PSI Contributes to the Redox Homeostasis in Chloroplasts Rather Than CO <sub>2</sub> Fixation and Biomass Production in Rice. <i>Plant and Cell Physiology</i> , 2012, 53, 2117-2126.	1.5	68

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55	O <sub>2</sub> -enhanced induction of photosynthesis in rice leaves: the Mehler-ascorbate peroxidase (MAP) pathway drives cyclic electron flow within PSII and cyclic electron flow around PSI. <i>Soil Science and Plant Nutrition</i> , 2012, 58, 718-727.	0.8	8
56	RBCS1A and RBCS3B, two major members within the Arabidopsis RBCS multigene family, function to yield sufficient Rubisco content for leaf photosynthetic capacity. <i>Journal of Experimental Botany</i> , 2012, 63, 2159-2170.	2.4	98
57	O <sub>2</sub> supports 3-phosphoglycerate-dependent O <sub>2</sub> evolution in chloroplasts from spinach leaves. <i>Soil Science and Plant Nutrition</i> , 2012, 58, 462-468.	0.8	5
58	Effect of individual suppression of <i>RBCS</i> multigene family on Rubisco contents in rice leaves. <i>Plant, Cell and Environment</i> , 2012, 35, 546-553.	2.8	52
59	Metabolome analysis of photosynthesis and the related primary metabolites in the leaves of transgenic rice plants with increased or decreased Rubisco content. <i>Plant, Cell and Environment</i> , 2012, 35, 1369-1379.	2.8	50
60	Rubisco activase is a key regulator of non-steady-state photosynthesis at any leaf temperature and, to a lesser extent, of steady-state photosynthesis at high temperature. <i>Plant Journal</i> , 2012, 71, 871-880.	2.8	220
61	Cyclic electron flow around PSI functions in the photoinhibited rice leaves. <i>Soil Science and Plant Nutrition</i> , 2011, 57, 105-113.	0.8	4
62	The rate-limiting step for CO <sub>2</sub> assimilation at different temperatures is influenced by the leaf nitrogen content in several C <sub>3</sub> crop species. <i>Plant, Cell and Environment</i> , 2011, 34, 764-777.	2.8	150
63	Cyclic electron flow around photosystem I via chloroplast NAD(P)H dehydrogenase (NDH) complex performs a significant physiological role during photosynthesis and plant growth at low temperature in rice. <i>Plant Journal</i> , 2011, 68, 966-976.	2.8	211
64	New insight into photosynthetic acclimation to elevated CO <sub>2</sub> : The role of leaf nitrogen and ribulose-1,5-bisphosphate carboxylase/oxygenase content in rice leaves. <i>Environmental and Experimental Botany</i> , 2011, 71, 128-136.	2.0	76
65	Photosynthesis, Grain Yield, and Nitrogen Utilization in Rice and Wheat. <i>Plant Physiology</i> , 2011, 155, 125-129.	2.3	416
66	<i>Os-GIGANTEA</i> Confers Robust Diurnal Rhythms on the Global Transcriptome of Rice in the Field. <i>Plant Cell</i> , 2011, 23, 1741-1755.	3.1	184
67	Differences Between Rice and Wheat in Temperature Responses of Photosynthesis and Plant Growth. <i>Plant and Cell Physiology</i> , 2009, 50, 744-755.	1.5	137
68	Autophagy Plays a Role in Chloroplast Degradation during Senescence in Individually Darkened Leaves. <i>Plant Physiology</i> , 2009, 149, 885-893.	2.3	313
69	Differences in Expression of the RBCS Multigene Family and Rubisco Protein Content in Various Rice Plant Tissues at Different Growth Stages. <i>Plant and Cell Physiology</i> , 2009, 50, 1851-1855.	1.5	51
70	Rubisco content and photosynthesis of leaves at different positions in transgenic rice with an overexpression of <i>RBCS</i> . <i>Plant, Cell and Environment</i> , 2009, 32, 417-427.	2.8	92
71	Mobilization of Rubisco and Stroma-Localized Fluorescent Proteins of Chloroplasts to the Vacuole by an <i>ATG</i> Gene-Dependent Autophagic Process. <i>Plant Physiology</i> , 2008, 148, 142-155.	2.3	325
72	Increased Rubisco Content in Transgenic Rice Transformed with the <i>Sense</i> <i>rbcS</i> Gene. <i>Plant and Cell Physiology</i> , 2007, 48, 626-637.	1.5	119

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73	Temperature Response of Photosynthesis in Transgenic Rice Transformed with $\epsilon$ -Sense <sup>TM</sup> or $\epsilon$ -Antisense <sup>TM</sup> rbcS. <i>Plant and Cell Physiology</i> , 2007, 48, 1472-1483.	1.5	86
74	A large-grain rice cultivar, Akita 63, exhibits high yields with high physiological N-use efficiency. <i>Field Crops Research</i> , 2006, 97, 227-237.	2.3	85
75	In vivo Fragmentation of the Large Subunit of Ribulose-1,5-Bisphosphate Carboxylase by Reactive Oxygen Species in an Intact Leaf of Cucumber under Chilling-light Conditions. <i>Plant and Cell Physiology</i> , 2006, 47, 270-276.	1.5	55
76	Differences between Maize and Rice in N-use Efficiency for Photosynthesis and Protein Allocation. <i>Plant and Cell Physiology</i> , 2003, 44, 952-956.	1.5	149
77	Rubisco and nitrogen relationships in rice: Leaf photosynthesis and plant growth. <i>Soil Science and Plant Nutrition</i> , 2003, 49, 319-327.	0.8	97
78	Exclusion of Ribulose-1,5-bisphosphate Carboxylase/oxygenase from Chloroplasts by Specific Bodies in Naturally Senescing Leaves of Wheat. <i>Plant and Cell Physiology</i> , 2003, 44, 914-921.	1.5	175
79	Physiological Functions of the Water-Water Cycle (Mehler Reaction) and the Cyclic Electron Flow around PSI in Rice Leaves. <i>Plant and Cell Physiology</i> , 2002, 43, 1017-1026.	1.5	176
80	Whole-plant growth and N allocation in transgenic rice plants with decreased content of ribulose-1,5-bisphosphate carboxylase under different CO <sub>2</sub> partial pressures. <i>Functional Plant Biology</i> , 2000, 27, 1.	1.1	10
81	Photosynthesis, plant growth and N allocation in transgenic rice plants with decreased Rubisco under CO <sub>2</sub> enrichment. <i>Journal of Experimental Botany</i> , 2000, 51, 383-389.	2.4	83
82	Light-dependent fragmentation of the large subunit of ribulose-1,5-bisphosphate carboxylase/oxygenase in chloroplasts isolated from wheat leaves. <i>Planta</i> , 1998, 204, 305-309.	1.6	101
83	Leaf photosynthesis, plant growth and nitrogen allocation in rice under different irradiances. <i>Planta</i> , 1997, 203, 390-398.	1.6	128
84	Distinctive Responses of Ribulose-1,5-Bisphosphate Carboxylase and Carbonic Anhydrase in Wheat Leaves to Nitrogen Nutrition and their Possible Relationships to CO <sub>2</sub> -Transfer Resistance. <i>Plant Physiology</i> , 1992, 100, 1737-1743.	2.3	199
85	Nitrogen accumulation in the inferior spikelet of rice ear during ripening. <i>Soil Science and Plant Nutrition</i> , 1992, 38, 517-525.	0.8	45
86	Photosynthetic Characteristics of Rice Leaves Aged under Different Irradiances from Full Expansion through Senescence. <i>Plant Physiology</i> , 1991, 97, 1287-1293.	2.3	109
87	Solubilization of ribulose-1,5-bisphosphate carboxylase from the membrane fraction of pea leaves. <i>Photosynthesis Research</i> , 1991, 29, 79-85.	1.6	38
88	Effects of Nitrogen Nutrition on Nitrogen Partitioning between Chloroplasts and Mitochondria in Pea and Wheat. <i>Plant Physiology</i> , 1991, 96, 355-362.	2.3	353
89	Effect of sodium dodecylsulfate on the degradation of ribulose-1,5-bisphosphate carboxylase/oxygenase in the extract of rice ( <i>Oryza sativa</i> L.) leaves. <i>Soil Science and Plant Nutrition</i> , 1990, 36, 91-96.	0.8	6
90	Differences between wheat and rice in the enzymic properties of ribulose-1,5-bisphosphate carboxylase/oxygenase and the relationship to photosynthetic gas exchange. <i>Planta</i> , 1988, 174, 30-38.	1.6	227

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91	Variations in the Contents and Kinetic Properties of Ribulose-1,5-bisphosphate Carboxylases among Rice Species. <i>Plant and Cell Physiology</i> , 1987, 28, 799-804.	1.5	44
92	Colorimetric Measurement of Protein Stained with Coomassie Brilliant Blue R on Sodium Dodecyl Sulfate-Polyacrylamide Gel Electrophoresis by Eluting with Formamide. <i>Agricultural and Biological Chemistry</i> , 1986, 50, 1911-1912.	0.3	61
93	Enzymic Properties of Ribulose-1,5-bisphosphate Carboxylase/Oxygenase Purified from Rice Leaves. <i>Plant Physiology</i> , 1985, 79, 57-61.	2.3	94
94	Effect of nitrogen, phosphorus or potassium on the photosynthetic rate and ribulose-1,5-bisphosphate carboxylase content in rice leaves during expansion. <i>Soil Science and Plant Nutrition</i> , 1984, 30, 63-70.	0.8	24
95	Photosynthesis and Ribulose 1,5-Bisphosphate Carboxylase in Rice Leaves. <i>Plant Physiology</i> , 1983, 73, 1002-1007.	2.3	202