Yasunori Nakamura

List of Publications by Year
in descending order

122 papers	9,485 citations	38738 50 h-index	38392 95 g-index
122 all docs	122 docs citations	122 times ranked	3766 citing authors

#	Article	IF	Citations
1	On the cluster structure of amylopectin. Plant Molecular Biology, 2022, 108, 291-306.	3.9	21
2	Suppressed expression of starch branching enzyme 1 and 2 increases resistant starch and amylose content and modifies amylopectin structure in cassava. Plant Molecular Biology, 2022, 108, 413-427.	3.9	8
3	Changes in fine structure of amylopectin and internal structures of starch granules in developing endosperms and culms caused by starch branching enzyme mutations of japonica rice. Plant Molecular Biology, 2022, 108, 481-496.	3.9	4
4	Molecular regulation of starch metabolism. Plant Molecular Biology, 2022, 108, 289-290.	3.9	2
5	Effects of BEIIb-Deficiency on the Cluster Structure of Amylopectin and the Internal Structure of Starch Granules in Endosperm and Culm of Japonica-Type Rice. Frontiers in Plant Science, 2020, 11, 571346.	3.6	12
6	Determination of Organic Acids in Honey by Liquid Chromatography with Tandem Mass Spectrometry. Food Analytical Methods, 2020, 13, 2249-2257.	2.6	28
7	Analysis of malto-oligosaccharides and related metabolites in rice endosperm during development. Planta, 2020, 251, 110.	3.2	6
8	Structural features of Î±-glucans in the very early developÎ±mental stage of rice endosperm. Journal of Cereal Science, 2019, 89, 102778.	3.7	8
9	Rice starch biotechnology: Rice endosperm as a model of cereal endosperms. Starch/Staerke, 2018, 70, 1600375.	2.1	44
10	Effects of Shear and Heat Milling Treatment on Thermal Properties and Molecular Structures of Rice Starch. Starch/Staerke, 2018, 70, 1700164.	2.1	12
11	Contributions of Three Starch Branching Enzyme Isozymes to the Fine Structure of Amylopectin in Rice Endosperm. Frontiers in Plant Science, 2018, 9, 1536.	3.6	42
12	Ungerminated Rice Grains Observed by Femtosecond Pulse Laser Second-Harmonic Generation Microscopy. Journal of Physical Chemistry B, 2018, 122, 7855-7861.	2.6	2
13	[Review] An Overview of the Starch Biosynthetic Processes in Cereals. Bulletin of Applied Glycoscience, 2018, 8, 117-123.	0.0	0
14	[Review] Effects of Amorphous Rice on Rice Batter Properties and Molecular Structures of Rice Starch. Bulletin of Applied Glycoscience, 2018, 8, 129-137.	0.0	0
15	Differences in specificity and compensatory functions among three major starch synthases determine the structure of amylopectin in rice endosperm. Plant Molecular Biology, 2017, 94, 399-417.	3.9	34
16	Critical and speculative review of the roles of multi-protein complexes in starch biosynthesis in cereals. Plant Science, 2017, 262, 1-8.	3.6	86
17	Characterization of the functional interactions of plastidial starch phosphorylase and starch branching enzymes from rice endosperm during reserve starch biosynthesis. Plant Science, 2017, 264, 83-95.	3.6	37
18	Biochemical analysis of new type mutants of japonica rice that accumulate waterâ€soluble Î±â€glucans in the endosperm but retain full starch debranching enzyme activities. Starch/Staerke, 2017, 69, 1600159.	2.1	7

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19	Comparison of Chain-Length Preferences and Glucan Specificities of Isoamylase-Type Î±-Glucan Debranching Enzymes from Rice, Cyanobacteria, and Bacteria. PLoS ONE, 2016, 11, e0157020.	2.5	13
20	Characterization of Function of the GlgA2 Glycogen/Starch Synthase in <i>Cyanobacterium</i> sp. Clg1 Highlights Convergent Evolution of Glycogen Metabolism into Starch Granule Aggregation. Plant Physiology, 2016, 171, 1879-1892.	4.8	15
21	Profiling of lipid and glycogen accumulations under different growth conditions in the sulfothermophilic red alga Galdieria sulphuraria. Bioresource Technology, 2016, 200, 861-866.	9.6	44
22	Deficiency of Starch Synthase IIIa and IVb Alters Starch Granule Morphology from Polyhedral to Spherical in Rice Endosperm. Plant Physiology, 2016, 170, 1255-1270.	4.8	131
23	Thermal and Pasting Properties, Morphology of Starch Granules, and Crystallinity of Endosperm Starch in the Rice SSI and SSIIIa Double-Mutant. Journal of Applied Glycoscience (1999), 2015, 62, 81-86.	0.7	16
24	Biosynthesis of Reserve Starch. , 2015, , 161-209.		35
25	Initiation Process of Starch Biosynthesis. , 2015, , 315-332.		7
26	Amylopectin biosynthetic enzymes from developing rice seed form enzymatically active protein complexes. Journal of Experimental Botany, 2015, 66, 4469-4482.	4.8	129
27	Functional characterization of three (GH13) branching enzymes involved in cyanobacterial starch biosynthesis from Cyanobacterium sp. NBRC 102756. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 476-484.	2.3	22
28	Common reed accumulates starch in its stem by metabolic adaptation under Cd stress conditions. Frontiers in Plant Science, 2015, 6, 138.	3.6	32
29	Wetting effect on optical sum frequency generation (SFG) spectra of d-glucose, d-fructose, and sucrose. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 138, 834-839.	3.9	14
30	The Rice Endosperm ADP-Glucose Pyrophosphorylase Large Subunit is Essential for Optimal Catalysis and Allosteric Regulation of the Heterotetrameric Enzyme. Plant and Cell Physiology, 2014, 55, 1169-1183.	3.1	69
31	Deficiencies in both starch synthase IIIa and branching enzyme IIb lead to a significant increase in amylose in SSIIa-inactive japonica rice seeds. Journal of Experimental Botany, 2014, 65, 5497-5507.	4.8	85
32	In vitro studies of enzymatic properties of starch synthases and interactions between starch synthase I and starch branching enzymes from rice. Plant Science, 2014, 224, 1-8.	3.6	47
33	Relationships between starch synthase I and branching enzyme isozymes determined using double mutant rice lines. BMC Plant Biology, 2014, 14, 80.	3.6	100
34	Diversity of reaction characteristics of glucan branching enzymes and the fine structure of Î±-glucan from various sources. Archives of Biochemistry and Biophysics, 2014, 562, 9-21.	3.0	60
35	Physicochemical Variation of Cyanobacterial Starch, the Insoluble Î±-Glucans in Cyanobacteria. Plant and Cell Physiology, 2013, 54, 465-473.	3.1	24
36	Convergent Evolution of Polysaccharide Debranching Defines a Common Mechanism for Starch Accumulation in Cyanobacteria and Plants. Plant Cell, 2013, 25, 3961-3975.	6.6	21

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37	Physicochemical properties and the fine structure of endosperm starches from brewing suitable <i>japonica</i>-type rice cultivar "<i>Akita-sake-komachi</i>" grown in different years. Journal of the Brewing Society of Japan, 2013, 108, 675-685.	0.3	6
38	Special Issue ^|^quot;Starch Metabolism, Structure and Properties^|^quot; Characterization of Starch and Glycogen Branching Enzymes from Various Sources. Journal of Applied Glycoscience (1999), 2013, 60, .	0.7	1
39	Functional Study of Rice Starch Synthase I (SSI) by Using Double Mutant with Lowered Activities of SSI and Isoamylase1. Journal of Applied Glycoscience (1999), 2013, 60, 45-51.	0.7	7
40	Thermal Properties, Morphology of Starch Granules and Crystallinity of Endosperm Starch in SSI and BE Isozymes Double Mutant Lines. Journal of Applied Glycoscience (1999), 2013, 60, 171-176.	0.7	20
41	Functional Interaction Between Plastidial Starch Phosphorylase and Starch Branching Enzymes from Rice During the Synthesis of Branched Maltodextrins. Plant and Cell Physiology, 2012, 53, 869-878.	3.1	82
42	Elongated phytoglycogen chain length in transgenic rice endosperm expressing active starch synthase IIa affects the altered solubility and crystallinity of the storage Î±-glucan. Journal of Experimental Botany, 2012, 63, 5859-5872.	4.8	41
43	Lack of starch synthase IIIa and high expression of granule-bound starch synthase I synergistically increase the apparent amylose content in rice endosperm. Plant Science, 2012, 193-194, 62-69.	3.6	68
44	[Review: Prize-awarded article] Elucidation and Regulation of the Metabolic System for Starch Biosynthesis. Bulletin of Applied Glycoscience, 2012, 2, 23-32.	0.0	1
45	Structures of Starches from Rice Mutants Deficient in the Starch Synthase Isozyme SSI or SSIIIa. Biomacromolecules, 2011, 12, 1621-1628.	5.4	37
46	Effects of granule-bound starch synthase I-defective mutation on the morphology and structure of pyrenoidal starch in Chlamydomonas. Plant Science, 2011, 180, 238-245.	3.6	23
47	New Assay Method for Starch Branching Enzyme and Starch Synthase by the Chain-length Distribution Analysis. Journal of Applied Glycoscience (1999), 2011, 58, 119-123.	0.7	6
48	Functional Diversity of Isoamylase Oligomers: The ISA1 Homo-Oligomer Is Essential for Amylopectin Biosynthesis in Rice Endosperm Â Â. Plant Physiology, 2011, 156, 61-77.	4.8	92
49	Starch biosynthesis in rice endosperm requires the presence of either starch synthase I or IIIa. Journal of Experimental Botany, 2011, 62, 4819-4831.	4.8	95
50	Starch biosynthesis in cereal endosperm. Plant Physiology and Biochemistry, 2010, 48, 383-392.	5.8	410
51	Glucose 1â€phosphate is efficiently taken up by potato (<i>Solanum tuberosum</i>) tuber parenchyma cells and converted to reserve starch granules. New Phytologist, 2010, 185, 663-675.	7.3	65
52	Effects of Temperature on Starch Branching Enzyme Properties of Rice. Journal of Applied Glycoscience (1999), 2010, 58, 19-26.	0.7	38
53	Carbohydrate Metabolism in Mutants of the Cyanobacterium <i>Synechococcus elongatus</i> PCC 7942 Defective in Glycogen Synthesis. Applied and Environmental Microbiology, 2010, 76, 3153-3159.	3.1	108
54	The primitive rhodophyte Cyanidioschyzon merolae contains a semiamylopectin-type, but not an amylose-type, Â-glucan. Plant and Cell Physiology, 2010, 51, 682-693.	3.1	29

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55	Development of Coenzyme Q10-Enriched Rice Using<i>Sugary</i>and<i>Shrunken</i>Mutants. Bioscience, Biotechnology and Biochemistry, 2010, 74, 182-184.	1.3	22
56	Characterization of the Reactions of Starch Branching Enzymes from Rice Endosperm. Plant and Cell Physiology, 2010, 51, 776-794.	3.1	146
57	Quantitative Assay Method for Starch Branching Enzyme with Bicinchoninic Acid by Measuring the Reducing Terminals of Glucans. Journal of Applied Glycoscience (1999), 2009, 56, 215-222.	0.7	17
58	Chlorella Starch Branching Enzyme II (BEII) Can Complement the Function of BEIIb in Rice Endosperm. Plant and Cell Physiology, 2009, 50, 1062-1074.	3.1	34
59	Characterization of pullulanase (PUL)-deficient mutants of rice (Oryza sativa L.) and the function of PUL on starch biosynthesis in the developing rice endosperm. Journal of Experimental Botany, 2009, 60, 1009-1023.	4.8	158
60	Sequential Analysis of Î±-Glucooligosaccharides with Î±-(1â†’4) and Î±-(1â†’6) Linkages by Negative Ion Q-TOF MS/MS Spectrometry. Journal of Carbohydrate Chemistry, 2009, 28, 421-430.	1.1	5
61	Profiling of a microbial community under confined conditions in a fed-batch garbage decomposer by denaturing gradient gel electrophoresis. Bioresource Technology, 2008, 99, 3084-3093.	9.6	8
62	Mutation of the Plastidial Î±-Glucan Phosphorylase Gene in Rice Affects the Synthesis and Structure of Starch in the Endosperm. Plant Cell, 2008, 20, 1833-1849.	6.6	250
63	Pathway of Cytosolic Starch Synthesis in the Model Glaucophyte <i>Cyanophora paradoxa</i>. Eukaryotic Cell, 2008, 7, 247-257.	3.4	49
64	Metabolic Symbiosis and the Birth of the Plant Kingdom. Molecular Biology and Evolution, 2008, 25, 536-548.	8.9	153
65	Variation in Storage Î±-Glucans of the Porphyridiales (Rhodophyta). Plant and Cell Physiology, 2008, 49, 103-116.	3.1	55
66	The Function of Rice Starch Synthase I Expressed in Escherichia coli. Journal of Applied Glycoscience (1999), 2008, 55, 167-172.	0.7	17
67	Characterization of SSIIIa-Deficient Mutants of Rice: The Function of SSIIIa and Pleiotropic Effects by SSIIIa Deficiency in the Rice Endosperm. Plant Physiology, 2007, 144, 2009-2023.	4.8	335
68	Physicochemical properties of starch in Chlorella change depending on the CO2 concentration during growth: Comparison of structure and properties of pyrenoid and stroma starch. Plant Science, 2007, 172, 1138-1147.	3.6	64
69	Role of the GlgX protein in glycogen metabolism of the cyanobacterium, Synechococcus elongatus PCC 7942. Biochimica Et Biophysica Acta - General Subjects, 2007, 1770, 763-773.	2.4	38
70	Common reed produces starch granules at the shoot base in response to salt stress. New Phytologist, 2007, 176, 572-580.	7.3	77
71	Variation in Storage Î±-Polyglucans of Red Algae: Amylose and Semi-Amylopectin Types in Porphyridium and Glycogen Type in Cyanidium. Marine Biotechnology, 2007, 9, 192-202.	2.4	47
72	Short-Chain-Length Distribution in Debranched Rice Starches Differing in Gelatinization Temperature or Cooked Rice Hardness. Starch/Staerke, 2006, 58, 155-160.	2.1	25

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73	Expression profiling of genes related to starch synthesis in rice leaf sheaths during the heading period. Physiologia Plantarum, 2006, 128, 425-435.	5.2	54
74	Expression profiling of starch metabolism-related plastidic translocator genes in rice. Planta, 2006, 223, 248-257.	3.2	51
75	Granule-bound starch synthase cDNA in Chlorella kessleri 11Âh: cloning and regulation of expression by CO2 concentration. Planta, 2006, 224, 646-654.	3.2	17
76	Structural and enzymatic characterization of the isoamylase1 homo-oligomer and the isoamylase1â€"isoamylase2 hetero-oligomer from rice endosperm. Planta, 2006, 225, 75-87.	3.2	76
77	Molecular and biochemical analysis of the gelatinization temperature characteristics of rice (Oryza) Tj ETQq1 1 0.784314 rgBT /Overlock	3.7	23
78	Function and Characterization of Starch Synthase I Using Mutants in Rice. Plant Physiology, 2006, 140, 1070-1084.	4.8	339
79	Roles of isoamylase and ADP-glucose pyrophosphorylase in starch granule synthesis in rice endosperm. Plant Journal, 2005, 42, 164-174.	5.7	101
80	Essential amino acids of starch synthase IIa differentiate amylopectin structure and starch quality between japonica and indica rice varieties. Plant Molecular Biology, 2005, 58, 213-227.	3.9	264
81	Some Cyanobacteria Synthesize Semi-amylopectin Type Î±-Polyglucans Instead of Glycogen. Plant and Cell Physiology, 2005, 46, 539-545.	3.1	107
82	Expression profiling of genes involved in starch synthesis in sink and source organs of rice. Journal of Experimental Botany, 2005, 56, 3229-3244.	4.8	399
83	Complementation of sugary-1 Phenotype in Rice Endosperm with the Wheat Isoamylase1 Gene Supports a Direct Role for Isoamylase1 in Amylopectin Biosynthesis. Plant Physiology, 2005, 137, 43-56.	4.8	91
84	Natural variation in rice starch synthase IIa affects enzyme and starch properties. Functional Plant Biology, 2004, 31, 671.	2.1	149
85	The structure of starch can be manipulated by changing the expression levels of starch branching enzyme IIb in rice endosperm. Plant Biotechnology Journal, 2004, 2, 507-516.	8.3	187
86	Structures and Properties of Amylopectin and Phytoglycogen in the Endosperm of sugary-1 Mutants of Rice. Journal of Cereal Science, 2003, 37, 139-149.	3.7	117
87	Starch-Branching Enzyme I-Deficient Mutation Specifically Affects the Structure and Properties of Starch in Rice Endosperm. Plant Physiology, 2003, 133, 1111-1121.	4.8	265
88	Antisense Inhibition of Isoamylase Alters the Structure of Amylopectin and the Physicochemical Properties of Starch in Rice Endosperm. Plant and Cell Physiology, 2003, 44, 607-618.	3.1	165
89	Isolation and Characterization of Starch Mutants in Rice. Journal of Applied Glycoscience (1999), 2003, 50, 225-230.	0.7	44
90	Engineering of Amylopectin Biosynthesis in Rice Endosperm. Journal of Applied Glycoscience (1999), 2003, 50, 197-200.	0.7	6

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91	Towards a Better Understanding of the Metabolic System for Amylopectin Biosynthesis in Plants: Rice Endosperm as a Model Tissue. Plant and Cell Physiology, 2002, 43, 718-725.	3.1	447
92	The fine Structure of Amylopectin in Endosperm from Asian Cultivated Rice can be largely Classified into two Classes. Starch/Staerke, 2002, 54, 117-131.	2.1	205
93	Biochemical and Genetic Analysis of the Effects of Amylose-Extender Mutation in Rice Endosperm. Plant Physiology, 2001, 127, 459-472.	4.8	154
94	Biochemical and Genetic Analysis of the Effects of<i>Amylose-Extender</i> Mutation in Rice Endosperm. Plant Physiology, 2001, 127, 459-472.	4.8	486
95	The Starch-Debranching Enzymes Isoamylase and Pullulanase Are Both Involved in Amylopectin Biosynthesis in Rice Endosperm. Plant Physiology, 1999, 121, 399-410.	4.8	245
96	Purification, characterization, and cDNA structure of isoamylase from developing endosperm of rice. Planta, 1999, 208, 283-293.	3.2	111
97	Differences in Amylopectin Structure Between Two Rice Varieties in Relation to the Effects of Temperature During Grain-Filling. Starch/Staerke, 1999, 51, 58-62.	2.1	134
98	Genomic DNA sequence of a rice gene coding for a pullulanase-type of starch debranching enzyme. BBA - Proteins and Proteomics, 1998, 1387, 469-477.	2.1	12
99	Correlation between activities of starch debranching enzyme and alpha-polyglucan structure in endosperms of sugary-1 mutants of rice. Plant Journal, 1997, 12, 143-153.	5.7	170
100	Some properties of starch debranching enzymes and their possible role in amylopectin biosynthesis. Plant Science, 1996, 121, 1-18.	3.6	91
101	Starch debranching enzyme (R-enzyme or pullulanase) from developing rice endosperm: purification, cDNA and chromosomal localization of the gene. Planta, 1996, 199, 209-18.	3.2	110
102	Changes in structure of starch and enzyme activities affected by sugary mutations in developing rice endosperm. Possible role of starch debranching enzyme (R-enzyme) in amylopectin biosynthesis. Physiologia Plantarum, 1996, 97, 491-498.	5.2	130
103	Changes in structure of starch and enzyme activities affected by sugary mutations in developing rice endosperm. Possible role of starch debranching enzyme (R-enzyme) in amylopectin biosynthesis. Physiologia Plantarum, 1996, 97, 491-498.	5.2	22
104	Purification and some properties of starch branching enzyme (Q-enzyme) from tuberous root of sweet potato. Physiologia Plantarum, 1994, 91, 763-769.	5.2	0
105	Effect of grain location on the panicle on activities involved in starch synthesis in rice endosperm. Phytochemistry, 1994, 36, 843-847.	2.9	50
106	Changes in enzyme activities associated with carbohydrate metabolism during the development of rice endosperm. Plant Science, 1992, 82, 15-20.	3.6	90
107	Purification of two forms of starch branching enzyme (Q-enzyme) from developing rice endosperm. Physiologia Plantarum, 1992, 84, 329-335.	5.2	75
108	Multiple forms of ADPglucose pyrophosphorylase of rice endosperm. Physiologia Plantarum, 1992, 84, 336-342.	5.2	38

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109	Purification of two forms of starch branching enzyme (Q-enzyme) from developing rice endosperm. Physiologia Plantarum, 1992, 84, 329-335.	5.2	15
110	Carbohydrate Metabolism in the Developing Endosperm of Rice Grains. Plant and Cell Physiology, 1989, 30, 833-839.	3.1	361
111	Regulation of ADP-Glucose Pyrophosphorylase from Chlorella vulgaris. Plant Physiology, 1985, 78, 601-605.	4.8	24
112	Radioactivity detection system with a CaF2 (Eu) scintillator for high-performance liquid chromatography. Journal of Chromatography A, 1985, 333, 83-92.	3.7	8
113	Characterization of Chlorella phosphorylase: The glucan specificity and effect of temperature. Phytochemistry, 1983, 22, 2395-2399.	2.9	9
114	Characteristics of Î±-glucan phosphorylase from Chlorella vulgaris. Phytochemistry, 1983, 22, 835-840.	2.9	26
115	Change in properties of starch when photosynthesized at different temperatures in Chlorella vulgaris. Plant Science Letters, 1983, 31, 123-131.	1.8	9
116	Change in molecular weight distribution in starch when degraded at different temperatures in Chlorella vulgaris. Plant Science Letters, 1983, 30, 259-265.	1.8	12
117	Change in starch photosynthesized at different temperatures in Chlorella. Plant Science Letters, 1982, 27, 1-6.	1.8	8
118	Effects of temperature and CO2 concentration on photosynthetic CO2 fixation by Chlorella. Plant and Cell Physiology, 1980, 21, 765-774.	3.1	12
119	The light-dependent step of de novo synthesis of long chain fatty acids in spinach chloroplasts. Plant Science Letters, 1979, 14, 291-295.	1.8	22
120	Fatty acid synthesis by spinach chloroplasts II. The path from PGA to fatty acids. Plant and Cell Physiology, 1975, 16, 151-162.	3.1	60
121	Fatty acid synthesis by spinach chloroplasts I. Property of fatty acid synthesis from acetate. Plant and Cell Physiology, 1975, 16, 139-149.	3.1	38
122	Fatty acid synthesis by spinach chloroplasts III. Relationship between fatty acid synthesis and photophosphorylation. Plant and Cell Physiology, 1975, 16, 163-174.	3.1	10