Daisaku Ohta

List of Publications by Year
in descending order

78 papers	3,244 citations	159358 30 h-index	155451 55 g-index
82 all docs	82 docs citations	82 times ranked	3984 citing authors

#	Article	IF	Citations
1	Arabidopsis CYP707As Encode (+)-Abscisic Acid 8â€²-Hydroxylase, a Key Enzyme in the Oxidative Catabolism of Abscisic Acid. Plant Physiology, 2004, 134, 1439-1449.	2.3	485
2	Diversification of P450 Genes During Land Plant Evolution. Annual Review of Plant Biology, 2010, 61, 291-315.	8.6	322
3	Isolation of a cDNA and a Genomic Clone Encoding Cinnamate 4-Hydroxylase from Arabidopsis and Its Expression Manner in Planta. Plant Physiology, 1997, 113, 755-763.	2.3	187
4	Cytochrome P450 CYP710A Encodes the Sterol C-22 Desaturase in Arabidopsis and Tomato. Plant Cell, 2006, 18, 1008-1022.	3.1	159
5	Two Isoforms of NADPH:Cytochrome P450 Reductase inArabidopsis thaliana. Plant Physiology, 1998, 116, 357-367.	2.3	138
6	Isolation and characterization of the three Waxy genes encoding the granule-bound starch synthase in hexaploid wheat. Gene, 1999, 234, 71-79.	1.0	114
7	Clarification of Pathway-Specific Inhibition by Fourier Transform Ion Cyclotron Resonance/Mass Spectrometry-Based Metabolic Phenotyping Studies. Plant Physiology, 2006, 142, 398-413.	2.3	107
8	Identification and Characterization of <i>ANAC042</i>, a Transcription Factor Family Gene Involved in the Regulation of Camalexin Biosynthesis in <i>Arabidopsis</i>. Molecular Plant-Microbe Interactions, 2012, 25, 684-696.	1.4	104
9	Molecular Cloning and Sequencing of a cDNA Encoding Mung Bean Cytochrome P450 (P450C4H) Possessing Cinnamate 4-Hydroxylase Activity. Biochemical and Biophysical Research Communications, 1993, 190, 875-880.	1.0	102
10	Tomato cytochrome P450 CYP734A7 functions in brassinosteroid catabolism. Phytochemistry, 2006, 67, 1895-1906.	1.4	71
11	Metabolomics approach for determining growth-specific metabolites based on Fourier transform ion cyclotron resonance mass spectrometry. Analytical and Bioanalytical Chemistry, 2008, 391, 2769-2782.	1.9	70
12	Differential metabolomics unraveling light/dark regulation of metabolic activities in Arabidopsis cell culture. Planta, 2007, 227, 57-66.	1.6	67
13	Microsomal Electron Transfer in Higher Plants: Cloning and Heterologous Expression of NADH-Cytochromeb5Reductase from Arabidopsis. Plant Physiology, 1999, 119, 353-362.	2.3	64
14	Application of Fourier-transform ion cyclotron resonance mass spectrometry to metabolic profiling and metabolite identification. Current Opinion in Biotechnology, 2010, 21, 35-44.	3.3	62
15	A Novel Class of Herbicides (Specific Inhibitors of Imidazoleglycerol Phosphate Dehydratase). Plant Physiology, 1995, 107, 719-723.	2.3	61
16	Cytochrome P450 superfamily in Arabidopsis thaliana: isolation of cDNAs, differential expression, and RFLP mapping of multiple cytochromes P450. Plant Molecular Biology, 1998, 37, 39-52.	2.0	61
17	Integrated analysis of transcriptome and metabolome of Arabidopsis albino or pale green mutants with disrupted nuclear-encoded chloroplast proteins. Plant Molecular Biology, 2014, 85, 411-428.	2.0	48
18	High-Throughput Cryopreservation of Plant Cell Cultures for Functional Genomics. Plant and Cell Physiology, 2012, 53, 943-952.	1.5	42

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19	Molecular Cloning and Characterization of ATP-Phosphoribosyl Transferase from Arabidopsis, a Key Enzyme in the Histidine Biosynthetic Pathway. Plant Physiology, 2000, 122, 907-914.	2.3	41
20	Metabolomics for the characterization of cytochromes P450-dependent fatty acid hydroxylation reactions in Arabidopsis. Plant Biotechnology, 2009, 26, 175-182.	0.5	39
21	Metabolic profiling using Fourier-transform ion-cyclotron-resonance mass spectrometry. Analytical and Bioanalytical Chemistry, 2007, 389, 1469-1475.	1.9	38
22	Insect Cell Expression of Recombinant Imidazoleglycerolphosphate Dehydratase of Arabidopsis and Wheat and Inhibition by Triazole Herbicides. Plant Physiology, 1995, 109, 153-159.	2.3	37
23	Identification and molecular characterization of mitochondrial ferredoxins and ferredoxin reductase from Arabidopsis. Plant Molecular Biology, 2003, 52, 817-830.	2.0	37
24	CYP710A genes encoding sterol C22-desaturase in Physcomitrella patens as molecular evidence for the evolutionary conservation of a sterol biosynthetic pathway in plants. Planta, 2009, 229, 1311-1322.	1.6	37
25	Diversification of sterol methyltransferase enzymes in plants and a role for Î²â€sitosterol in oriented cell plate formation and polarized growth. Plant Journal, 2015, 84, 860-874.	2.8	35
26	Wax Ester Synthase/Diacylglycerol Acyltransferase Isoenzymes Play a Pivotal Role in Wax Ester Biosynthesis in Euglena gracilis. Scientific Reports, 2017, 7, 13504.	1.6	35
27	Isolation and Characterization of a Histidine Biosynthetic Gene in Arabidopsis Encoding a Polypeptide with Two Separate Domains for Phosphoribosyl-ATP Pyrophosphohydrolase and Phosphoribosyl-AMP Cyclohydrolase. Plant Physiology, 1998, 118, 275-283.	2.3	34
28	Metabolic Profiling of Transgenic Potato Tubers Expressing Arabidopsis Dehydration Response Element-Binding Protein 1A (DREB1A). Journal of Agricultural and Food Chemistry, 2013, 61, 893-900.	2.4	34
29	Characterization of Orphan Monooxygenases by Rapid Substrate Screening Using FT-ICR Mass Spectrometry. Chemistry and Biology, 2008, 15, 563-572.	6.2	32
30	Isolation and Characterization of cDNAs Encoding Imidazoleglycerolphosphate Dehydratase from Arabidopsis thaliana. Plant Physiology, 1994, 105, 579-583.	2.3	31
31	Prediction of operon-like gene clusters in the Arabidopsis thaliana genome based on co-expression analysis of neighboring genes. Gene, 2012, 503, 56-64.	1.0	30
32	Cytochrome P450 subfamily CYP710A genes encode sterol C-22 desaturase in plants. Biochemical Society Transactions, 2006, 34, 1202-1205.	1.6	29
33	Wax ester and lipophilic compound profiling of Euglena gracilis by gas chromatography-mass spectrometry: toward understanding of wax ester fermentation under hypoxia. Metabolomics, 2015, 11, 175-183.	1.4	28
34	The effect of rapamycin on biodiesel-producing protist <i>Euglena gracilis</i>. Bioscience, Biotechnology and Biochemistry, 2016, 80, 1223-1229.	0.6	26
35	Isolation and characterization of mutations affecting expression of theÎ”9- fatty acid desaturase gene,OLE1, inSaccharomyces cerevisiae. FEBS Letters, 1997, 413, 226-230.	1.3	23
36	Early Responses of Sodium-Deficient Amaranthus tricolor L. Plants to Sodium Application. Plant Physiology, 1987, 84, 112-117.	2.3	21

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37	Steady-State Kinetics of Cabbage Histidinol Dehydrogenase. Archives of Biochemistry and Biophysics, 1994, 312, 493-500.	1.4	21
38	Sodium Stimulates Growth of Amaranthus tricolor L. Plants through Enhanced Nitrate Assimilation. Plant Physiology, 1989, 89, 1102-1105.	2.3	20
39	Expression and characterization of a rabbit liver cytochrome P450 belonging to P450IIB subfamily with the aid of the baculovirus expression vector system. Biochemical and Biophysical Research Communications, 1991, 175, 394-399.	1.0	20
40	Histidinol Dehydrogenase Loses Its Catalytic Function through the Mutation of His261â†'Asn Due to Its Inability to Ligate the Essential Zn. Journal of Biochemistry, 1994, 115, 22-25.	0.9	19
41	AnArabidopsiscDNA encoding a bifunctional glutamine amidotransferase/cyclase suppresses the histidine auxotrophy of aSaccharomyces cerevisiae his7mutant. FEBS Letters, 1998, 428, 229-234.	1.3	18
42	113Cd Nuclear Magnetic Resonance Studies of Cabbage Histidinol Dehydrogenase. Biochemistry, 1996, 35, 5949-5954.	1.2	17
43	Theoretical evidence of the existence of a diazafulvene intermediate in the reaction pathway of imidazoleglycerol phosphate dehydratase: design of a novel and potent heterocycle structure for the inhibitor on the basis of the electronic structure-activity relationship study. BBA - Proteins and Proteomics, 1998, 1385, 107-114.	2.1	17
44	Molecular cloning and characterization of the gene encoding Nâ€²-[(5â€²-phosphoribosyl)-formimino]-5-aminoimidazole-4-carboxamide ribonucleotide (BBM II) isomerase from Arabidopsis thaliana. Molecular Genetics and Genomics, 1998, 259, 216-223.	2.4	17
45	Metabolomic characterization of the possible involvement of a Cytochrome P450, CYP81F4, in the biosynthesis of indolic glucosinolate in Arabidopsis. Plant Biotechnology, 2011, 28, 379-385.	0.5	17
46	Overexpression of plant histidinol dehydrogenase using a baculovirus expression vector system. Archives of Biochemistry and Biophysics, 1992, 295, 235-239.	1.4	16
47	Arabidopsis 3-deoxy-D-manno-oct-2-ulosonate-8-phosphate synthase: cDNA cloning and expression analyses. Journal of Experimental Botany, 2003, 54, 1785-1787.	2.4	16
48	Redundancy or flexibility: molecular diversity of the electron transfer components for p450 monooxygenases in higher plants. Frontiers in Bioscience - Landmark, 2004, 9, 1587.	3.0	14
49	A CoMFA analysis with conformational propensity: an attempt to analyze the SAR of a set of molecules with different conformational flexibility using a 3D-QSAR method. Journal of Computer-Aided Molecular Design, 2000, 14, 265-275.	1.3	13
50	Seed Metabolome Analysis of a Transgenic Rice Line Expressing Cholera Toxin B-subunit. Scientific Reports, 2017, 7, 5196.	1.6	13
51	Sodium-Stimulated NO3â^' Uptake in Amaranthus tricolor L. Plants. Plant Physiology, 1988, 87, 223-225.	2.3	12
52	Site-Directed Mutagenesis Shows That the Conserved Cysteine Residues of Histidinol Dehydrogenase Are Not Essential for Catalysis. Journal of Biochemistry, 1993, 114, 856-861.	0.9	11
53	Heavy Metal Induction ofArabidopsisSerine Decarboxylase Gene Expression. Bioscience, Biotechnology and Biochemistry, 2003, 67, 896-898.	0.6	10
54	Exploration of polar lipid accumulation profiles in <i>Euglena gracilis</i> using LipidBlast, an MS/MS spectral library constructed <i>in silico</i>. Bioscience, Biotechnology and Biochemistry, 2014, 78, 14-18.	0.6	10

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55	Effect of Transgenic Rootstock Grafting on the Omics Profiles in Tomato. Food Safety (Tokyo, Japan), 2021, 9, 32-47.	1.0	10
56	Effect of excess cadmium ion on the metal binding site of cabbage histidinol dehydrogenase studied by113Cd-NMR spectroscopy. FEBS Letters, 1997, 412, 301-304.	1.3	9
57	Targeted Integration of RNA-Seq and Metabolite Data to Elucidate Curcuminoid Biosynthesis in Four Curcuma Species. Plant and Cell Physiology, 2015, 56, 843-851.	1.5	9
58	Critical Involvement of Environmental Carbon Dioxide Fixation to Drive Wax Ester Fermentation in Euglena. PLoS ONE, 2016, 11, e0162827.	1.1	8
59	Germination stimulatory activity of bacterial butenolide hormones from <i>Streptomyces albus</i> J1074 on seeds of the root parasitic weed <i>Orobanche minor</i>. Journal of Pesticide Sciences, 2021, 46, 242-247.	0.8	8
60	Computational Modeling of a Binding Conformation of the Intermediatel-Histidinal to Histidinol Dehydrogenase. Journal of Chemical Information and Computer Sciences, 2001, 41, 196-201.	2.8	7
61	Selective regulation of pyrethrin biosynthesis by the specific blend of wound induced volatiles in<i>Tanacetum cinerariifolium</i>. Plant Signaling and Behavior, 2016, 11, e1149675.	1.2	7
62	Rhizotaxis Modulation in Arabidopsis Is Induced by Diffusible Compounds Produced during the Cocultivation of Arabidopsis and the Endophytic Fungus Serendipita indica. Plant and Cell Physiology, 2020, 61, 838-850.	1.5	7
63	Comparison of the Effectiveness of Ovulation Synchronization Protocol in Anestrous and Cycling Beef Cows. Journal of Reproduction and Development, 2003, 49, 513-521.	0.5	6
64	The effect of nojirimycin on the transcriptome of germinating <i>Orobanche minor</i> seeds. Journal of Pesticide Sciences, 2020, 45, 230-237.	0.8	5
65	Involvement of Î±-galactosidase OmAGAL2 in planteose hydrolysis during seed germination of <i>Orobanche minor</i>. Journal of Experimental Botany, 2022, 73, 1992-2004.	2.4	5
66	Exploration and characterization of chemical stimulators to maximize the wax ester production by Euglena gracilis. Journal of Bioscience and Bioengineering, 2022, 133, 243-249.	1.1	5
67	Sodium Requirement of Monocotyledonous C₄ Plants for Growth and Nitrate Reductase Activity. Plant and Cell Physiology, 1988, , .	1.5	4
68	Application of Timed Artificial Insemination Protocols to Grazing Japanese Black Cattle with Long Open Period. Journal of Veterinary Medical Science, 2003, 65, 459-464.	0.3	4
69	Identification of a Flavin Monooxygenase-Like Flavonoid 8-Hydroxylase with Gossypetin Synthase Activity from <i>Lotus japonicus</i>. Plant and Cell Physiology, 2021, 62, 411-423.	1.5	4
70	Fertile <i>Arabidopsis cyp704b1</i> mutant, defective in sporopollenin biosynthesis, has a normal pollen coat and lipidic organelles in the tapetum. Plant Biotechnology, 2021, 38, 109-116.	0.5	4
71	Identification of Novel Potent Inhibitors for ATP-Phosphoribosyl Transferase Using Three-Dimensional Structural Database Search Technique. QSAR and Combinatorial Science, 2001, 20, 143-147.	1.4	3
72	Identification of novel cytochrome P450 monooxygenases from actinomycetes capable of intermolecular oxidative Câ€"C coupling reactions. Journal of Bioscience and Bioengineering, 2020, 129, 23-30.	1.1	3

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73	Omics Profiles of Non-transgenic Scion Grafted on Transgenic RdDM Rootstock. Food Safety (Tokyo,) Tj ETQq1 1 0.784314 rgBT /Overlo	1.0	2
74	Sterol C22-Desaturase and Its Biological Roles. , 2012, , 381-391.		1
75	Effect of high-dose 290 nm UV-B on resveratrol content in grape skins. Bioscience, Biotechnology and Biochemistry, 2022, 86, 502-508.	0.6	1
76	Determination by1H-NMR of the Stereospecificity of NAD-dependent PlantL-Histidinol Dehydrogenase for Nicotinamide C-4 Hydrogen Transfer. Bioscience, Biotechnology and Biochemistry, 1995, 59, 1370-1371.	0.6	0
77	[Dedicated to Prof. T. Okada and Prof. T. Nishioka: data science in chemistry]The Contribution of Lipid Identification Tools Powered by In Silico MS/MS Spectral Libraries to Lipidomics. Journal of Computer Aided Chemistry, 2017, 18, 51-57.	0.3	0
78	Metabolic phenotyping and marker metabolite identification using Fourier transform ion cyclotron reso-nance mass spectrometry. Journal of Pesticide Sciences, 2006, 31, 489-492.	0.8	0