

CÃ©line Masclaux-Daubresse

List of Publications by Year in descending order

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90
papers

10,706
citations

41627

51
h-index

42259

96
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99
all docs

99
docs citations

99
times ranked

11430
citing authors

#	ARTICLE	IF	CITATIONS
1	Guidelines for the use and interpretation of assays for monitoring autophagy (4th) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50,742 1,430	4.3	1,430
2	Nitrogen uptake, assimilation and remobilization in plants: challenges for sustainable and productive agriculture. <i>Annals of Botany</i> , 2010, 105, 1141-1157.	1.4	1,292
3	Source and sink mechanisms of nitrogen transport and use. <i>New Phytologist</i> , 2018, 217, 35-53.	3.5	485
4	Characterization of the sink/source transition in tobacco (<i>Nicotiana tabacum</i> L.) shoots in relation to nitrogen management and leaf senescence. <i>Planta</i> , 2000, 211, 510-518.	1.6	432
5	Glutamine Synthetase-Glutamate Synthase Pathway and Glutamate Dehydrogenase Play Distinct Roles in the Sink-Source Nitrogen Cycle in Tobacco. <i>Plant Physiology</i> , 2006, 140, 444-456.	2.3	339
6	Autophagy, plant senescence, and nutrient recycling. <i>Journal of Experimental Botany</i> , 2014, 65, 3799-3811.	2.4	283
7	Leaf nitrogen remobilisation for plant development and grain filling. <i>Plant Biology</i> , 2008, 10, 23-36.	1.8	248
8	Autophagy machinery controls nitrogen remobilization at the whole plant level under both limiting and ample nitrate conditions in <i>Arabidopsis</i> . <i>New Phytologist</i> , 2012, 194, 732-740.	3.5	243
9	Cadmium Toxicity Induced Changes in Nitrogen Management in <i>Lycopersicon esculentum</i> Leading to a Metabolic Safeguard Through an Amino Acid Storage Strategy. <i>Plant and Cell Physiology</i> , 2004, 45, 1681-1693.	1.5	237
10	Nitrogen Recycling and Remobilization Are Differentially Controlled by Leaf Senescence and Development Stage in <i>Arabidopsis</i> under Low Nitrogen Nutrition. <i>Plant Physiology</i> , 2008, 147, 1437-1449.	2.3	237
11	Nitrogen remobilisation during leaf senescence: lessons from <i>Arabidopsis</i> to crops. <i>Journal of Experimental Botany</i> , 2017, 68, erw365.	2.4	229
12	Leaf Yellowing and Anthocyanin Accumulation are Two Genetically Independent Strategies in Response to Nitrogen Limitation in <i>Arabidopsis thaliana</i> . <i>Plant and Cell Physiology</i> , 2006, 47, 74-83.	1.5	194
13	Characterization of Markers to Determine the Extent and Variability of Leaf Senescence in <i>Arabidopsis</i> . A Metabolic Profiling Approach. <i>Plant Physiology</i> , 2005, 138, 898-908.	2.3	192
14	Nitrogen metabolism meets phytopathology. <i>Journal of Experimental Botany</i> , 2014, 65, 5643-5656.	2.4	185
15	The challenge of remobilisation in plant nitrogen economy. A survey of physio-agronomic and molecular approaches. <i>Annals of Applied Biology</i> , 2001, 138, 69-81.	1.3	180
16	Senescence and death of plant organs: Nutrient recycling and developmental regulation. <i>Comptes Rendus - Biologies</i> , 2010, 333, 382-391.	0.1	171
17	The two senescence-related markers, GS1 (cytosolic glutamine synthetase) and GDH (glutamate) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50,742 1,430 attack and by stress hormones and reactive oxygen species in <i>Nicotiana tabacum</i> L. leaves. <i>Journal of Experimental Botany</i> , 2006, 57, 547-557.	2.4	169
18	Enzymatic and Metabolic Diagnostic of Nitrogen Deficiency in <i>Arabidopsis thaliana</i> Wassileskija Accession. <i>Plant and Cell Physiology</i> , 2008, 49, 1056-1065.	1.5	152

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19	Physiological and metabolic consequences of autophagy deficiency for the management of nitrogen and protein resources in Arabidopsis leaves depending on nitrate availability. <i>New Phytologist</i> , 2013, 199, 683-694.	3.5	143
20	Exploring nitrogen remobilization for seed filling using natural variation in Arabidopsis thaliana. <i>Journal of Experimental Botany</i> , 2011, 62, 2131-2142.	2.4	136
21	Stitching together the Multiple Dimensions of Autophagy Using Metabolomics and Transcriptomics Reveals Impacts on Metabolism, Development, and Plant Responses to the Environment in Arabidopsis. <i>Plant Cell</i> , 2014, 26, 1857-1877.	3.1	134
22	Regulation of nutrient recycling via autophagy. <i>Current Opinion in Plant Biology</i> , 2017, 39, 8-17.	3.5	134
23	Natural variation of nitrate uptake and nitrogen use efficiency in Arabidopsis thaliana cultivated with limiting and ample nitrogen supply. <i>Journal of Experimental Botany</i> , 2010, 61, 2293-2302.	2.4	125
24	The cytosolic glutamine synthetase GLN1;2 plays a role in the control of plant growth and ammonium homeostasis in Arabidopsis rosettes when nitrate supply is not limiting. <i>Journal of Experimental Botany</i> , 2011, 62, 1375-1390.	2.4	118
25	Diurnal changes in the expression of glutamate dehydrogenase and nitrate reductase are involved in the C/N balance of tobacco source leaves. <i>Plant, Cell and Environment</i> , 2002, 25, 1451-1462.	2.8	115
26	Amino acid pattern and glutamate metabolism during dehydration stress in the 'resurrection' plant <i>Sporobolus stapfianus</i> : a comparison between desiccation-sensitive and desiccation-tolerant leaves. <i>Journal of Experimental Botany</i> , 2007, 58, 3037-3046.	2.4	113
27	Sugars, senescence, and ageing in plants and heterotrophic organisms. <i>Journal of Experimental Botany</i> , 2009, 60, 1063-1066.	2.4	113
28	Characterization of the pelL gene encoding a novel pectate lyase of <i>Erwinia chrysanthemi</i> 3937. <i>Molecular Microbiology</i> , 1995, 16, 1183-1195.	1.2	103
29	The plant nitrogen mobilization promoted by <i>Colletotrichum lindemuthianum</i> in <i>Phaseolus</i> leaves depends on fungus pathogenicity. <i>Journal of Experimental Botany</i> , 2007, 58, 3351-3360.	2.4	99
30	Exploring NUE in crops and in Arabidopsis ideotypes to improve yield and seed quality. <i>Journal of Experimental Botany</i> , 2012, 63, 3401-3412.	2.4	99
31	Autophagy-related approaches for improving nutrient use efficiency and crop yield protection. <i>Journal of Experimental Botany</i> , 2018, 69, 1335-1353.	2.4	97
32	Immunolocalization of glutamine synthetase in senescing tobacco (<i>Nicotiana tabacum</i> L.) leaves suggests that ammonia assimilation is progressively shifted to the mesophyll cytosol. <i>Planta</i> , 2000, 211, 519-527.	1.6	85
33	The role of iron in plant host-pathogen interactions. <i>Trends in Microbiology</i> , 1996, 4, 232-237.	3.5	84
34	A regulatory role of autophagy for resetting the memory of heat stress in plants. <i>Plant, Cell and Environment</i> , 2019, 42, 1054-1064.	2.8	80
35	Simultaneous Expression of NAD-Dependent Isocitrate Dehydrogenase and Other Krebs Cycle Genes after Nitrate Resupply to Short-Term Nitrogen-Starved Tobacco. <i>Plant Physiology</i> , 1999, 120, 717-726.	2.3	79
36	The two nitrogen mobilisation- and senescence-associated GS1 and GDH genes are controlled by C and N metabolites. <i>Planta</i> , 2005, 221, 580-588.	1.6	78

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37	The identification of new cytosolic glutamine synthetase and asparagine synthetase genes in barley (<i>Hordeum vulgare</i> L.), and their expression during leaf senescence. <i>Journal of Experimental Botany</i> , 2015, 66, 2013-2026.	2.4	78
38	Plant senescence: how plants know when and how to die. <i>Journal of Experimental Botany</i> , 2018, 69, 715-718.	2.4	78
39	Concurrent activation of <i>OsAMT1;2</i> and <i>OsGOGAT1</i> in rice leads to enhanced nitrogen use efficiency under nitrogen limitation. <i>Plant Journal</i> , 2020, 103, 7-20.	2.8	76
40	Transcriptional Regulation of Ribosome Components Are Determined by Stress According to Cellular Compartments in <i>Arabidopsis thaliana</i> . <i>PLoS ONE</i> , 2011, 6, e28070.	1.1	75
41	<i>Arabidopsis thaliana</i> <i>ASN2</i> encoding asparagine synthetase is involved in the control of nitrogen assimilation and export during vegetative growth. <i>Plant, Cell and Environment</i> , 2013, 36, 328-342.	2.8	72
42	Differential expression of two siderophore-dependent iron-acquisition pathways in <i>Erwinia chrysanthemi</i> 3937: characterization of a novel ferrisiderophore permease of the ABC transporter family. <i>Molecular Microbiology</i> , 1995, 18, 33-43.	1.2	70
43	The contrasting N management of two oilseed rape genotypes reveals the mechanisms of proteolysis associated with leaf N remobilization and the respective contributions of leaves and stems to N storage and remobilization during seed filling. <i>BMC Plant Biology</i> , 2015, 15, 59.	1.6	68
44	Selective autophagy regulates heat stress memory in <i>Arabidopsis</i> by NBR1-mediated targeting of HSP90.1 and ROF1. <i>Autophagy</i> , 2021, 17, 2184-2199.	4.3	68
45	Assessment and Optimization of Autophagy Monitoring Methods in <i>Arabidopsis</i> Roots Indicate Direct Fusion of Autophagosomes with Vacuoles. <i>Plant and Cell Physiology</i> , 2014, 55, 715-726.	1.5	67
46	SAG12, a Major Cysteine Protease Involved in Nitrogen Allocation during Senescence for Seed Production in <i>Arabidopsis thaliana</i> . <i>Plant and Cell Physiology</i> , 2018, 59, 2052-2063.	1.5	66
47	Autophagy controls resource allocation and protein storage accumulation in <i>Arabidopsis</i> seeds. <i>Journal of Experimental Botany</i> , 2018, 69, 1403-1414.	2.4	64
48	Genetic Variation Suggests Interaction between Cold Acclimation and Metabolic Regulation of Leaf Senescence. <i>Plant Physiology</i> , 2007, 143, 434-446.	2.3	62
49	Autophagy as a possible mechanism for micronutrient remobilization from leaves to seeds. <i>Frontiers in Plant Science</i> , 2014, 5, 11.	1.7	62
50	Overexpression of <i>ATG8</i> in <i>Arabidopsis</i> Stimulates Autophagic Activity and Increases Nitrogen Remobilization Efficiency and Grain Filling. <i>Plant and Cell Physiology</i> , 2019, 60, 343-352.	1.5	58
51	Increases in activity of proteasome and papain-like cysteine protease in <i>Arabidopsis</i> autophagy mutants: back-up compensatory effect or cell-death promoting effect?. <i>Journal of Experimental Botany</i> , 2018, 69, 1369-1385.	2.4	55
52	Proteomic and lipidomic analyses of the <i>Arabidopsis atg5</i> autophagy mutant reveal major changes in endoplasmic reticulum and peroxisome metabolisms and in lipid composition. <i>New Phytologist</i> , 2019, 223, 1461-1477.	3.5	54
53	Glutamine and $\hat{\pm}$ -ketoglutarate are metabolite signals involved in nitrate reductase gene transcription in untransformed and transformed tobacco plants deficient in ferredoxin-glutamine- $\hat{\pm}$ -ketoglutarate aminotransferase. <i>Planta</i> , 2001, 213, 265-271.	1.6	53
54	Three cytosolic glutamine synthetase isoforms localized in different-order veins act together for N remobilization and seed filling in <i>Arabidopsis</i> . <i>Journal of Experimental Botany</i> , 2018, 69, 4379-4393.	2.4	51

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55	Autophagy and Nutrients Management in Plants. <i>Cells</i> , 2019, 8, 1426.	1.8	50
56	QTL analysis for sugar-regulated leaf senescence supports flowering-dependent and -independent senescence pathways. <i>New Phytologist</i> , 2010, 185, 420-433.	3.5	49
57	<i>AtASN1</i> -encoded asparagine synthetase in floral organs contributes to nitrogen filling in <i>Arabidopsis</i> seeds. <i>Plant Journal</i> , 2017, 91, 371-393.	2.8	47
58	Signalling potential of iron in plant-microbe interactions: the pathogenic switch of iron transport in <i>Erwinia chrysanthemi</i> . <i>Plant Journal</i> , 1995, 7, 121-128.	2.8	46
59	Autophagy controls carbon, nitrogen, and redox homeostasis in plants. <i>Autophagy</i> , 2016, 12, 896-897.	4.3	45
60	Morphological and physiological responses to contrasting nitrogen regimes in <i>Populus cathayana</i> is linked to resources allocation and carbon/nitrogen partition. <i>Environmental and Experimental Botany</i> , 2019, 162, 247-255.	2.0	45
61	Sixteen cytosolic glutamine synthetase genes identified in the <i>Brassica napus</i> L. genome are differentially regulated depending on nitrogen regimes and leaf senescence. <i>Journal of Experimental Botany</i> , 2014, 65, 3927-3947.	2.4	43
62	Current Understanding of Leaf Senescence in Rice. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4515.	1.8	43
63	QTL meta-analysis in <i>Arabidopsis</i> reveals an interaction between leaf senescence and resource allocation to seeds. <i>Journal of Experimental Botany</i> , 2014, 65, 3949-3962.	2.4	42
64	Autophagy Increases Zinc Bioavailability to Avoid Light-Mediated Reactive Oxygen Species Production under Zinc Deficiency. <i>Plant Physiology</i> , 2020, 182, 1284-1296.	2.3	41
65	Metabolomics of laminae and midvein during leaf senescence and source-sink metabolite management in <i>Brassica napus</i> L. leaves. <i>Journal of Experimental Botany</i> , 2018, 69, 891-903.	2.4	40
66	<i>OsASN1</i> Overexpression in Rice Increases Grain Protein Content and Yield under Nitrogen-Limiting Conditions. <i>Plant and Cell Physiology</i> , 2020, 61, 1309-1320.	1.5	39
67	Iron Is a Triggering Factor for Differential Expression of <i>Erwinia chrysanthemi</i> Strain 3937 Pectate Lyases in Pathogenesis of African Violets. <i>Molecular Plant-Microbe Interactions</i> , 1996, 9, 198.	1.4	37
68	Autophagy is essential for optimal translocation of iron to seeds in <i>Arabidopsis</i> . <i>Journal of Experimental Botany</i> , 2019, 70, 859-869.	2.4	32
69	Identification of Barley (<i>Hordeum vulgare</i> L.) Autophagy Genes and Their Expression Levels during Leaf Senescence, Chronic Nitrogen Limitation and in Response to Dark Exposure. <i>Agronomy</i> , 2016, 6, 15.	1.3	24
70	Reserve lipids and plant autophagy. <i>Journal of Experimental Botany</i> , 2020, 71, 2854-2861.	2.4	22
71	Autophagy Controls Sulphur Metabolism in the Rosette Leaves of <i>Arabidopsis</i> and Facilitates S Remobilization to the Seeds. <i>Cells</i> , 2020, 9, 332.	1.8	22
72	A New Role for SAG12 Cysteine Protease in Roots of <i>Arabidopsis thaliana</i> . <i>Frontiers in Plant Science</i> , 2019, 9, 1998.	1.7	20

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73	Expression of a ferredoxin-dependent glutamate synthase gene in mesophyll and vascular cells and functions of the enzyme in ammonium assimilation in <i>Nicotiana tabacum</i> (L.). <i>Planta</i> , 2005, 222, 667-677.	1.6	19
74	Evidence for the presence of photorespiration in desiccation-sensitive leaves of the C4 'resurrection' plant <i>Sporobolus stapfianus</i> during dehydration stress. <i>Journal of Experimental Botany</i> , 2007, 58, 3929-3939.	2.4	18
75	Integrating multiple omics to identify common and specific molecular changes occurring in <i>Arabidopsis</i> under chronic nitrate and sulfate limitations. <i>Journal of Experimental Botany</i> , 2020, 71, 6471-6490.	2.4	18
76	A physiological and molecular study of the effects of nickel deficiency and phenylphosphorodiamidate (PPD) application on urea metabolism in oilseed rape (<i>Brassica napus</i> L.). <i>Plant and Soil</i> , 2013, 362, 79-92.	1.8	17
77	Post-flowering biotic and abiotic stresses impact nitrogen use efficiency and seed filling in <i>Arabidopsis thaliana</i> . <i>Journal of Experimental Botany</i> , 2020, 71, 4578-4590.	2.4	16
78	Metabolite Profiling for Leaf Senescence in Barley Reveals Decreases in Amino Acids and Glycolysis Intermediates. <i>Agronomy</i> , 2017, 7, 15.	1.3	14
79	Ammonium stress increases microautophagic activity while impairing macroautophagic flux in <i>Arabidopsis</i> roots. <i>Plant Journal</i> , 2021, 105, 1083-1097.	2.8	13
80	Genotypic Variation of Nitrogen Use Efficiency and Amino Acid Metabolism in Barley. <i>Frontiers in Plant Science</i> , 2021, 12, 807798.	1.7	13
81	Transcriptional Plasticity of Autophagy-Related Genes Correlates with the Genetic Response to Nitrate Starvation in <i>Arabidopsis thaliana</i> . <i>Cells</i> , 2020, 9, 1021.	1.8	10
82	Quantitative Methods to Assess Differential Susceptibility of <i>Arabidopsis thaliana</i> Natural Accessions to <i>Dickeya dadantii</i> . <i>Frontiers in Plant Science</i> , 2017, 8, 394.	1.7	9
83	Editorial: Sugars and Autophagy in Plants. <i>Frontiers in Plant Science</i> , 2019, 10, 1190.	1.7	8
84	Impact of the Genetic-Environment Interaction on the Dynamic of Nitrogen Pools in <i>Arabidopsis</i> . <i>Agriculture (Switzerland)</i> , 2018, 8, 28.	1.4	7
85	Salicylic acid is a key player of <i>Arabidopsis</i> autophagy mutant susceptibility to the necrotrophic bacterium <i>Dickeya dadantii</i> . <i>Scientific Reports</i> , 2021, 11, 3624.	1.6	7
86	How Lipids Contribute to Autophagosome Biogenesis, a Critical Process in Plant Responses to Stresses. <i>Cells</i> , 2021, 10, 1272.	1.8	6
87	A proposed role for endomembrane trafficking processes in regulating tonoplast content and vacuole dynamics under ammonium stress conditions in <i>Arabidopsis</i> root cells. <i>Plant Signaling and Behavior</i> , 2021, 16, 1924977.	1.2	4
88	Absorption et assimilation du nitrate et recyclage de lâ€™azote organique chez les plantes : intÃ©rÃ©t pour le colza. <i>Oleagineux Corps Gras Lipides</i> , 2006, 13, 393-402.	0.2	1
89	Advances in Plant Autophagy. <i>Cells</i> , 2021, 10, 194.	1.8	1
90	Differential expression of <i>Erwinia chrysanthemi</i> strain 3937 pectate lyases in pathogenesis of African violets: importance of low iron environmental conditions. <i>Progress in Biotechnology</i> , 1996, 14, 875-880.	0.2	0