Cline Masclaux-Daubresse

List of Publications by Citations

88 papers	7,166 citations	45 h-index	84 g-index
99 ext. papers	9,417 ext. citations	6.2 avg, IF	6.1 L-index

#	Paper	IF	Citations
88	Nitrogen uptake, assimilation and remobilization in plants: challenges for sustainable and productive agriculture. *Annals of Botany*, **2010**, 105, 1141-57	4.1	916
87	Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). *Autophagy*, **2021**, 17, 1-382	10.2	440
86	Characterization of the sink/source transition in tobacco (Nicotiana tabacum L.) shoots in relation to nitrogen management and leaf senescence. *Planta*, **2000**, 211, 510-8	4.7	353
85	Source and sink mechanisms of nitrogen transport and use. *New Phytologist*, **2018**, 217, 35-53	9.8	267
84	Glutamine synthetase-glutamate synthase pathway and glutamate dehydrogenase play distinct roles in the sink-source nitrogen cycle in tobacco. *Plant Physiology*, **2006**, 140, 444-56	6.6	264
83	Autophagy, plant senescence, and nutrient recycling. *Journal of Experimental Botany*, **2014**, 65, 3799-811	7	201
82	Nitrogen recycling and remobilization are differentially controlled by leaf senescence and development stage in Arabidopsis under low nitrogen nutrition. *Plant Physiology*, **2008**, 147, 1437-49	6.6	197
81	Leaf nitrogen remobilisation for plant development and grain filling. *Plant Biology*, **2008**, 10 Suppl 1, 23-36	3.7	191
80	Cadmium toxicity induced changes in nitrogen management in Lycopersicon esculentum leading to a metabolic safeguard through an amino acid storage strategy. *Plant and Cell Physiology*, **2004**, 45, 1681-93	4.9	189
79	Autophagy machinery controls nitrogen remobilization at the whole-plant level under both limiting and ample nitrate conditions in Arabidopsis. *New Phytologist*, **2012**, 194, 732-740	9.8	175
78	Characterization of markers to determine the extent and variability of leaf senescence in Arabidopsis. A metabolic profiling approach. *Plant Physiology*, **2005**, 138, 898-908	6.6	168
77	Leaf yellowing and anthocyanin accumulation are two genetically independent strategies in response to nitrogen limitation in Arabidopsis thaliana. *Plant and Cell Physiology*, **2006**, 47, 74-83	4.9	155
76	The challenge of remobilisation in plant nitrogen economy. A survey of physio-agronomic and molecular approaches. *Annals of Applied Biology*, **2001**, 138, 69-81	2.6	152
75	The two senescence-related markers, GS1 (cytosolic glutamine synthetase) and GDH (glutamate dehydrogenase), involved in nitrogen mobilization, are differentially regulated during pathogen attack and by stress hormones and reactive oxygen species in Nicotiana tabacum L. leaves. *Journal of Experimental Botany*, **2006**, 57, 547-57	7	141
74	Senescence and death of plant organs: nutrient recycling and developmental regulation. *Comptes Rendus - Biologies*, **2010**, 333, 382-91	1.4	134
73	Nitrogen metabolism meets phytopathology. *Journal of Experimental Botany*, **2014**, 65, 5643-56	7	132
72	Nitrogen remobilization during leaf senescence: lessons from Arabidopsis to crops. *Journal of Experimental Botany*, **2017**, 68, 2513-2529	7	121

71	Enzymatic and metabolic diagnostic of nitrogen deficiency in Arabidopsis thaliana Wassileskija accession. *Plant and Cell Physiology*, **2008**, 49, 1056-65	4.9	117
70	Natural variation of nitrate uptake and nitrogen use efficiency in Arabidopsis thaliana cultivated with limiting and ample nitrogen supply. *Journal of Experimental Botany*, **2010**, 61, 2293-302	7	105
69	Exploring nitrogen remobilization for seed filling using natural variation in Arabidopsis thaliana. *Journal of Experimental Botany*, **2011**, 62, 2131-42	7	101
68	Physiological and metabolic consequences of autophagy deficiency for the management of nitrogen and protein resources in Arabidopsis leaves depending on nitrate availability. *New Phytologist*, **2013**, 199, 683-94	9.8	99
67	Diurnal changes in the expressionof glutamate dehydrogenase and nitrate reductase are involved in the C/N balance of tobacco source leaves. *Plant, Cell and Environment*, **2002**, 25, 1451-1462	8.4	96
66	Sugars, senescence, and ageing in plants and heterotrophic organisms. *Journal of Experimental Botany*, **2009**, 60, 1063-6	7	95
65	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. *Journal of Experimental Botany*, **2011**, 62, 1375-90	7	93
64	Amino acid pattern and glutamate metabolism during dehydration stress in the 'resurrection' plant Sporobolus stapfianus: a comparison between desiccation-sensitive and desiccation-tolerant leaves. *Journal of Experimental Botany*, **2007**, 58, 3037-46	7	90
63	Stitching together the Multiple Dimensions of Autophagy Using Metabolomics and Transcriptomics Reveals Impacts on Metabolism, Development, and Plant Responses to the Environment in Arabidopsis. *Plant Cell*, **2014**, 26, 1857-1877	11.6	89
62	Regulation of nutrient recycling via autophagy. *Current Opinion in Plant Biology*, **2017**, 39, 8-17	9.9	88
61	Characterization of the pelL gene encoding a novel pectate lyase of Erwinia chrysanthemi 3937. *Molecular Microbiology*, **1995**, 16, 1183-95	4.1	88
60	Immunolocalization of glutamine synthetase in senescing tobacco (Nicotiana tabacum L.) leaves suggests that ammonia assimilation is progressively shifted to the mesophyll cytosol. *Planta*, **2000**, 211, 519-27	4.7	82
59	Exploring NUE in crops and in Arabidopsis ideotypes to improve yield and seed quality. *Journal of Experimental Botany*, **2012**, 63, 3401-12	7	77
58	Simultaneous expression of NAD-dependent isocitrate dehydrogenase and other krebs cycle genes after nitrate resupply to short-term nitrogen-starved tobacco. *Plant Physiology*, **1999**, 120, 717-26	6.6	75
57	The plant nitrogen mobilization promoted by Colletotrichum lindemuthianum in Phaseolus leaves depends on fungus pathogenicity. *Journal of Experimental Botany*, **2007**, 58, 3351-60	7	74
56	The two nitrogen mobilisation- and senescence-associated GS1 and GDH genes are controlled by C and N metabolites. *Planta*, **2005**, 221, 580-8	4.7	68
55	The role of iron in plant host-pathogen interactions. *Trends in Microbiology*, **1996**, 4, 232-7	12.4	66
54	The identification of new cytosolic glutamine synthetase and asparagine synthetase genes in barley (Hordeum vulgare L.), and their expression during leaf senescence. *Journal of Experimental Botany*, **2015**, 66, 2013-26	7	64

53	Transcriptional regulation of ribosome components are determined by stress according to cellular compartments in Arabidopsis thaliana. *PLoS ONE*, **2011**, 6, e28070	3.7	64
52	Arabidopsis thaliana ASN2 encoding asparagine synthetase is involved in the control of nitrogen assimilation and export during vegetative growth. *Plant, Cell and Environment*, **2013**, 36, 328-42	8.4	54
51	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. *BMC Plant Biology*, **2015**, 15, 59	5.3	52
50	Autophagy-related approaches for improving nutrient use efficiency and crop yield protection. *Journal of Experimental Botany*, **2018**, 69, 1335-1353	7	52
49	Autophagy as a possible mechanism for micronutrient remobilization from leaves to seeds. *Frontiers in Plant Science*, **2014**, 5, 11	6.2	50
48	Genetic variation suggests interaction between cold acclimation and metabolic regulation of leaf senescence. *Plant Physiology*, **2007**, 143, 434-46	6.6	49
47	Assessment and optimization of autophagy monitoring methods in Arabidopsis roots indicate direct fusion of autophagosomes with vacuoles. *Plant and Cell Physiology*, **2014**, 55, 715-26	4.9	48
46	Differential expression of two siderophore-dependent iron-acquisition pathways in Erwinia chrysanthemi 3937: characterization of a novel ferrisiderophore permease of the ABC transporter family. *Molecular Microbiology*, **1995**, 18, 33-43	4.1	47
45	A regulatory role of autophagy for resetting the memory of heat stress in plants. *Plant, Cell and Environment*, **2019**, 42, 1054-1064	8.4	46
44	QTL analysis for sugar-regulated leaf senescence supports flowering-dependent and -independent senescence pathways. *New Phytologist*, **2010**, 185, 420-33	9.8	44
43	Signalling potential of iron in plant–microbe interactions: the pathogenic switch of iron transport in Erwinia chrysanthemi. *Plant Journal*, **1995**, 7, 121-128	6.9	43
42	Glutamine and alpha-ketoglutarate are metabolite signals involved in nitrate reductase gene transcription in untransformed and transformed tobacco plants deficient in ferredoxin-glutamine-alpha-ketoglutarate aminotransferase. *Planta*, **2001**, 213, 265-71	4.7	42
41	Increases in activity of proteasome and papain-like cysteine protease in Arabidopsis autophagy mutants: back-up compensatory effect or cell-death promoting effect?. *Journal of Experimental Botany*, **2018**, 69, 1369-1385	7	37
40	Sixteen cytosolic glutamine synthetase genes identified in the Brassica napus L. genome are differentially regulated depending on nitrogen regimes and leaf senescence. *Journal of Experimental Botany*, **2014**, 65, 3927-47	7	37
39	Autophagy controls resource allocation and protein storage accumulation in Arabidopsis seeds. *Journal of Experimental Botany*, **2018**, 69, 1403-1414	7	36
38	Iron Is a Triggering Factor for Differential Expression ofErwinia chrysanthemiStrain 3937 Pectate Lyases in Pathogenesis of African Violets. *Molecular Plant-Microbe Interactions*, **1996**, 9, 198	3.6	35
37	Overexpression of ATG8 in Arabidopsis Stimulates Autophagic Activity and Increases Nitrogen Remobilization Efficiency and Grain Filling. *Plant and Cell Physiology*, **2019**, 60, 343-352	4.9	33
36	Concurrent activation of OsAMT1;2 and OsGOGAT1 in rice leads to enhanced nitrogen use efficiency under nitrogen limitation. *Plant Journal*, **2020**, 103, 7-20	6.9	30

35	SAG12, a Major Cysteine Protease Involved in Nitrogen Allocation during Senescence for Seed Production in Arabidopsis thaliana. *Plant and Cell Physiology*, **2018**, 59, 2052-2063	4.9	30
34	Three cytosolic glutamine synthetase isoforms localized in different-order veins act together for N remobilization and seed filling in Arabidopsis. *Journal of Experimental Botany*, **2018**, 69, 4379-4393	7	28
33	Morphological and physiological responses to contrasting nitrogen regimes in Populus cathayana is linked to resources allocation and carbon/nitrogen partition. *Environmental and Experimental Botany*, **2019**, 162, 247-255	5.9	27
32	Metabolomics of laminae and midvein during leaf senescence and source-sink metabolite management in Brassica napus L. leaves. *Journal of Experimental Botany*, **2018**, 69, 891-903	7	27
31	ASN1-encoded asparagine synthetase in floral organs contributes to nitrogen filling in Arabidopsis seeds. *Plant Journal*, **2017**, 91, 371-393	6.9	26
30	Proteomic and lipidomic analyses of the Arabidopsis atg5 autophagy mutant reveal major changes in endoplasmic reticulum and peroxisome metabolisms and in lipid composition. *New Phytologist*, **2019**, 223, 1461-1477	9.8	26
29	QTL meta-analysis in Arabidopsis reveals an interaction between leaf senescence and resource allocation to seeds. *Journal of Experimental Botany*, **2014**, 65, 3949-62	7	26
28	Autophagy and Nutrients Management in Plants. *Cells*, **2019**, 8,	7.9	24
27	Autophagy Increases Zinc Bioavailability to Avoid Light-Mediated Reactive Oxygen Species Production under Zinc Deficiency. *Plant Physiology*, **2020**, 182, 1284-1296	6.6	22
26	Autophagy is essential for optimal translocation of iron to seeds in Arabidopsis. *Journal of Experimental Botany*, **2019**, 70, 859-869	7	22
25	Selective autophagy regulates heat stress memory in Arabidopsis by NBR1-mediated targeting of HSP90.1 and ROF1. *Autophagy*, **2021**, 17, 2184-2199	10.2	21
24	Autophagy controls carbon, nitrogen, and redox homeostasis in plants. *Autophagy*, **2016**, 12, 896-7	10.2	20
23	OsASN1 Overexpression in Rice Increases Grain Protein Content and Yield under Nitrogen-Limiting Conditions. *Plant and Cell Physiology*, **2020**, 61, 1309-1320	4.9	18
22	Evidence for the presence of photorespiration in desiccation-sensitive leaves of the C4 'resurrection' plant Sporobolus stapfianus during dehydration stress. *Journal of Experimental Botany*, **2007**, 58, 3929-39	7	18
21	Expression of a ferredoxin-dependent glutamate synthase gene in mesophyll and vascular cells and functions of the enzyme in ammonium assimilation in Nicotiana tabacum (L.). *Planta*, **2005**, 222, 667-77	4.7	17
20	Identification of Barley (Hordeum vulgare L.) Autophagy Genes and Their Expression Levels during Leaf Senescence, Chronic Nitrogen Limitation and in Response to Dark Exposure. *Agronomy*, **2016**, 6, 15	3.6	16
19	A physiological and molecular study of the effects of nickel deficiency and phenylphosphorodiamidate (PPD) application on urea metabolism in oilseed rape (Brassica napus L.). *Plant and Soil*, **2013**, 362, 79-92	4.2	14
18	Reserve lipids and plant autophagy. *Journal of Experimental Botany*, **2020**, 71, 2854-2861	7	12

17	A New Role for SAG12 Cysteine Protease in Roots of. *Frontiers in Plant Science*, **2018**, 9, 1998	6.2	9
16	Autophagy Controls Sulphur Metabolism in the Rosette Leaves of Arabidopsis and Facilitates S Remobilization to the Seeds. *Cells*, **2020**, 9,	7.9	9
15	Metabolite Profiling for Leaf Senescence in Barley Reveals Decreases in Amino Acids and Glycolysis Intermediates. *Agronomy*, **2017**, 7, 15	3.6	8
14	Quantitative Methods to Assess Differential Susceptibility of Natural Accessions to. *Frontiers in Plant Science*, **2017**, 8, 394	6.2	7
13	Impact of the Genetic□Environment Interaction on the Dynamic of Nitrogen Pools in Arabidopsis. *Agriculture (Switzerland)*, **2018**, 8, 28	3	5
12	Genotypic Variation of Nitrogen Use Efficiency and Amino Acid Metabolism in Barley.. *Frontiers in Plant Science*, **2021**, 12, 807798	6.2	5
11	Post-flowering biotic and abiotic stresses impact nitrogen use efficiency and seed filling in Arabidopsis thaliana. *Journal of Experimental Botany*, **2020**, 71, 4578-4590	7	4
10	Transcriptional Plasticity of Autophagy-Related Genes Correlates with the Genetic Response to Nitrate Starvation in. *Cells*, **2020**, 9,	7.9	4
9	Integrating multiple omics to identify common and specific molecular changes occurring in Arabidopsis under chronic nitrate and sulfate limitations. *Journal of Experimental Botany*, **2020**, 71, 6471-6490	7	4
8	Current Understanding of Leaf Senescence in Rice. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	4
7	Ammonium stress increases microautophagic activity while impairing macroautophagic flux in Arabidopsis roots. *Plant Journal*, **2021**, 105, 1083-1097	6.9	2
6	Salicylic acid is a key player of Arabidopsis autophagy mutant susceptibility to the necrotrophic bacterium Dickeya dadantii. *Scientific Reports*, **2021**, 11, 3624	4.9	2
5	Autophagy is essential for optimal Fe translocation to seeds in Arabidopsis		1
4	How Lipids Contribute to Autophagosome Biogenesis, a Critical Process in Plant Responses to Stresses. *Cells*, **2021**, 10,	7.9	1
3	Absorption et assimilation du nitrate et recyclage de l□azote organique chez les plantes : intt□ pour le colza. *Oleagineux Corps Gras Lipides*, **2006**, 13, 393-402		0
2	A proposed role for endomembrane trafficking processes in regulating tonoplast content and vacuole dynamics under ammonium stress conditions in Arabidopsis root cells. *Plant Signaling and Behavior*, **2021**, 16, 1924977	2.5	0
1	Differential expression of Erwinia chrysanthemi strain 3937 pectate lyases in pathogenesis of African violets: importance of low iron environmental conditions. *Progress in Biotechnology*, **1996**, 14, 875-880		