Claude Plassard

List of Publications by Citations

69 papers	3,307 citations	29 h-index	57 g-index
71 ext. papers	3,859 ext. citations	5.4 avg, IF	5.25 L-index

#	Paper	IF	Citations
69	Origins of root-mediated pH changes in the rhizosphere and their responses to environmental constraints: A review. *Plant and Soil*, **2003**, 248, 43-59	4.2	884
68	P for two, sharing a scarce resource: soil phosphorus acquisition in the rhizosphere of intercropped species. *Plant Physiology*, **2011**, 156, 1078-86	6.6	233
67	Rhizosphere: A new frontier for soil biogeochemistry. *Journal of Geochemical Exploration*, **2006**, 88, 210-213	3.8	179
66	Acquisition of phosphorus and other poorly mobile nutrients by roots. Where do plant nutrition models fail?. *Plant and Soil*, **2011**, 348, 29-61	4.2	162
65	Ecological importance of soil bacterivores for ecosystem functions. *Plant and Soil*, **2016**, 398, 1-24	4.2	151
64	Strategies and methods for studying the rhizosphere the plant science toolbox. *Plant and Soil*, **2009**, 321, 431-456	4.2	127
63	Biotrophic transportome in mutualistic plant-fungal interactions. *Mycorrhiza*, **2013**, 23, 597-625	3.9	113
62	Two differentially regulated phosphate transporters from the symbiotic fungus Hebeloma cylindrosporum and phosphorus acquisition by ectomycorrhizal Pinus pinaster. *Plant Journal*, **2009**, 57, 1092-102	6.9	64
61	Release of oxalate and protons by ectomycorrhizal fungi in response to P-deficiency and calcium carbonate in nutrient solution. *Annals of Forest Science*, **2003**, 60, 815-821	3.1	63
60	Phosphatase and phytase activities in nodules of common bean genotypes at different levels of phosphorus supply. *Plant and Soil*, **2008**, 312, 129-138	4.2	62
59	Regulation of low-molecular weight organic acid production in fungi. *Fungal Biology Reviews*, **2009**, 23, 30-39	6.8	61
58	Quantification of oxalate ions and protons released by ectomycorrhizal fungi in rhizosphere soil. *Agronomy for Sustainable Development*, **2003**, 23, 461-469		61
57	Diversity in phosphorus mobilisation and uptake in ectomycorrhizal fungi. *Annals of Forest Science*, **2011**, 68, 33-43	3.1	59
56	Quantification of ectomycorrhizal fungal effects on the bioavailability and mobilization of soil P in the rhizosphere of Pinus pinaster. *New Phytologist*, **2004**, 163, 177-185	9.8	57
55	Grazing by nematodes on rhizosphere bacteria enhances nitrate and phosphorus availability to Pinus pinaster seedlings. *Soil Biology and Biochemistry*, **2011**, 43, 2121-2126	7.5	53
54	Evidence of short-term belowground transfer of nitrogen from Acacia mangium to Eucalyptus grandis trees in a tropical planted forest. *Soil Biology and Biochemistry*, **2015**, 91, 99-108	7.5	48
53	Optimized assay and storage conditions for enzyme activity profiling of ectomycorrhizae. *Mycorrhiza*, **2011**, 21, 589-600	3.9	45

52	Nitrogen and phosphate metabolism in ectomycorrhizas. *New Phytologist*, **2018**, 220, 1047-1058	9.8	43
51	Potassium nutrition of ectomycorrhizal Pinus pinaster: overexpression of the Hebeloma cylindrosporum HcTrk1 transporter affects the translocation of both K(+) and phosphorus in the host plant. *New Phytologist*, **2014**, 201, 951-960	9.8	43
50	Molecular and functional characterization of a Na(+)-K(+) transporter from the Trk family in the ectomycorrhizal fungus Hebeloma cylindrosporum. *Journal of Biological Chemistry*, **2007**, 282, 26057-66	5.4	41
49	Phosphorus acquisition from phytate depends on efficient bacterial grazing, irrespective of the mycorrhizal status of Pinus pinaster. *Plant and Soil*, **2012**, 358, 155-168	4.2	39
48	Large-scale identification of genes in the fungus Hebeloma cylindrosporum paves the way to molecular analyses of ectomycorrhizal symbiosis. *New Phytologist*, **2004**, 164, 505-513	9.8	39
47	Efficiency of acid phosphatases secreted from the ectomycorrhizal fungus Hebeloma cylindrosporum to hydrolyse organic phosphorus in podzols. *FEMS Microbiology Ecology*, **2010**, 73, 323-35	4.3	38
46	Spatial distribution of phosphatase activity associated with ectomycorrhizal plants is related to soil type. *Soil Biology and Biochemistry*, **2010**, 42, 324-330	7.5	38
45	Aquaporins: for more than water at the plant-fungus interface?. *New Phytologist*, **2011**, 190, 815-817	9.8	34
44	Differential NO dependent patterns of NO uptake in Pinus pinaster, Rhizopogon roseolus and their ectomycorrhizal association. *New Phytologist*, **2002**, 154, 509-516	9.8	32
43	Dynamics of ectomycorrhizal mycelial growth and P transfer to the host plant in response to low and high soil P availability. *FEMS Microbiology Ecology*, **2004**, 48, 149-56	4.3	31
42	Localization and quantification of net fluxes of H+ along maize roots by combined use of pH-indicator dye videodensitometry and H+-selective microelectrodes. *Plant and Soil*, **1999**, 211, 29-39	4.2	30
41	Reappraisal of the central role of soil nutrient availability in nutrient management in light of recent advances in plant nutrition at crop and molecular levels. *European Journal of Agronomy*, **2020**, 116, 126069	5	29
40	How does a symbiotic fungus modulate expression of its host-plant nitrite reductase?. *New Phytologist*, **2007**, 175, 155-165	9.8	26
39	Fluorescent in situ RT-PCR to visualise the expression of a phosphate transporter gene from an ectomycorrhizal fungus. *Mycorrhiza*, **2007**, 17, 487-494	3.9	26
38	Juvenile nitrogen uptake capacities and root architecture of two open-pollinated families of Picea abies. Effects of nitrogen source and ectomycorrhizal symbiosis. *Journal of Plant Physiology*, **2003**, 160, 1211-8	3.6	26
37	Phosphorus Transport in Mycorrhiza: How Far Are We?. *Trends in Plant Science*, **2019**, 24, 794-801	13.1	24
36	Kinetics of NO3(-) net fluxes in Pinus pinaster, Rhizopogon roseolus and their ectomycorrhizal association, as affected by the presence of NO3(-) and NH4+. *Plant, Cell and Environment*, **2007**, 30, 1309-19	8.4	23
35	Promoter-dependent expression of the fungal transporter HcPT1.1 under Pi shortage and its spatial localization in ectomycorrhiza. *Fungal Genetics and Biology*, **2013**, 58-59, 53-61	3.9	20

34	The Hebeloma cylindrosporum HcPT2 Pi transporter plays a key role in ectomycorrhizal symbiosis. *New Phytologist*, **2018**, 220, 1185-1199	9.8	20
33	INTERACTIONS BETWEEN COMMON BEAN GENOTYPES AND RHIZOBIA STRAINS ISOLATED FROM MOROCCAN SOILS FOR GROWTH, PHOSPHATASE AND PHYTASE ACTIVITIES UNDER PHOSPHORUS DEFICIENCY CONDITIONS. *Journal of Plant Nutrition*, **2012**, 35, 1477-1490	2.3	17
32	Ectomycorrhiza and Nitrogen Provision to the Host Tree **2011**, 69-94		17
31	The host plant Pinus pinaster exerts specific effects on phosphate efflux and polyphosphate metabolism of the ectomycorrhizal fungus Hebeloma cylindrosporum: a radiotracer, cytological staining and P NMR spectroscopy study. *Plant, Cell and Environment*, **2017**, 40, 190-202	8.4	16
30	Localization of the Bacillus subtilis beta-propeller phytase transcripts in nodulated roots of Phaseolus vulgaris supplied with phytate. *Planta*, **2014**, 239, 901-8	4.7	16
29	Protected activity of a phytase immobilized in mesoporous silica with benefits to plant phosphorus nutrition. *Journal of Sol-Gel Science and Technology*, **2015**, 74, 55-65	2.3	15
28	Lack of phosphorus reserves and remobilization in grey poplar (Populus ×canescens): an exception among deciduous tree species?. *Tree Physiology*, **2018**, 38, 1-5	4.2	15
27	The ectomycorrhizal symbiosis between Lactarius deliciosus and Pinus sylvestris in forest soil samples: symbiotic efficiency and development on roots of a rDNA internal transcribed spacer-selected isolate of L. deliciosus. *Mycorrhiza*, **2003**, 13, 17-25	3.9	15
26	Do pH changes in the leaf apoplast contribute to rapid inhibition of leaf elongation rate by water stress? Comparison of stress responses induced by polyethylene glycol and down-regulation of root hydraulic conductivity. *Plant, Cell and Environment*, **2011**, 34, 1258-66	8.4	14
25	Impact of roots, microorganisms and microfauna on the fate of soil phosphorus in the rhizosphere **2015**, 375-407		13
24	Mycorrhizal association of maritime pine, Pinus pinaster, with Rhizopogon roseolus has contrasting effects on the uptake from soil and root-to-shoot transfer of 137Cs, 85Sr and 95mTc. *Journal of Environmental Radioactivity*, **2008**, 99, 853-63	2.4	12
23	Role of trees and herbaceous vegetation beneath trees in maintaining arbuscular mycorrhizal communities in temperate alley cropping systems. *Plant and Soil*, **2020**, 453, 153-171	4.2	12
22	Impact of Roots, Microorganisms and Microfauna on the Fate of Soil Phosphorus in the Rhizosphere **2018**, 377-407		12
21	Effects of a bacterivorous nematode on rice 32P uptake and root architecture in a high P-sorbing ferrallitic soil. *Soil Biology and Biochemistry*, **2018**, 122, 39-49	7.5	11
20	How deep can ectomycorrhizas go? A case study on Pisolithus down to 4 meters in a Brazilian eucalypt plantation. *Mycorrhiza*, **2019**, 29, 637-648	3.9	10
19	Positive growth response of Pinus pinaster seedlings in soils previously subjected to fertilization and irrigation. *Forest Ecology and Management*, **2014**, 318, 62-70	3.9	9
18	HcPT1.2 participates in Pi acquisition in Hebeloma cylindrosporum external hyphae of ectomycorrhizas under high and low phosphate conditions. *Plant Signaling and Behavior*, **2018**, 13, e1525997	3.5	9
17	Quantification of organic P and low-molecular-weight organic acids in ferralsol soil extracts by ion chromatography. *Geoderma*, **2015**, 257-258, 94-101	6.7	8

16	Nitrogen dynamics within and between decomposing leaves, bark and branches in Eucalyptus planted forests. *Soil Biology and Biochemistry*, **2016**, 101, 55-64	7.5	8
15	Introducing N-fixing trees (Acacia mangium) in eucalypt plantations rapidly modifies the pools of organic P and low molecular weight organic acids in tropical soils. *Science of the Total Environment*, **2020**, 742, 140535	10.2	7
14	Micro-food web interactions involving bacteria, nematodes, and mycorrhiza enhance tree P nutrition in a high P-sorbing soil amended with phytate. *Soil Biology and Biochemistry*, **2020**, 143, 107728	7.5	7
13	Quantification of the global impact of agricultural practices on soil nematodes: A meta-analysis. *Soil Biology and Biochemistry*, **2021**, 161, 108383	7.5	7
12	Origins of root-mediated pH changes in the rhizosphere and their responses to environmental constraints: A review **2003**, 43-59		6
11	The Beneficial Effect of Mycorrhizae on N Utilization by the Host-Plant: Myth or Reality? **2008**, 209-240		5
10	Establishing a Symbiotic Interface between Cultured Ectomycorrhizal Fungi and Plants to Follow Fungal Phosphate Metabolism. *Bio-protocol*, **2017**, 7, e2577	0.9	5
9	Agroecosystem diversification with legumes or non-legumes improves differently soil fertility according to soil type. *Science of the Total Environment*, **2021**, 795, 148934	10.2	5
8	A Method for Radioactive Labelling of to Study Plant-fungus Interactions. *Bio-protocol*, **2017**, 7, e2576	0.9	4
7	Attractancy of bacterivorous nematodes to root-adhering soils differs according to rice cultivars. *Rhizosphere*, **2017**, 3, 128-131	3.5	3
6	and P-NMR Study of the Phosphate Transport and Polyphosphate Metabolism in in Response to Plant Roots Signals. *Bio-protocol*, **2018**, 8, e2973	0.9	1
5	Agricultural Practices Modulate the Beneficial Activity of Bacterial-Feeding Nematodes for Plant Growth and Nutrition: Evidence from an Original Intact Soil Core Technique. *Sustainability*, **2021**, 13, 7181	3.6	1
4	Richness of Rhizosphere Organisms Affects Plant P Nutrition According to P Source and Mobility. *Agriculture (Switzerland)*, **2021**, 11, 157	3	1
3	Organic phosphorus immobilization in microbial biomass controls how N2-fixing trees affect phosphorus bioavailability in two tropical soils. *Environmental Advances*, **2022**, 8, 100247	3.5	1
2	A dansyl-derivatized phytic acid analogue as a fluorescent substrate for phytases: experimental and computational approach. *Bioorganic Chemistry*, **2021**, 110, 104810	5.1	
1	Mycorrhizas: Role in N and P cycling and nutrition of forest trees **2022**, 405-422		