StÃ©phane Declerck

List of Publications by Year
in descending order

120 papers	4,138 citations	109264 35 h-index	143943 57 g-index
120 all docs	120 docs citations	120 times ranked	3041 citing authors

#	Article	IF	Citations
1	Arbuscular mycorrhiza on root-organ cultures. Canadian Journal of Botany, 2002, 80, 1-20.	1.2	231
2	Monoxenic culture of the intraradical forms of<i>Glomus</i>sp. isolated from a tropical ecosystem: a proposed methodology for germplasm collection. Mycologia, 1998, 90, 579-585.	0.8	179
3	Methods for large-scale production of AM fungi: past, present, and future. Mycorrhiza, 2011, 21, 1-16.	1.3	173
4	Arbuscular mycorrhizal fungi reveal distinct patterns of anastomosis formation and hyphal healing mechanisms between different phylogenic groups. New Phytologist, 2005, 165, 261-271.	3.5	158
5	Signal beyond nutrient, fructose, exuded by an arbuscular mycorrhizal fungus triggers phytate mineralization by a phosphate solubilizing bacterium. ISME Journal, 2018, 12, 2339-2351.	4.4	153
6	Rhizosphere microbiomes of potato cultivated in the High Andes show stable and dynamic core microbiomes with different responses to plant development. FEMS Microbiology Ecology, 2017, 93, fiw242.	1.3	114
7	Macrophomina phaseolina: General Characteristics of Pathogenicity and Methods of Control. Frontiers in Plant Science, 2021, 12, 634397.	1.7	111
8	Biological control agents: from field to market, problems, and challenges. Trends in Biotechnology, 2014, 32, 493-496.	4.9	109
9	Monoxenic Culture of the Intraradical Forms of Glomus sp. Isolated from a Tropical Ecosystem: A Proposed Methodology for Germplasm Collection. Mycologia, 1998, 90, 579.	0.8	105
10	Exploring the use of recombinant inbred lines in combination with beneficial microbial inoculants (AM fungus and PGPR) to improve drought stress tolerance in tomato. Environmental and Experimental Botany, 2016, 131, 47-57.	2.0	104
11	Glomeraceae and Gigasporaceae differ in their ability to form hyphal networks. New Phytologist, 2006, 172, 185-188.	3.5	79
12	Development of an autotrophic culture system for the in vitro mycorrhization of potato plantlets. FEMS Microbiology Letters, 2005, 248, 111-118.	0.7	77
13	Contribution of hyphae and roots to uranium uptake and translocation by arbuscular mycorrhizal carrot roots under root-organ culture conditions. New Phytologist, 2003, 158, 391-399.	3.5	75
14	Uranium uptake and translocation by the arbuscular mycorrhizal fungus, Glomus intraradices , under rootâ€organ culture conditions. New Phytologist, 2002, 156, 275-281.	3.5	74
15	Methodologies for in Vitro Cultivation of Arbuscular Mycorrhizal Fungi with Root Organs. , 2005, , 341-375.		72
16	Mycorrhiza induced resistance in potato plantlets challenged by Phytophthora infestans. Physiological and Molecular Plant Pathology, 2011, 76, 20-26.	1.3	71
17	Transport of radiocaesium by arbuscular mycorrhizal fungi to Medicago truncatula under in vitro conditions. Environmental Microbiology, 2006, 8, 1926-1934.	1.8	64
18	Extraradical mycelium network of arbuscular mycorrhizal fungi allows fast colonization of seedlings under in vitro conditions. Mycorrhiza, 2009, 19, 347-356.	1.3	64

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19	Trichoderma harzianum elicits defence response genes in roots of potato plantlets challenged by Rhizoctonia solani. European Journal of Plant Pathology, 2009, 124, 219-230.	0.8	63
20	Transcriptional regulation of defence genes and involvement of the WRKY transcription factor in arbuscular mycorrhizal potato root colonization. Functional and Integrative Genomics, 2012, 12, 183-198.	1.4	61
21	Extraradical mycelium of the arbuscular mycorrhizal fungus Glomus lamellosum can take up, accumulate and translocate radiocaesium under root-organ culture conditions. Environmental Microbiology, 2003, 5, 510-516.	1.8	53
22	Exposure to warming and CO2 enrichment promotes greater above-ground biomass, nitrogen, phosphorus and arbuscular mycorrhizal colonization in newly established grasslands. Plant and Soil, 2012, 359, 121-136.	1.8	51
23	Do fungicides used to control Rhizoctonia solani impact the non-target arbuscular mycorrhizal fungus Rhizophagus irregularis?. Mycorrhiza, 2015, 25, 277-288.	1.3	49
24	Do arbuscular mycorrhizal fungi with contrasting life-history strategies differ in their responses to repeated defoliation?. FEMS Microbiology Ecology, 2010, 72, 114-122.	1.3	48
25	<i>Glomus proliferum</i> sp. nov.: a description based on morphological, biochemical, molecular and monoxenic cultivation data. Mycologia, 2000, 92, 1178-1187.	0.8	47
26	Effects of two sterol biosynthesis inhibitor fungicides (fenpropimorph and fenhexamid) on the development of an arbuscular mycorrhizal fungus. Mycological Research, 2008, 112, 592-601.	2.5	47
27	Inoculation of Medicago sativa cover crop with Rhizophagus irregularis and Trichoderma harzianum increases the yield of subsequently-grown potato under low nutrient conditions. Applied Soil Ecology, 2016, 105, 137-143.	2.1	46
28	Arbuscular mycorrhizal fungi and production of secondary metabolites in medicinal plants. Mycorrhiza, 2022, 32, 221-256.	1.3	46
29	Glomus proliferum sp. nov.: A Description Based on Morphological, Biochemical, Molecular and Monoxenic Cultivation Data. Mycologia, 2000, 92, 1178.	0.8	41
30	Development of extraradical mycelium of Scutellospora reticulata under root-organ culture: spore production and function of auxiliary cells. Mycological Research, 2004, 108, 84-92.	2.5	41
31	Are there keystone mycorrhizal fungi associated to tropical epiphytic orchids?. Mycorrhiza, 2017, 27, 225-232.	1.3	41
32	Absence of carbon transfer between Medicago truncatula plants linked by a mycorrhizal network, demonstrated in an experimental microcosm. FEMS Microbiology Ecology, 2008, 65, 350-360.	1.3	39
33	Mycelium development and architecture, and spore production of<i>Scutellospora reticulata</i>in monoxenic culture with Ri T-DNA transformed carrot roots. Mycologia, 2003, 95, 1004-1012.	0.8	38
34	Greenhouse response of micropropagated bananas inoculated with in vitro monoxenically produced arbuscular mycorrhizal fungi. Scientia Horticulturae, 2002, 93, 301-309.	1.7	37
35	Use of Root Organ Cultures To Investigate the Interaction between Glomus intraradices and Pratylenchus coffeae. Applied and Environmental Microbiology, 2003, 69, 4308-4311.	1.4	37
36	Effects of Rhizophagus irregularis MUCL 41833 on the reproduction of Radopholus similis in banana plantlets grown under in vitro culture conditions. Mycorrhiza, 2013, 23, 279-288.	1.3	37

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37	Dynamics of Short-Term Phosphorus Uptake by Intact Mycorrhizal and Non-mycorrhizal Maize Plants Grown in a Circulatory Semi-Hydroponic Cultivation System. Frontiers in Plant Science, 2017, 8, 1471.	1.7	37
38	Comparison of 233U and 33P uptake and translocation by the arbuscular mycorrhizal fungus Glomus intraradices in root organ culture conditions. Mycorrhiza, 2004, 14, 203-207.	1.3	36
39	Fenpropimorph and fenhexamid impact phosphorus translocation by arbuscular mycorrhizal fungi. Mycorrhiza, 2011, 21, 363-374.	1.3	34
40	Morphological, ontogenetic and molecular characterization of Scutellospora reticulata (Glomeromycota). Mycological Research, 2005, 109, 697-706.	2.5	31
41	Mycoparasitism of arbuscular mycorrhizal fungi: a pathway for the entry of saprotrophic fungi into roots. FEMS Microbiology Ecology, 2010, 73, no-no.	1.3	31
42	Effect of potassium and phosphorus on the transport of radiocesium by arbuscular mycorrhizal fungi. Journal of Environmental Radioactivity, 2010, 101, 482-487.	0.9	30
43	Transcriptional Changes in Mycorrhizal and Nonmycorrhizal Soybean Plants upon Infection with the Fungal Pathogen <i>Macrophomina phaseolina</i>. Molecular Plant-Microbe Interactions, 2018, 31, 842-855.	1.4	30
44	Impact of Rhizophagus irregularis MUCL 41833 on disease symptoms caused by Phytophthora infestans in potato grown under field conditions. Crop Protection, 2018, 107, 26-33.	1.0	30
45	Effects of arbuscular mycorrhizal fungi on the root uptake and translocation of radiocaesium. Environmental Pollution, 2005, 134, 515-524.	3.7	29
46	Potato field-inoculation in Ecuador with Rhizophagus irregularis: no impact on growth performance and associated arbuscular mycorrhizal fungal communities. Symbiosis, 2017, 73, 45-56.	1.2	28
47	Synthetic Mono-Rhamnolipids Display Direct Antifungal Effects and Trigger an Innate Immune Response in Tomato against Botrytis Cinerea. Molecules, 2020, 25, 3108.	1.7	27
48	Maintenance and preservation of ectomycorrhizal and arbuscular mycorrhizal fungi. Mycorrhiza, 2014, 24, 323-337.	1.3	26
49	The induction of Ethylene response factor 3 (<i>ERF3</i>) in potato as a result of co-inoculation with<i>Pseudomonas</i>sp. R41805 and<i>Rhizophagus irregularis</i>MUCL 41833 â€“ a possible role in plant defense. Plant Signaling and Behavior, 2015, 10, e988076.	1.2	26
50	Mitigating Abiotic Stresses in Crop Plants by Arbuscular Mycorrhizal Fungi. Signaling and Communication in Plants, 2016, , 341-400.	0.5	26
51	In situ Orchid Seedling-Trap Experiment Shows Few Keystone and Many Randomly Associated Mycorrhizal Fungal Species During Early Plant Colonization. Frontiers in Plant Science, 2018, 9, 1664.	1.7	26
52	Hyphal healing mechanism in the arbuscular mycorrhizal fungiScutellospora reticulataandGlomus clarumdiffers in response to severe physical stress. FEMS Microbiology Letters, 2007, 268, 120-125.	0.7	25
53	<i>Trichoderma harzianum</i>might impact phosphorus transport by arbuscular mycorrhizal fungi. FEMS Microbiology Ecology, 2011, 77, 558-567.	1.3	25
54	Effects of arbuscular mycorrhizal fungi on grassland productivity are altered by future climate and below-ground resource availability. Environmental and Experimental Botany, 2012, 81, 62-71.	2.0	25

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55	Silicon acquisition by bananas (c.V. Grande Naine) is increased in presence of the arbuscular mycorrhizal fungus Rhizophagus irregularis MUCL 41833. Plant and Soil, 2016, 409, 77-85.	1.8	25
56	Colletotrichum gigasporum sp. nov., a new species of Colletotrichum producing long straight conidia. Mycological Progress, 2013, 12, 403-412.	0.5	23
57	Impact of multispores in vitro subcultivation of Glomus sp. MUCL 43194 (DAOM 197198) on vegetative compatibility and genetic diversity detected by AFLP. Mycorrhiza, 2010, 20, 415-425.	1.3	22
58	Study in vitro of the impact of endophytic bacteria isolated from Centella asiatica on the disease incidence caused by the hemibiotrophic fungus Colletotrichum higginsianum. Antonie Van Leeuwenhoek, 2013, 103, 121-133.	0.7	22
59	Arbuscular Mycorrhizal Fungal Community Composition in Carludovica palmata, Costus scaber and Euterpe precatoria from Weathered Oil Ponds in the Ecuadorian Amazon. Frontiers in Microbiology, 2017, 8, 2134.	1.5	22
60	Genetic analysis of tomato root colonization by arbuscular mycorrhizal fungi. Annals of Botany, 2019, 124, 933-946.	1.4	22
61	A coumarin exudation pathway mitigates arbuscular mycorrhizal incompatibility in Arabidopsis thaliana. Plant Molecular Biology, 2021, 106, 319-334.	2.0	22
62	Polyaromatic hydrocarbons impair phosphorus transport by the arbuscular mycorrhizal fungus Rhizophagus irregularis. Chemosphere, 2014, 104, 97-104.	4.2	21
63	Impact of plant growth-promoting rhizobacteria on root colonization potential and life cycle of<i>Rhizophagus irregularis</i>following co-entrapment into alginate beads. Journal of Applied Microbiology, 2017, 122, 429-440.	1.4	21
64	Untangling factors that drive community composition of root associated fungal endophytes of Neotropical epiphytic orchids. Fungal Ecology, 2018, 34, 67-75.	0.7	21
65	Rhizophagus irregularis MUCL 41833 Improves Phosphorus Uptake and Water Use Efficiency in Maize Plants During Recovery From Drought Stress. Frontiers in Plant Science, 2019, 10, 897.	1.7	21
66	Common Mycorrhizal Network Induced JA/ET Genes Expression in Healthy Potato Plants Connected to Potato Plants Infected by Phytophthora infestans. Frontiers in Plant Science, 2020, 11, 602.	1.7	21
67	Development of<i>Acaulospora rehmii</i>spore and hyphal swellings under root-organ culture. Mycologia, 2002, 94, 850-855.	0.8	20
68	Radiocesium transfer between <i>Medicago truncatula</i> plants via a common mycorrhizal network. Environmental Microbiology, 2010, 12, 2180-2189.	1.8	20
69	Mycelium Development and Architecture, and Spore Production of Scutellospora reticulata in Monoxenic Culture with Ri T-DNA Transformed Carrot Roots. Mycologia, 2003, 95, 1004.	0.8	19
70	Arbuscular mycorrhizal fungi decrease radiocesium accumulation in Medicago truncatula. Journal of Environmental Radioactivity, 2010, 101, 591-596.	0.9	19
71	The arbuscular mycorrhizal fungus Rhizophagus irregularis MUCL 41833 increases the phosphorus uptake and biomass of Medicago truncatula, a benzo[a]pyrene-tolerant plant species. Mycorrhiza, 2018, 28, 761-771.	1.3	18
72	A Stimulatory Role for Cytokinin in the Arbuscular Mycorrhizal Symbiosis of Pea. Frontiers in Plant Science, 2019, 10, 262.	1.7	18

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73	Fast track in vitro mycorrhization of potato plantlets allow studies on gene expression dynamics. Mycorrhiza, 2010, 20, 201-207.	1.3	17
74	Increased Silicon Acquisition in Bananas Colonized by Rhizophagus irregularis MUCL 41833 Reduces the Incidence of Pseudocercospora fijiensis. Frontiers in Plant Science, 2018, 9, 1977.	1.7	16
75	Community composition of arbuscular mycorrhizal fungi associated with native plants growing in a petroleumâ€polluted soil of the Amazon region of Ecuador. MicrobiologyOpen, 2019, 8, e00703.	1.2	15
76	Association of highly and weakly mycorrhizal seedlings can promote the extra- and intraradical development of a common mycorrhizal network. FEMS Microbiology Ecology, 2012, 79, 251-259.	1.3	14
77	Viability of ectomycorrhizal fungi following cryopreservation. Fungal Biology, 2013, 117, 103-111.	1.1	14
78	The arbuscular mycorrhizal fungus Rhizophagus irregularis MUCL 43194 induces the gene expression of citrate synthase in the tricarboxylic acid cycle of the phosphate-solubilizing bacterium Rahnella aquatilis HX2. Mycorrhiza, 2019, 29, 69-75.	1.3	14
79	Direct transfer of zinc between plants is channelled by common mycorrhizal network of arbuscular mycorrhizal fungi and evidenced by changes in expression of zinc transporter genes in fungus and plant. Environmental Microbiology, 2021, 23, 5883-5900.	1.8	14
80	The sterol biosynthesis inhibitor molecule fenhexamid impacts the vegetative compatibility of Glomus clarum. Mycorrhiza, 2011, 21, 443-449.	1.3	13
81	Short-term chromium (VI) exposure increases phosphorus uptake by the extraradical mycelium of the arbuscular mycorrhizal fungus Rhizophagus irregularis MUCL 41833. Chemosphere, 2017, 187, 27-34.	4.2	13
82	Rhizophagus irregularis MUCL 41833 transitorily reduces tomato bacterial wilt incidence caused by Ralstonia solanacearum under in vitro conditions. Mycorrhiza, 2017, 27, 719-723.	1.3	13
83	Characterization of an endophytic whorl-forming Streptomyces from Catharanthus roseus stems producing polyene macrolide antibiotic. Canadian Journal of Microbiology, 2012, 58, 617-627.	0.8	12
84	In vitro mycorrhization of banana (Musa acuminata) plantlets improves their growth during acclimatization. In Vitro Cellular and Developmental Biology - Plant, 2015, 51, 265-273.	0.9	12
85	Tracing native and inoculated Rhizophagus irregularis in three potato cultivars (Charlotte, Nicola) Tj ETQq1 1 0.784314 rgBT /Overlock	2.1	12
86	Mycelium development and architecture, and spore production of Scutellospora reticulata in monoxenic culture with Ri T-DNA transformed carrot roots. Mycologia, 2003, 95, 1004-12.	0.8	11
87	An In Vitro Method for Studying the Three-Way Interaction between Soybean, Rhizophagus irregularis and the Soil-Borne Pathogen Fusarium virguliforme. Frontiers in Plant Science, 2017, 8, 1033.	1.7	10
88	Fungicides With Contrasting Mode of Action Differentially Affect Hyphal Healing Mechanism in Gigaspora sp. and Rhizophagus irregularis. Frontiers in Plant Science, 2021, 12, 642094.	1.7	10
89	The arbuscular mycorrhiza fungus<i>Rhizophagus irregularis</i>MUCL 41833 decreases disease severity of Black Sigatoka on banana c.v. Grande naine, under<i>in vitro</i>culture conditions. Fruits, 2015, 70, 37-46.	0.3	10
90	Phytophthora Root Rot: Importance of the Disease, Current and Novel Methods of Control. Agronomy, 2022, 12, 610.	1.3	10

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91	Preservation at ultra-low temperature of inÂvitro cultured arbuscular mycorrhizal fungi via encapsulationâ€"drying. Fungal Biology, 2012, 116, 1032-1041.	1.1	9
92	In vitro mycorrhization of the rubber tree Hevea brasiliensis MÃ¼ll Arg. In Vitro Cellular and Developmental Biology - Plant, 2013, 49, 207-215.	0.9	9
93	PERN: an EUâ€"Russia initiative for rhizosphere microbial resources. Trends in Biotechnology, 2015, 33, 377-380.	4.9	9
94	Plant identity and density can influence arbuscular mycorrhizal fungi colonization, plant growth, and reproduction investment in coculture. Botany, 2015, 93, 405-412.	0.5	9
95	Increasing phosphorus concentration in the extraradical hyphae of Rhizophagus irregularis DAOM 197198 leads to a concomitant increase in metal minerals. Mycorrhiza, 2016, 26, 909-918.	1.3	9
96	The Arbuscular Mycorrhizal Fungus Rhizophagus irregularis MUCL 41833 Modulates Metabolites Production of Anchusa officinalis L. Under Semi-Hydroponic Cultivation. Frontiers in Plant Science, 2021, 12, 724352.	1.7	9
97	Mycelium chemistry differs markedly between ectomycorrhizal and arbuscular mycorrhizal fungi. Communications Biology, 2022, 5, 398.	2.0	9
98	Mycorrhizal colonization of major banana genotypes in six East African environments. Agriculture, Ecosystems and Environment, 2012, 157, 40-46.	2.5	8
99	Hevea brasiliensis and Urtica dioica impact the in vitro mycorrhization of neighbouring Medicago truncatula seedlings. Symbiosis, 2013, 60, 123-132.	1.2	8
100	The Metabolic Profile of Anchusa officinalis L. Differs According to Its Associated Arbuscular Mycorrhizal Fungi. Metabolites, 2022, 12, 573.	1.3	8
101	Cryopreservation of ectomycorrhizal fungi has minor effects on root colonization of Pinus sylvestris plantlets and their subsequent nutrient uptake capacity. Mycorrhiza, 2013, 23, 463-471.	1.3	7
102	Cryopreservation of in vitro-produced Rhizophagus species has minor effects on their morphology, physiology, and genetic stability. Mycorrhiza, 2013, 23, 675-682.	1.3	7
103	Combinatorial reprogramming of lipid metabolism in plants: a way towards massâ€production of bioâ€fortified arbuscular mycorrhizal fungi inoculants. Microbial Biotechnology, 2021, 14, 31-34.	2.0	7
104	Development of Acaulospora rehmii Spore and Hyphal Swellings under Root-Organ Culture. Mycologia, 2002, 94, 850.	0.8	6
105	Combination of Crotalaria spectabilis with Rhizophagus irregularis MUCL41833 decreases the impact of Radopholus similis in banana. Applied Soil Ecology, 2016, 106, 11-17.	2.1	6
106	Reducing Water Availability Impacts the Development of the Arbuscular Mycorrhizal Fungus Rhizophagus irregularis MUCL 41833 and Its Ability to Take Up and Transport Phosphorus Under in Vitro Conditions. Frontiers in Microbiology, 2018, 9, 1254.	1.5	6
107	Diversity and species composition of arbuscular mycorrhizal fungi across maize fields in the southern part of Belgium. Mycorrhiza, 2021, 31, 265-272.	1.3	6
108	Rhizophagus irregularis MUCL 41833 decreases the reproduction ratio of Radopholus similis in the banana cultivar Yangambi km5. Nematology, 2013, 15, 629-632.	0.2	5

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109	Ectomycorrhizal fungi and trees: brothers in arms in the face of anthropogenic activities and their consequences. Symbiosis, 2021, 84, 337-351.	1.2	5
110	The Mycorrhizal Donor Plant (MDP) In Vitro Culture System for the Efficient Colonization of Whole Plants. Methods in Molecular Biology, 2020, 2146, 19-31.	0.4	5
111	In vitro propagation of Alkanna tinctoria Tausch.: a medicinal plant of the Boraginaceae family with high pharmaceutical value. Industrial Crops and Products, 2022, 182, 114860.	2.5	5
112	Reproduction of the burrowing nematode (Radopholus similis) on Ri T-DNA transformed carrot roots. Nematology, 2000, 2, 247-249.	0.2	4
113	In vitro colonization of date palm plants by Rhizophagus irregularis during the rooting stage. Symbiosis, 2021, 84, 83-89.	1.2	4
114	In vitro mycorrhization of Argania spinosa L. using germinated seeds. Symbiosis, 2021, 85, 57-68.	1.2	4
115	Twoâ€component system in <i>Rahnella aquatilis</i> is impacted by the hyphosphere of the arbuscular mycorrhizal fungus <i>Rhizophagus irregularis</i>. Environmental Microbiology Reports, 2022, 14, 119-129.	1.0	4
116	Effect of activated charcoal and pruning of the taproot on the in vitro mycorrhization of Hevea brasiliensis MÃ¼ll. Arg.. In Vitro Cellular and Developmental Biology - Plant, 2014, 50, 317-325.	0.9	2
117	Cryopreservation of arbuscular mycorrhizal fungi from root organ and plant cultures. Mycorrhiza, 2014, 24, 233-237.	1.3	2
118	Rhizophagus irregularis MUCL 41833 can colonize and improve P uptake of Plantago lanceolata after exposure to ionizing gamma radiation in root organ culture. Mycorrhiza, 2016, 26, 257-262.	1.3	1
119	Genetic stability of ectomycorrhizal fungi is not affected by cryopreservation at âˆ'130ÂÂ°C or cold storage with repeated sub-cultivations over a period of 2Âyears. Mycorrhiza, 2017, 27, 595-601.	1.3	1
120	Diesel fuel differentially affects hyphal healing in Gigaspora sp. and Rhizophagus irregularis. Mycorrhiza, 2021, 31, 413-421.	1.3	0