Jean-Michel Ané

List of Publications by Year in descending order

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96 papers

8,084 citations

66343 42 h-index 86 g-index

103 all docs

103 docs citations

103 times ranked 7307 citing authors

#	Article	IF	Citations
1	Spatiotemporal cytokinin response imaging and ISOPENTENYLTRANSFERASE 3 function in Medicago nodule development. Plant Physiology, 2022, 188, 560-575.	4.8	10
2	<scp><i>KIN3</i></scp> impacts arbuscular mycorrhizal symbiosis and promotes fungal colonisation in <i>Medicago truncatula</i> . Plant Journal, 2022, 110, 513-528.	5.7	9
3	Functional and comparative genomics reveals conserved noncoding sequences in the nitrogenâ€fixing clade. New Phytologist, 2022, 234, 634-649.	7.3	2
4	Stress-associated developmental reprogramming in moss protonemata by synthetic activation of the common symbiosis pathway. IScience, 2022, 25, 103754.	4.1	2
5	Genetic Determinants of Ammonium Excretion in <i>nifL</i> Mutants of Azotobacter vinelandii. Applied and Environmental Microbiology, 2022, 88, AEM0187621.	3.1	9
6	Expanding the Biological Role of Lipo-Chitooligosaccharides and Chitooligosaccharides in Laccaria bicolor Growth and Development. Frontiers in Fungal Biology, 2022, 3, .	2.0	4
7	Transcription Factors Controlling the Rhizobium–Legume Symbiosis: Integrating Infection, Organogenesis and the Abiotic Environment. Plant and Cell Physiology, 2022, 63, 1326-1343.	3.1	11
8	Corn-soybean rotation, tillage, and foliar fungicides: Impacts on yield and soil fungi. Field Crops Research, 2021, 262, 108030.	5.1	16
9	Perception of lipo-chitooligosaccharides by the bioenergy crop <i>Populus</i> . Plant Signaling and Behavior, 2021, 16, 1903758.	2.4	6
10	Diazotrophic Bacteria and Their Mechanisms to Interact and Benefit Cereals. Molecular Plant-Microbe Interactions, 2021, 34, 491-498.	2.6	36
11	Influence of PRE-emergence herbicides on soybean development, root nodulation and symbiotic nitrogen fixation. Crop Protection, 2021, 144, 105576.	2.1	7
12	A critical review of 25 years of glomalin research: a better mechanical understanding and robust quantification techniques are required. New Phytologist, 2021, 232, 1572-1581.	7.3	34
13	A network-based comparative framework to study conservation and divergence of proteomes in plant phylogenies. Nucleic Acids Research, 2021, 49, e3-e3.	14.5	5
14	Deciphering the Chitin Code in Plant Symbiosis, Defense, and Microbial Networks. Annual Review of Microbiology, 2021, 75, 583-607.	7.3	13
15	Enabling Biological Nitrogen Fixation for Cereal Crops in Fertilized Fields. ACS Synthetic Biology, 2021, 10, 3264-3277.	3.8	42
16	Inoculation with arbuscular mycorrhizal fungi has a more significant positive impact on the growth of open-pollinated heirloom varieties of carrots than on hybrid cultivars under organic management conditions. Agriculture, Ecosystems and Environment, 2020, 289, 106712.	5. 3	5
17	Control of nitrogen fixation in bacteria that associate with cereals. Nature Microbiology, 2020, 5, 314-330.	13.3	135
18	Lipo-chitooligosaccharides as regulatory signals of fungal growth and development. Nature Communications, 2020, 11, 3897.	12.8	65

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19	Crop rotation, but not cover crops, influenced soil bacterial community composition in a corn-soybean system in southern Wisconsin. Applied Soil Ecology, 2020, 154, 103603.	4.3	47
20	Role of cytosolic, tyrosineâ€insensitive prephenate dehydrogenase in <i>MedicagoÂtruncatula</i> . Plant Direct, 2020, 4, e00218.	1.9	7
21	Isolation, Characterization, and Complete Genome Sequence of a Bradyrhizobium Strain Lb8 From Nodules of Peanut Utilizing Crack Entry Infection. Frontiers in Microbiology, 2020, 11, 93.	3.5	13
22	A Model for Nitrogen Fixation in Cereal Crops. Trends in Plant Science, 2020, 25, 226-235.	8.8	43
23	Ca2+-regulated Ca2+ channels with an RCK gating ring control plant symbiotic associations. Nature Communications, 2019, 10, 3703.	12.8	34
24	Mediation of plant–mycorrhizal interaction by a lectin receptor-like kinase. Nature Plants, 2019, 5, 676-680.	9.3	42
25	The Ectomycorrhizal Fungus <i>Laccaria bicolor</i> Produces Lipochitooligosaccharides and Uses the Common Symbiosis Pathway to Colonize <i>Populus</i> Roots. Plant Cell, 2019, 31, 2386-2410.	6.6	73
26	Are we there yet? The long walk towards the development of efficient symbiotic associations between nitrogen-fixing bacteria and non-leguminous crops. BMC Biology, 2019, 17, 99.	3.8	114
27	Salmonella entericaserovar Typhimurium ATCC 14028S is tolerant to plant defenses triggered by the flagellin receptor FLS2. FEMS Microbiology Letters, 2019, 366, .	1.8	10
28	A Novel Positive Regulator of the Early Stages of Root Nodule Symbiosis Identified by Phosphoproteomics. Plant and Cell Physiology, 2019, 60, 575-586.	3.1	10
29	The pathogenic development of <i>Sclerotinia sclerotiorum</i> in soybean requires specific host NADPH oxidases. Molecular Plant Pathology, 2018, 19, 700-714.	4.2	47
30	Soybean Cyst Nematode Control with <i>Pasteuria nishizawae</i> Under Different Management Practices. Agronomy Journal, 2018, 110, 2534-2540.	1.8	11
31	Characterizing the Effect of Foliar Lipo-chitooligosaccharide Application on Sudden Death Syndrome and Sclerotinia Stem Rot in Soybean. Plant Health Progress, 2018, 19, 46-53.	1.4	4
32	Phylogenomics reveals multiple losses of nitrogen-fixing root nodule symbiosis. Science, 2018, 361, .	12.6	339
33	Nitrogen fixation in a landrace of maize is supported by a mucilage-associated diazotrophic microbiota. PLoS Biology, 2018, 16, e2006352.	5.6	236
34	Comparison of Vacuum MALDI and AP-MALDI Platforms for the Mass Spectrometry Imaging of Metabolites Involved in Salt Stress in Medicago truncatula. Frontiers in Plant Science, 2018, 9, 1238.	3.6	39
35	Physiological Responses and Gene Co-Expression Network of Mycorrhizal Roots under K ⁺ Deprivation. Plant Physiology, 2017, 173, 1811-1823.	4.8	69
36	Identification of the phosphorylation targets of symbiotic receptorâ€like kinases using a highâ€throughput multiplexed assay for kinase specificity. Plant Journal, 2017, 90, 1196-1207.	5.7	15

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37	Polymorphic responses of Medicago truncatula accessions to potassium deprivation. Plant Signaling and Behavior, 2017, 12, e1307494.	2.4	5
38	Biology and evolution of arbuscular mycorrhizal symbiosis in the light of genomics. New Phytologist, 2017, 213, 531-536.	7.3	53
39	Comparative Analysis of Secretomes from Ectomycorrhizal Fungi with an Emphasis on Small-Secreted Proteins. Frontiers in Microbiology, 2016, 7, 1734.	3.5	6
40	Symbiotic Nitrogen Fixation and the Challenges to Its Extension to Nonlegumes. Applied and Environmental Microbiology, 2016, 82, 3698-3710.	3.1	443
41	A rhamnose-deficient lipopolysaccharide mutant of <i>Rhizobium </i> sp. IRBG74 is defective in root colonization and beneficial interactions with its flooding-tolerant hosts <i>Sesbania cannabina </i> nad wetland rice. Journal of Experimental Botany, 2016, 67, 5869-5884.	4.8	45
42	Examination of Endogenous Peptides in <i>Medicago truncatula</i> Using Mass Spectrometry Imaging. Journal of Proteome Research, 2016, 15, 4403-4411.	3.7	29
43	New insights into Nod factor biosynthesis: Analyses of chitooligomers and lipo-chitooligomers of Rhizobium sp. IRBG74 mutants. Carbohydrate Research, 2016, 434, 83-93.	2.3	32
44	Interkingdom Responses to Bacterial Quorum Sensing Signals Regulate Frequency and Rate of Nodulation in Legume–Rhizobia Symbiosis. ChemBioChem, 2016, 17, 2199-2205.	2.6	18
45	A proteomic atlas of the legume Medicago truncatula and its nitrogen-fixing endosymbiont Sinorhizobium meliloti. Nature Biotechnology, 2016, 34, 1198-1205.	17.5	133
46	Mass Spectrometric-Based Selected Reaction Monitoring of Protein Phosphorylation during Symbiotic Signaling in the Model Legume, Medicago truncatula. PLoS ONE, 2016, 11, e0155460.	2.5	13
47	Standards for plant synthetic biology: a common syntax for exchange of <scp>DNA</scp> parts. New Phytologist, 2015, 208, 13-19.	7.3	263
48	Crop Rotation and Management Effect on <i>Fusarium</i> spp. Populations. Crop Science, 2015, 55, 365-376.	1.8	34
49	Yield Response to Crop/Genotype Rotations and Fungicide Use to Manage Fusarium â€related Diseases. Crop Science, 2015, 55, 889-898.	1.8	13
50	Multifaceted Investigation of Metabolites During Nitrogen Fixation in <i>Medicago</i> via High Resolution MALDI-MS Imaging and ESI-MS. Journal of the American Society for Mass Spectrometry, 2015, 26, 149-158.	2.8	48
51	Activation of Symbiosis Signaling by Arbuscular Mycorrhizal Fungi in Legumes and Rice. Plant Cell, 2015, 27, 823-838.	6.6	188
52	Microbiomes of Streptophyte Algae and Bryophytes Suggest That a Functional Suite of Microbiota Fostered Plant Colonization of Land. International Journal of Plant Sciences, 2015, 176, 405-420.	1.3	88
53	Potential regulatory phosphorylation sites in a <i>Medicago truncatula</i> plasma membrane proton pump implicated during early symbiotic signaling in roots. FEBS Letters, 2015, 589, 2186-2193.	2.8	9
54	A role for the mevalonate pathway in early plant symbiotic signaling. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9781-9786.	7.1	111

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55	Molecular signals required for the establishment and maintenance of ectomycorrhizal symbioses. New Phytologist, 2015, 208, 79-87.	7.3	139
56	Algal ancestor of land plants was preadapted for symbiosis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13390-13395.	7.1	292
57	Response of Medicago truncatula Seedlings to Colonization by Salmonella enterica and Escherichia coli O157:H7. PLoS ONE, 2014, 9, e87970.	2.5	22
58	Comparative Phylogenomics Uncovers the Impact of Symbiotic Associations on Host Genome Evolution. PLoS Genetics, 2014, 10, e1004487.	3.5	229
59	Plant Responses to Bacterial <i>N</i> -Acyl <scp>I</scp> -Homoserine Lactones are Dependent on Enzymatic Degradation to <scp>I</scp> -Homoserine. ACS Chemical Biology, 2014, 9, 1834-1845.	3.4	93
60	Effect of drought on Bradyrhizobium japonicum populations in Midwest soils. Plant and Soil, 2014, 382, 165-173.	3.7	12
61	Staying in touch: mechanical signals in plant–microbe interactions. Current Opinion in Plant Biology, 2014, 20, 104-109.	7.1	36
62	Symbiosis and the social network of higher plants. Current Opinion in Plant Biology, 2013, 16, 118-127.	7.1	130
63	Evolution of the plant–microbe symbiotic â€~toolkit'. Trends in Plant Science, 2013, 18, 298-304.	8.8	159
64	Complete Genome Sequence of the <i>Sesbania</i> Symbiont and Rice Growth-Promoting Endophyte <i>Rhizobium</i> sp. Strain IRBG74. Genome Announcements, 2013, 1, .	0.8	39
65	<scp>MALDI</scp> mass spectrometryâ€assisted molecular imaging of metabolites during nitrogen fixation in the <i>><scp>M</scp>edicago truncatula</i> a€" <i><scp>S</scp>inorhizobium meliloti</i> symbiosis. Plant Journal, 2013, 75, 130-145.	5.7	119
66	Soybean Response to Soil Rhizobia and Seedâ€applied Rhizobia Inoculants in Wisconsin. Crop Science, 2012, 52, 339-344.	1.8	30
67	Medicago PhosphoProtein Database: a repository for Medicago truncatula phosphoprotein data. Frontiers in Plant Science, 2012, 3, 122.	3.6	28
68	A Proteogenomic Survey of the Medicago truncatula Genome. Molecular and Cellular Proteomics, 2012, 11, 933-944.	3.8	27
69	Rapid Phosphoproteomic and Transcriptomic Changes in the Rhizobia-legume Symbiosis. Molecular and Cellular Proteomics, 2012, 11, 724-744.	3.8	112
70	Leveraging Proteomics to Understand Plant–Microbe Interactions. Frontiers in Plant Science, 2012, 3, 44.	3.6	42
71	Metabolomic profiling reveals suppression of oxylipin biosynthesis during the early stages of legume–rhizobia symbiosis. FEBS Letters, 2012, 586, 3150-3158.	2.8	42
72	The Recent Evolution of a Symbiotic Ion Channel in the Legume Family Altered Ion Conductance and Improved Functionality in Calcium Signaling. Plant Cell, 2012, 24, 2528-2545.	6.6	57

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73	Soybean Response to Rhizobia on Previously Flooded Sites in Southern Wisconsin. Agronomy Journal, 2011, 103, 573-576.	1.8	6
74	Germinating Spore Exudates from Arbuscular Mycorrhizal Fungi: Molecular and Developmental Responses in Plants and Their Regulation by Ethylene. Molecular Plant-Microbe Interactions, 2011, 24, 260-270.	2.6	83
75	Identification of legume <i>RopGEF</i> gene families and characterization of a <i>Medicago truncatula</i> RopGEF mediating polar growth of root hairs. Plant Journal, 2011, 65, 230-243.	5.7	30
76	<i>Medicago truncatula IPD3</i> Is a Member of the Common Symbiotic Signaling Pathway Required for Rhizobial and Mycorrhizal Symbioses. Molecular Plant-Microbe Interactions, 2011, 24, 1345-1358.	2.6	147
77	Nuclear membranes control symbiotic calcium signaling of legumes. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 14348-14353.	7.1	191
78	Symbiosis research, technology, and education: Proceedings of the 6th International Symbiosis Society Congress held in Madison Wisconsin, USA, August 2009. Symbiosis, 2010, 51, 1-12.	2.3	1
79	Presence of three mycorrhizal genes in the common ancestor of land plants suggests a key role of mycorrhizas in the colonization of land by plants. New Phytologist, 2010, 186, 514-525.	7.3	246
80	Enumeration of Soybeanâ€Associated Rhizobia with Quantitative Realâ€Time Polymerase Chain Reaction. Crop Science, 2010, 50, 2591-2596.	1.8	11
81	Agrobacterium-Mediated Transient Gene Expression and Silencing: A Rapid Tool for Functional Gene Assay in Potato. PLoS ONE, 2009, 4, e5812.	2.5	111
82	Large-Scale Phosphoprotein Analysis in <i>Medicago truncatula</i> Roots Provides Insight into in Vivo Kinase Activity in Legumes Â. Plant Physiology, 2009, 152, 19-28.	4.8	133
83	OsIPD3, an ortholog of the <i>Medicago truncatula</i> DMI3 interacting protein IPD3, is required for mycorrhizal symbiosis in rice. New Phytologist, 2008, 180, 311-315.	7.3	77
84	Recent Advances in <i> Medicago truncatula </i> > Genomics. International Journal of Plant Genomics, 2008, 2008, 1-11.	2.2	40
85	The <i>Medicago truncatula</i> DMI1 Protein Modulates Cytosolic Calcium Signaling. Plant Physiology, 2007, 145, 192-203.	4.8	99
86	A Novel Nuclear Protein Interacts With the Symbiotic DMI3 Calcium- and Calmodulin-Dependent Protein Kinase of <i>Medicago truncatula</i> . Molecular Plant-Microbe Interactions, 2007, 20, 912-921.	2.6	245
87	3-Hydroxy-3-Methylglutaryl Coenzyme A Reductase1 Interacts with NORK and Is Crucial for Nodulation in <i>Medicago truncatula</i>). Plant Cell, 2007, 19, 3974-3989.	6.6	158
88	The symbiotic ion channel homolog DMI1 is localized in the nuclear membrane of Medicago truncatula roots. Plant Journal, 2007, 49, 208-216.	5.7	113
89	Unravelling the molecular basis for symbiotic signal transduction in legumes. Molecular Plant Pathology, 2006, 7, 197-207.	4.2	24
90	Tracing Nonlegume Orthologs of Legume Genes Required for Nodulation and Arbuscular Mycorrhizal Symbioses. Genetics, 2006, 172, 2491-2499.	2.9	107

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91	Genetic and Molecular Analysis of Nod Factor Signalling in Medicago truncatula., 2005,, 165-168.		O
92	A Putative Ca2+ and Calmodulin-Dependent Protein Kinase Required for Bacterial and Fungal Symbioses. Science, 2004, 303, 1361-1364.	12.6	697
93	Medicago truncatula DMI1 Required for Bacterial and Fungal Symbioses in Legumes. Science, 2004, 303, 1364-1367.	12.6	493
94	Genetic and genomic analysis in model legumes bring Nod-factor signaling to center stage. Current Opinion in Plant Biology, 2004, 7, 408-413.	7.1	92
95	Genetic and Cytogenetic Mapping of DMI1, DMI2, and DMI3 Genes of Medicago truncatula Involved in Nod Factor Transduction, Nodulation, and Mycorrhization. Molecular Plant-Microbe Interactions, 2002, 15, 1108-1118.	2.6	67
96	The molecular genetic linkage map of the model legume Medicago truncatula: an essential tool for comparative legume genomics and the isolation of agronomically important genes. BMC Plant Biology, 2002, 2, 1.	3.6	183