Juan imperial

List of Publications by Citations

117 papers	3,225 citations	33 h-index	51 g-index
121 ext. papers	3,766 ext. citations	5 avg, IF	4.89 L-index

#	Paper	IF	Citations
117	Genome sequence of Azotobacter vinelandii, an obligate aerobe specialized to support diverse anaerobic metabolic processes. *Journal of Bacteriology*, **2009**, 191, 4534-45	3.5	202
116	Unlocking the bacterial and fungal communities assemblages of sugarcane microbiome. *Scientific Reports*, **2016**, 6, 28774	4.9	155
115	Identification of the V factor needed for synthesis of the iron-molybdenum cofactor of nitrogenase as homocitrate. *Nature*, **1987**, 329, 855-7	50.4	136
114	Homocitrate is a component of the iron-molybdenum cofactor of nitrogenase. *Biochemistry*, **1989**, 28, 2768-71	3.2	126
113	Role of the nifQ gene product in the incorporation of molybdenum into nitrogenase in Klebsiella pneumoniae. *Journal of Bacteriology*, **1984**, 158, 187-94	3.5	118
112	Purification of Rhizobium leguminosarum HypB, a nickel-binding protein required for hydrogenase synthesis. *Journal of Bacteriology*, **1994**, 176, 6066-73	3.5	87
111	Substrate reduction properties of dinitrogenase activated in vitro are dependent upon the presence of homocitrate or its analogues during iron-molybdenum cofactor synthesis. *Biochemistry*, **1989**, 28, 7796-9	3.2	86
110	In vitro synthesis of the iron-molybdenum cofactor of nitrogenase. *Proceedings of the National Academy of Sciences of the United States of America*, **1986**, 83, 1636-40	11.5	84
109	Molybdenum in nitrogenase. *Annual Review of Biochemistry*, **1984**, 53, 231-57	29.1	71
108	Biosynthesis of iron-molybdenum cofactor in the absence of nitrogenase. *Journal of Bacteriology*, **1984**, 159, 888-93	3.5	68
107	Bradyrhizobium paxllaeri sp. nov. and Bradyrhizobium icense sp. nov., nitrogen-fixing rhizobial symbionts of Lima bean (Phaseolus lunatus L.) in Peru. *International Journal of Systematic and Evolutionary Microbiology*, **2014**, 64, 2072-2078	2.2	62
106	Hydrogenase genes from Rhizobium leguminosarum bv. viciae are controlled by the nitrogen fixation regulatory protein nifA. *Proceedings of the National Academy of Sciences of the United States of America*, **1997**, 94, 6019-24	11.5	61
105	Nickel availability to pea (Pisum sativum L.) plants limits hydrogenase activity of Rhizobium leguminosarum bv. viciae bacteroids by affecting the processing of the hydrogenase structural subunits. *Journal of Bacteriology*, **1994**, 176, 5297-303	3.5	61
104	A Community-Based Culture Collection for Targeting Novel Plant Growth-Promoting Bacteria from the Sugarcane Microbiome. *Frontiers in Plant Science*, **2017**, 8, 2191	6.2	60
103	Medicago truncatula natural resistance-associated macrophage Protein1 is required for iron uptake by rhizobia-infected nodule cells. *Plant Physiology*, **2015**, 168, 258-72	6.6	57
102	Bradyrhizobium valentinum sp. nov., isolated from effective nodules of Lupinus mariae-josephae, a lupine endemic of basic-lime soils in Eastern Spain. *Systematic and Applied Microbiology*, **2014**, 37, 336-41	4.2	50
101	Molecular analysis of a microaerobically induced operon required for hydrogenase synthesis in Rhizobium leguminosarum biovar viciae. *Molecular Microbiology*, **1993**, 8, 471-81	4.1	50

100	Dinitrogenase with altered substrate specificity results from the use of homocitrate analogues for in vitro synthesis of the iron-molybdenum cofactor. *Biochemistry*, **1988**, 27, 3647-52	3.2	48
99	Usefulness of Hirsch h-index to evaluate scientific research in Spain. *Scientometrics*, **2007**, 71, 271-282	3	45
98	Medicago truncatula Molybdate Transporter type 1 (MtMOT1.3) is a plasma membrane molybdenum transporter required for nitrogenase activity in root nodules under molybdenum deficiency. *New Phytologist*, **2017**, 216, 1223-1235	9.8	44
97	FnrN controls symbiotic nitrogen fixation and hydrogenase activities in Rhizobium leguminosarum biovar viciae UPM791. *Journal of Bacteriology*, **1997**, 179, 5264-70	3.5	43
96	Diversity and evolution of hydrogenase systems in rhizobia. *Applied and Environmental Microbiology* , **2002**, 68, 4915-24	4.8	42
95	The twin-arginine translocation (Tat) system is essential for Rhizobium-legume symbiosis. *Molecular Microbiology*, **2003**, 48, 1195-207	4.1	42
94	Utilization of light for the assimilation of organic matter in Chlorella sp. VJ79. *Biotechnology and Bioengineering*, **1984**, 26, 677-81	4.9	42
93	Molybdate binding by ModA, the periplasmic component of the Escherichia coli mod molybdate transport system. *Biochimica Et Biophysica Acta - Biomembranes*, **1998**, 1370, 337-46	3.8	41
92	Iron distribution through the developmental stages of Medicago truncatula nodules. *Metallomics*, **2013**, 5, 1247-53	4.5	40
91	Gene products of the hupGHIJ operon are involved in maturation of the iron-sulfur subunit of the [NiFe] hydrogenase from Rhizobium leguminosarum bv. viciae. *Journal of Bacteriology*, **2005**, 187, 7018-26	3.5	40
90	Expression of the nifBfdxNnifOQ region of Azotobacter vinelandii and its role in nitrogenase activity. *Journal of Bacteriology*, **1993**, 175, 2926-35	3.5	40
89	Mol- mutants of Klebsiella pneumoniae requiring high levels of molybdate for nitrogenase activity. *Journal of Bacteriology*, **1985**, 163, 1285-7	3.5	38
88	Biosynthesis of the iron-molybdenum cofactor and the molybdenum cofactor in Klebsiella pneumoniae: effect of sulfur source. *Journal of Bacteriology*, **1985**, 164, 1081-7	3.5	38
87	Endosymbiotic bacteria nodulating a new endemic lupine Lupinus mariae-josephi from alkaline soils in Eastern Spain represent a new lineage within the Bradyrhizobium genus. *Systematic and Applied Microbiology*, **2011**, 34, 207-15	4.2	37
86	Homocitrate cures the NifV- phenotype in Klebsiella pneumoniae. *Journal of Bacteriology*, **1988**, 170, 1978-9	3.5	36
85	Genetic diversity of indigenous rhizobial symbionts of the Lupinus mariae-josephae endemism from alkaline-limed soils within its area of distribution in Eastern Spain. *Systematic and Applied Microbiology*, **2013**, 36, 128-36	4.2	35
84	Diversity of Bradyrhizobium strains nodulating Lupinus micranthus on both sides of the Western Mediterranean: Algeria and Spain. *Systematic and Applied Microbiology*, **2016**, 39, 266-274	4.2	33
83	The hypBFCDE operon from Rhizobium leguminosarum biovar viciae is expressed from an Fnr-type promoter that escapes mutagenesis of the fnrN gene. *Journal of Bacteriology*, **1995**, 177, 5661-9	3.5	32

82	Members of Microvirga and Bradyrhizobium genera are native endosymbiotic bacteria nodulating Lupinus luteus in Northern Tunisian soils. *FEMS Microbiology Ecology*, **2017**, 93,	4.3	30
81	Rhizobium leguminosarum hupE encodes a nickel transporter required for hydrogenase activity. *Journal of Bacteriology*, **2010**, 192, 925-35	3.5	30
80	Functional and expression analysis of the metal-inducible dmeRF system from Rhizobium leguminosarum bv. viciae. *Applied and Environmental Microbiology*, **2013**, 79, 6414-22	4.8	28
79	Culture-Dependent and Culture-Independent Characterization of the Olive Xylem Microbiota: Effect of Sap Extraction Methods. *Frontiers in Plant Science*, **2019**, 10, 1708	6.2	27
78	Medicago truncatula Zinc-Iron Permease6 provides zinc to rhizobia-infected nodule cells. *Plant, Cell and Environment*, **2017**, 40, 2706-2719	8.4	26
77	Generation of new hydrogen-recycling Rhizobiaceae strains by introduction of a novel hup minitransposon. *Applied and Environmental Microbiology*, **2000**, 66, 4292-9	4.8	26
76	Multiplex amplicon sequencing for microbe identification in community-based culture collections. *Scientific Reports*, **2016**, 6, 29543	4.9	26
75	Diverse Bacteria Affiliated with the Genera Microvirga, Phyllobacterium, and Bradyrhizobium Nodulate Lupinus micranthus Growing in Soils of Northern Tunisia. *Applied and Environmental Microbiology*, **2017**, 83,	4.8	24
74	MtMOT1.2 is responsible for molybdate supply to Medicago truncatula nodules. *Plant, Cell and Environment*, **2019**, 42, 310-320	8.4	24
73	Rhizobium leguminosarum biovar viciae symbiotic hydrogenase activity and processing are limited by the level of nickel in agricultural soils. *Applied and Environmental Microbiology*, **2005**, 71, 7603-6	4.8	24
72	HupK, a hydrogenase-ancillary protein from Rhizobium leguminosarum, shares structural motifs with the large subunit of NiFe hydrogenases and could be a scaffolding protein for hydrogenase metal cofactor assembly. *Molecular Microbiology*, **1993**, 9, 1305-6	4.1	24
71	Medicago truncatula copper transporter 1 (MtCOPT1) delivers copper for symbiotic nitrogen fixation. *New Phytologist*, **2018**, 218, 696-709	9.8	23
70	Nickel availability and hupSL activation by heterologous regulators limit symbiotic expression of the Rhizobium leguminosarum bv. viciae hydrogenase system in Hup(-) rhizobia. *Applied and Environmental Microbiology*, **2000**, 66, 937-42	4.8	23
69	Bradyrhizobium algeriense sp. nov., a novel species isolated from effective nodules of Retama sphaerocarpa from Northeastern Algeria. *Systematic and Applied Microbiology*, **2018**, 41, 333-339	4.2	22
68	Genome Sequences of a Plant Beneficial Synthetic Bacterial Community Reveal Genetic Features for Successful Plant Colonization. *Frontiers in Microbiology*, **2019**, 10, 1779	5.7	22
67	Engineering the Rhizobium leguminosarum bv. viciae hydrogenase system for expression in free-living microaerobic cells and increased symbiotic hydrogenase activity. *Applied and Environmental Microbiology*, **2002**, 68, 2461-7	4.8	21
66	Biosynthesis of the iron-molybdenum cofactor of nitrogenase. *BioFactors*, **1988**, 1, 199-205	6.1	21
65	Host-dependent expression of Rhizobium leguminosarum bv. viciae hydrogenase is controlled at transcriptional and post-transcriptional levels in legume nodules. *Molecular Plant-Microbe Interactions*, **2008**, 21, 597-604	3.6	20

64	Inhibition of iron-molybdenum cofactor binding to component I of nitrogenase.. *Journal of Biological Chemistry*, **1985**, 260, 3891-3894	5.4	20
63	Iron-molybdenum cofactor synthesis in Azotobacter vinelandii Nif- mutants. *Journal of Bacteriology*, **1987**, 169, 1784-6	3.5	19
62	Inhibition of iron-molybdenum cofactor binding to component I of nitrogenase. *Journal of Biological Chemistry*, **1985**, 260, 3891-4	5.4	19
61	A novel autoregulation mechanism of fnrN expression in Rhizobium leguminosarum bv viciae. *Molecular Microbiology*, **2000**, 36, 477-86	4.1	18
60	Temporal and Spatial Co-expression of Hydrogenase and Nitrogenase Genes fromRhizobium leguminosarumbv.viciaein Pea (Pisum sativumL.) Root Nodules. *Molecular Plant-Microbe Interactions*, **1995**, 8, 235	3.6	18
59	Genomic Diversity in the Endosymbiotic Bacterium Rhizobium leguminosarum. *Genes*, **2018**, 9,	4.2	16
58	Molecular and functional characterization of the Azorhizobium caulinodans ORS571 hydrogenase gene cluster. *FEMS Microbiology Letters*, **2004**, 237, 399-405	2.9	16
57	Rhizobium ruizarguesonis sp. nov., isolated from nodules of Pisum sativum L. *Systematic and Applied Microbiology*, **2020**, 43, 126090	4.2	16
56	Population Genomics Analysis of Legume Host Preference for Specific Rhizobial Genotypes in the Rhizobium leguminosarum bv. viciae Symbioses. *Molecular Plant-Microbe Interactions*, **2015**, 28, 310-8	3.6	15
55	Cytisus villosus from Northeastern Algeria is nodulated by genetically diverse Bradyrhizobium strains. *Antonie Van Leeuwenhoek*, **2014**, 105, 1121-9	2.1	15
54	Symbiotic autoregulation of nifA expression in Rhizobium leguminosarum bv. viciae. *Journal of Bacteriology*, **2004**, 186, 6586-94	3.5	14
53	Biodiversity of uptake hydrogenase systems from legume endosymbiotic bacteria. *Biochemical Society Transactions*, **2005**, 33, 33-5	5.1	14
52	Genetics and biotechnology of the H(2)-uptake [NiFe] hydrogenase from Rhizobium leguminosarum bv. viciae, a legume endosymbiotic bacterium. *Biochemical Society Transactions*, **2005**, 33, 94-6	5.1	14
51	The hydrogenase gene cluster of Rhizobium leguminosarum bv. viciae contains an additional gene (hypX), which encodes a protein with sequence similarity to the N10-formyltetrahydrofolate-dependent enzyme family and is required for nickel-dependent hydrogenase processing and activity. *Molecular Genetics and Genomics*, **1991**, 230, 237-48		14
50	Defective nitrate assimilation by a derivative ofKlebsiella pneumoniaestrain C3 (formerlyCitrobacter intermediusC3) which has lost the isocitrate dehydrogenase plasmid. *FEMS Microbiology Letters*, **1982**, 13, 247-252	2.9	14
49	MtMTP2-Facilitated Zinc Transport Into Intracellular Compartments Is Essential for Nodule Development in. *Frontiers in Plant Science*, **2018**, 9, 990	6.2	14
48	Definition of two new symbiovars, sv. lupini and sv. mediterranense, within the genera Bradyrhizobium and Phyllobacterium efficiently nodulating Lupinus micranthus in Tunisia. *Systematic and Applied Microbiology*, **2018**, 41, 487-493	4.2	14
47	Rhizobium leguminosarum HupE is a highly-specific diffusion facilitator for nickel uptake. *Metallomics*, **2015**, 7, 691-701	4.5	13

46	Proteomic analysis of quorum sensing in Rhizobium leguminosarum biovar viciae UPM791. *Proteomics*, **2006**, 6 Suppl 1, S97-106	4.8	13
45	Symbiotic hydrogenase activity in Bradyrhizobium sp. (Vigna) increases nitrogen content in Vigna unguiculata plants. *Applied and Environmental Microbiology*, **2005**, 71, 7536-8	4.8	13
44	Microvirga tunisiensis sp. nov., a root nodule symbiotic bacterium isolated from Lupinus micranthus and L. luteus grown in Northern Tunisia. *Systematic and Applied Microbiology*, **2019**, 42, 126015	4.2	12
43	Dual role of HupF in the biosynthesis of [NiFe] hydrogenase in Rhizobium leguminosarum. *BMC Microbiology*, **2012**, 12, 256	4.5	12
42	Molecular and functional characterization of the Azorhizobium caulinodans ORS571 hydrogenase gene cluster. *FEMS Microbiology Letters*, **2004**, 237, 399-405	2.9	12
41	Biocontrol capabilities of the genus Serratia. *Phytochemistry Reviews*, **2020**, 19, 577-587	7.7	12
40	Regulation of the hydrogenase system in Rhizobium leguminosarum. *Plant and Soil*, **2001**, 230, 49-57	4.2	11
39	Medicago truncatula Ferroportin2 mediates iron import into nodule symbiosomes. *New Phytologist*, **2020**, 228, 194-209	9.8	10
38	Hydrogenase genes are uncommon and highly conserved in Rhizobium leguminosarum bv. viciae. *FEMS Microbiology Letters*, **2005**, 253, 83-8	2.9	10
37	Phylogenetic evidence of the transfer of nodZ and nolL genes from Bradyrhizobium to other rhizobia. *Molecular Phylogenetics and Evolution*, **2013**, 67, 626-30	4.1	9
36	Identification of a gene for a chemoreceptor of the methyl-accepting type in the symbiotic plasmid of Rhizobium leguminosarum bv. viciae UPM791. *Biochimica Et Biophysica Acta Gene Regulatory Mechanisms*, **1996**, 1308, 7-11		9
35	Conservation of endangered Lupinus mariae-josephae in its natural habitat by inoculation with selected, native Bradyrhizobium strains. *PLoS ONE*, **2014**, 9, e102205	3.7	8
34	Novel arrangement of enhancer sequences for NifA-dependent activation of the hydrogenase gene promoter in Rhizobium leguminosarum bv. viciae. *Journal of Bacteriology*, **2008**, 190, 3185-91	3.5	8
33	Characterization of the urease gene cluster from Rhizobium leguminosarum bv. viciae. *Archives of Microbiology*, **2002**, 177, 290-8	3	8
32	Rhizobium leguminosarum bv. viciae hypA gene is specifically expressed in pea (Pisum sativum) bacteroids and required for hydrogenase activity and processing. *FEMS Microbiology Letters*, **1998**, 169, 295-302	2.9	7
31	Characterization of a new internal promoter (P3) for Rhizobium leguminosarum hydrogenase accessory genes hupGHIJ. *Microbiology (United Kingdom)*, **2004**, 150, 665-675	2.9	7
30	Bacterial lipopolysaccharide extraction in silica gel-containing tubes. *Journal of Microbiological Methods*, **1991**, 14, 63-69	2.8	7
29	MtCOPT2 is a Cu transporter specifically expressed in Medicago truncatula mycorrhizal roots. *Mycorrhiza*, **2020**, 30, 781-788	3.9	7

28	Neorhizobium tomejilense sp. nov., first non-symbiotic Neorhizobium species isolated from a dryland agricultural soil in southern Spain. *Systematic and Applied Microbiology*, **2019**, 42, 128-134	4.2	7
27	Polyphenol-Functionalized Plant Viral-Derived Nanoparticles Exhibit Strong Antimicrobial and Antibiofilm Formation Activities.. *ACS Applied Bio Materials*, **2020**, 3, 2040-2047	4.1	6
26	RNA sequencing and analysis of three Lupinus nodulomes provide new insights into specific host-symbiont relationships with compatible and incompatible Bradyrhizobium strains. *Plant Science*, **2018**, 266, 102-116	5.3	5
25	Nitrogen Assimilation in Bacteria **2019**,		5
24	Maturation of Rhizobium leguminosarum hydrogenase in the presence of oxygen requires the interaction of the chaperone HypC and the scaffolding protein HupK. *Journal of Biological Chemistry*, **2014**, 289, 21217-29	5.4	5
23	Computational study of the Fe(CN)2CO cofactor and its binding to HypC protein. *Journal of Physical Chemistry B*, **2013**, 117, 13523-33	3.4	5
22	Identification of gene products from the Azotobacter vinelandii nifBfdxNnifOQ operon. *FEMS Microbiology Letters*, **1997**, 157, 19-25	2.9	5
21	Hydrogen-uptake genes improve symbiotic efficiency in common beans (Phaseolus vulgaris L.). *Antonie Van Leeuwenhoek*, **2020**, 113, 687-696	2.1	5
20	Complete Circularized Genome Data of Two Spanish strains of (IVIA5235 and IVIA5901) Using Hybrid Assembly Approaches. *Phytopathology*, **2020**, 110, 969-972	3.8	4
19	Novel, non-symbiotic isolates of from a dryland agricultural soil. *PeerJ*, **2018**, 6, e4776	3.1	4
18	Phylogenetic Analyses of Rhizobia Isolated from Nodules of Lupinus angustifolius in Northern Tunisia Reveal Devosia sp. as a New Microsymbiont of Lupin Species. *Agronomy*, **2021**, 11, 1510	3.6	4
17	Nicotianamine Synthase 2 Is Required for Symbiotic Nitrogen Fixation in Nodules. *Frontiers in Plant Science*, **2019**, 10, 1780	6.2	3
16	Draft genome sequence of LMTR 21 isolated from Lima bean () in Peru. *Genomics Data*, **2017**, 13, 38-40		3
15	Genome sequence of sp. LMTR 3, a diazotrophic symbiont of Lima bean (). *Genomics Data*, **2017**, 13, 35-37		3
14	The Bradyrhizobium Sp. LmicA16 Type VI Secretion System Is Required for Efficient Nodulation of Lupinus Spp. *Microbial Ecology*, **2021**, 1	4.4	2
13	Medicago truncatulaMOT1.3 is a plasma membrane molybdenum transporter required for nitrogenase activity in root nodules		2
12	Medicago truncatulaFerroportin2 mediates iron import into nodule symbiosomes		2
11	Characterization of a novel MIIA domain-containing protein (MdcE) in Bradyrhizobium spp. *FEMS Microbiology Letters*, **2018**, 365,	2.9	1

10	Pool-Seq Analysis of Microsymbiont Selection by the Legume Plant Host **2015**, 725-736		1
9	Nicotianamine synthase 2 is required for symbiotic nitrogen fixation inMedicago truncatulanodules		1
8	Medicago truncatulacopper transporter 1 (MtCOPT1) delivers copper for symbiotic nitrogen fixation		1
7	Medicago truncatula Yellow Stripe-Like7encodes a peptide transporter required for symbiotic nitrogen fixation		1
6	The Medicago truncatula Yellow Stripe1-Like3 gene is involved in vascular delivery of transition metals to root nodules. *Journal of Experimental Botany*, **2020**, 71, 7257-7269	7	1
5	Medicago truncatula Yellow Stripe-Like7 encodes a peptide transporter participating in symbiotic nitrogen fixation. *Plant, Cell and Environment*, **2021**, 44, 1908-1920	8.4	0
4	Biodiversity of Slow-Growing Rhizobia **2013**, 21-46		
3	Correlation Between Isocitrate Dehydrogenase Activity and Glutamate Excretion by Citrobacter intermedius C3. *Microbiology (United Kingdom)*, **1981**, 122, 167-170	2.9	
2	The Nifo Gene Product is Responsible for the Ability of Azotobacter Vinelandii to Simultaneously Assimilate Nitrate and N2. *Current Plant Science and Biotechnology in Agriculture*, **1995**, 213-261		
1	Symbiotic Expression of Hydrogenase and Nitrogenase Activities of Rhizobium leguminosarum bv. Viciae are Controlled by FnrN. *Current Plant Science and Biotechnology in Agriculture*, **1998**, 286-286		