Juan JosÃ© Lucena

List of Publications by Year
in descending order

97 papers	2,967 citations	159525 30 h-index	206029 48 g-index
98 all docs	98 docs citations	98 times ranked	2210 citing authors

#	Article	IF	Citations
1	Cadmium uptake and subcellular distribution in plants of Lactuca sp. Cdâ€“Mn interaction. Plant Science, 2002, 162, 761-767.	1.7	235
2	Effects of bicarbonate, nitrate and other environmental factors on iron deficiency chlorosis. A review. Journal of Plant Nutrition, 2000, 23, 1591-1606.	0.9	151
3	Effects of Cd and Pb in sugar beet plants grown in nutrient solution: induced Fe deficiency and growth inhibition. Functional Plant Biology, 2002, 29, 1453.	1.1	115
4	Tillage and crop rotation effects on barley yield and soil nutrients on a Calciortidic Haploxeralf. Soil and Tillage Research, 2007, 92, 1-9.	2.6	108
5	Effect of silicon addition on soybean (Glycine max) and cucumber (Cucumis sativus) plants grown under iron deficiency. Plant Physiology and Biochemistry, 2013, 70, 455-461.	2.8	99
6	Fe Chelates for Remediation of Fe Chlorosis in Strategy I Plants. Journal of Plant Nutrition, 2003, 26, 1969-1984.	0.9	96
7	Chelating Agents Related to Ethylenediamine Bis(2-hydroxyphenyl)acetic Acid (EDDHA):â€‰ Synthesis, Characterization, and Equilibrium Studies of the Free Ligands and Their Mg2+, Ca2+, Cu2+, and Fe3+ Chelates. Inorganic Chemistry, 2003, 42, 5412-5421.	1.9	85
8	Evaluation of synthetic iron(III)-chelates (EDDHA/Fe3+, EDDHMA/Fe3+ and the novel EDDHSA/Fe3+) to correct iron chlorosis. European Journal of Agronomy, 2005, 22, 119-130.	1.9	72
9	Comparison of iron chelates and complexes supplied as foliar sprays and in nutrient solution to correct iron chlorosis of soybean. Journal of Plant Nutrition and Soil Science, 2010, 173, 120-126.	1.1	65
10	Synthetic Iron Chelates to Correct Iron Deficiency in Plants. , 2006, , 103-128.		64
11	Isocratic ion-pair high-performance liquid chromatographic method for the determination of various iron(III) chelates. Journal of Chromatography A, 1996, 727, 253-264.	1.8	63
12	Eco-Friendly Iron-Humic Nanofertilizers Synthesis for the Prevention of Iron Chlorosis in Soybean (Glycine max) Grown in Calcareous Soil. Frontiers in Plant Science, 2019, 10, 413.	1.7	55
13	Iron nutrition in plants: an overview. Plant and Soil, 2017, 418, 1-4.	1.8	54
14	Boron and calcium distribution in nitrogen-fixing pea plants. Plant Science, 2000, 151, 163-170.	1.7	53
15	Effects of cadmium and lead on ferric chelate reductase activities in sugar beet roots. Plant Physiology and Biochemistry, 2003, 41, 999-1005.	2.8	52
16	Effectiveness of Ethylenediamine-N(o-hydroxyphenylacetic)-Nâ€²(p-hydroxyphenylacetic) acid (o,p-EDDHA) to Supply Iron to Plants. Plant and Soil, 2006, 279, 31-40.	1.8	52
17	Effects of two iron sources on iron and cadmium allocation in poplar (Populus alba) plants exposed to cadmium. Tree Physiology, 2005, 25, 1173-1180.	1.4	49
18	EVALUATION OF EFFECT OF WASHING PROCEDURES ON MINERAL ANALYSIS OF ORANGE AND PEACH LEAVES SPRAYED WITH SEAWEED EXTRACTS ENRICHED WITH IRON. Communications in Soil Science and Plant Analysis, 2001, 32, 157-170.	0.6	46

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19	Chromatographic determination of commercial Fe(III) chelates of ethylenediaminetetraacetic acid, ethylenediaminedi(o-hydroxyphenylacetic) acid and ethylenediaminedi(o-hydroxy-p-methylphenylacetic) acid. Journal of Chromatography A, 1997, 789, 453-460.	1.8	43
20	Chemical Evaluation of HBED/Fe³⁺and the Novel HJB/Fe³⁺Chelates as Fertilizers to Alleviate Iron Chlorosis. Journal of Agricultural and Food Chemistry, 2009, 57, 8504-8513.	2.4	42
21	Synthetic Iron Chelates as Substrates of Root Ferric Chelate Reductase in Green Stressed Cucumber Plants. Journal of Plant Nutrition, 2006, 29, 423-439.	0.9	41
22	Isotope pattern deconvolution as a tool to study iron metabolism in plants. Analytical and Bioanalytical Chemistry, 2008, 390, 579-590.	1.9	41
23	Evaluation of 59Fe-lignosulfonates complexes as Fe-sources for plants. Plant and Soil, 2009, 325, 53-63.	1.8	38
24	NMR Analysis of the Iron Ligand Ethylenediaminedi(o-hydroxyphenyl)acetic Acid (EDDHA) Employed in Fertilizers. Journal of Agricultural and Food Chemistry, 2001, 49, 3527-3532.	2.4	36
25	Structure and Fertilizer Properties of Byproducts Formed in the Synthesis of EDDHA. Journal of Agricultural and Food Chemistry, 2006, 54, 4355-4363.	2.4	35
26	Theoretical Speciation of Ethylenediamine-N-(o-hydroxyphenylacetic)-Nâ€˜-(p-hydroxyphenylacetic) Acid (o,p-EDDHA) in Agronomic Conditions. Journal of Agricultural and Food Chemistry, 2003, 51, 5391-5399.	2.4	34
27	Fe(III)âˆ'EDDHA and âˆ'EDDHMA Sorption on Ca-Montmorillonite, Ferrihydrite, and Peat. Journal of Agricultural and Food Chemistry, 2001, 49, 5258-5264.	2.4	33
28	Synthesis ofo,p-EDDHA and Its Detection as the Main Impurity ino,o-EDDHA Commercial Iron Chelates. Journal of Agricultural and Food Chemistry, 2002, 50, 6395-6399.	2.4	33
29	Evaluation of Fe-N,Nâ€²-Bis(2-hydroxybenzyl)ethylenediamine-N,Nâ€²-diacetate (HBED/Fe3+) as Fe carrier for soybean (Glycine max) plants grown in calcareous soil. Plant and Soil, 2012, 360, 349-362.	1.8	33
30	Reactivity of synthetic Fe chelates with soils and soil components. Plant and Soil, 2002, 241, 129-137.	1.8	32
31	Comparison of Two Analytical Methods for the Evaluation of the Complexed Metal in Fertilizers and the Complexing Capacity of Complexing Agents. Journal of Agricultural and Food Chemistry, 2007, 55, 5746-5753.	2.4	31
32	Iron supply to soybean plants through the foliar application of IDHA/Fe3+: effect of plant nutritional status and adjuvants. Journal of the Science of Food and Agriculture, 2010, 90, 2633-2640.	1.7	31
33	[S,S]-EDDS/Fe: A new chelate for the environmentally sustainable correction of iron chlorosis in calcareous soil. Science of the Total Environment, 2019, 647, 1508-1517.	3.9	31
34	Interaction of iron chelates with several soil materials and with a soil standard. Journal of Plant Nutrition, 1997, 20, 559-572.	0.9	30
35	Stability in solution and reactivity with soils and soil components of iron and zinc complexes. Journal of Plant Nutrition and Soil Science, 2010, 173, 900-906.	1.1	30
36	Influence of pH, Iron Source, and Fe/Ligand Ratio on Iron Speciation in Lignosulfonate Complexes Studied Using MÃ¶ssbauer Spectroscopy. Implications on Their Fertilizer Properties. Journal of Agricultural and Food Chemistry, 2012, 60, 3331-3340.	2.4	28

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37	Effect of several commercial seaweed extracts in the mitigation of iron chlorosis of tomato plants (Solanum lycopersicum L.). Plant Growth Regulation, 2018, 86, 401-411.	1.8	28
38	Chromatographic Determination of Fe Chelated by Ethylenediamine-N-(o-hydroxyphenylacetic)-Nâ€˜-(p-hydroxyphenylacetic) Acid in Commercial EDDHA/Fe3+Fertilizers. Journal of Agricultural and Food Chemistry, 2006, 54, 1380-1386.	2.4	27
39	Nature of Impurities in Fertilizers Containing EDDHMA/Fe3+, EDDHSA/Fe3+, and EDDCHA/Fe3+ Chelates. Journal of Agricultural and Food Chemistry, 2002, 50, 284-290.	2.4	26
40	Response of Cucumber Plants to Low Doses of Different Synthetic Iron Chelates in Hydroponics. Journal of Plant Nutrition, 2007, 30, 795-809.	0.9	25
41	Efficacy of commercial Fe(III)â€EDDHA and Fe(III)â€EDDHMA chelates to supply iron to sunflower and corn seedlings. Journal of Plant Nutrition, 1995, 18, 1209-1223.	0.9	24
42	Novel chelating agents as manganese and zinc fertilisers: characterisation, theoretical speciation and stability in solution. Chemical Speciation and Bioavailability, 2012, 24, 147-158.	2.0	24
43	Reactivity and effectiveness of traditional and novel ligands for multi-micronutrient fertilization in a calcareous soil. Frontiers in Plant Science, 2015, 6, 752.	1.7	24
44	Iron and Humic Acid Accumulation on Soybean Roots Fertilized with Leonardite Iron Humates under Calcareous Conditions. Journal of Agricultural and Food Chemistry, 2018, 66, 13386-13396.	2.4	24
45	Characterization of Feâ€“Leonardite Complexes as Novel Natural Iron Fertilizers. Journal of Agricultural and Food Chemistry, 2013, 61, 12200-12210.	2.4	23
46	Calcareous soil interactions of the iron(III) chelates of DPH and Azotochelin and its application on amending iron chlorosis in soybean (Glycine max). Science of the Total Environment, 2019, 647, 1586-1593.	3.9	23
47	Determination of ⁶⁷Zn Distribution in Navy Bean (Phaseolus vulgaris L.) after Foliar Application of ⁶⁷Znâ€“Lignosulfonates Using Isotope Pattern Deconvolution. Journal of Agricultural and Food Chemistry, 2011, 59, 8829-8838.	2.4	22
48	Potential Use of Biodegradable ChelateN-(1,2-Dicarboxyethyl)-d,l-aspartic Acid/Fe3+as an Fe Fertilizer. Journal of Agricultural and Food Chemistry, 2007, 55, 402-407.	2.4	21
49	Novel chelating agents for iron, manganese, zinc, and copper mixed fertilisation in high <scp>pH</scp> soilâ€less cultures. Journal of the Science of Food and Agriculture, 2016, 96, 1111-1120.	1.7	21
50	Effectiveness of N,Nâ€²-Bis(2-hydroxy-5-methylbenzyl) ethylenediamine-N,Nâ€²-diacetic acid (HJB) to supply iron to dicot plants. Plant and Soil, 2009, 325, 65-77.	1.8	20
51	Influence of irradiation time and solution concentration on the photochemical degradation of EDDHA/Fe³⁺ : effect of its photodecomposition products on soybean growth. Journal of the Science of Food and Agriculture, 2011, 91, 2024-2030.	1.7	20
52	Revalorization of a Two-Phase Olive Mill Waste Extract into a Micronutrient Fertilizer. Journal of Agricultural and Food Chemistry, 2010, 58, 1085-1092.	2.4	19
53	Use of the stable isotope ⁵⁷ Fe to track the efficacy of the foliar application of lignosulfonate/Fe³⁺ complexes to correct Fe deficiencies in cucumber plants. Journal of the Science of Food and Agriculture, 2011, 91, 395-404.	1.7	19
54	Iron nutrition of a hydroponic strawberry culture (Fragaria vesca L.) supplied with different Fe chelates. Plant and Soil, 1990, 123, 9-15.	1.8	18

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55	Iron Chelates Supplied Foliarly Improve the Iron Translocation Rate in Tempranillo Grapevine. Communications in Soil Science and Plant Analysis, 2013, 44, 794-804.	0.6	17
56	Root iron uptake efficiency of Ulmus laevis and U. minor and their distribution in soils of the Iberian Peninsula. Frontiers in Plant Science, 2014, 5, 104.	1.7	17
57	Reduction of ferric chelates by leaf plasma membrane preparations from Fe-deficient and Fe-sufficient sugar beet. Functional Plant Biology, 1999, 26, 601.	1.1	17
58	Gradient ion-pair chromatographic method for the determination of iron N,Nâ€²-ethylenediamine-di-(2-hydroxy-5-sulfophenylacetate) by high performance liquid chromatographyâ€“atmospheric pressure ionization electrospray mass spectrometry. Journal of Chromatography A, 2005, 1064, 67-74.	1.8	16
59	IDHA Chelates as a Micronutrient Source for Green Bean and Tomato in Fertigation and Hydroponics. Agronomy Journal, 2008, 100, AGJ2AGRONJ20070257.	0.9	16
60	Influence of the Soil/Solution Ratio, Interaction Time, and Extractant on the Evaluation of Iron Chelate Sorption/Desorption by Soils. Journal of Agricultural and Food Chemistry, 2011, 59, 2493-2500.	2.4	16
61	Ulmus laevis in the Iberian Peninsula: a review of its ecology and conservation. IForest, 2015, 8, 135-142.	0.5	16
62	Long-Term Effect of a Leonardite Iron Humate Improving Fe Nutrition As Revealed in Silico, in Vivo, and in Field Experiments. Journal of Agricultural and Food Chemistry, 2017, 65, 6554-6563.	2.4	16
63	Response of soybean plants to the application of synthetic and biodegradable Fe chelates and Fe complexes. Plant Physiology and Biochemistry, 2017, 118, 579-588.	2.8	16
64	Evaluation of the Efficacy of Two New Biotechnological-Based Freeze-Dried Fertilizers for Sustainable Fe Deficiency Correction of Soybean Plants Grown in Calcareous Soils. Frontiers in Plant Science, 2019, 10, 1335.	1.7	15
65	Fe enriched biosolids as fertilizers for orange and peach trees grown in field conditions. Plant and Soil, 2002, 241, 145-153.	1.8	14
66	Effect of the tether on the Mg(ii), Ca(ii), Cu(ii) and Fe(iii) stability constants and pM values of chelating agents related to EDDHA. Dalton Transactions, 2004, , 3741-3747.	1.6	14
67	Methodology to Screen New Iron Chelates: Prediction of Their Behavior in Nutrient Solution and Soil Conditions. Journal of Plant Nutrition, 2003, 26, 1955-1968.	0.9	13
68	Chemical properties and reactivity of manganese chelates and complexes in solution and soils. Journal of Plant Nutrition and Soil Science, 2014, 177, 189-198.	1.1	13
69	Timing for a sustainable fertilisation of <i>Glycine max</i> by using <scp>HBED</scp>/Fe³⁺ and <scp>EDDHA</scp>/Fe³⁺ chelates. Journal of the Science of Food and Agriculture, 2017, 97, 2773-2781.	1.7	13
70	Assessing metalâ€“lignosulfonates as fertilizers using gel filtration chromatography and high-performance size exclusion chromatography. International Journal of Biological Macromolecules, 2020, 142, 163-171.	3.6	13
71	Tomato acquisition of iron from iron chelates in a calcareous sandy substrate. Journal of Plant Nutrition, 1996, 19, 1279-1293.	0.9	12
72	Characterization of Feâ€“humic complexes in an Fe-enriched biosolid by-product of water treatment. Chemosphere, 2006, 65, 2045-2053.	4.2	12

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73	Efficacy of HBED/Fe3+ at supplying iron to Prunus persica in calcareous soils. European Journal of Agronomy, 2013, 45, 105-113.	1.9	12
74	Demetalation of Fe, Mn, and Cu Chelates and Complexes: Application to the NMR Analysis of Micronutrient Fertilizers. Journal of Agricultural and Food Chemistry, 2011, 59, 13110-13116.	2.4	11
75	Biological activity of Fe(iii) aquo-complexes towards ferric chelate reductase (FCR). Organic and Biomolecular Chemistry, 2012, 10, 2272.	1.5	11
76	EDTA Shuttle Effect vs. Lignosulfonate Direct Effect Providing Zn to Navy Bean Plants (Phaseolus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.7	11
77	On the Structure and Spin States of Fe(III)-EDDHA Complexes. Inorganic Chemistry, 2006, 45, 5321-5327.	1.9	10
78	Azotochelin and N-dihydroxy-N,Nâ€™-diisopropylhexanediamide as Fe sources to cucumber plants in hydroponic cultures. Emirates Journal of Food and Agriculture, 0, , 65.	1.0	8
79	Lolium multiflorum uptake of iron supplied as different synthetic chelates. Plant and Soil, 1988, 112, 23-28.	1.8	7
80	ABâ€DTPA cation extraction in Spanish soil samples. Communications in Soil Science and Plant Analysis, 1993, 24, 2427-2440.	0.6	7
81	Micronutrient extraction in calcareous soils treated with humic concentrates. Journal of Plant Nutrition, 1998, 21, 687-697.	0.9	7
82	Evaluation of Commercial Fe(III)â€Chelates Using Different Methods. Journal of Plant Nutrition, 2003, 26, 2009-2021.	0.9	7
83	Synthesis and Chemical Characterization of the Novel Agronomically Relevant Pentadentate Chelate 2-(2-((2-Hydroxybenzyl)amino)ethylamino)-2-(2-hydroxyphenyl)acetic Acid (DCHA). Journal of Agricultural and Food Chemistry, 2010, 58, 7908-7914.	2.4	7
84	Application of Seaweed Organic Components Increases Tolerance to Fe Deficiency in Tomato Plants. Agronomy, 2021, 11, 507.	1.3	7
85	Iron fertirrigation. , 1995, , 153-158.		7
86	Fertilizer properties of DCHA/Fe3+. Plant and Soil, 2012, 356, 367-379.	1.8	5
87	Kinetics of reactions of chelates FeEDDHA and FeEDDHMA as affected by pH and competing ions. Communications in Soil Science and Plant Analysis, 1999, 30, 2769-2784.	0.6	4
88	Efficacy of Micronutrient Chelate Treatments in Commercial Crop of Strawberry on Sand Culture. Communications in Soil Science and Plant Analysis, 2013, 44, 826-836.	0.6	4
89	Leonardite iron humate and synthetic iron chelate mixtures in Glycine max nutrition. Journal of the Science of Food and Agriculture, 2021, 101, 4207-4219.	1.7	4
90	Effects of foliar sprays on turfgrass of an extract of peat and kelp amended with iron. Journal of Plant Nutrition, 1996, 19, 1179-1188.	0.9	3

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91	Theoretical Modeling and Reactivity of the Iron Chelates in Agronomic Conditions. ACS Symposium Series, 2005, , 348-363.	0.5	3
92	Effect of Fe:ligand ratios on hydroponic conditions and calcareous soil <i>in Solanum lycopersicum</i> L. and <i>Glycine max</i> L. fertilized with heptagluconate and gluconate. Journal of the Science of Food and Agriculture, 2020, 100, 1106-1117.	1.7	3
93	Fast Determination of a Novel Iron Chelate Prototype Used as a Fertilizer by Liquid Chromatography Coupled to a Diode Array Detector. Journal of Agricultural and Food Chemistry, 2021, 69, 15746-15754.	2.4	3
94	Comparison of Different Nutritional Diagnostic Methods for Peach Trees Treated with Iron Chelates. Communications in Soil Science and Plant Analysis, 2013, 44, 850-860.	0.6	2
95	Synthesis and Characterization of Nano Fe and Mn (hydr)oxides to Be Used as Natural Sorbents and Micronutrient Fertilizers. Agronomy, 2021, 11, 1876.	1.3	2
96	Testing a Bovine Blood-Derived Compound as Iron Supply on Cucumis sativus L.. Agronomy, 2020, 10, 1480.	1.3	1
97	Implications of the Mn:ligand ratio for Mn uptake by Glycine max L. plants fertilized with heptagluconate and gluconate complexes. Journal of the Science of Food and Agriculture, 2021, 101, 4662-4671.	1.7	1