Fien Degryse

List of Publications by Year
in descending order

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89 papers	4,234 citations	94269 37 h-index	118652 62 g-index
92 all docs	92 docs citations	92 times ranked	4444 citing authors

#	Article	IF	Citations
1	Magnesium-fortified phosphate fertilizers improve nutrient uptake and plant growth without reducing phosphorus availability. Pedosphere, 2022, 32, 744-751.	2.1	9
2	Effect of soil properties on time-dependent fixation (ageing) of selenate. Geoderma, 2021, 383, 114741.	2.3	9
3	Development and Testing of Improved Efficiency Boron-Enriched Diammonium Phosphate Fertilizers. Journal of Soil Science and Plant Nutrition, 2021, 21, 1134-1143.	1.7	4
4	Long-term fate of fertilizer sulfate- and elemental S in co-granulated fertilizers. Nutrient Cycling in Agroecosystems, 2021, 120, 31-48.	1.1	7
5	Screening fertilizers for their phosphorus runoff risk using laboratory methods. Journal of Environmental Quality, 2021, 50, 955-966.	1.0	0
6	Application method influences the oxidation rate of biologically and chemically produced elemental sulfur fertilizers. Soil Science Society of America Journal, 2021, 85, 746-759.	1.2	3
7	Efficiency of soil-applied 67Zn-enriched fertiliser across three consecutive crops. Pedosphere, 2021, 31, 531-537.	2.1	7
8	Isotopic signatures reveal zinc cycling in the natural habitat of hyperaccumulator Dichapetalum gelonioides subspecies from Malaysian Borneo. BMC Plant Biology, 2021, 21, 437.	1.6	2
9	Using 77Se-Labelled Foliar Fertilisers to Determine How Se Transfers Within Wheat Over Time. Frontiers in Nutrition, 2021, 8, 732409.	1.6	1
10	Mechanochemical Synthesis of Zinc Borate for Use as a Dual-Release B Fertilizer. ACS Sustainable Chemistry and Engineering, 2021, 9, 15995-16004.	3.2	7
11	Layered Double Hydroxides as Slow-Release Fertilizer Compounds for the Micronutrient Molybdenum. Journal of Agricultural and Food Chemistry, 2021, 69, 14501-14511.	2.4	8
12	Sulfur Uptake from Fertilizer Fortified with Sulfate and Elemental S in Three Contrasting Climatic Zones. Agronomy, 2020, 10, 1035.	1.3	7
13	Engineered Phosphate Fertilizers with Dual-Release Properties. Industrial & Engineering Chemistry Research, 2020, 59, 5512-5524.	1.8	15
14	Comparison and modelling of extraction methods to assess agronomic effectiveness of fertilizer zinc. Journal of Plant Nutrition and Soil Science, 2020, 183, 248-259.	1.1	8
15	A column perfusion test to assess the kinetics of nutrient release by soluble, sparingly soluble and coated granular fertilizers. Journal of Plant Nutrition and Soil Science, 2019, 182, 763-771.	1.1	11
16	Improving the efficacy of selenium fertilizers for wheat biofortification. Scientific Reports, 2019, 9, 19520.	1.6	52
17	Aluminum-Activated Malate Transporters Can Facilitate GABA Transport. Plant Cell, 2018, 30, 1147-1164.	3.1	71
18	Model-based rationalization of sulphur mineralization in soils using 35S isotope dilution. Soil Biology and Biochemistry, 2018, 120, 1-11.	4.2	13

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19	Uptake of elemental or sulfate-S from fall- or spring-applied co-granulated fertilizer by cornâ€"A stable isotope and modeling study. Field Crops Research, 2018, 221, 322-332.	2.3	23
20	Rapid and Low-Cost Method for Evaluation of Nutrient Release from Controlled-Release Fertilizers Using Electrical Conductivity. Journal of Polymers and the Environment, 2018, 26, 4388-4395.	2.4	12
21	Slow and Fastâ€Release Boron Sources in Potash Fertilizers: Spatial Variability, Nutrient Dissolution and Plant Uptake. Soil Science Society of America Journal, 2018, 82, 1437-1448.	1.2	23
22	Limited Dissolved Phosphorus Runoff Losses from Layered Double Hydroxide and Struvite Fertilizers in a Rainfall Simulation Study. Journal of Environmental Quality, 2018, 47, 371-377.	1.0	39
23	Effects of pH and ionic strength on elemental sulphur oxidation in soil. Biology and Fertility of Soils, 2017, 53, 247-256.	2.3	15
24	Sulfur and Zinc Availability from Co-granulated Zn-Enriched Elemental Sulfur Fertilizers. Journal of Agricultural and Food Chemistry, 2017, 65, 1108-1115.	2.4	23
25	Abundance and diversity of sulphur-oxidising bacteria and their role in oxidising elemental sulphur in cropping soils. Biology and Fertility of Soils, 2017, 53, 159-169.	2.3	26
26	Agronomic Effectiveness of Granulated and Powdered P-Exchanged Mgâ€"Al LDH Relative to Struvite and MAP. Journal of Agricultural and Food Chemistry, 2017, 65, 6736-6744.	2.4	59
27	Graphene Oxide: A New Carrier for Slow Release of Plant Micronutrients. ACS Applied Materials & Interfaces, 2017, 9, 43325-43335.	4.0	131
28	Dissolution rate and agronomic effectiveness of struvite fertilizers â€" effect of soil pH, granulation and base excess. Plant and Soil, 2017, 410, 139-152.	1.8	120
29	Low Effective Surface Area Explains Slow Oxidation of Coâ€Granulated Elemental Sulfur. Soil Science Society of America Journal, 2016, 80, 911-918.	1.2	7
30	DGT and Bioavailability. , 2016, , 216-262.		5
31	Effect of Cogranulation on Oxidation of Elemental Sulfur: Theoretical Model and Experimental Validation. Soil Science Society of America Journal, 2016, 80, 1244-1253.	1.2	8
32	Agronomic Effectiveness of Zinc Sources as Micronutrient Fertilizer. Advances in Agronomy, 2016, 139, 215-267.	2.4	90
33	Oxidation of Elemental Sulfur in Granular Fertilizers Depends on the Soil-Exposed Surface Area. Soil Science Society of America Journal, 2016, 80, 294-305.	1.2	37
34	Availability of fertiliser sulphate and elemental sulphur to canola in two consecutive crops. Plant and Soil, 2016, 398, 313-325.	1.8	27
35	Responses of Canola to the Application of Slow-Release Boron Fertilizers and Their Residual Effect. Soil Science Society of America Journal, 2015, 79, 97-103.	1.2	13
36	Elemental Sulfur Oxidation in Australian Cropping Soils. Soil Science Society of America Journal, 2015, 79, 89-96.	1.2	46

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37	Agronomic Effectiveness of Granular and Fluid Phosphorus Fertilizers in Andisols and Oxisols. Soil Science Society of America Journal, 2015, 79, 577-584.	1.2	16
38	Efficacy of Hydroxyapatite Nanoparticles as Phosphorus Fertilizer in Andisols and Oxisols. Soil Science Society of America Journal, 2015, 79, 551-558.	1.2	121
39	Slow-release boron fertilisers: co-granulation of boron sources with mono-ammonium phosphate (MAP). Soil Research, 2015, 53, 505.	0.6	12
40	Natural Colloidal P and Its Contribution to Plant P Uptake. Environmental Science & Technology, 2015, 49, 3427-3434.	4.6	53
41	Boron phosphates (BPO4) as a seedling-safe boron fertilizer source. Plant and Soil, 2015, 391, 153-160.	1.8	11
42	Diffusion and solubility control of fertilizer-applied zinc: chemical assessment and visualization. Plant and Soil, 2015, 386, 195-204.	1.8	15
43	Formulation, synthesis and characterization of boron phosphate (BPO₄) compounds as raw materials to develop slowâ€•release boron fertilizers. Journal of Plant Nutrition and Soil Science, 2014, 177, 860-868.	1.1	25
44	Copper Isotope Fractionation during Equilibration with Natural and Synthetic Ligands. Environmental Science & Technology, 2014, 48, 8620-8626.	4.6	74
45	Fluid Fertilizers Improve Phosphorus Diffusion but not Lability in Andisols and Oxisols. Soil Science Society of America Journal, 2014, 78, 214-224.	1.2	29
46	Phosphorus Diffusion from Fertilizer: Visualization, Chemical Measurements, and Modeling. Soil Science Society of America Journal, 2014, 78, 832-842.	1.2	42
47	Isotopic fractionation of Zn in tomato plants suggests the role of root exudates on Zn uptake. Plant and Soil, 2013, 370, 605-613.	1.8	39
48	Copper speciation and isotopic fractionation in plants: uptake and translocation mechanisms. New Phytologist, 2013, 199, 367-378.	3.5	133
49	A stableâ€•isotope methodology for measurement of soilâ€•applied zincâ€•fertilizer recovery in durum wheat (Triticum durum). Journal of Plant Nutrition and Soil Science, 2013, 176, 756-763.	1.1	9
50	Sequestration of Phosphorus-Binding Cations by Complexing Compounds is not a Viable Mechanism to Increase Phosphorus Efficiency. Soil Science Society of America Journal, 2013, 77, 2050-2059.	1.2	30
51	Diffusion Limitations in Root Uptake of Cadmium and Zinc, But Not Nickel, and Resulting Bias in the Michaelis Constant Â Â. Plant Physiology, 2012, 160, 1097-1109.	2.3	65
52	Manganese Toxicity in Barley is Controlled by Solution Manganese and Soil Manganese Speciation. Soil Science Society of America Journal, 2012, 76, 399-407.	1.2	37
53	Cadmium and nickel uptake by tomato and spinach seedlings: plant or transport control?. Environmental Chemistry, 2012, 9, 48.	0.7	21
54	The performance of DGT versus conventional soil phosphorus tests in tropical soils - An isotope dilution study. Plant and Soil, 2012, 359, 267-279.	1.8	63

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55	Labile complexes facilitate cadmium uptake by Caco-2 cells. Science of the Total Environment, 2012, 426, 90-99.	3.9	12
56	First observation of diffusionâ€limited plant root phosphorus uptake from nutrient solution. Plant, Cell and Environment, 2012, 35, 1558-1566.	2.8	41
57	Metal Complexation Properties of Freshwater Dissolved Organic Matter Are Explained by Its Aromaticity and by Anthropogenic Ligands. Environmental Science & Technology, 2011, 45, 2584-2590.	4.6	188
58	Effect of Organic P Forms and P Present in Inorganic Colloids on the Determination of Dissolved P in Environmental Samples by the Diffusive Gradient in Thin Films Technique, Ion Chromatography, and Colorimetry. Analytical Chemistry, 2011, 83, 5317-5323.	3.2	56
59	Characterization of zinc in contaminated soils: complementary insights from isotopic exchange, batch extractions and XAFS spectroscopy. European Journal of Soil Science, 2011, 62, 318-330.	1.8	45
60	Mechanisms of enhanced mobilisation of trace metals by anionic surfactants in soil. Environmental Pollution, 2011, 159, 809-816.	3.7	29
61	Uptake of Metals from Soil into Vegetables. , 2011, , 325-367.		44
62	The dissociation kinetics of Cu-dissolved organic matter complexes from soil and soil amendments. Analytica Chimica Acta, 2010, 670, 24-32.	2.6	22
63	Mobilization of Zn upon waterlogging riparian Spodosols is related to reductive dissolution of Fe minerals. European Journal of Soil Science, 2010, 61, 1014-1024.	1.8	17
64	Zinc speciation in mining and smelter contaminated overbank sediments by EXAFS spectroscopy. Geochimica Et Cosmochimica Acta, 2010, 74, 3707-3720.	1.6	51
65	DGT-measured fluxes explain the chloride-enhanced cadmium uptake by plants at low but not at high Cd supply. Plant and Soil, 2009, 318, 127-135.	1.8	31
66	Partitioning of metals (Cd, Co, Cu, Ni, Pb, Zn) in soils: concepts, methodologies, prediction and applications â€“ a review. European Journal of Soil Science, 2009, 60, 590-612.	1.8	313
67	Predicting availability of mineral elements to plants with the DGT technique: a review of experimental data and interpretation by modelling. Environmental Chemistry, 2009, 6, 198.	0.7	210
68	Mobilization of Cu and Zn by root exudates of dicotyledonous plants in resin-buffered solutions and in soil. Plant and Soil, 2008, 306, 69-84.	1.8	62
69	Modelling the effects of ageing on Cd, Zn, Ni and Cu solubility in soils using an assemblage model. European Journal of Soil Science, 2008, 59, 1160-1170.	1.8	56
70	The UVâ€absorbance of dissolved organic matter predicts the fivefold variation in its affinity for mobilizing Cu in an agricultural soil horizon. European Journal of Soil Science, 2008, 59, 1087-1095.	1.8	80
71	Solubility and Toxicity of Antimony Trioxide (Sb₂O₃) in Soil. Environmental Science & Technology, 2008, 42, 4378-4383.	4.6	118
72	The Copper-Mobilizing-Potential of Dissolved Organic Matter in Soils Varies 10-Fold Depending on Soil Incubation and Extraction Procedures. Environmental Science & Technology, 2007, 41, 2277-2281.	4.6	94

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73	Zinc Toxicity to Nitrification in Soil and Soilless Culture Can Be Predicted with the Same Biotic Ligand Model. Environmental Science & Technology, 2007, 41, 2992-2997.	4.6	72
74	Critical Loads of Metals and Other Trace Elements to Terrestrial Environments. Environmental Science & Technology, 2007, 41, 6326-6331.	4.6	35
75	Labile lead in polluted soils measured by stable isotope dilution. European Journal of Soil Science, 2007, 58, 1-7.	1.8	47
76	Mobilization of Cd upon acidification of agricultural soils: column study and field modelling. European Journal of Soil Science, 2007, 58, 152-165.	1.8	14
77	Labile Cd Complexes Increase Cd Availability to Plants. Environmental Science & Technology, 2006, 40, 830-836.	4.6	157
78	Mobility of Cd and Zn in polluted and unpolluted Spodosols. European Journal of Soil Science, 2006, 57, 122-133.	1.8	40
79	Speciation of nickel in surface waters measured with the Donnan membrane technique. Analytica Chimica Acta, 2006, 578, 195-202.	2.6	56
80	MODEL STUDIES OF CORROSION-INDUCED COPPER RUNOFF FATE IN SOIL. Environmental Toxicology and Chemistry, 2006, 25, 683.	2.2	13
81	Metal complexes increase uptake of Zn and Cu by plants: implications for uptake and deficiency studies in chelator-buffered solutions. Plant and Soil, 2006, 289, 171-185.	1.8	92
82	An Agar Gel Technique Demonstrates Diffusion Limitations to Cadmium Uptake by Higher Plants. Environmental Chemistry, 2006, 3, 419.	0.7	19
83	Fixation of Cadmium and Zinc in Soils. , 2006, , 157-172.		0
84	Enhanced sorption and fixation of radiocaesium in soils amended with K-bentonites, submitted to wetting-drying cycles. European Journal of Soil Science, 2004, 55, 513-522.	1.8	24
85	Radio-labile cadmium and zinc in soils as affected by pH and source of contamination. European Journal of Soil Science, 2004, 55, 113-122.	1.8	71
86	An anion resin membrane technique to overcome detection limits of isotopically exchanged P in P-sorbing soils. European Journal of Soil Science, 2004, 55, 63-69.	1.8	29
87	Soil solution concentration of Cd and Zn canbe predicted with a CaCl2 soil extract. European Journal of Soil Science, 2003, 54, 149-158.	1.8	97
88	Relating Soil Solution Zn Concentration to Diffusive Gradients in Thin Films Measurements in Contaminated Soils. Environmental Science & Technology, 2003, 37, 3958-3965.	4.6	57
89	Fate and Effect of Zinc from Tire Debris in Soil. Environmental Science & Technology, 2002, 36, 3706-3710.	4.6	203