

Fien Degryse

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

88
papers

3,255
citations

34
h-index

55
g-index

92
ext. papers

3,732
ext. citations

5.1
avg, IF

5.39
L-index

#	Paper	IF	Citations
88	Mechanochemical Synthesis of Zinc Borate for Use as a Dual-Release B Fertilizer. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 15995-16004	8.3	0
87	Layered Double Hydroxides as Slow-Release Fertilizer Compounds for the Micronutrient Molybdenum. <i>Journal of Agricultural and Food Chemistry</i> , 2021 , 69, 14501-14511	5.7	0
86	Using Se-Labelled Foliar Fertilisers to Determine How Se Transfers Within Wheat Over Time. <i>Frontiers in Nutrition</i> , 2021 , 8, 732409	6.2	
85	Long-term fate of fertilizer sulfate- and elemental S in co-granulated fertilizers. <i>Nutrient Cycling in Agroecosystems</i> , 2021 , 120, 31-48	3.3	0
84	Screening fertilizers for their phosphorus runoff risk using laboratory methods. <i>Journal of Environmental Quality</i> , 2021 , 50, 955-966	3.4	
83	Application method influences the oxidation rate of biologically and chemically produced elemental sulfur fertilizers. <i>Soil Science Society of America Journal</i> , 2021 , 85, 746-759	2.5	0
82	Effect of soil properties on time-dependent fixation (ageing) of selenate. <i>Geoderma</i> , 2021 , 383, 114741	6.7	3
81	Development and Testing of Improved Efficiency Boron-Enriched Diammonium Phosphate Fertilizers. <i>Journal of Soil Science and Plant Nutrition</i> , 2021 , 21, 1134-1143	3.2	1
80	Efficiency of soil-applied ⁶⁷ Zn-enriched fertiliser across three consecutive crops. <i>Pedosphere</i> , 2021 , 31, 531-537	5	4
79	Isotopic signatures reveal zinc cycling in the natural habitat of hyperaccumulator <i>Dichapetalum gelonioides</i> subspecies from Malaysian Borneo. <i>BMC Plant Biology</i> , 2021 , 21, 437	5.3	0
78	Engineered Phosphate Fertilizers with Dual-Release Properties. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 5512-5524	3.9	7
77	Comparison and modelling of extraction methods to assess agronomic effectiveness of fertilizer zinc. <i>Journal of Plant Nutrition and Soil Science</i> , 2020 , 183, 248-259	2.3	1
76	Sulfur Uptake from Fertilizer Fortified with Sulfate and Elemental S in Three Contrasting Climatic Zones. <i>Agronomy</i> , 2020 , 10, 1035	3.6	3
75	A column perfusion test to assess the kinetics of nutrient release by soluble, sparingly soluble and coated granular fertilizers. <i>Journal of Plant Nutrition and Soil Science</i> , 2019 , 182, 763-771	2.3	7
74	Improving the efficacy of selenium fertilizers for wheat biofortification. <i>Scientific Reports</i> , 2019 , 9, 19520.	4.9	27
73	Aluminum-Activated Malate Transporters Can Facilitate GABA Transport. <i>Plant Cell</i> , 2018 , 30, 1147-1164	11.6	45
72	Model-based rationalization of sulphur mineralization in soils using ³⁵ S isotope dilution. <i>Soil Biology and Biochemistry</i> , 2018 , 120, 1-11	7.5	7

71	Uptake of elemental or sulfate-S from fall- or spring-applied co-granulated fertilizer by corn ² stable isotope and modeling study. <i>Field Crops Research</i> , 2018 , 221, 322-332	5.5	15
70	Limited Dissolved Phosphorus Runoff Losses from Layered Double Hydroxide and Struvite Fertilizers in a Rainfall Simulation Study. <i>Journal of Environmental Quality</i> , 2018 , 47, 371-377	3.4	22
69	Rapid and Low-Cost Method for Evaluation of Nutrient Release from Controlled-Release Fertilizers Using Electrical Conductivity. <i>Journal of Polymers and the Environment</i> , 2018 , 26, 4388-4395	4.5	7
68	Slow and Fast-Release Boron Sources in Potash Fertilizers: Spatial Variability, Nutrient Dissolution and Plant Uptake. <i>Soil Science Society of America Journal</i> , 2018 , 82, 1437-1448	2.5	10
67	Effects of pH and ionic strength on elemental sulphur oxidation in soil. <i>Biology and Fertility of Soils</i> , 2017 , 53, 247-256	6.1	9
66	Sulfur and Zinc Availability from Co-granulated Zn-Enriched Elemental Sulfur Fertilizers. <i>Journal of Agricultural and Food Chemistry</i> , 2017 , 65, 1108-1115	5.7	13
65	Abundance and diversity of sulphur-oxidising bacteria and their role in oxidising elemental sulphur in cropping soils. <i>Biology and Fertility of Soils</i> , 2017 , 53, 159-169	6.1	19
64	Agronomic Effectiveness of Granulated and Powdered P-Exchanged Mg-Al LDH Relative to Struvite and MAP. <i>Journal of Agricultural and Food Chemistry</i> , 2017 , 65, 6736-6744	5.7	36
63	Graphene Oxide: A New Carrier for Slow Release of Plant Micronutrients. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 43325-43335	9.5	66
62	Dissolution rate and agronomic effectiveness of struvite fertilizers [effect of soil pH, granulation and base excess. <i>Plant and Soil</i> , 2017 , 410, 139-152	4.2	83
61	Availability of fertiliser sulphate and elemental sulphur to canola in two consecutive crops. <i>Plant and Soil</i> , 2016 , 398, 313-325	4.2	20
60	Oxidation of Elemental Sulfur in Granular Fertilizers Depends on the Soil-Exposed Surface Area. <i>Soil Science Society of America Journal</i> , 2016 , 80, 294-305	2.5	24
59	Low Effective Surface Area Explains Slow Oxidation of Co-Granulated Elemental Sulfur. <i>Soil Science Society of America Journal</i> , 2016 , 80, 911-918	2.5	2
58	Effect of Cogranulation on Oxidation of Elemental Sulfur: Theoretical Model and Experimental Validation. <i>Soil Science Society of America Journal</i> , 2016 , 80, 1244-1253	2.5	6
57	Agronomic Effectiveness of Zinc Sources as Micronutrient Fertilizer. <i>Advances in Agronomy</i> , 2016 , 139, 215-267	7.7	49
56	Natural colloidal P and its contribution to plant P uptake. <i>Environmental Science & Technology</i> , 2015 , 49, 3427-34	10.3	34
55	Boron phosphates (BPO ₄) as a seedling-safe boron fertilizer source. <i>Plant and Soil</i> , 2015 , 391, 153-160	4.2	8
54	Diffusion and solubility control of fertilizer-applied zinc: chemical assessment and visualization. <i>Plant and Soil</i> , 2015 , 386, 195-204	4.2	11

53	Responses of Canola to the Application of Slow-Release Boron Fertilizers and Their Residual Effect. <i>Soil Science Society of America Journal</i> , 2015 , 79, 97-103	2.5	9
52	Elemental Sulfur Oxidation in Australian Cropping Soils. <i>Soil Science Society of America Journal</i> , 2015 , 79, 89-96	2.5	31
51	Agronomic Effectiveness of Granular and Fluid Phosphorus Fertilizers in Andisols and Oxisols. <i>Soil Science Society of America Journal</i> , 2015 , 79, 577-584	2.5	10
50	Efficacy of Hydroxyapatite Nanoparticles as Phosphorus Fertilizer in Andisols and Oxisols. <i>Soil Science Society of America Journal</i> , 2015 , 79, 551-558	2.5	79
49	Slow-release boron fertilisers: co-granulation of boron sources with mono-ammonium phosphate (MAP). <i>Soil Research</i> , 2015 , 53, 505	1.8	8
48	Copper isotope fractionation during equilibration with natural and synthetic ligands. <i>Environmental Science & Technology</i> , 2014 , 48, 8620-6	10.3	54
47	Fluid Fertilizers Improve Phosphorus Diffusion but not Lability in Andisols and Oxisols. <i>Soil Science Society of America Journal</i> , 2014 , 78, 214-224	2.5	20
46	Phosphorus Diffusion from Fertilizer: Visualization, Chemical Measurements, and Modeling. <i>Soil Science Society of America Journal</i> , 2014 , 78, 832-842	2.5	28
45	Formulation, synthesis and characterization of boron phosphate (BPO ₄) compounds as raw materials to develop slow-release boron fertilizers. <i>Journal of Plant Nutrition and Soil Science</i> , 2014 , 177, 860-868	2.3	16
44	Isotopic fractionation of Zn in tomato plants suggests the role of root exudates on Zn uptake. <i>Plant and Soil</i> , 2013 , 370, 605-613	4.2	34
43	Copper speciation and isotopic fractionation in plants: uptake and translocation mechanisms. <i>New Phytologist</i> , 2013 , 199, 367-378	9.8	110
42	A stable-isotope methodology for measurement of soil-applied zinc-fertilizer recovery in durum wheat (<i>Triticum durum</i>). <i>Journal of Plant Nutrition and Soil Science</i> , 2013 , 176, 756-763	2.3	8
41	Sequestration of Phosphorus-Binding Cations by Complexing Compounds is not a Viable Mechanism to Increase Phosphorus Efficiency. <i>Soil Science Society of America Journal</i> , 2013 , 77, 2050-2059	2.5	22
40	Labile complexes facilitate cadmium uptake by Caco-2 cells. <i>Science of the Total Environment</i> , 2012 , 426, 90-9	10.2	10
39	First observation of diffusion-limited plant root phosphorus uptake from nutrient solution. <i>Plant, Cell and Environment</i> , 2012 , 35, 1558-66	8.4	29
38	The performance of DGT versus conventional soil phosphorus tests in tropical soils - An isotope dilution study. <i>Plant and Soil</i> , 2012 , 359, 267-279	4.2	53
37	Diffusion limitations in root uptake of cadmium and zinc, but not nickel, and resulting bias in the Michaelis constant. <i>Plant Physiology</i> , 2012 , 160, 1097-109	6.6	57
36	Manganese Toxicity in Barley is Controlled by Solution Manganese and Soil Manganese Speciation. <i>Soil Science Society of America Journal</i> , 2012 , 76, 399-407	2.5	24

35	Cadmium and nickel uptake by tomato and spinach seedlings: plant or transport control?. <i>Environmental Chemistry</i> , 2012 , 9, 48	3.2	20
34	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. <i>Analytical Chemistry</i> , 2011 , 83, 5317-23	7.8	54
33	Characterization of zinc in contaminated soils: complementary insights from isotopic exchange, batch extractions and XAFS spectroscopy. <i>European Journal of Soil Science</i> , 2011 , 62, 318-330	3.4	38
32	Mechanisms of enhanced mobilisation of trace metals by anionic surfactants in soil. <i>Environmental Pollution</i> , 2011 , 159, 809-16	9.3	25
31	Metal complexation properties of freshwater dissolved organic matter are explained by its aromaticity and by anthropogenic ligands. <i>Environmental Science & Technology</i> , 2011 , 45, 2584-90	10.3	140
30	Uptake of Metals from Soil into Vegetables 2011 , 325-367		31
29	Mobilization of Zn upon waterlogging riparian Spodosols is related to reductive dissolution of Fe minerals. <i>European Journal of Soil Science</i> , 2010 , 61, 1014-1024	3.4	16
28	Zinc speciation in mining and smelter contaminated overbank sediments by EXAFS spectroscopy. <i>Geochimica Et Cosmochimica Acta</i> , 2010 , 74, 3707-3720	5.5	41
27	The dissociation kinetics of Cu-dissolved organic matter complexes from soil and soil amendments. <i>Analytica Chimica Acta</i> , 2010 , 670, 24-32	6.6	20
26	DGT-measured fluxes explain the chloride-enhanced cadmium uptake by plants at low but not at high Cd supply. <i>Plant and Soil</i> , 2009 , 318, 127-135	4.2	28
25	Partitioning of metals (Cd, Co, Cu, Ni, Pb, Zn) in soils: concepts, methodologies, prediction and applications a review. <i>European Journal of Soil Science</i> , 2009 , 60, 590-612	3.4	258
24	Predicting availability of mineral elements to plants with the DGT technique: a review of experimental data and interpretation by modelling. <i>Environmental Chemistry</i> , 2009 , 6, 198	3.2	185
23	Modelling the effects of ageing on Cd, Zn, Ni and Cu solubility in soils using an assemblage model. <i>European Journal of Soil Science</i> , 2008 , 59, 1160-1170	3.4	47
22	The UV-absorbance of dissolved organic matter predicts the fivefold variation in its affinity for mobilizing Cu in an agricultural soil horizon. <i>European Journal of Soil Science</i> , 2008 , 59, 1087-1095	3.4	70
21	Solubility and toxicity of antimony trioxide (Sb ₂ O ₃) in soil. <i>Environmental Science & Technology</i> , 2008 , 42, 4378-83	10.3	103
20	Mobilization of Cu and Zn by root exudates of dicotyledonous plants in resin-buffered solutions and in soil. <i>Plant and Soil</i> , 2008 , 306, 69-84	4.2	54
19	The copper-mobilizing-potential of dissolved organic matter in soils varies 10-fold depending on soil incubation and extraction procedures. <i>Environmental Science & Technology</i> , 2007 , 41, 2277-81	10.3	81
18	Zinc toxicity to nitrification in soil and soilless culture can be predicted with the same biotic ligand model. <i>Environmental Science & Technology</i> , 2007 , 41, 2992-7	10.3	64

17	Critical loads of metals and other trace elements to terrestrial environments. <i>Environmental Science & Technology</i> , 2007 , 41, 6326-31	10.3	34
16	Labile lead in polluted soils measured by stable isotope dilution. <i>European Journal of Soil Science</i> , 2007 , 58, 1-7	3.4	42
15	Mobilization of Cd upon acidification of agricultural soils: column study and field modelling. <i>European Journal of Soil Science</i> , 2007 , 58, 152-165	3.4	13
14	Labile Cd complexes increase Cd availability to plants. <i>Environmental Science & Technology</i> , 2006 , 40, 830-6	10.3	138
13	Mobility of Cd and Zn in polluted and unpolluted Spodosols. <i>European Journal of Soil Science</i> , 2006 , 57, 122-133	3.4	35
12	Speciation of nickel in surface waters measured with the Donnan membrane technique. <i>Analytica Chimica Acta</i> , 2006 , 578, 195-202	6.6	47
11	Model studies of corrosion-induced copper runoff fate in soil. <i>Environmental Toxicology and Chemistry</i> , 2006 , 25, 683-91	3.8	12
10	Metal complexes increase uptake of Zn and Cu by plants: implications for uptake and deficiency studies in chelator-buffered solutions. <i>Plant and Soil</i> , 2006 , 289, 171-185	4.2	83
9	Fixation of Cadmium and Zinc in Soils 2006 , 157-172		
8	An Agar Gel Technique Demonstrates Diffusion Limitations to Cadmium Uptake by Higher Plants. <i>Environmental Chemistry</i> , 2006 , 3, 419	3.2	18
7	Enhanced sorption and fixation of radiocaesium in soils amended with K-bentonites, submitted to wetting-drying cycles. <i>European Journal of Soil Science</i> , 2004 , 55, 513-522	3.4	24
6	Radio-labile cadmium and zinc in soils as affected by pH and source of contamination. <i>European Journal of Soil Science</i> , 2004 , 55, 113-122	3.4	64
5	An anion resin membrane technique to overcome detection limits of isotopically exchanged P in P-sorbing soils. <i>European Journal of Soil Science</i> , 2004 , 55, 63-69	3.4	26
4	Soil solution concentration of Cd and Zn can be predicted with a CaCl ₂ soil extract. <i>European Journal of Soil Science</i> , 2003 , 54, 149-158	3.4	86
3	Relating soil solution Zn concentration to diffusive gradients in thin films measurements in contaminated soils. <i>Environmental Science & Technology</i> , 2003 , 37, 3958-65	10.3	52
2	Fate and effect of zinc from tire debris in soil. <i>Environmental Science & Technology</i> , 2002 , 36, 3706-10	10.3	158
1	DGT and Bioavailability		216-262 3