

Dean L Hesterberg

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104
papers

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34
h-index

59
g-index

109
ext. papers

4,173
ext. citations

4.4
avg, IF

5.39
L-index

#	Paper	IF	Citations
104	Struvite precipitation in anaerobic swine lagoon liquid: effect of pH and Mg:P ratio and determination of rate constant. <i>Bioresource Technology</i> , 2003 , 89, 229-36	11	327
103	Speciation of phosphorus in phosphorus-enriched agricultural soils using X-ray absorption near-edge structure spectroscopy and chemical fractionation. <i>Journal of Environmental Quality</i> , 2003 , 32, 1809-19	3.4	220
102	Formation of chloropyromorphite in a lead-contaminated soil amended with hydroxyapatite. <i>Environmental Science & Technology</i> , 2001 , 35, 3798-803	10.3	172
101	Bonding of Hg(II) to reduced organic sulfur in humic acid as affected by S/Hg ratio. <i>Environmental Science & Technology</i> , 2001 , 35, 2741-5	10.3	169
100	XANES investigation of phosphate sorption in single and binary systems of iron and aluminum oxide minerals. <i>Environmental Science & Technology</i> , 2005 , 39, 2152-60	10.3	165
99	Molecular scale characteristics of Cu(II) bonding in goethite-humate complexes. <i>Geochimica Et Cosmochimica Acta</i> , 2001 , 65, 1355-1366	5.5	158
98	Effects of Adsorbed Humic Acid on Surface Charge and Flocculation of Kaolinite. <i>Soil Science Society of America Journal</i> , 1997 , 61, 101-108	2.5	142
97	XAFS study of adsorbed and mineral forms of phosphate. <i>Journal of Synchrotron Radiation</i> , 1999 , 6, 636-8.4	3.4	126
96	Spectroscopic approaches for phosphorus speciation in soils and other environmental systems. <i>Journal of Environmental Quality</i> , 2011 , 40, 751-66	3.4	103
95	Phosphorus leaching in a sandy soil as affected by organic and inorganic fertilizer sources. <i>Geoderma</i> , 2011 , 161, 194-201	6.7	99
94	Soil Organic Matter Effects on Phosphorus Sorption: A Path Analysis. <i>Soil Science Society of America Journal</i> , 2009 , 73, 360-366	2.5	93
93	Phosphate bonding configuration on ferrihydrite based on molecular orbital calculations and XANES fingerprinting. <i>Geochimica Et Cosmochimica Acta</i> , 2007 , 71, 4405-4415	5.5	91
92	Characterization of phosphorus species in biosolids and manures using XANES spectroscopy. <i>Journal of Environmental Quality</i> , 2006 , 35, 1983-93	3.4	91
91	Effects of pH and Organic Acids on Orthophosphate Solubility in an Acidic, Montmorillonitic Soil. <i>Soil Science Society of America Journal</i> , 1986 , 50, 45-52	2.5	86
90	XANES Determination of Adsorbed Phosphate Distribution between Ferrihydrite and Boehmite in Mixtures. <i>Soil Science Society of America Journal</i> , 2004 , 68, 460-469	2.5	77
89	Phosphate bonding on noncrystalline Al/Fe-hydroxide coprecipitates. <i>Environmental Science & Technology</i> , 2011 , 45, 6283-9	10.3	76
88	Comparison of trees and grasses for rhizoremediation of petroleum hydrocarbons. <i>International Journal of Phytoremediation</i> , 2013 , 15, 844-60	3.9	68

87	Phosphorus speciation of clay fractions from long-term fertility experiments in Sweden. <i>Geoderma</i> , 2015 , 241-242, 68-74	6.7	63
86	Dissolution of trace element contaminants from two coastal plain soils as affected by pH. <i>Journal of Environmental Quality</i> , 2004 , 33, 891-901	3.4	60
85	Principal Component Analysis Approach for Modeling Sulfur K-XANES Spectra of Humic Acids. <i>Soil Science Society of America Journal</i> , 2002 , 66, 83-91	2.5	60
84	Metal bioavailability and speciation in a wetland tailings repository amended with biosolids compost, wood ash, and sulfate. <i>Journal of Environmental Quality</i> , 2003 , 32, 851-64	3.4	58
83	Principal Component Analysis Approach for Modeling Sulfur K-XANES Spectra of Humic Acids. <i>Soil Science Society of America Journal</i> , 2002 , 66, 83	2.5	56
82	X-ray Absorption Spectroscopy of Lead and Zinc Speciation in a Contaminated Groundwater Aquifer. <i>Environmental Science & Technology</i> , 1997 , 31, 2840-2846	10.3	55
81	Dispersion of natural arsenic in the Malcantone watershed, Southern Switzerland: field evidence for repeated sorption-desorption and oxidation-reduction processes. <i>Geoderma</i> , 2004 , 122, 205-234	6.7	55
80	XANES speciation of P in environmental samples: an assessment of filter media for on-site wastewater treatment. <i>Environmental Science & Technology</i> , 2009 , 43, 6515-21	10.3	51
79	Biogeochemical cycles and processes leading to changes in mobility of chemicals in soils. <i>Agriculture, Ecosystems and Environment</i> , 1998 , 67, 121-133	5.7	49
78	Dissolution of phosphate in a phosphorus-enriched ultisol as affected by microbial reduction. <i>Journal of Environmental Quality</i> , 2004 , 33, 1793-802	3.4	44
77	Macroscale Chemical Properties and X-Ray Absorption Spectroscopy of Soil Phosphorus. <i>Developments in Soil Science</i> , 2010 , 34, 313-356	1.3	43
76	Iron speciation in soft-water lakes and soils as determined by EXAFS spectroscopy and geochemical modelling. <i>Geochimica Et Cosmochimica Acta</i> , 2013 , 105, 172-186	5.5	42
75	Nitrate Leaching in a Tile-Drained Silt Loam Soil. <i>Soil Science Society of America Journal</i> , 2000 , 64, 517-527	2.5	42
74	Stability of Reduced Organic Sulfur in Humic Acid as Affected by Aeration and pH. <i>Soil Science Society of America Journal</i> , 2001 , 65, 704-709	2.5	41
73	Bioconcentration and biotransformation of selenite versus selenate exposed periphyton and subsequent toxicity to the Mayfly <i>Centroptilum triangulifer</i> . <i>Environmental Science & Technology</i> , 2013 , 47, 7965-73	10.3	40
72	X-ray microspectroscopy and chemical reactions in soil microsites. <i>Journal of Environmental Quality</i> , 2011 , 40, 667-78	3.4	38
71	Liming poultry manures to decrease soluble phosphorus and suppress the bacteria population. <i>Journal of Environmental Quality</i> , 2006 , 35, 849-57	3.4	36
70	Thermodynamic Modeling of Zinc, Cadmium, and Copper Solubilities in a Manured, Acidic Loamy-Sand Topsoil. <i>Journal of Environmental Quality</i> , 1993 , 22, 681-688	3.4	34

69	Evolution of phosphorus speciation with depth in an agricultural soil profile. <i>Geoderma</i> , 2016 , 280, 29-376.7		33
68	Phosphorus dynamics in Swedish agricultural soils as influenced by fertilization and mineralogical properties: Insights gained from batch experiments and XANES spectroscopy. <i>Science of the Total Environment</i> , 2016 , 566-567, 1410-1419	10.2	33
67	Mixed anion (phosphate/oxalate) bonding to iron(III) materials. <i>Journal of the American Chemical Society</i> , 2010 , 132, 2301-8	16.4	30
66	Iron and Phosphate Dissolution during Abiotic Reduction of Ferrihydrite-Boehmite Mixtures. <i>Soil Science Society of America Journal</i> , 2006 , 70, 1318-1327	2.5	30
65	Chemical Composition, Speciation, and Elemental Associations in Coal Fly Ash Samples Related to the Kingston Ash Spill. <i>Energy & Fuels</i> , 2015 , 29, 954-967	4.1	26
64	Speciation of hepatic Zn in trout exposed to elevated waterborne Zn using X-ray absorption spectroscopy. <i>Environmental Science & Technology</i> , 2004 , 38, 1288-95	10.3	26
63	Siderophore-promoted dissolution of cobalt from hydroxide minerals. <i>Geochimica Et Cosmochimica Acta</i> , 2010 , 74, 2915-2925	5.5	24
62	Effect of Liquid Animal Manure Application on the Solubilization of Heavy Metals from Soil. <i>International Journal of Environmental Analytical Chemistry</i> , 1992 , 46, 25-39	1.8	24
61	Critical Coagulation Concentrations of Sodium and Potassium Illite as Affected by pH. <i>Soil Science Society of America Journal</i> , 1990 , 54, 735-739	2.5	23
60	Chemical Speciation of Potentially Toxic Trace Metals in Coal Fly Ash Associated with the Kingston Fly Ash Spill. <i>Energy & Fuels</i> , 2017 , 31, 9652-9659	4.1	22
59	Comparison of phosphate adsorption on clay minerals for soilless root media. <i>Communications in Soil Science and Plant Analysis</i> , 1999 , 30, 747-756	1.5	20
58	Soil Weathering as an Engine for Manganese Contamination of Well Water. <i>Environmental Science & Technology</i> , 2016 , 50, 9963-71	10.3	20
57	Citric acid-assisted accumulation of Ni and other metals by <i>Odontarrhena muralis</i> : Implications for phytoextraction and metal foliar distribution assessed by EXRF. <i>Environmental Pollution</i> , 2020 , 260, 114025	9.3	17
56	Speciation of Soil Phosphorus Assessed by XANES Spectroscopy at Different Spatial Scales. <i>Journal of Environmental Quality</i> , 2017 , 46, 1190-1197	3.4	15
55	Flocculation Series Test Yielding Time-Invariant Critical Coagulation Concentrations of Sodium Illite. <i>Soil Science Society of America Journal</i> , 1990 , 54, 729-735	2.5	14
54	Iron(III) Coordination and Phosphate Sorption in Peat Reacted with Ferric or Ferrous Iron. <i>Soil Science Society of America Journal</i> , 2012 , 76, 101-109	2.5	13
53	XANES Determination of Adsorbed Phosphate Distribution between Ferrihydrite and Boehmite in Mixtures 2004 , 68, 460		13
52	Effects of stopping liming on abandoned agricultural land. <i>Land Degradation and Development</i> , 1993 , 4, 257-267	4.4	12

51	A Probabilistic Approach to Phosphorus Speciation of Soils Using P K-edge XANES Spectroscopy with Linear Combination Fitting. <i>Soil Systems</i> , 2020 , 4, 26	3.5	11
50	Mechanisms of enhanced inorganic phosphorus accumulation by periphyton in paddy fields as affected by calcium and ferrous ions. <i>Science of the Total Environment</i> , 2017 , 609, 466-475	10.2	11
49	Soil Carbon Fractions from an Alluvial Soil Texture Gradient in North Carolina. <i>Soil Science Society of America Journal</i> , 2017 , 81, 1096-1106	2.5	11
48	DRAINMOD Simulation of macropore flow at subsurface drained agricultural fields: Model modification and field testing. <i>Agricultural Water Management</i> , 2020 , 242, 106401	5.9	11
47	Calcium Sulfate as a Flocculant to Reduce Sedimentation Basin Water Turbidity. <i>Journal of Environmental Quality</i> , 1997 , 26, 1605-1611	3.4	10
46	Stability of copper sulfide in a contaminated soil. <i>Journal of Synchrotron Radiation</i> , 1999 , 6, 630-2	2.4	10
45	Calcium-Magnesium Exchange on Illite in the Presence of Adsorbed Sodium. <i>Soil Science Society of America Journal</i> , 1986 , 50, 905-909	2.5	10
44	Multivariate spatial modeling of conditional dependence in microscale soil elemental composition data. <i>Spatial Statistics</i> , 2014 , 9, 93-108	2.2	9
43	Reaction Times of Twenty Limestones. <i>Communications in Soil Science and Plant Analysis</i> , 2007 , 38, 1775-1783	1.8	9
42	Chemistry of subsurface drain discharge from an agricultural polder soil. <i>Agricultural Water Management</i> , 2006 , 86, 220-228	5.9	9
41	Effects of exogenous citric acid on the concentration and spatial distribution of Ni, Zn, Co, Cr, Mn and Fe in leaves of <i>Noccaea caerulea</i> grown on a serpentine soil. <i>Journal of Hazardous Materials</i> , 2020 , 398, 122992	12.8	9
40	Sensitivity analysis of the DRAINWAT model applied to an agricultural watershed in the lower coastal plain, North Carolina, USA. <i>Water and Environment Journal</i> , 2012 , 26, 130-145	1.7	8
39	Soybean root growth in relation to ionic composition in magnesium-amended acid subsoils: Implications on root citrate ameliorating aluminum constraints. <i>Soil Science and Plant Nutrition</i> , 2007 , 53, 753-763	1.6	8
38	Metal Bioavailability and Speciation in a Wetland Tailings Repository Amended with Biosolids Compost, Wood Ash, and Sulfate 2003 , 32, 851		8
37	Temporal Changes in Cadmium Speciation in Brazilian Soils Evaluated Using Cd LIII-Edge XANES and Chemical Fractionation. <i>Journal of Environmental Quality</i> , 2017 , 46, 1206-1214	3.4	7
36	Periphyton and abiotic factors influencing arsenic speciation in aquatic environments. <i>Environmental Toxicology and Chemistry</i> , 2018 , 37, 903-913	3.8	7
35	Nonphytotoxic Aluminum-Peat Complexes Suppress <i>Phytophthora parasitica</i> . <i>Phytopathology</i> , 2001 , 91, 1092-7	3.8	7
34	Field Evaluation of Calcium Sulfate as a Chemical Flocculant for Sedimentation Basins. <i>Journal of Environmental Quality</i> , 1998 , 27, 669-678	3.4	7

33	Optimization of Data Processing Minimizes Impact of Self-Absorption on Phosphorus Speciation Results by P K-Edge XANES. <i>Soil Systems</i> , 2019 , 3, 61	3.5	6
32	Accessing Legacy Phosphorus in Soils. <i>Soil Systems</i> , 2020 , 4, 74	3.5	6
31	Leaching of nutrients and trace elements from stockpiled turkey litter into soil. <i>Journal of Environmental Quality</i> , 2009 , 38, 1053-65	3.4	6
30	Biomass of Tomato Seedlings Exposed to an Allelopathic Phenolic Acid and Enriched Atmospheric Carbon Dioxide. <i>Water, Air, and Soil Pollution</i> , 1998 , 106, 123-136	2.6	6
29	Effects of Ionic Strength, Calcium, and Citrate on Orthophosphate Solubility in an Acidic, Montmorillonitic Soil. <i>Soil Science Society of America Journal</i> , 1986 , 50, 623-627	2.5	6
28	Increasing Soluble Phosphate Species by Treatment of Phosphate Rocks with Acidic Waste. <i>Journal of Environmental Quality</i> , 2016 , 45, 1988-1997	3.4	6
27	Phosphate Solubilization from Poorly Crystalline Iron and Aluminum Hydroxides by AVAIL Copolymer. <i>Soil Science Society of America Journal</i> , 2017 , 81, 20-28	2.5	5
26	Multi-element effects on arsenate accumulation in a geochemical matrix determined using μ -XRF, μ -XANES and spatial statistics. <i>Journal of Synchrotron Radiation</i> , 2019 , 26, 1967-1979	2.4	5
25	Periphyton uptake and trophic transfer of coal fly-ash-derived trace elements. <i>Environmental Toxicology and Chemistry</i> , 2017 , 36, 2991-2996	3.8	5
24	Differential Sensitivity of <i>Phytophthora parasitica</i> var. <i>nicotianae</i> and <i>Thielaviopsis basicola</i> to Monomeric Aluminum Species. <i>Phytopathology</i> , 2006 , 96, 212-20	3.8	5
23	Assessment of trace element impacts on agricultural use of water from the Dan River following the Eden coal ash release. <i>Integrated Environmental Assessment and Management</i> , 2016 , 12, 353-63	2.5	5
22	Synchrotron-based X-ray microscopy for assessing elements distribution and speciation in mangrove tree-rings. <i>Results in Chemistry</i> , 2021 , 3, 100121	2.1	5
21	Bayesian Spectral Modeling for Multivariate Spatial Distributions of Elemental Concentrations in Soil. <i>Bayesian Analysis</i> , 2018 , 13,	2.3	5
20	Volumetric Treatment Efficiencies of Some Commercial Clay Stabilizers. <i>SPE Production Engineering</i> , 1991 , 6, 57-62		4
19	DRAINMOD-P: A Model for Simulating Phosphorus Dynamics and Transport in Drained Agricultural Lands: I. Model Development. <i>Transactions of the ASABE</i> , 2021 , 64, 1835-1848	0.9	4
18	Optimizing pyrolysis conditions for recycling pig bones into phosphate fertilizer. <i>Waste Management</i> , 2021 , 131, 249-257	8.6	4
17	Phosphate Speciation and Citrate-Induced Mobilization of P in an Acric Oxisol. <i>Communications in Soil Science and Plant Analysis</i> , 2017 , 48, 1977-1988	1.5	3
16	Synchrotron radiation-based spatial methods in environmental biogeochemistry 2020 , 231-265		3

15	LACK OF SOYBEAN ROOT ELONGATION RESPONSES TO MICROMOLAR MAGNESIUM ADDITIONS AND FATE OF ROOT-EXUDED CITRATE IN ACID SUBSOILS. <i>Journal of Plant Nutrition</i> , 2010 , 33, 219-239	2.3	3
14	Rheology of Sodium and Potassium Illite Suspensions in Relation to Colloidal Stability. <i>Soil Science Society of America Journal</i> , 1993 , 57, 697-704	2.5	3
13	Phosphate and Potassium Retention and Release during Chrysanthemum Production from Precharged Materials: I. Alumina. <i>Journal of the American Society for Horticultural Science</i> , 2000 , 125, 748-756	2.3	3
12	Microscale Heterogeneous Distribution and Speciation of Phosphorus in Soils Amended with Mineral Fertilizer and Cattle Manure Compost. <i>Minerals (Basel, Switzerland)</i> , 2021 , 11, 121	2.4	3
11	Efficacy of a Phosphate-Charged Soil Material in Supplying Phosphate for Plant Growth in Soilless Root Media. <i>International Journal of Agronomy</i> , 2016 , 2016, 1-10	1.9	2
10	Desorption Characteristics of Three Mineral Oxides and a Non-crystalline Aluminosilicate for Supplying Phosphate in Soilless Root Media. <i>Communications in Soil Science and Plant Analysis</i> , 2016 , 47, 753-760	1.5	1
9	Spatial statistical modeling of arsenic accumulation in microsites of diverse soils. <i>Geoderma</i> , 2022 , 411, 115697	6.7	1
8	Response to letter to the editor on synchrotron-based identification of reaction products in phosphorus fertilized alkaline soils. <i>Geoderma</i> , 2019 , 337, 150-151	6.7	1
7	Imaging Zn and Ni distributions in leaves of different ages of the hyperaccumulator <i>Noccaea caerulescens</i> by synchrotron-based X-ray fluorescence. <i>Journal of Hazardous Materials</i> , 2021 , 408, 124813	12.8	0
6	Phosphate solubilization from adsorbents and precipitates by different AVAIL polymers. <i>Soil Science Society of America Journal</i> , 2020 , 84, 1833-1845	2.5	
5	Importance of Limestone Specific Surface for Assessing Neutralization Effectiveness in Soilless Root Substrate. <i>Communications in Soil Science and Plant Analysis</i> , 2016 , 1-6	1.5	
4	Modeling impact of nitrogen carrier and concentration on root substrate pH. <i>Journal of Plant Nutrition</i> , 2017 , 40, 2101-2108	2.3	
3	Meeting Reports: A Passion for Synchrotron Science and its Future. <i>Synchrotron Radiation News</i> , 2005 , 18, 2-13	0.6	
2	Radiação síncrotron na agricultura e ciência do solo. <i>Ciência E Cultura</i> , 2017 , 69, 52-55	0.3	
1	Acquisition of a microscope for in situ studies of hard and soft matter. <i>Microscopy and Microanalysis</i> , 2018 , 24, 2332-2333	0.5	