James Anthony Ippolito

List of Publications by Year
in descending order

136 papers	6,614 citations	100601 38 h-index	81351 76 g-index
139 all docs	139 docs citations	139 times ranked	6402 citing authors

#	Article	IF	Citations
1	Influence of biochar on trace element uptake, toxicity and detoxification in plants and associated health risks: A critical review. Critical Reviews in Environmental Science and Technology, 2022, 52, 2803-2843.	6.6	63
2	Furrow-irrigated corn residue management and tillage strategies for improved soil health. Soil and Tillage Research, 2022, 216, 105238.	2.6	3
3	Wheat grain micronutrients and relationships with yield and protein in the U.S. Central Great Plains. Field Crops Research, 2022, 279, 108453.	2.3	9
4	Carbonâ€sensitive pedotransfer functions for plant available water. Soil Science Society of America Journal, 2022, 86, 612-629.	1.2	33
5	Linking soil microbial community structure to potential carbon mineralization: A continental scale assessment of reduced tillage. Soil Biology and Biochemistry, 2022, 168, 108618.	4.2	17
6	Corn productivity and soil characteristic alterations following transition from conventional to conservation tillage. Soil and Tillage Research, 2022, 220, 105351.	2.6	7
7	Does Turbulent-flow Conditioning of Irrigation Water Influence Soil Chemical Processes: II. Long-term Soil and Crop Study. Communications in Soil Science and Plant Analysis, 2022, 53, 636-650.	0.6	0
8	An evaluation of carbon indicators of soil health in long-term agricultural experiments. Soil Biology and Biochemistry, 2022, 172, 108708.	4.2	63
9	Metal contamination in soils and windowsill dusts: implication of multiple sources on dust metal accumulation within a city affected by Pb smelting. Environmental Science and Pollution Research, 2022, , 1.	2.7	1
10	The Clean Water Act and biosolids: A 45â€year chronological review of biosolids land application research in Colorado. Journal of Environmental Quality, 2022, 51, 780-796.	1.0	2
11	Bioaccessibility, source and human health risk of Pb, Cd, Cu and Zn in windowsill dusts from an area affected by long-term Pb smelting. Science of the Total Environment, 2022, 842, 156707.	3.9	12
12	Selecting soil hydraulic properties as indicators of soil health: Measurement response to management and site characteristics. Soil Science Society of America Journal, 2022, 86, 1206-1226.	1.2	18
13	Biochars reduce irrigation water sodium adsorption ratio. Biochar, 2021, 3, 77-87.	6.2	20
14	Crossâ€linked polymers increase nutrient sorption in degraded soils. Agronomy Journal, 2021, 113, 1121-1135.	0.9	1
15	Soil health changes following transition from an annual cropping to perennial managementâ€intensive grazing agroecosystem. , 2021, 4, e20181.		5
16	Lead smelting alters wheat flour heavy metal concentrations and health risks. Journal of Environmental Quality, 2021, 50, 454-464.	1.0	5
17	Microbial response to designer biochar and compost treatments for mining impacted soils. Biochar, 2021, 3, 299-314.	6.2	7
18	Solubilization of organic phosphorus sources by cyanobacteria and a commercially available bacterial consortium. Applied Soil Ecology, 2021, 162, 103900.	2.1	17

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19	Nutrient alterations following biochar application to a Cd-contaminated solution and soil. Biochar, 2021, 3, 457-468.	6.2	7
20	Long-Term Biosolids Applications to Overgrazed Rangelands Improve Soil Health. Agronomy, 2021, 11, 1339.	1.3	5
21	Physicochemical disintegration of biochar: a potentially important process for long-term cadmium and lead sorption. Biochar, 2021, 3, 511-518.	6.2	5
22	How biochar works, and when it doesn't: A review of mechanisms controlling soil and plant responses to biochar. GCB Bioenergy, 2021, 13, 1731-1764.	2.5	286
23	Phytostabilization of acidic mine tailings with biochar, biosolids, lime, and locally-sourced microbial inoculum: Do amendment mixtures influence plant growth, tailing chemistry, and microbial composition?. Applied Soil Ecology, 2021, 165, 103962.	2.1	27
24	Soil fertility interactions with Sinorhizobium-legume symbiosis in a simulated Martian regolith; effects on nitrogen content and plant health. PLoS ONE, 2021, 16, e0257053.	1.1	7
25	Long-term biosolids land application influences soil health. Science of the Total Environment, 2021, 791, 148344.	3.9	17
26	The Partnerships for Data Innovations (PDI): Facilitating data stewardship and catalyzing research engagement in the digital age. Agricultural and Environmental Letters, 2021, 6, e20055.	0.8	5
27	Expanding the Analytical Window for Biochar Speciation: Molecular Comparison of Solvent Extraction and Water-Soluble Fractions of Biochar by FT-ICR Mass Spectrometry. Analytical Chemistry, 2021, 93, 15365-15372.	3.2	13
28	Microbial Response to Phytostabilization in Mining Impacted Soils Using Maize in Conjunction with Biochar and Compost. Microorganisms, 2021, 9, 2545.	1.6	3
29	Lead smelting effects heavy metal concentrations in soils, wheat, and potentially humans. Environmental Pollution, 2020, 257, 113641.	3.7	63
30	Soil health management practices and crop productivity. Agricultural and Environmental Letters, 2020, 5, e20023.	0.8	25
31	Short- and Long-Term Biochar Cadmium and Lead Immobilization Mechanisms. Environments - MDPI, 2020, 7, 53.	1.5	6
32	Feedstock choice, pyrolysis temperature and type influence biochar characteristics: a comprehensive meta-data analysis review. Biochar, 2020, 2, 421-438.	6.2	333
33	Atmospheric deposition of arsenic, cadmium, copper, lead, and zinc near an operating and an abandoned lead smelter. Journal of Environmental Quality, 2020, 49, 1667-1678.	1.0	16
34	Moving toward Sustainable Irrigation in a Southern Idaho Irrigation Project. Transactions of the ASABE, 2020, 63, 1441-1449.	1.1	3
35	Cadmium, copper, lead and zinc accumulation in wild plant species near a lead smelter. Ecotoxicology and Environmental Safety, 2020, 198, 110683.	2.9	36
36	Phosphorus removal from swine wastewater using aluminum-based water treatment residuals. Resources Conservation & Recycling X, 2020, 6, 100039.	4.2	3

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37	Reusing oil and gas produced water for agricultural irrigation: Effects on soil health and the soil microbiome. Science of the Total Environment, 2020, 722, 137888.	3.9	41
38	Lead source and bioaccessibility in windowsill dusts within a Pb smelting-affected area. Environmental Pollution, 2020, 266, 115110.	3.7	20
39	Phosphorus pools in Al and Fe-based water treatment residuals (WTRs) following mixing with agro-wastewater â€" A sequential extraction study. Environmental Technology and Innovation, 2020, 18, 100654.	3.0	6
40	Assessing modified aluminum-based water treatment residuals as a plant-available phosphorus source. Chemosphere, 2020, 247, 125949.	4.2	6
41	Municipal biosolids â€" A resource for sustainable communities. Current Opinion in Environmental Science and Health, 2020, 14, 56-62.	2.1	15
42	Cadmium foliar application affects wheat Cd, Cu, Pb and Zn accumulation. Environmental Pollution, 2020, 262, 114329.	3.7	30
43	Phytostabilization of Zn and Cd in Mine Soil Using Corn in Combination with Biochars and Manure-Based Compost. Environments - MDPI, 2019, 6, 69.	1.5	21
44	Biochar, Manure, and Sawdust Alter Longâ€Term Water Retention Dynamics in Degraded Soil. Soil Science Society of America Journal, 2019, 83, 1491-1501.	1.2	12
45	Remediation of organic halogen- contaminated wetland soils using biochar. Science of the Total Environment, 2019, 696, 134087.	3.9	22
46	Mechanisms Responsible for Soil Phosphorus Availability Differences between Sprinkler and Furrow Irrigation. Journal of Environmental Quality, 2019, 48, 1370-1379.	1.0	10
47	Effects of Modifiers on the Growth, Photosynthesis, and Antioxidant Enzymes of Cotton Under Cadmium Toxicity. Journal of Plant Growth Regulation, 2019, 38, 1196-1205.	2.8	28
48	Making Phosphorus Fertilizer from Dairy Wastewater with Aluminum Water Treatment Residuals. Soil Science Society of America Journal, 2019, 83, 649-657.	1.2	9
49	Biochar compost blends facilitate switchgrass growth in mine soils by reducing Cd and Zn bioavailability. Biochar, 2019, 1, 97-114.	6.2	74
50	Biochar Immobilizes and Degrades 2,4,6â€Trichlorophenol in Soils. Environmental Toxicology and Chemistry, 2019, 38, 1364-1371.	2.2	15
51	Wheat straw biochar reduces environmental cadmium bioavailability. Environment International, 2019, 126, 69-75.	4.8	122
52	Biochar for Mine-land Reclamation. , 2019, , 75-90.		7
53	Effect of polymer materials on soil structure and organic carbon under drip irrigation. Geoderma, 2019, 340, 94-103.	2.3	37
54	Biochar, soil and land-use interactions that reduce nitrate leaching and N2O emissions: A meta-analysis. Science of the Total Environment, 2019, 651, 2354-2364.	3.9	339

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55	Mechanism of adsorption of cadmium and lead ions by iron-activated biochar. BioResources, 2019, 14, 842-857.	0.5	24
56	Remediation of an acidic mine spoil: Miscanthus biochar and lime amendment affects metal availability, plant growth, and soil enzyme activity. Chemosphere, 2018, 205, 709-718.	4.2	91
57	Influence of long-term nitrogen fertilization on crop and soil micronutrients in a no-till maize cropping system. Field Crops Research, 2018, 228, 170-182.	2.3	26
58	Phosphorus Sorption Characteristics in Aluminumâ€based Water Treatment Residuals Reacted with Dairy Wastewater: 1. Isotherms, XRD, and SEMâ€EDS Analysis. Journal of Environmental Quality, 2018, 47, 538-545.	1.0	14
59	Phosphorus Sorption to Aluminumâ€based Water Treatment Residuals Reacted with Dairy Wastewater: 2. Xâ€Ray Absorption Spectroscopy. Journal of Environmental Quality, 2018, 47, 546-553.	1.0	12
60	Soil Carbon and Nitrogen Transformations under Soybean as Influenced by Organic Farming. Agronomy Journal, 2018, 110, 1883-1892.	0.9	5
61	Biochar research activities and their relation to development and environmental quality. A meta-analysis. Agronomy for Sustainable Development, 2017, 37, 1.	2.2	17
62	Multi-year and multi-location soil quality and crop biomass yield responses to hardwood fast pyrolysis biochar. Geoderma, 2017, 289, 46-53.	2.3	54
63	BIOCHAR AS A TOOL TO REDUCE THE AGRICULTURAL GREENHOUSE-GAS BURDEN â€" KNOWNS, UNKNOWNS AND FUTURE RESEARCH NEEDS. Journal of Environmental Engineering and Landscape Management, 2017, 25, 114-139.	0.4	144
64	Innovative approach for recycling phosphorous from agro-wastewaters using water treatment residuals (WTR). Chemosphere, 2017, 168, 234-243.	4.2	26
65	Soil Quality Improvement through Conversion to Sprinkler Irrigation. Soil Science Society of America Journal, 2017, 81, 1505-1516.	1.2	17
66	Biochars Reduce Mine Land Soil Bioavailable Metals. Journal of Environmental Quality, 2017, 46, 411-419.	1.0	65
67	Metaâ€Analyses of Biosolids Effect in Dryland Wheat Agroecosystems. Journal of Environmental Quality, 2017, 46, 452-460.	1.0	8
68	Greenhouse Gas Emissions from an Irrigated Dairy Forage Rotation as Influenced by Fertilizer and Manure Applications. Soil Science Society of America Journal, 2017, 81, 537-545.	1.2	21
69	Path Analyses of Grain P, Zn, Cu, Fe, and Ni in a Biosolidsâ€Amended Dryland Wheat Agroecosystem. Journal of Environmental Quality, 2016, 45, 1400-1404.	1.0	4
70	Soil Health, Crop Productivity, Microbial Transport, and Mine Spoil Response to Biochars. Bioenergy Research, 2016, 9, 454-464.	2.2	48
71	Contrasting effects of biochar versus manure on soil microbial communities and enzyme activities in an Aridisol. Chemosphere, 2016, 142, 145-152.	4.2	181
72	Stabilizing effect of biochar on soil extracellular enzymes after a denaturing stress. Chemosphere, 2016, 142, 114-119.	4.2	45

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73	Phosphorus Losses from an Irrigated Watershed in the Northwestern United States: Case Study of the Upper Snake Rock Watershed. Journal of Environmental Quality, 2015, 44, 552-559.	1.0	12
74	Uptake Coefficients for Biosolids-Amended Dryland Winter Wheat. Journal of Environmental Quality, 2015, 44, 286-292.	1.0	2
75	GHG impacts of biochar: Predictability for the same biochar. Agriculture, Ecosystems and Environment, 2015, 207, 183-191.	2.5	48
76	Soil-Plant-Microbial Relations in Hydrothermally Altered Soils of Northern California. Soil Science Society of America Journal, 2014, 78, 509-519.	1.2	0
77	Copper and Zinc Speciation in a Biosolids-Amended, Semiarid Grassland Soil. Journal of Environmental Quality, 2014, 43, 1576-1584.	1.0	4
78	Biochar and Manure Effects on Net Nitrogen Mineralization and Greenhouse Gas Emissions from Calcareous Soil under Corn. Soil Science Society of America Journal, 2014, 78, 1641-1655.	1.2	82
79	Removal of Vegetative Clippings Reduces Dissolved Phosphorus Loss in Runoff. Communications in Soil Science and Plant Analysis, 2014, 45, 1555-1564.	0.6	3
80	Physical Disintegration of Biochar: An Overlooked Process. Environmental Science and Technology Letters, 2014, 1, 326-332.	3.9	245
81	Hardwood Biochar Influences Calcareous Soil Physicochemical and Microbiological Status. Journal of Environmental Quality, 2014, 43, 681-689.	1.0	70
82	Soilâ€"Plant Nutrient Interactions on Manureâ€Enriched Calcareous Soils. Agronomy Journal, 2014, 106, 73-80.	0.9	15
83	Addition of activated switchgrass biochar to an aridic subsoil increases microbial nitrogen cycling gene abundances. Applied Soil Ecology, 2013, 65, 65-72.	2.1	170
84	Use of Standardized Procedures to Evaluate Metal Leaching from Waste Foundry Sands. Journal of Environmental Quality, 2013, 42, 615-620.	1.0	10
85	Investigation of Copper Sorption by Sugar Beet Processing Lime Waste. Journal of Environmental Quality, 2013, 42, 919-924.	1.0	8
86	Biochar and Manure Affect Calcareous Soil and Corn Silage Nutrient Concentrations and Uptake. Journal of Environmental Quality, 2012, 41, 1033-1043.	1.0	170
87	Biochars Impact on Soil-Moisture Storage in an Ultisol and Two Aridisols. Soil Science, 2012, 177, 310-320.	0.9	273
88	Biochar: A Synthesis of Its Agronomic Impact beyond Carbon Sequestration. Journal of Environmental Quality, 2012, 41, 973-989.	1.0	738
89	Environmental Benefits of Biochar. Journal of Environmental Quality, 2012, 41, 967-972.	1.0	270
90	Switchgrass Biochar Affects Two Aridisols. Journal of Environmental Quality, 2012, 41, 1123-1130.	1.0	97

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91	Analysis of total metals in waste molding and core sands from ferrous and non-ferrous foundries. Journal of Environmental Management, 2012, 110, 77-81.	3.8	26
92	Development of vegetation based soil quality indices for mineralized terrane in arid and semi-arid regions. Ecological Indicators, 2012, 20, 65-74.	2.6	26
93	Macroscopic and Molecular Investigations of Copper Sorption by a Steam-Activated Biochar. Journal of Environmental Quality, 2012, 41, 1150-1156.	1.0	92
94	Biosolids application to no-till dryland agroecosystems. Agriculture, Ecosystems and Environment, 2012, 150, 72-81.	2.5	20
95	Drinking Water Treatment Residuals: A Review of Recent Uses. Journal of Environmental Quality, 2011, 40, 1-12.	1.0	264
96	Learning Gains and Response to Digital Lessons on Soil Genesis and Development. Journal of Geoscience Education, 2011, 59, 194-204.	0.8	4
97	Zeolite Soil Application Method Affects Inorganic Nitrogen, Moisture, and Corn Growth. Soil Science, 2011, 176, 136-142.	0.9	76
98	Clinoptilolite Zeolite Influence on Nitrogen in a Manure-Amended Sandy Agricultural Soil. Communications in Soil Science and Plant Analysis, 2011, 42, 2370-2378.	0.6	10
99	Copper Impacts on Corn, Soil Extractability, and the Soil Bacterial Community. Soil Science, 2010, 175, 586-592.	0.9	18
100	Clinoptilolite Zeolite Influence on Inorganic Nitrogen in Silt Loam and Sandy Agricultural Soils. Soil Science, 2010, 175, 357-362.	0.9	9
101	Fifteen years of wheat yield, N uptake, and soil nitrateâ€"N dynamics in a biosolids-amended agroecosystem. Agriculture, Ecosystems and Environment, 2010, 139, 116-120.	2.5	21
102	Macroscopic and microscopic variation in recovered magnesium phosphate materials: Implications for phosphorus removal processes and product re-use. Bioresource Technology, 2010, 101, 877-885.	4.8	18
103	Phosphorus biogeochemistry across a precipitation gradient in grasslands of central North America. Journal of Arid Environments, 2010, 74, 954-961.	1.2	32
104	Water Treatment Residuals and Biosolids Longâ€Term Coâ€Applications Effects to Semiâ€Arid Grassland Soils and Vegetation. Soil Science Society of America Journal, 2009, 73, 1880-1889.	1.2	18
105	Selenium adsorption to aluminum-based water treatment residuals. Journal of Colloid and Interface Science, 2009, 338, 48-55.	5.0	95
106	Continuous biosolids application affects grain elemental concentrations in a dryland-wheat agroecosystem. Agriculture, Ecosystems and Environment, 2009, 129, 340-343.	2.5	4
107	Fate of biosolids Cu and Zn in a semi-arid grassland. Agriculture, Ecosystems and Environment, 2009, 131, 325-332.	2.5	12
108	Effectiveness of Recovered Magnesium Phosphates as Fertilizers in Neutral and Slightly Alkaline Soils. Agronomy Journal, 2009, 101, 323-329.	0.9	118

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109	Water Treatment Residuals and Biosolids Coâ€applications Affect Phosphatases in a Semiâ€arid Rangeland Soil. Communications in Soil Science and Plant Analysis, 2008, 39, 2812-2826.	0.6	5
110	PREDICTING SOIL-EXTRACTABLE ZN, P, FE, AND CU IN A BIOSOLIDS-AMENDED DRYLAND WHEAT AGROECOSYSTEM. Soil Science, 2008, 173, 175-185.	0.9	5
111	Fate of Biosolids Trace Metals in a Dryland Wheat Agroecosystem. Journal of Environmental Quality, 2008, 37, 2135-2144.	1.0	12
112	Water Treatment Residuals and Biosolids Coapplications Affect Semiarid Rangeland Phosphorus Cycling. Soil Science Society of America Journal, 2008, 72, 711-719.	1.2	17
113	THE EFFECT OF LONG-TERM WATER TREATMENT RESIDUALS â€“ BIOSOLIDS CO-APPLICATIONS ON NATIVE RANGELAND SOIL. Proceedings of the Water Environment Federation, 2007, 2007, 812-827.	0.0	0
114	Nutrient Assessment of a Dryland Wheat Agroecosystem after 12 Years of Biosolids Applications. Agronomy Journal, 2007, 99, 715-722.	0.9	39
115	Biosolids Impact Soil Phosphorus Accountability, Fractionation, and Potential Environmental Risk. Journal of Environmental Quality, 2007, 36, 764-772.	1.0	29
116	The ratio of germanium to silicon in plant phytoliths: quantification of biological discrimination under controlled experimental conditions. Biogeochemistry, 2007, 86, 189-199.	1.7	45
117	Kinetics of Copper Desorption from Highly Calcareous Soils. Communications in Soil Science and Plant Analysis, 2006, 37, 797-809.	0.6	32
118	Biosolids Affect Soil Barium in a Dryland Wheat Agroecosystem. Journal of Environmental Quality, 2006, 35, 2333-2341.	1.0	20
119	Long-term impacts of infrequent biosolids applications on chemical and microbial properties of a semi-arid rangeland soil. Biology and Fertility of Soils, 2006, 42, 258-266.	2.3	58
120	Phosphorus Extraction Methods for Water Treatment Residualâ€“Amended Soils. Communications in Soil Science and Plant Analysis, 2006, 37, 859-870.	0.6	10
121	Phosphorus Fractions in Soils of Taylor Valley, Antarctica. Soil Science Society of America Journal, 2006, 70, 806-815.	1.2	23
122	AMENDMENT EFFECTS ON pH AND SALT CONTENT OF BAUXITE RESIDUE. Soil Science, 2005, 170, 832-841.	0.9	20
123	Soil Properties Affecting Wheat Yields following Drilling-Fluid Application. Journal of Environmental Quality, 2005, 34, 1687-1696.	1.0	34
124	Phosphorus Retention Mechanisms of a Water Treatment Residual. Journal of Environmental Quality, 2003, 32, 1857-1864.	1.0	122
125	Termination of Sewage Biosolids Application Affects Wheat Yield and Other Agronomic Characteristics. Agronomy Journal, 2003, 95, 1288-1294.	0.9	14
126	Combinations of water treatment residuals and biosolids affect two range grasses. Communications in Soil Science and Plant Analysis, 2002, 33, 831-844.	0.6	11

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127	Environmental Management of Biosolids and Water Treatment Residuals. Proceedings of the Water Environment Federation, 2001, 2001, 348-358.	0.0	3
128	Nitrogen Fertilizer Equivalency of Sewage Biosolids Applied to Dryland Winter Wheat. Journal of Environmental Quality, 2000, 29, 1345-1351.	1.0	35
129	Modified nitric acid plant tissue digest method. Communications in Soil Science and Plant Analysis, 2000, 31, 2473-2482.	0.6	14
130	Coâ€Application Effects of Water Treatment Residuals and Biosolids on Two Range Grasses. Journal of Environmental Quality, 1999, 28, 1644-1650.	1.0	66
131	Chloride Versus Sulfate Salinity Effects on Alfalfa Shoot Growth and Ionic Balance. Soil Science Society of America Journal, 1999, 63, 111-116.	1.2	10
132	Extractable Trace Elements in the Soil Profile after Years of Biosolids Application. Journal of Environmental Quality, 1998, 27, 801-805.	1.0	44
133	Sewage Biosolids Cumulative Effects on Extractableâ€Soil and Grain Elemental Concentrations. Journal of Environmental Quality, 1997, 26, 1696-1702.	1.0	27
134	Distribution and Mineralization of Biosolids Nitrogen Applied to Dryland Wheat. Journal of Environmental Quality, 1996, 25, 796-801.	1.0	27
135	Biosolids Effect on Phosphorus, Copper, Zinc, Nickel, and Molybdenum Concentrations in Dryland Wheat. Journal of Environmental Quality, 1995, 24, 608-611.	1.0	42
136	Improvements in soil properties under adaptive multiâ€paddock grazing relative to conventional grazing. Agronomy Journal, 0, , .	0.9	3