Paul M Bertsch

List of Publications by Year
in descending order

110	7,858	36203	53109
papers	citations	51 h-index	85 g-index

112	112	112	7397
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Silver Sulfide Nanoparticles Reduce Nitrous Oxide Emissions by Inhibiting Denitrification in the Earthworm Gut. Environmental Science & Technology, 2020, 54, 11146-11154.	4.6	17
2	Application of sewage sludge containing environmentally-relevant silver sulfide nanoparticles increases emissions of nitrous oxide in saline soils. Environmental Pollution, 2020, 265, 114807.	3.7	9
3	Release of silver from nanoparticle-based filter paper and the impacts to mouse gut microbiota. Environmental Science: Nano, 2020, 7, 1554-1565.	2.2	5
4	Toxicogenomic responses of Caenorhabditis elegans to pristine and transformed zinc oxide nanoparticles. Environmental Pollution, 2019, 247, 917-926.	3.7	34
5	Nanotoxicity of engineered nanomaterials (ENMs) to environmentally relevant beneficial soil bacteria â€“ a critical review. Nanotoxicology, 2019, 13, 392-428.	1.6	43
6	Colloidal nitrogen is an important and highly-mobile form of nitrogen discharging into the Great Barrier Reef lagoon. Scientific Reports, 2018, 8, 12854.	1.6	11
7	Silver engineered nanomaterials and ions elicit species-specific O2 consumption responses in plant growth promoting rhizobacteria. Biointerphases, 2017, 12, 05G604.	0.6	8
8	Nanoparticles Composed of Zn and ZnO Inhibit Peronospora tabacina Spore Germination in vitro and P. tabacina Infectivity on Tobacco Leaves. Nanomaterials, 2016, 6, 50.	1.9	54
9	Gold Nanomaterial Uptake from Soil Is Not Increased by Arbuscular Mycorrhizal Colonization of Solanum Lycopersicum (Tomato). Nanomaterials, 2016, 6, 68.	1.9	8
10	Engineered Nanomaterials in the Environment. Nanomaterials, 2016, 6, 106.	1.9	3
11	Silver Nanoparticles Entering Soils via the Wastewaterâ€“Sludgeâ€“Soil Pathway Pose Low Risk to Plants but Elevated Cl Concentrations Increase Ag Bioavailability. Environmental Science & Technology, 2016, 50, 8274-8281.	4.6	92
12	Symbiosis between nitrogen-fixing bacteria and Medicago truncatula is not significantly affected by silver and silver sulfide nanomaterials. Environmental Pollution, 2016, 214, 731-736.	3.7	25
13	Distinct transcriptomic responses of Caenorhabditis elegans to pristine and sulfidized silver nanoparticles. Environmental Pollution, 2016, 213, 314-321.	3.7	44
14	Elucidating Fundamental Mechanisms in Soil and Environmental Chemistry: The Role of Advanced Analytical, Spectroscopic, and Microscopic Methods. SSSA Special Publication Series, 2015, , 103-122.	0.2	4
15	Effects of silver sulfide nanomaterials on mycorrhizal colonization of tomato plants and soil microbial communities in biosolid-amended soil. Environmental Pollution, 2015, 206, 256-263.	3.7	80
16	Nanomaterials in Biosolids Inhibit Nodulation, Shift Microbial Community Composition, and Result in Increased Metal Uptake Relative to Bulk/Dissolved Metals. Environmental Science & Technology, 2015, 49, 8751-8758.	4.6	90
17	Impact of sulfidation on the bioavailability and toxicity of silver nanoparticles to Caenorhabditis elegans. Environmental Pollution, 2015, 196, 239-246.	3.7	122
18	Bioavailability, Toxicity, and Fate of Manufactured Nanomaterials in Terrestrial Ecosystems. Advances in Agronomy, 2014, 123, 1-64.	2.4	53

#	Article	IF	Citations
19	Multitechnique Investigation of the pH Dependence of Phosphate Induced Transformations of ZnO Nanoparticles. Environmental Science & Technology, 2014, 48, 4757-4764.	4.6	85
20	Behavior of Ag nanoparticles in soil: Effects of particle surface coating, aging and sewage sludge amendment. Environmental Pollution, 2013, 182, 141-149.	3.7	129
21	Bioaccumulation of Gold Nanomaterials by Manduca sextathrough Dietary Uptake of Surface Contaminated Plant Tissue. Environmental Science & Technology, 2012, 46, 12672-12678.	4.6	73
22	Toxicogenomic Responses of the Model Organism Caenorhabditis elegans to Gold Nanoparticles. Environmental Science & Technology, 2012, 46, 4115-4124.	4.6	92
23	Bioavailability of Gold Nanomaterials to Plants: Importance of Particle Size and Surface Coating. Environmental Science & Technology, 2012, 46, 8467-8474.	4.6	221
24	Trophic Transfer of Au Nanoparticles from Soil along a Simulated Terrestrial Food Chain.. Environmental Science & Technology, 2012, 46, 9753-9760.	4.6	147
25	Uptake, distribution and toxicity of gold nanoparticles in tobacco (Nicotiana xanthi) seedlings. Nanotoxicology, 2012, 6, 353-360.	1.6	192
26	Can the soil bacteriumCupriavidus necatorsense ZnO nanomaterials and aqueous Zn²⁺differentially?. Nanotoxicology, 2012, 6, 371-380.	1.6	28
27	Evidence for Biomagnification of Gold Nanoparticles within a Terrestrial Food Chain. Environmental Science & Technology, 2011, 45, 776-781.	4.6	317
28	Effect of silver nanoparticle surface coating on bioaccumulation and reproductive toxicity in earthworms (Eisenia fetida). Nanotoxicology, 2011, 5, 432-444.	1.6	186
29	Role of Particle Size and Soil Type in Toxicity of Silver Nanoparticles to Earthworms. Soil Science Society of America Journal, 2011, 75, 365-377.	1.2	169
30	Meditations on the Ubiquity and Mutability of Nano-Sized Materials in the Environment. ACS Nano, 2011, 5, 8466-8470.	7.3	77
31	Evidence for avoidance of Ag nanoparticles by earthworms (Eisenia fetida). Ecotoxicology, 2011, 20, 385-396.	1.1	128
32	Effects of Particle Size on Chemical Speciation and Bioavailability of Copper to Earthworms (Eisenia fetida) Exposed to Copper Nanoparticles. Journal of Environmental Quality, 2010, 39, 1942-1953.	1.0	153
33	Evidence for Bioavailability of Au Nanoparticles from Soil and Biodistribution within Earthworms (Eisenia fetida). Environmental Science & Technology, 2010, 44, 8308-8313.	4.6	135
34	Toxicity of manufactured zinc oxide nanoparticles in the nematode Caenorhabditis elegans. Environmental Toxicology and Chemistry, 2009, 28, 1324-1330.	2.2	157
35	Changes in protein expression in Burkholderia vietnamiensis PR1301 at pHâ€…5 and 7 with and without nickel. Microbiology (United Kingdom), 2008, 154, 3813-3824.	0.7	8
36	Evidence That the ZNT3 Protein Controls the Total Amount of Elemental Zinc in Synaptic Vesicles. Journal of Histochemistry and Cytochemistry, 2008, 56, 3-6.	1.3	108

#	Article	IF	Citations
37	Reduction of Nickel and Uranium Toxicity and Enhanced Trichloroethylene Degradation toBurkholderia vietnamiensisPR1301with Hydroxyapatite Amendment. Environmental Science & Technology, 2007, 41, 1877-1882.	4.6	12
38	Isolation and Characterization of Four Gram-Positive Nickel-Tolerant Microorganisms from Contaminated Sediments. Microbial Ecology, 2007, 53, 670-682.	1.4	37
39	Plutonium Oxidation and Subsequent Reduction by Mn(IV) Minerals in Yucca Mountain Tuff. Environmental Science & Technology, 2006, 40, 3508-3514.	4.6	70
40	Characterization of Dissolved and Colloidal Organic Matter in Soil Solution: A Review. , 2006, , 63-88.		30
41	Preparation and FT-IR Characterization of Metal Phytate Compounds. Journal of Environmental Quality, 2006, 35, 1319-1328.	1.0	113
42	EFFECT OF pH ON THE TOXICITY OF NICKEL AND OTHER DIVALENT METALS TO BURKHOLDERIA CEPACIA PR1301. Environmental Toxicology and Chemistry, 2005, 24, 2742.	2.2	24
43	Distribution and Speciation of Metals in Annual Rings of Black Willow. Journal of Environmental Quality, 2005, 34, 1165-1173.	1.0	30
44	Application of Synchrotron Xâ€Ray Microbeam Spectroscopy to the Determination of Metal Distribution and Speciation in Biological Tissues. Spectroscopy Letters, 2005, 38, 343-363.	0.5	44
45	Evidence for Biogenic Pyromorphite Formation by the NematodeCaenorhabditis elegans. Environmental Science & Technology, 2005, 39, 5620-5625.	4.6	42
46	Characterization of Colloidal and Humic-Bound Ni and U in the â€œDissolvedâ€•Fraction of Contaminated Sediment Extracts. Environmental Science & Technology, 2005, 39, 2478-2485.	4.6	69
47	Mass loading of nickel and uranium on plant surfaces: application of laser ablation-ICP-MS. Journal of Environmental Monitoring, 2004, 6, 153.	2.1	36
48	Bioavailability of uranium and nickel to vegetation in a contaminated riparian ecosystem. Environmental Toxicology and Chemistry, 2003, 22, 1146-1154.	2.2	39
49	Geochemical Signature of Contaminated Sediment Remobilization Revealed by Spatially Resolved X-ray Microanalysis of Annual Rings of Salix nigra. Environmental Science & Technology, 2003, 37, 1766-1774.	4.6	32
50	Localization and Speciation of Chromium in Subterranean Clover Using XRF, XANES, and EPR Spectroscopy. Environmental Science & Technology, 2003, 37, 4091-4097.	4.6	73
51	Partitioning and Availability of Uranium and Nickel in Contaminated Riparian Sediments. Journal of Environmental Quality, 2003, 32, 885-898.	1.0	53
52	Partitioning and Availability of Uranium and Nickel in Contaminated Riparian Sediments. Journal of Environmental Quality, 2003, 32, 885.	1.0	12
53	Hydrolysis of Iron(II) Chloride under Anoxic Conditions and Influence of SiO4Ligands. Langmuir, 2002, 18, 4292-4299.	1.6	19
54	8. Microfluorescence and Microtomography Analyses of Heterogeneous Earth and Environmental Materials. , 2002, , 429-484.		26

#	Article	IF	Citations
55	Speciation and Crystal Chemistry of Iron(III) Chloride Hydrolyzed in the Presence of SiO4Ligands. 3. Semilocal Scale Structure of the Aggregates. Langmuir, 2001, 17, 4753-4757.	1.6	21
56	Determination of Arsenic Speciation in Poultry Wastes by IC-ICP-MS. Environmental Science & Technology, 2001, 35, 4868-4873.	4.6	185
57	Applications of Synchrotron-Based X-ray Microprobes. Chemical Reviews, 2001, 101, 1809-1842.	23.0	153
58	X-ray Absorption Spectroscopy Study of Immobilization Processes for Heavy Metals in Calcium Silicate Hydrates. 2. Zinc. Langmuir, 2001, 17, 3658-3665.	1.6	55
59	Immobilization of Nickel and Other Metals in Contaminated Sediments by Hydroxyapatite Addition. Journal of Environmental Quality, 2001, 30, 460-469.	1.0	150
60	Crystal Chemistry of Colloids Obtained by Hydrolysis of Fe(III) in the Presence of SiO4 Ligands. Materials Research Society Symposia Proceedings, 2000, 658, 3361.	0.1	1
61	Spectroscopic characterization of uranium in evaporation basin sediments. Geochimica Et Cosmochimica Acta, 2000, 64, 1535-1550.	1.6	47
62	Speciation and Crystal Chemistry of Iron(III) Chloride Hydrolyzed in the Presence of SiO4Ligands. 1. An Fe K-Edge EXAFS Study. Langmuir, 2000, 16, 4726-4731.	1.6	93
63	X-ray Absorption Spectroscopy Study of Immobilization Processes for Heavy Metals in Calcium Silicate Hydrates: 1. Case of Lead. Langmuir, 2000, 16, 9900-9906.	1.6	55
64	Selective Colloid Mobilization Through Surface-Charge Manipulation. Environmental Science & Technology, 2000, 34, 3749-3755.	4.6	20
65	Distinguishing between Surface and Bulk Dehydration-Dehydroxylation Reactions in Synthetic Goethites by High-Resolution Thermogravimetric Analysis. Clays and Clay Minerals, 1999, 47, 329-337.	0.6	31
66	Characterization of complex mineral assemblages: Implications for contaminant transport and environmental remediation. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 3350-3357.	3.3	126
67	Factors influencing uranium reduction and solubility in evaporation pond sediments. Biogeochemistry, 1999, 45, 95-114.	1.7	46
68	Mineral Associations and Average Oxidation States of Sorbed Pu on Tuff. Environmental Science & Technology, 1999, 33, 2163-2169.	4.6	115
69	Influence of sorbate-sorbent interactions on the crystallization kinetics of nickel- and lead-ferrihydrite coprecipitates. Geochimica Et Cosmochimica Acta, 1999, 63, 39-48.	1.6	92
70	Immobilization of Uranium in Contaminated Sediments by Hydroxyapatite Addition. Environmental Science & Technology, 1999, 33, 337-342.	4.6	200
71	Factors influencing uranium reduction and solubility in evaporation pond sediments. Biogeochemistry, 1999, 45, 95-114.	1.7	8
72	In Situ Cr(VI) Reduction within Coarse-Textured, Oxide-Coated Soil and Aquifer Systems Using Fe(II) Solutions. Environmental Science & Technology, 1999, 33, 938-944.	4.6	181

#	Article	IF	Citations
73	The Potential Role of Sediment Mineralogy in Regulating Aluminum Concentrations in Lakewater. Water, Air, and Soil Pollution, 1998, 104, 41-55.	1.1	3
74	Characterization of Colloids Mobilized from Southeastern Coastal Plain Sediments. Environmental Science & Technology, 1997, 31, 2782-2790.	4.6	51
75	Changes in Transition and Heavy Metal Partitioning during Hydrous Iron Oxide Aging. Environmental Science & Technology, 1997, 31, 2028-2033.	4.6	206
76	Mineralogical and Physicochemical Differences between Mobile and Nonmobile Colloidal Phases in Reconstructed Pedons. Soil Science Society of America Journal, 1997, 61, 641.	1.2	78
77	The chemistry of uranium in evaporation pond sediment in the San Joaquin valley, California, USA, using X-ray fluorescence and XANES techniques. Geochimica Et Cosmochimica Acta, 1997, 61, 73-81.	1.6	73
78	Goethite Morphologies Investigated via X-ray Diffraction of Oriented Samples. Clays and Clay Minerals, 1997, 45, 769-772.	0.6	16
79	Chemical Conditions Conducive to the Release of Mobile Colloids from Ultisol Profiles. Soil Science Society of America Journal, 1996, 60, 269-274.	1.2	63
80	Facilitated Transport of Contaminant Metals Through an Acidified Aquifer. Ground Water, 1995, 33, 708-717.	0.7	48
81	Ionic tracer movement through highly weathered sediments. Journal of Contaminant Hydrology, 1995, 20, 127-143.	1.6	33
82	Synchrotron X-Ray Techniques in Soil, Plant, and Environmental Research. Advances in Agronomy, 1995, 55, 1-66.	2.4	61
83	Chemical Controls on Colloid Generation and Transport in a Sandy Aquifer. Environmental Science & Technology, 1995, 29, 1808-1815.	4.6	72
84	In situ Chemical Speciation of Uranium in Soils and Sediments by Micro X-ray Absorption Spectroscopy. Environmental Science & Technology, 1994, 28, 980-984.	4.6	149
85	Forest sources and pathways of organic matter transport to a blackwater stream: a hydrologic approach. Biogeochemistry, 1994, 24, 1.	1.7	94
86	Application of Synchrotron X-ray Fluorescence Spectroscopy and Energy Dispersive X-ray Analysis To Identify Contaminant Metals on Groundwater Colloids. Environmental Science & Technology, 1994, 28, 1186-1189.	4.6	37
87	In situ Measurements of Tetraphenylboron Degradation Kinetics on Clay Mineral Surfaces by IR. Environmental Science & Technology, 1994, 28, 686-691.	4.6	29
88	Surface complexation of aluminum on isolated fish gill cells. Environmental Science & Technology, 1993, 27, 1132-1138.	4.6	49
89	Soil-borne mobile colloids as influenced by water flow and organic carbon. Environmental Science & Technology, 1993, 27, 1193-1200.	4.6	179
90	Pyrene sorption by water-soluble organic carbon. Environmental Science & Technology, 1993, 27, 398-403.	4.6	89

#	Article	IF	Citations
91	Identification and quantification of the "Al13" tridecameric aluminum polycation using ferron. Environmental Science & Technology, 1992, 26, 908-914.	4.6	186
92	Sodium and Chloride Sorption by Imogolite and Allophanes1. Clays and Clay Minerals, 1992, 40, 280-286.	0.6	37
93	Formation of the "Al13" tridecameric aluminum polycation under diverse synthesis conditions. Environmental Science & Technology, 1992, 26, 914-921.	4.6	113
94	Interactions of acidic metal-rich coal pile runoff with a subsoil. Environmental Science & Technology, 1991, 25, 2038-2046.	4.6	19
95	The influence of topography on the nature of humic substances in soil organic matter at a site in the Atlantic Coastal Plain of South Carolina. Biogeochemistry, 1991, 15, 111.	1.7	11
96	The hydrolytic products of aluminum and their biological significance. Environmental Geochemistry and Health, 1990, 12, 7-14.	1.8	4
97	Beryllium in Selected Southeastern Soils. Journal of Environmental Quality, 1990, 19, 347-348.	1.0	8
98	Aluminum Speciation: Methodology and Applications. Advances in Environmental Science, 1990, , 63-105.	0.4	10
99	Aluminum-27 nuclear magnetic resonance studies of ferronâ€"hydroxoâ€"polynuclear Al interactions. Magnetic Resonance in Chemistry, 1989, 27, 283-287.	1.1	10
100	Speciation of aluminum in aqueous solutions using ion chromatography. Analytical Chemistry, 1989, 61, 535-539.	3.2	95
101	Dynamics of Aluminum Complexation in Multiple Ligand Systems. Soil Science Society of America Journal, 1988, 52, 1597-1602.	1.2	20
102	The distribution of lithium in selected soils and surface waters of the southeastern U.S.A.. Applied Geochemistry, 1988, 3, 205-212.	1.4	32
103	Determination of Aluminum Extracted from Soils by ion Chromatography. Soil Science Society of America Journal, 1988, 52, 540-542.	1.2	11
104	Conditions for Al₁₃ Polymer Formation in Partially Neutralized Aluminum Solutions. Soil Science Society of America Journal, 1987, 51, 825-828.	1.2	123
105	Characterization of Hydroxyâ€Aluminum Solutions by Aluminumâ€27 Nuclear Magnetic Resonance Spectroscopy. Soil Science Society of America Journal, 1986, 50, 825-830.	1.2	101
106	Speciation of Hydroxyâ€Aluminum Solutions by Wet Chemical and Aluminumâ€27 NMR Methods. Soil Science Society of America Journal, 1986, 50, 1449-1454.	1.2	75
107	Quantitative determination of aluminum-27 by high-resolution nuclear magnetic resonance spectrometry. Analytical Chemistry, 1986, 58, 2583-2585.	3.2	36
108	An evaluation of chemical speciation in the MEXAMS metal transport model. Environmental Software, 1986, 1, 106-112.	0.3	1

#	Article	IF	Citations
109	Bioavailability, Trophic Transfer, and Toxicity of Manufactured Metal and Metal Oxide Nanoparticles in Terrestrial Environments. , 0, , 345-366.		29
110	Chlorites and Hydroxy-Interlayered Vermiculite and Smectite. Soil Science Society of America Book Series, 0, , 729-788.	0.3	132