Robert A Root

List of Publications by Year
in descending order

45 papers	1,947 citations	331538 21 h-index	243529 44 g-index
48 all docs	48 docs citations	48 times ranked	2474 citing authors

#	Article	IF	Citations
1	Metal Lability and Mass Transfer Response to Direct-Planting Phytostabilization of Pyritic Mine Tailings. Minerals (Basel, Switzerland), 2022, 12, 757.	0.8	2
2	Reductive transformation of the insensitive munitions compound nitroguanidine by different iron-based reactive minerals. Environmental Pollution, 2022, 309, 119788.	3.7	4
3	Distance-dependence from volcano for Asian dust inclusions in Andosols: A key to control soil ability to retain radiocesium. Geoderma, 2021, 385, 114889.	2.3	4
4	Biochar-templated surface precipitation and inner-sphere complexation effectively removes arsenic from acid mine drainage. Environmental Science and Pollution Research, 2021, 28, 45519-45533.	2.7	10
5	Phosphate controls uranium release from acidic waste-weathered Hanford sediments. Journal of Hazardous Materials, 2021, 416, 126240.	6.5	9
6	Iron(II) monosulfide (FeS) minerals reductively transform the insensitive munitions compounds 2,4-dinitroanisole (DNAN) and 3-nitro-1,2,4-triazol-5-one (NTO). Chemosphere, 2021, 285, 131409.	4.2	10
7	The Role of Manganese Dioxide in the Natural Formation of Organochlorines. ACS ES&T Water, 2021, 1, 2523-2530.	2.3	2
8	Resolving Deep Critical Zone Architecture in Complex Volcanic Terrain. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005189.	1.0	13
9	Ingestion and inhalation of metal(loid)s through preschool gardening: An exposure and risk assessment in legacy mining communities. Science of the Total Environment, 2020, 718, 134639.	3.9	23
10	Arsenic and iron speciation and mobilization during phytostabilization of pyritic mine tailings. Geochimica Et Cosmochimica Acta, 2020, 286, 306-323.	1.6	19
11	Environmental monitoring and exposure science dataset to calculate ingestion and inhalation of metal(loid)s through preschool gardening. Data in Brief, 2020, 29, 105050.	0.5	3
12	Soil Microbiome Dynamics During Pyritic Mine Tailing Phytostabilization: Understanding Microbial Bioindicators of Soil Acidification. Frontiers in Microbiology, 2019, 10, 1211.	1.5	36
13	Rare earth elements (REY) sorption on soils of contrasting mineralogy and texture. Environment International, 2019, 128, 279-291.	4.8	34
14	Oxidative Weathering Decreases Bioaccessibility of Toxic Metal(loid)s in PM₁₀ Emissions From Sulfide Mine Tailings. GeoHealth, 2018, 2, 118-138.	1.9	19
15	Oxidation of reduced daughter products from 2,4-dinitroanisole (DNAN) by Mn(IV) and Fe(III) oxides. Chemosphere, 2018, 201, 790-798.	4.2	14
16	Mechanisms of Arsenic Sequestration by <i>Prosopis juliflora</i> during the Phytostabilization of Metalliferous Mine Tailings. Environmental Science & Technology, 2018, 52, 1156-1164.	4.6	32
17	Immobilization of Rhus vernicifera laccase on sepiolite; effect of chitosan and copper modification on laccase adsorption and activity. Applied Clay Science, 2018, 152, 143-147.	2.6	21
18	Treatment impacts on temporal microbial community dynamics during phytostabilization of acid-generating mine tailings in semiarid regions. Science of the Total Environment, 2018, 618, 357-368.	3.9	32

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19	Abiotic reduction of insensitive munition compounds by sulfate green rust. Environmental Chemistry, 2018, 15, 259.	0.7	16
20	Adsorption and oxidation of 3-nitro-1,2,4-triazole-5-one (NTO) and its transformation product (3-amino-1,2,4-triazole-5-one, ATO) at ferrihydrite and birnessite surfaces. Environmental Pollution, 2018, 240, 200-208.	3.7	16
21	Wetâ€"dry cycles impact DOM retention in subsurface soils. Biogeosciences, 2018, 15, 821-832.	1.3	14
22	Trapping of lead (Pb) by corn and pea root border cells. Plant and Soil, 2018, 430, 205-217.	1.8	14
23	A <scp>XANES</scp> and Raman investigation of sulfur speciation and structural order in Murchison and Allende meteorites. Meteoritics and Planetary Science, 2017, 52, 546-559.	0.7	17
24	Bacterial Rhizoplane Colonization Patterns of Buchloe dactyloides Growing in Metalliferous Mine Tailings Reflect Plant Status and Biogeochemical Conditions. Microbial Ecology, 2017, 74, 853-867.	1.4	20
25	Pore water chemistry reveals gradients in mineral transformation across a model basaltic hillslope. Geochemistry, Geophysics, Geosystems, 2016, 17, 2054-2069.	1.0	11
26	Phytostabilization of mine tailings using compost-assisted direct planting: Translating greenhouse results to the field. Science of the Total Environment, 2016, 565, 451-461.	3.9	102
27	Resolving colocalization of bacteria and metal(loid)s on plant root surfaces by combining fluorescence in situ hybridization (FISH) with multiple-energy micro-focused X-ray fluorescence (ME) Tj ETQq1 1 0.784314 rg BT /Overlo	6.7	3
28	Soil Lysimeter Excavation for Coupled Hydrological, Geochemical, and Microbiological Investigations. Journal of Visualized Experiments, 2016, , .	0.2	4
29	Analyzing patterns of community interest at a legacy mining waste site to assess and inform environmental health literacy efforts. Journal of Environmental Studies and Sciences, 2016, 6, 543-555.	0.9	19
30	Arsenic remediation by formation of arsenic sulfide minerals in a continuous anaerobic bioreactor. Biotechnology and Bioengineering, 2016, 113, 522-530.	1.7	44
31	Toxic metal(loid) speciation during weathering of iron sulfide mine tailings under semi-arid climate. Applied Geochemistry, 2015, 62, 131-149.	1.4	65
32	Abundance and Activity of 16S rRNA,<i>AmoA</i>and<i>NifH</i>Bacterial Genes During Assisted Phytostabilization of Mine Tailings. International Journal of Phytoremediation, 2015, 17, 493-502.	1.7	25
33	Bioaccessibility, release kinetics, and molecular speciation of arsenic and lead in geo-dusts from the Iron King Mine Federal Superfund site in Humboldt, Arizona. Reviews on Environmental Health, 2014, 29, 23-7.	1.1	8
34	Biomineralization of arsenate to arsenic sulfides is greatly enhanced at mildly acidic conditions. Water Research, 2014, 66, 242-253.	5.3	58
35	Environmental factors influencing the structural dynamics of soil microbial communities during assisted phytostabilization of acid-generating mine tailings: A mesocosm experiment. Science of the Total Environment, 2014, 500-501, 314-324.	3.9	67
36	Surficial weathering of iron sulfide mine tailings under semi-arid climate. Geochimica Et Cosmochimica Acta, 2014, 141, 240-257.	1.6	79

#	Article	IF	Citations
37	Effect of silicic acid on arsenate and arsenite retention mechanisms on 6-L ferrihydrite: A spectroscopic and batch adsorption approach. Applied Geochemistry, 2013, 38, 110-120.	1.4	84
38	Microscale Speciation of Arsenic and Iron in Ferric-Based Sorbents Subjected to Simulated Landfill Conditions. Environmental Science & Technology, 2013, 47, 12992-13000.	4.6	32
39	Response of Key Soil Parameters during Compost-Assisted Phytostabilization in Extremely Acidic Tailings: Effect of Plant Species. Environmental Science & Technology, 2012, 46, 1019-1027.	4.6	73
40	Speciation and natural attenuation of arsenic and iron in a tidally influenced shallow aquifer. Geochimica Et Cosmochimica Acta, 2009, 73, 5528-5553.	1.6	80
41	A Gel Probe Equilibrium Sampler for Measuring Arsenic Porewater Profiles and Sorption Gradients in Sediments: I. Laboratory Development. Environmental Science & Technology, 2008, 42, 497-503.	4.6	16
42	A Gel Probe Equilibrium Sampler for Measuring Arsenic Porewater Profiles and Sorption Gradients in Sediments: II. Field Application to Haiwee Reservoir Sediment. Environmental Science & Technology, 2008, 42, 504-510.	4.6	25
43	Arsenic sequestration by sorption processes in high-iron sediments. Geochimica Et Cosmochimica Acta, 2007, 71, 5782-5803.	1.6	146
44	X-ray absorption spectroscopic study of Fe reference compounds for the analysis of natural sediments. American Mineralogist, 2004, 89, 572-585.	0.9	210
45	The influence of sulfur and iron on dissolved arsenic concentrations in the shallow subsurface under changing redox conditions. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13703-13708.	3.3	406