Daniel I Kaplan

List of Publications by Year
in descending order

69 papers	2,437 citations	159525 30 h-index	214721 47 g-index
72 all docs	72 docs citations	72 times ranked	1626 citing authors

#	Article	IF	Citations
1	Iodide Sorption to Subsurface Sediments and Illitic Minerals. Environmental Science & Technology, 2000, 34, 399-405.	4.6	142
2	Pu(V)O2+Adsorption and Reduction by Synthetic Magnetite (Fe3O4). Environmental Science & Technology, 2004, 38, 6016-6024.	4.6	129
3	Pu(V)O2+Adsorption and Reduction by Synthetic Hematite and Goethite. Environmental Science & Technology, 2005, 39, 2107-2114.	4.6	115
4	Radioiodine Biogeochemistry and Prevalence in Groundwater. Critical Reviews in Environmental Science and Technology, 2014, 44, 2287-2335.	6.6	106
5	Iodine-129 and Iodine-127 Speciation in Groundwater at the Hanford Site, U.S.: Iodate Incorporation into Calcite. Environmental Science & Technology, 2013, 47, 9635-9642.	4.6	86
6	Sorption coefficients and molecular mechanisms of Pu, U, Np, Am and Tc to Fe (hydr)oxides: A review. Journal of Hazardous Materials, 2012, 243, 1-18.	6.5	84
7	Influence of Oxidation States on Plutonium Mobility during Long-Term Transport through an Unsaturated Subsurface Environment. Environmental Science & Technology, 2004, 38, 5053-5058.	4.6	80
8	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
9	Sequestration and Remobilization of Radioiodine (¹²⁹I) by Soil Organic Matter and Possible Consequences of the Remedial Action at Savannah River Site. Environmental Science & Technology, 2011, 45, 9975-9983.	4.6	74
10	Plutonium Oxidation and Subsequent Reduction by Mn(IV) Minerals in Yucca Mountain Tuff. Environmental Science & Technology, 2006, 40, 3508-3514.	4.6	70
11	Is soil natural organic matter a sink or source for mobile radioiodine (129I) at the Savannah River Site?. Geochimica Et Cosmochimica Acta, 2011, 75, 5716-5735.	1.6	68
12	Factors controlling mobility of 127I and 129I species in an acidic groundwater plume at the Savannah River Site. Science of the Total Environment, 2011, 409, 3857-3865.	3.9	66
13	Novel molecular-level evidence of iodine binding to natural organic matter from Fourier transform ion cyclotron resonance mass spectrometry. Science of the Total Environment, 2013, 449, 244-252.	3.9	65
14	Molecular environment of stable iodine and radioiodine (129I) in natural organic matter: Evidence inferred from NMR and binding experiments at environmentally relevant concentrations. Geochimica Et Cosmochimica Acta, 2012, 97, 166-182.	1.6	59
15	Evaluation of a Radioiodine Plume Increasing in Concentration at the Savannah River Site. Environmental Science & Technology, 2011, 45, 489-495.	4.6	56
16	Influence of Sources on Plutonium Mobility and Oxidation State Transformations in Vadose Zone Sediments. Environmental Science & Technology, 2007, 41, 7417-7423.	4.6	55
17	Bacterial Production of Organic Acids Enhances H₂O₂-Dependent Iodide Oxidation. Environmental Science & Technology, 2012, 46, 4837-4844.	4.6	54
18	Radioiodine sorption/desorption and speciation transformation by subsurface sediments from the Hanford Site. Journal of Environmental Radioactivity, 2015, 139, 43-55.	0.9	48

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19	Unique Organic Matter and Microbial Properties in the Rhizosphere of a Wetland Soil. Environmental Science & Technology, 2016, 50, 4169-4177.	4.6	48
20	Enhanced Contaminant Desorption Induced by Phosphate Mineral Additions to Sediment. Environmental Science & Technology, 2004, 38, 3153-3160.	4.6	46
21	Role of natural organic matter on iodine and 239,240Pu distribution and mobility in environmental samples from the northwestern Fukushima Prefecture, Japan. Journal of Environmental Radioactivity, 2016, 153, 156-166.	0.9	46
22	Superoxide Production by a Manganese-Oxidizing Bacterium Facilitates Iodide Oxidation. Applied and Environmental Microbiology, 2014, 80, 2693-2699.	1.4	41
23	Spectroscopic Evidence of Uranium Immobilization in Acidic Wetlands by Natural Organic Matter and Plant Roots. Environmental Science & Technology, 2015, 49, 2823-2832.	4.6	39
24	Influence of pH on Plutonium Desorption/Solubilization from Sediment. Environmental Science & Technology, 2006, 40, 5937-5942.	4.6	38
25	Iodide Accumulation by Aerobic Bacteria Isolated from Subsurface Sediments of a ¹²⁹ I-Contaminated Aquifer at the Savannah River Site, South Carolina. Applied and Environmental Microbiology, 2011, 77, 2153-2160.	1.4	37
26	Retention and chemical speciation of uranium in an oxidized wetland sediment from the Savannah River Site. Journal of Environmental Radioactivity, 2014, 131, 40-46.	0.9	37
27	Microbial Transformation of Iodine: From Radioisotopes to Iodine Deficiency. Advances in Applied Microbiology, 2017, 101, 83-136.	1.3	36
28	Uranium Immobilization in an Iron-Rich Rhizosphere of a Native Wetland Plant from the Savannah River Site under Reducing Conditions. Environmental Science & Technology, 2014, 48, 9270-9278.	4.6	35
29	Evidence for Hydroxamate Siderophores and Other N-Containing Organic Compounds Controlling ^{239,240}Pu Immobilization and Remobilization in a Wetland Sediment. Environmental Science & Technology, 2015, 49, 11458-11467.	4.6	33
30	Influence of iron redox transformations on plutonium sorption to sediments. Radiochimica Acta, 2010, 98, 685-692.	0.5	31
31	Eleven-Year Field Study of Pu Migration from Pu III, IV, and VI Sources. Environmental Science & Technology, 2006, 40, 443-448.	4.6	30
32	Plutonium Immobilization and Remobilization by Soil Mineral and Organic Matter in the Far-Field of the Savannah River Site, U.S.. Environmental Science & Technology, 2014, 48, 3186-3195.	4.6	30
33	Radioiodine concentrated in a wetland. Journal of Environmental Radioactivity, 2014, 131, 57-61.	0.9	28
34	A review of the behavior of radioiodine in the subsurface at two DOE sites. Science of the Total Environment, 2019, 691, 466-475.	3.9	28
35	Use of Illite Clay for In Situ Remediation of137Cs-Contaminated Water Bodies:Â Field Demonstration of Reduced Biological Uptake. Environmental Science & Technology, 2006, 40, 4500-4505.	4.6	27
36	Molecular interactions of plutonium(VI) with synthetic manganese-substituted goethite. Radiochimica Acta, 2010, 98, 655-663.	0.5	25

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37	Source-Dependent and Source-Independent Controls on Plutonium Oxidation State and Colloid Associations in Groundwater. Environmental Science & Technology, 2009, 43, 1322-1328.	4.6	24
38	Geochemical controls of iodine uptake and transport in Savannah River Site subsurface sediments. Applied Geochemistry, 2014, 45, 105-113.	1.4	22
39	Iron mineralogy and uranium-binding environment in the rhizosphere of a wetland soil. Science of the Total Environment, 2016, 569-570, 53-64.	3.9	21
40	Pu(V) transport through Savannah River Site soils - an evaluation of a conceptual model of surface-mediated reduction to Pu (IV). Journal of Environmental Radioactivity, 2014, 131, 47-56.	0.9	20
41	Modeling Long-Term Plutonium Transport in the Savannah River Site Vadose Zone. Vadose Zone Journal, 2007, 6, 344-353.	1.3	19
42	Temporal Variation of Iodine Concentration and Speciation (¹²⁷I and ¹²⁹I) in Wetland Groundwater from the Savannah River Site, USA. Environmental Science & Technology, 2014, 48, 11218-11226.	4.6	17
43	Sulfur speciation in untreated and alkali treated ground-granulated blast furnace slag. Science of the Total Environment, 2017, 589, 117-121.	3.9	17
44	Iodine speciation in a silver-amended cementitious system. Environment International, 2019, 126, 576-584.	4.8	15
45	Speciation of iodine isotopes inside and outside of a contaminant plume at the Savannah River Site. Science of the Total Environment, 2014, 497-498, 671-678.	3.9	14
46	Model of radioiodine speciation and partitioning in organic-rich and organic-poor soils from the SavannahÂRiver Site. Journal of Environmental Chemical Engineering, 2014, 2, 1321-1330.	3.3	14
47	Iodine immobilization by silver-impregnated granular activated carbon in cementitious systems. Journal of Environmental Radioactivity, 2019, 208-209, 106017.	0.9	14
48	Europium sorption to sediments in the presence of natural organic matter: A laboratory and modeling study. Applied Geochemistry, 2010, 25, 224-232.	1.4	13
49	Plutonium Partitioning Behavior to Humic Acids from Widely Varying Soils Is Related to Carboxyl-Containing Organic Compounds. Environmental Science & Technology, 2017, 51, 11742-11751.	4.6	13
50	Iodine speciation in cementitious environments. Applied Geochemistry, 2019, 103, 15-22.	1.4	13
51	Plutonium binding affinity to sediments increases with contact time. Chemical Geology, 2019, 505, 100-107.	1.4	12
52	From legacy contamination to watershed systems science: a review of scientific insights and technologies developed through DOE-supported research in water and energy security. Environmental Research Letters, 2022, 17, 043004.	2.2	12
53	Upward movement of plutonium to surface sediments during an 11-year field study. Journal of Environmental Radioactivity, 2010, 101, 338-344.	0.9	11
54	Uranium Redistribution Due to Water Table Fluctuations in Sandy Wetland Mesocosms. Environmental Science & Technology, 2015, 49, 12214-12222.	4.6	11

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55	Effects of matrix heterogeneity and aqueous humic acid on transport and deposition of mineral colloids in sandy sediments. Journal of Environmental Chemical Engineering, 2013, 1, 875-883.	3.3	9
56	In situ porewater uranium concentrations in a contaminated wetland: Effect of seasons and sediment depth. Applied Geochemistry, 2017, 85, 128-136.	1.4	9
57	Long-Term Radiostrontium Interactions and Transport through Sediment. Environmental Science & Technology, 2014, 48, 8919-8925.	4.6	8
58	Molecular Interaction of Aqueous Iodine Species with Humic Acid Studied by I and C K-Edge X-ray Absorption Spectroscopy. Environmental Science & Technology, 2019, 53, 12416-12424.	4.6	8
59	Uranium Attenuated by a Wetland 50 Years after Release into a Stream. ACS Earth and Space Chemistry, 2020, 4, 1360-1366.	1.2	8
60	Consistent controls on trace metal micronutrient speciation in wetland soils and stream sediments. Geochimica Et Cosmochimica Acta, 2022, 317, 234-254.	1.6	8
61	Uranium fate in wetland mesocosms: Effects of plants at two iron loadings with different pH values. Chemosphere, 2016, 163, 116-124.	4.2	7
62	Deriving probabilistic soil distribution coefficients (Kd). Part 1: General approach to decreasing and describing variability and example using uranium Kd values. Journal of Environmental Radioactivity, 2020, 222, 106362.	0.9	7
63	Reduced Plant Uptake of 137Cs Grown in Illite-amended Sediments. Water, Air, and Soil Pollution, 2007, 185, 255-263.	1.1	6
64	Impact of Natural Organic Matter on Plutonium Vadose Zone Migration from an NH₄Pu(V)O₂CO₃(s) Source. Environmental Science & Technology, 2020, 54, 2688-2697.	4.6	3
65	Chemical species of iodine during sorption by activated carbon -Effects of original chemical species and fulvic acids. Journal of Nuclear Science and Technology, 2022, 59, 580-589.	0.7	3
66	Uranium partitioning from contaminated wetland soil to aqueous and suspended iron-floc phases: Implications of dynamic hydrologic conditions on contaminant release. Geochimica Et Cosmochimica Acta, 2022, 318, 292-304.	1.6	3
67	Distributions of radionuclide sorption coefficients (Kd) in sub-surface sediments and the implications for transport calculations. Journal of Environmental Radioactivity, 2010, 101, 847-853.	0.9	2
68	Large seasonal fluctuations of groundwater radioiodine speciation and concentrations in a riparian wetland in South Carolina. Science of the Total Environment, 2022, 816, 151548.	3.9	2
69	1H-13C heteronuclear single quantum coherence NMR evidence for iodination of natural organic matter influencing organo-iodine mobility in the environment. Science of the Total Environment, 2022, 814, 152546.	3.9	1