Katherine Morris

List of Publications by Year
in descending order

105 papers	3,355 citations	109321 35 h-index	168389 53 g-index
105 all docs	105 docs citations	105 times ranked	2757 citing authors

#	Article	IF	Citations
1	The biogeochemistry and bioremediation of uranium and other priority radionuclides. Chemical Geology, 2014, 363, 164-184.	3.3	378
2	Incorporation of Uranium into Hematite during Crystallization from Ferrihydrite. Environmental Science & Technology, 2014, 48, 3724-3731.	10.0	128
3	Effects of Progressive Anoxia on the Solubility of Technetium in Sediments. Environmental Science & Technology, 2005, 39, 4109-4116.	10.0	100
4	Effect of groundwater pH and ionic strength on strontium sorption in aquifer sediments: Implications for 90Sr mobility at contaminated nuclear sites. Applied Geochemistry, 2012, 27, 1482-1491.	3.0	100
5	Reoxidation Behavior of Technetium, Iron, and Sulfur in Estuarine Sediments. Environmental Science & Technology, 2006, 40, 3529-3535.	10.0	95
6	Ferrihydrite Formation: The Role of Fe₁₃ Keggin Clusters. Environmental Science & Technology, 2016, 50, 9333-9342.	10.0	92
7	Adsorption of radium and barium on goethite and ferrihydrite: A kinetic and surface complexation modelling study. Geochimica Et Cosmochimica Acta, 2014, 146, 150-163.	3.9	88
8	Uranium(V) Incorporation Mechanisms and Stability in Fe(II)/Fe(III) (oxyhydr)Oxides. Environmental Science and Technology Letters, 2017, 4, 421-426.	8.7	81
9	Geomicrobiological Redox Cycling of the Transuranic Element Neptunium. Environmental Science & Technology, 2010, 44, 8924-8929.	10.0	80
10	Incorporation and Retention of 99-Tc(IV) in Magnetite under High pH Conditions. Environmental Science & Technology, 2014, 48, 11853-11862.	10.0	78
11	Biostimulation by Glycerol Phosphate to Precipitate Recalcitrant Uranium(IV) Phosphate. Environmental Science & Technology, 2015, 49, 11070-11078.	10.0	71
12	Evidence for the Remobilization of Sellafield Waste Radionuclides in an Intertidal Salt Marsh, West Cumbria, U.K.. Estuarine, Coastal and Shelf Science, 2000, 51, 613-625.	2.1	66
13	Technetium Reduction and Reoxidation in Aquifer Sediments. Geomicrobiology Journal, 2007, 24, 189-197.	2.0	64
14	Performance of three resin-based materials for treating uranium-contaminated groundwater within a PRB. Journal of Hazardous Materials, 2004, 116, 191-204.	12.4	57
15	An X-ray absorption study of the fate of technetium in reduced and reoxidised sediments and mineral phases. Applied Geochemistry, 2008, 23, 603-617.	3.0	56
16	The potential impact of anaerobic microbial metabolism during the geological disposal of intermediate-level waste. Mineralogical Magazine, 2012, 76, 3261-3270.	1.4	55
17	Strontium sorption and precipitation behaviour during bioreduction in nitrate impacted sediments. Chemical Geology, 2012, 306-307, 114-122.	3.3	55
18	Anoxic nitrification: Evidence from Humber Estuary sediments (UK). Chemical Geology, 2008, 250, 29-39.	3.3	53

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19	Microbial Reduction of Fe(III) under Alkaline Conditions Relevant to Geological Disposal. Applied and Environmental Microbiology, 2013, 79, 3320-3326.	3.1	52
20	Probing the Biogeochemical Behavior of Technetium Using a Novel Nuclear Imaging Approach. Environmental Science & Technology, 2010, 44, 156-162.	10.0	48
21	Formation of Stable Uranium(VI) Colloidal Nanoparticles in Conditions Relevant to Radioactive Waste Disposal. Langmuir, 2014, 30, 14396-14405.	3.5	47
22	Role of Nitrate in Conditioning Aquifer Sediments for Technetium Bioreduction. Environmental Science & Technology, 2010, 44, 150-155.	10.0	46
23	The stability of microbially reduced U(IV); impact of residual electron donor and sediment ageing. Chemical Geology, 2015, 409, 125-135.	3.3	46
24	Redox Interactions of Tc(VII), U(VI), and Np(V) with Microbially Reduced Biotite and Chlorite. Environmental Science & Technology, 2015, 49, 13139-13148.	10.0	46
25	Iron Vacancies Accommodate Uranyl Incorporation into Hematite. Environmental Science & Technology, 2018, 52, 6282-6290.	10.0	44
26	Multiple Lines of Evidence Identify U(V) as a Key Intermediate during U(VI) Reduction by <i>Shewanella oneidensis</i> MR1. Environmental Science & Technology, 2020, 54, 2268-2276.	10.0	44
27	Rock alteration in alkaline cement waters over 15 years and its relevance to the geological disposal of nuclear waste. Applied Geochemistry, 2014, 50, 91-105.	3.0	43
28	Redox interactions of technetium with iron-bearing minerals. Mineralogical Magazine, 2011, 75, 2419-2430.	1.4	41
29	Uranium Redox Cycling in Sediment and Biomineral Systems. Geomicrobiology Journal, 2011, 28, 497-506.	2.0	41
30	An investigation into technetium binding in sediments. Marine Chemistry, 2003, 81, 149-162.	2.3	39
31	U(VI) behaviour in hyperalkaline calcite systems. Geochimica Et Cosmochimica Acta, 2015, 148, 343-359.	3.9	39
32	Microbial reduction of uranium(VI) in sediments of different lithologies collected from Sellafield. Applied Geochemistry, 2014, 51, 55-64.	3.0	38
33	Microbial Reduction of U(VI) under Alkaline Conditions: Implications for Radioactive Waste Geodisposal. Environmental Science & Technology, 2014, 48, 13549-13556.	10.0	37
34	The behaviour of technetium during microbial reduction in amended soils from Dounreay, UK. Science of the Total Environment, 2007, 373, 297-304.	8.0	36
35	Organic complexation of U(VI) in reducing soils at a natural analogue site: Implications for uranium transport. Chemosphere, 2020, 254, 126859.	8.2	36
36	Uranium Biominerals Precipitated by an Environmental Isolate of Serratia under Anaerobic Conditions. PLoS ONE, 2015, 10, e0132392.	2.5	36

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37	Uranium fate during crystallization of magnetite from ferrihydrite in conditions relevant to the disposal of radioactive waste. Mineralogical Magazine, 2015, 79, 1265-1274.	1.4	34
38	The fate of technetium in reduced estuarine sediments: Combining direct and indirect analyses. Applied Geochemistry, 2010, 25, 233-241.	3.0	31
39	The interactions of strontium and technetium with Fe(II) bearing biominerals: Implications for bioremediation of radioactively contaminated land. Applied Geochemistry, 2014, 40, 135-143.	3.0	29
40	Bacterial Diversity in the Hyperalkaline Allas Springs (Cyprus), a Natural Analogue for Cementitious Radioactive Waste Repository. Geomicrobiology Journal, 2016, 33, 73-84.	2.0	29
41	Alteration of Sediments by Hyperalkaline K-Rich Cement Leachate: Implications for Strontium Adsorption and Incorporation. Environmental Science & Technology, 2013, 47, 3694-3700.	10.0	28
42	Bioreduction Behavior of U(VI) Sorbed to Sediments. Geomicrobiology Journal, 2011, 28, 160-171.	2.0	27
43	Influence of riboflavin on the reduction of radionuclides by Shewanella oneidenis MR-1. Dalton Transactions, 2016, 45, 5030-5037.	3.3	26
44	U(VI) sorption during ferrihydrite formation: Underpinning radioactive effluent treatment. Journal of Hazardous Materials, 2019, 366, 98-104.	12.4	26
45	A Novel Adaptation Mechanism Underpinning Algal Colonization of a Nuclear Fuel Storage Pond. MBio, 2018, 9, .	4.1	25
46	The Synergistic Effects of High Nitrate Concentrations on Sediment Bioreduction. Geomicrobiology Journal, 2012, 29, 484-493.	2.0	24
47	Microbial bloom formation in a high pH spent nuclear fuel pond. Science of the Total Environment, 2020, 720, 137515.	8.0	24
48	Technetium reduction and reoxidation behaviour in Dounreay soils. Radiochimica Acta, 2008, 96, 631-636.	1.2	23
49	Bioremediation of strontium and technetium contaminated groundwater using glycerol phosphate. Chemical Geology, 2019, 509, 213-222.	3.3	22
50	In search of experimental evidence for the biogeobattery. Journal of Geophysical Research, 2011, 116, .	3.3	21
51	Impacts of Repeated Redox Cycling on Technetium Mobility in the Environment. Environmental Science & Technology, 2017, 51, 14301-14310.	10.0	21
52	Stability, Composition, and Coreâ€“Shell Particle Structure of Uranium(IV)-Silicate Colloids. Environmental Science & Technology, 2018, 52, 9118-9127.	10.0	21
53	The impact of iron nanoparticles on technetium-contaminated groundwater and sediment microbial communities. Journal of Hazardous Materials, 2019, 364, 134-142.	12.4	21
54	The microbial ecology of land and water contaminated with radioactive waste: towards the development of bioremediation options for the nuclear industry. , 0, , 226-241.		20

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55	Controls on the Fate and Speciation of Np(V) During Iron (Oxyhydr)oxide Crystallization. Environmental Science & Technology, 2016, 50, 3382-3390.	10.0	20
56	Transport and accumulation of actinide elements in the near-shore environment: field and modelling studies. Sedimentology, 2006, 53, 237-248.	3.1	19
57	The biogeochemistry of a manganese-rich Scottish sea loch: Implications for the study of anoxic nitrification. Continental Shelf Research, 2007, 27, 1501-1509.	1.8	19
58	Alkaline Fe(III) reduction by a novel alkali-tolerant Serratia sp. isolated from surface sediments close to Sellafield nuclear facility, UK. FEMS Microbiology Letters, 2012, 327, 87-92.	1.8	19
59	Formation of a U(VI)â€"Persulfide Complex during Environmentally Relevant Sulfidation of Iron (Oxyhydr)oxides. Environmental Science & Technology, 2020, 54, 129-136.	10.0	17
60	Microbial Communities Associated with the Oxidation of Iron and Technetium in Bioreduced Sediments. Geomicrobiology Journal, 2011, 28, 507-518.	2.0	16
61	Long-Term Immobilization of Technetium via Bioremediation with Slow-Release Substrates. Environmental Science & Technology, 2017, 51, 1595-1604.	10.0	16
62	Plutonium(IV) Sorption during Ferrihydrite Nanoparticle Formation. ACS Earth and Space Chemistry, 2019, 3, 2437-2442.	2.7	15
63	Metaschoepite Dissolution in Sediment Column Systemsâ€"Implications for Uranium Speciation and Transport. Environmental Science & Technology, 2019, 53, 9915-9925.	10.0	14
64	Microbially mediated reduction of Np(V) by a consortium of alkaline tolerant Fe(III)-reducing bacteria. Mineralogical Magazine, 2015, 79, 1287-1295.	1.4	13
65	Retention of^{99m}Tc at Ultra-trace Levels in Flowing Column Experiments â€" Insights into Bioreduction and Biomineralization for Remediation at Nuclear Facilities. Geomicrobiology Journal, 2016, 33, 199-205.	2.0	13
66	Radiation Tolerance of Pseudanabaena catenata, a Cyanobacterium Relevant to the First Generation Magnox Storage Pond. Frontiers in Microbiology, 2020, 11, 515.	3.5	13
67	The biogeochemical behaviour of U(VI) in the simulated near-field of a low-level radioactive waste repository. Applied Geochemistry, 2006, 21, 1539-1550.	3.0	12
68	Characterising legacy spent nuclear fuel pond materials using microfocus X-ray absorption spectroscopy. Journal of Hazardous Materials, 2016, 317, 97-107.	12.4	12
69	Biomineralization of Uranium-Phosphates Fueled by Microbial Degradation of Isosaccharinic Acid (ISA). Environmental Science & Technology, 2021, 55, 4597-4606.	10.0	12
70	Microbial Degradation of Citric Acid in Low Level Radioactive Waste Disposal: Impact on Biomineralization Reactions. Frontiers in Microbiology, 2021, 12, 565855.	3.5	12
71	Plutonium solubility in sediment pore waters. Journal of Environmental Radioactivity, 2001, 56, 259-267.	1.7	11
72	Bioreduction of iodate in sediment microcosms. Mineralogical Magazine, 2015, 79, 1343-1351.	1.4	11

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73	Identification of a Stable Hydrogen-Driven Microbiome in a Highly Radioactive Storage Facility on the Sellafield Site. Frontiers in Microbiology, 2020, 11, 587556.	3.5	11
74	Sulfidation of magnetite with incorporated uranium. Chemosphere, 2021, 276, 130117.	8.2	11
75	Fe(II) Induced Reduction of Incorporated U(VI) to U(V) in Goethite. Environmental Science & Technology, 2021, 55, 16445-16454.	10.0	11
76	Silicate stabilisation of colloidal UO2 produced by uranium metal corrosion. Journal of Nuclear Materials, 2019, 526, 151751.	2.7	10
77	Neptunium Reactivity During Co-Precipitation and Oxidation of Fe(II)/Fe(III) (Oxyhydr)oxides. Geosciences (Switzerland), 2019, 9, 27.	2.2	10
78	Chapter 6. Geodisposal of Higher Activity Wastes. Issues in Environmental Science and Technology, 2011, , 129-151.	0.4	10
79	Performance of a functionalised polymer-coated silica at treating uranium contaminated groundwater from a Hungarian mine site. Engineering Geology, 2006, 85, 174-183.	6.3	9
80	Controls on anthropogenic radionuclide distribution in the Sellafield-impacted Eastern Irish Sea. Science of the Total Environment, 2020, 743, 140765.	8.0	9
81	Chapter 3 The role of microorganisms during sediment diagenesis: Implications for radionuclide mobility. Radioactivity in the Environment, 2002, , 61-100.	0.2	8
82	Neptunium and manganese biocycling in nuclear legacy sediment systems. Applied Geochemistry, 2015, 63, 303-309.	3.0	8
83	Quantifying Technetium and Strontium Bioremediation Potential in Flowing Sediment Columns. Environmental Science & Technology, 2017, 51, 12104-12113.	10.0	8
84	Hydrotalcite Colloidal Stability and Interactions with Uranium(VI) at Neutral to Alkaline pH. Langmuir, 2022, 38, 2576-2589.	3.5	8
85	Positron emission tomography to visualise in-situ microbial metabolism in natural sediments. Applied Radiation and Isotopes, 2019, 144, 104-110.	1.5	7
86	Biomineralization of Sr by the Cyanobacterium Pseudanabaena catenata Under Alkaline Conditions. Frontiers in Earth Science, 2020, 8, .	1.8	7
87	Uranium and technetium interactions with wÃ¼stite [Fe1â€"xO] and portlandite [Ca(OH)2] surfaces under geological disposal facility conditions. Mineralogical Magazine, 2014, 78, 1097-1113.	1.4	6
88	Synthesis and thermodynamics of uranium-incorporated Î±-Fe2O3 nanoparticles. Journal of Nuclear Materials, 2021, 556, 153172.	2.7	6
89	Impact and control of fouling in radioactive environments. Progress in Nuclear Energy, 2022, 148, 104215.	2.9	6
90	Reversibility in radionuclide/bentonite bulk and colloidal ternary systems. Mineralogical Magazine, 2015, 79, 1307-1315.	1.4	5

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91	Np(V) sorption and solubility in high pH calcite systems. Chemical Geology, 2018, 493, 396-404.	3.3	4
92	Neptunium(V) and Uranium(VI) Reactions at the Magnetite (111) Surface. Geosciences (Switzerland), 2019, 9, 81.	2.2	4
93	Biogenic Sulfidation of U(VI) and Ferrihydrite Mediated by Sulfate-Reducing Bacteria at Elevated pH. ACS Earth and Space Chemistry, 2021, 5, 3075-3086.	2.7	4
94	Chapter 4 Biogeochemical cycles and remobilisation of the actinide elements. Radioactivity in the Environment, 2002, 2, 101-141.	0.2	3
95	Sorption of Strontium to Uraninite and Uranium(IV)â€"Silicate Nanoparticles. Langmuir, 2022, 38, 3090-3097.	3.5	3
96	Retention of immobile Se(0) in flow-through aquifer column systems during bioreduction and oxic-remobilization. Science of the Total Environment, 2022, 834, 155332.	8.0	3
97	Herbert's Quarry, South Wales â€" an analogue for host-rock alteration at a cementitious radioactive waste repository?. Mineralogical Magazine, 2015, 79, 1407-1418.	1.4	2
98	Microbial transformations of radionuclides in geodisposal systems. , 2021, , 245-265.		2
99	Mineralogy in long-term nuclear waste management. , 0, , 383-404.		2
100	Uranium (VI) Adsorbate Structures on Portlandite [Ca(OH)2] Type Surfaces Determined by Computational Modelling and X-Ray Absorption Spectroscopy. Minerals (Basel, Switzerland), 2021, 11, 1241.	2.0	2
101	Neptunium and Uranium Interactions with Environmentally and Industrially Relevant Iron Minerals. Minerals (Basel, Switzerland), 2022, 12, 165.	2.0	2
102	Geochemistry of artificial actinide isotopes in west Cumbrian sediments. Journal of Nuclear Science and Technology, 2002, 39, 939-942.	1.3	1
103	The IGD-TP Geodisposal 2014: Introduction to the Conference Proceedings. Mineralogical Magazine, 2015, 79, 1245-1249.	1.4	1
104	New barrier materials: the use of tailored ligand systems for the removal of metals from groundwater. Trace Metals and Other Contaminants in the Environment, 2005, 7, 153-182.	0.1	0
105	Biogeochemical Cycling of 99Tc in Alkaline Sediments. Environmental Science & Technology, 2021, 55, 15862-15872.	10.0	0