

# Michael Descostes

## List of Publications by Year in descending order

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59  
papers

1,495  
citations

304743

22  
h-index

361022

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g-index

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59  
docs citations

59  
times ranked

1477  
citing authors

#	ARTICLE	IF	CITATIONS
1	Uranium speciation control by uranyl sulfate and phosphate in tailings subject to a Sahelian climate, Cominak, Niger. <i>Chemosphere</i> , 2022, 287, 132139.	8.2	10
2	Biostimulation as a sustainable solution for acid neutralization and uranium immobilization post acidic in-situ recovery. <i>Science of the Total Environment</i> , 2022, 822, 153597.	8.0	6
3	Reactive transport modeling of U and Ra mobility in roll-front uranium deposits: Parameters influencing <sup>226</sup> Ra/ <sup>238</sup> U disequilibria. <i>Journal of Geochemical Exploration</i> , 2022, 236, 106961.	3.2	6
4	Spectroscopic autoradiography of alpha particles using a parallel ionization multiplier gaseous detector. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2022, 1035, 166807.	1.6	4
5	Quantifying <sup>226</sup> Ra activity in a complex assemblage of <sup>226</sup> Ra-bearing minerals using alpha autoradiography and SEM/EDS. <i>Journal of Environmental Radioactivity</i> , 2022, 251-252, 106951.	1.7	1
6	Uranium retention on iron oxyhydroxides in post-mining environmental conditions. <i>Chemosphere</i> , 2021, 264, 128473.	8.2	18
7	Selective adsorption of U(VI) from real mine water using an NH <sub>2</sub> -functionalized silica packed column. <i>Chemical Engineering Journal</i> , 2021, 405, 126912.	12.7	31
8	Uranium removal from complex mining waters by alginate beads doped with cells of <i>Stenotrophomonas</i> sp. Br8: Novel perspectives for metal bioremediation. <i>Journal of Environmental Management</i> , 2021, 296, 113411.	7.8	20
9	Long-Term Evolution of Uranium Mobility within Sulfated Mill Tailings in Arid Regions: A Reactive Transport Study. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 1201.	2.0	12
10	Draft genome sequence data of <i>Microbacterium</i> sp. strain Be9 isolated from uranium-mill tailings porewaters. <i>Data in Brief</i> , 2020, 31, 105732.	1.0	4
11	Quantitative imaging of <sup>226</sup> Ra ultratrace distribution using digital autoradiography: Case of doped celestines. <i>Journal of Environmental Radioactivity</i> , 2020, 217, 106211.	1.7	11
12	Uranium removal from mining water using Cu substituted hydroxyapatite. <i>Journal of Hazardous Materials</i> , 2020, 392, 122501.	12.4	43
13	A multi-scalar study of the long-term reactivity of uranium mill tailings from Bellezane site (France). <i>Journal of Environmental Radioactivity</i> , 2020, 218, 106223.	1.7	26
14	The Role of Barite in the Post-Mining Stabilization of Radium-226: A Modeling Contribution for Sequential Extractions. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 497.	2.0	14
15	High-efficient microbial immobilization of solved U(VI) by the <i>Stenotrophomonas</i> strain Br8. <i>Water Research</i> , 2020, 183, 116110.	11.3	46
16	Development and application of the thermodynamic database PRODATA dedicated to the monitoring of mining activities from exploration to remediation. <i>Chemosphere</i> , 2020, 251, 126301.	8.2	30
17	Aqueous inorganic uranium speciation in European stream waters from the FOREGS dataset using geochemical modelling and determination of a U bioavailability baseline. <i>Chemosphere</i> , 2020, 251, 126302.	8.2	11
18	Fate of dioctahedral smectites in uranium roll front deposits exploited by acidic In Situ Recovery (ISR) solutions. <i>Applied Clay Science</i> , 2020, 187, 105484.	5.2	9

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19	Profiling native aquifer bacteria in a uranium roll-front deposit and their role in biogeochemical cycle dynamics: Insights regarding in situ recovery mining. <i>Science of the Total Environment</i> , 2020, 721, 137758.	8.0	25
20	Geochemical characterization of uranium mill tailings (Bois Noirs Limouzat, France) highlighting the U and <sup>226</sup> Ra retention. <i>Journal of Environmental Radioactivity</i> , 2020, 218, 106251.	1.7	19
21	Clay mineral signatures of fault-related fluid flows in a sandstone reservoir: A case study from the Teloua Formation, Tim MersoÑ— Basin, Niger. <i>Journal of African Earth Sciences</i> , 2020, 168, 103840.	2.0	5
22	Environmental geochemistry and bioaccumulation/bioavailability of uranium in a post-mining context â€“ The Bois-Noirs Limouzat mine (France). <i>Chemosphere</i> , 2019, 236, 124341.	8.2	19
23	Industrial Deployment of Reactive Transport Simulation: An Application to Uranium In situ Recovery. <i>Reviews in Mineralogy and Geochemistry</i> , 2019, 85, 499-528.	4.8	38
24	Uranium speciation in weathered granitic waste rock piles: an XAFS investigation. <i>RSC Advances</i> , 2019, 9, 11762-11773.	3.6	12
25	An alternative sequential extraction scheme for the determination of trace elements in ferrihydrite rich sediments. <i>Talanta</i> , 2019, 199, 80-88.	5.5	24
26	16. Industrial Deployment of Reactive Transport Simulation: An Application to Uranium In situ Recovery. , 2019, , 499-528.		0
27	Role of Trace Elements in the <sup>226</sup> Radium Incorporation in Sulfate Minerals (Gypsum and Celestite). <i>ACS Earth and Space Chemistry</i> , 2019, 3, 295-304.	2.7	19
28	Microbial communities associated with uranium in-situ recovery mining process are related to acid mine drainage assemblages. <i>Science of the Total Environment</i> , 2018, 628-629, 26-35.	8.0	25
29	Mapping <sup>238</sup> U decay chain equilibrium state in thin sections of geo-materials by digital autoradiography and microprobe analysis. <i>Applied Radiation and Isotopes</i> , 2018, 140, 228-237.	1.5	15
30	Screening of bacterial strains isolated from uranium mill tailings porewaters for bioremediation purposes. <i>Journal of Environmental Radioactivity</i> , 2017, 166, 130-141.	1.7	28
31	Adsorption and retarded diffusion of Eu(III)-EDTA through hard clay rock. <i>Journal of Hydrology</i> , 2017, 544, 125-132.	5.4	17
32	Molecular biomarkers study of an ombrotrophic peatland impacted by an anthropogenic clay deposit. <i>Organic Geochemistry</i> , 2017, 105, 20-32.	1.8	16
33	Adsorption of Uranium over NH <sub>2</sub> -Functionalized Ordered Silica in Aqueous Solutions. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 15672-15684.	8.0	98
34	Experimental data and assessment of predictive modeling for radium ion-exchange on beidellite, a swelling clay mineral with a tetrahedral charge. <i>Applied Geochemistry</i> , 2017, 85, 1-9.	3.0	29
35	DGT as a useful monitoring tool for radionuclides and trace metals in environments impacted by uranium mining: Case study of the Sagnes wetland in France. <i>Chemosphere</i> , 2016, 155, 142-151.	8.2	30
36	Novel speciation method based on Diffusive Gradients in Thin Films for in situ measurement of uranium in the vicinity of the former uranium mining sites. <i>Environmental Pollution</i> , 2016, 214, 114-123.	7.5	24

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37	Quantitative autoradiography of alpha particle emission in geo-materials using the Beaver <sup>®</sup> , <sup>®</sup> system. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 833, 15-22.	1.6	35
38	Uranium aqueous speciation in the vicinity of the former uranium mining sites using the diffusive gradients in thin films and ultrafiltration techniques. Analytica Chimica Acta, 2016, 913, 94-103.	5.4	25
39	Dissolution of beidellite in acidic solutions: Ion exchange reactions and effect of crystal chemistry on smectite reactivity. Geochimica Et Cosmochimica Acta, 2016, 180, 97-108.	3.9	16
40	Evolution of uranium distribution and speciation in mill tailings, COMINAK Mine, Niger. Science of the Total Environment, 2016, 545-546, 340-352.	8.0	31
41	Effective porosity measurements of poorly consolidated materials using non-destructive methods. Engineering Geology, 2016, 205, 24-29.	6.3	10
42	Ion exchange reactions of major inorganic cations (H <sup>+</sup> , Na <sup>+</sup> , Ca <sup>2+</sup> , Mg <sup>2+</sup> and K <sup>+</sup> ) on beidellite: Experimental results and new thermodynamic database. Toward a better prediction of contaminant mobility in natural environments. Applied Geochemistry, 2015, 59, 74-84.	3.0	44
43	Occurrence of authigenic beidellite in the Eocene transitional sandy sediments of the Chu-Saryssu basin (South-Central Kazakhstan). Sedimentary Geology, 2015, 321, 39-48.	2.1	19
44	Evaluation and application of Diffusive Gradients in Thin Films (DGT) technique using Chelex <sup>®</sup> -100, Metsorb <sup>®</sup> , <sup>®</sup> and Diphonix <sup>®</sup> binding phases in uranium mining environments. Analytica Chimica Acta, 2015, 889, 71-81.	5.4	21
45	Geochemical Control on Uranium(IV) Mobility in a Mining-Impacted Wetland. Environmental Science & Technology, 2014, 48, 10062-10070.	10.0	41
46	Field analyses of <sup>238</sup> U and <sup>226</sup> Ra in two uranium mill tailings piles from Niger using portable HPGe detector. Journal of Environmental Radioactivity, 2014, 137, 105-112.	1.7	34
47	Influence of an aerated/anoxic transient phase on the long-term corrosion of iron. Corrosion Science, 2014, 86, 71-80.	6.6	7
48	Mobile uranium(IV)-bearing colloids in a mining-impacted wetland. Nature Communications, 2013, 4, 2942.	12.8	151
49	Radium Uptake by Recrystallized Gypsum: An Incorporation Study. Procedia Earth and Planetary Science, 2013, 7, 479-482.	0.6	13
50	Sorption Properties of Peat for U(VI) and <sup>226</sup> Ra in U Mining Areas. Procedia Earth and Planetary Science, 2013, 7, 85-88.	0.6	18
51	Solubility properties of synthetic and natural meta-torbernite. Journal of Nuclear Materials, 2013, 442, 195-207.	2.7	23
52	Characterizing the Transport of Natural Uranium and its Decay Product <sup>226</sup> Ra, Downstream from Former Mines in France. Procedia Earth and Planetary Science, 2013, 7, 693-696.	0.6	12
53	A review of the archaeological analogue approaches to predict the long-term corrosion behaviour of carbon steel overpack and reinforced concrete structures in the French disposal systems. Journal of Nuclear Materials, 2010, 402, 196-205.	2.7	41
54	Uranium Uptake by Hectorite and Montmorillonite: A Solution Chemistry and Polarized EXAFS Study. Environmental Science & Technology, 2009, 43, 8593-8598.	10.0	60

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55	Oxidation of FeS by oxygen-bearing acidic solutions. Journal of Colloid and Interface Science, 2008, 321, 84-95.	9.4	92
56	Estimating the stabilities of actinide aqueous species. Influence of sulfoxy-anions on uranium(IV) geochemistry and discussion of Pa(V) first hydrolysis. Comptes Rendus Chimie, 2007, 10, 978-993.	0.5	19
57	Response to the Comment by G. Druschel and M. Borda on "Pyrite dissolution in acidic media": Geochimica Et Cosmochimica Acta, 2006, 70, 5251-5252.	3.9	5
58	Anoxic dissolution of troilite in acidic media. Journal of Colloid and Interface Science, 2006, 294, 376-384.	9.4	18
59	Troilite oxidation by hydrogen peroxide. Journal of Colloid and Interface Science, 2006, 299, 260-269.	9.4	15