Mohamed Larbi Merroun

List of Publications by Year
in descending order

88 papers	3,217 citations	159585 30 h-index	175258 52 g-index
90 all docs	90 docs citations	90 times ranked	2524 citing authors

#	Article	IF	Citations
1	Cupriavidus metallidurans NA4 actively forms polyhydroxybutyrate-associated uranium-phosphate precipitates. Journal of Hazardous Materials, 2022, 421, 126737.	12.4	11
2	Impact of anoxic conditions, uranium(VI) and organic phosphate substrate on the biogeochemical potential of the indigenous bacterial community of bentonite. Applied Clay Science, 2022, 216, 106331.	5.2	11
3	Coupled Biohydrogen Production and Bio-Nanocatalysis for Dual Energy from Cellulose: Towards Cellulosic Waste Up-Conversion into Biofuels. Catalysts, 2022, 12, 577.	3.5	1
4	Molecular techniques for understanding microbial abundance and activity in clay barriers used for geodisposal. , 2021, , 71-96.		1
5	Bentonite geomicrobiology. , 2021, , 137-155.		1
6	Multisystem combined uranium resistance mechanisms and bioremediation potential of Stenotrophomonas bentonitica BII-R7: Transcriptomics and microscopic study. Journal of Hazardous Materials, 2021, 403, 123858.	12.4	29
7	Deciphering indigenous bacteria in compacted bentonite through a novel and efficient DNA extraction method: Insights into biogeochemical processes within the Deep Geological Disposal of nuclear waste concept. Journal of Hazardous Materials, 2021, 408, 124600.	12.4	14
8	Microbial interaction with and tolerance of radionuclides: underlying mechanisms and biotechnological applications. Microbial Biotechnology, 2021, 14, 810-828.	4.2	28
9	Biotechnological synthesis of Pd/Ag and Pd/Au nanoparticles for enhanced Suzukiâ€“Miyaura crossâ€coupling activity. Microbial Biotechnology, 2021, 14, 2435-2447.	4.2	7
10	Enhanced hydrogenation catalyst synthesized by DesulfovibrioÂdesulfuricans exposed to a radio frequency magnetic field. Microbial Biotechnology, 2021, 14, 2041-2058.	4.2	2
11	Uranium removal from complex mining waters by alginate beads doped with cells of Stenotrophomonas sp. Br8: Novel perspectives for metal bioremediation. Journal of Environmental Management, 2021, 296, 113411.	7.8	20
12	Attachment on mortar surfaces by cyanobacterium Gloeocapsa PCC 73106 and sequestration of CO₂ by microbially induced calcium carbonate. MicrobiologyOpen, 2021, 10, e1243.	3.0	5
13	Effect of Temperature and Cell Viability on Uranium Biomineralization by the Uranium Mine Isolate Penicillium simplicissimum. Frontiers in Microbiology, 2021, 12, 802926.	3.5	6
14	Bacillus safensis JG-B5T affects the fate of selenium by extracellular production of colloidally less stable selenium nanoparticles. Journal of Hazardous Materials, 2020, 384, 121146.	12.4	31
15	Exploring bacterial community composition in Mediterranean deep-sea sediments and their role in heavy metal accumulation. Science of the Total Environment, 2020, 712, 135660.	8.0	26
16	Molecular Binding of Eu^{III}/Cm^{III} by Stenotrophomonas bentonitica and Its Impact on the Safety of Future Geodisposal of Radioactive Waste. Environmental Science & Technology, 2020, 54, 15180-15190.	10.0	13
17	Developments in the study and applications of bacterial transformations of selenium species. Critical Reviews in Biotechnology, 2020, 40, 1250-1264.	9.0	44
18	Draft genome sequence data of Microbacterium sp. strain Be9 isolated from uranium-mill tailings porewaters. Data in Brief, 2020, 31, 105732.	1.0	4

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19	High-efficient microbial immobilization of solved U(VI) by the Stenotrophomonas strain Br8. Water Research, 2020, 183, 116110.	11.3	46
20	Chemical and structural characterization of Se^{IV} biotransformations by Stenotrophomonas bentonitica into Se⁰ nanostructures and volatiles Se species. Environmental Science: Nano, 2020, 7, 2140-2155.	4.3	26
21	Profiling native aquifer bacteria in a uranium roll-front deposit and their role in biogeochemical cycle dynamics: Insights regarding in situ recovery mining. Science of the Total Environment, 2020, 721, 137758.	8.0	25
22	Probing the viability of palladiumâ€challenged bacterial cells using flow cytometry. Journal of Chemical Technology and Biotechnology, 2019, 94, 295-301.	3.2	11
23	Reversible pH-dependent curium(III) biosorption by the bentonite yeast isolate Rhodotorula mucilaginosa BII-R8. Journal of Hazardous Materials, 2019, 370, 156-163.	12.4	16
24	Shifts in bentonite bacterial community and mineralogy in response to uranium and glycerol-2-phosphate exposure. Science of the Total Environment, 2019, 692, 219-232.	8.0	21
25	Synthesis of Pd/Ru Bimetallic Nanoparticles by Escherichia coli and Potential as a Catalyst for Upgrading 5-Hydroxymethyl Furfural Into Liquid Fuel Precursors. Frontiers in Microbiology, 2019, 10, 1276.	3.5	41
26	The Bioreduction of Selenite under Anaerobic and Alkaline Conditions Analogous to Those Expected for a Deep Geological Repository System. Molecules, 2019, 24, 3868.	3.8	16
27	Upconversion of Cellulosic Waste Into a Potential â€œDrop in Fuelâ€•via Novel Catalyst Generated Using Desulfovibrio desulfuricans and a Consortium of Acidophilic Sulfidogens. Frontiers in Microbiology, 2019, 10, 970.	3.5	9
28	Characterization of Palladium Nanoparticles Produced by Healthy and Microwave-Injured Cells of Desulfovibrio desulfuricans and Escherichia coli. Nanomaterials, 2019, 9, 857.	4.1	26
29	Novel catalytically active Pd/Ru bimetallic nanoparticles synthesized by Bacillus benzeovorans. Scientific Reports, 2019, 9, 4715.	3.3	38
30	Effect of U(VI) aqueous speciation on the binding of uranium by the cell surface of Rhodotorula mucilaginosa, a natural yeast isolate from bentonites. Chemosphere, 2018, 199, 351-360.	8.2	31
31	Microbial community changes induced by uranyl nitrate in bentonite clay microcosms. Applied Clay Science, 2018, 160, 206-216.	5.2	18
32	Multidisciplinary characterization of U(VI) sequestration by Acidovorax facilis for bioremediation purposes. Journal of Hazardous Materials, 2018, 347, 233-241.	12.4	17
33	Metabolism-dependent bioaccumulation of uranium by Rhodosporidium toruloides isolated from the flooding water of a former uranium mine. PLoS ONE, 2018, 13, e0201903.	2.5	26
34	Green synthesis and biotransformation of amorphous Se nanospheres to trigonal 1D Se nanostructures: impact on Se mobility within the concept of radioactive waste disposal. Environmental Science: Nano, 2018, 5, 2103-2116.	4.3	67
35	Screening of bacterial strains isolated from uranium mill tailings porewaters for bioremediation purposes. Journal of Environmental Radioactivity, 2017, 166, 130-141.	1.7	28
36	Biosynthesis of zinc sulfide quantum dots using waste off-gas from a metal bioremediation process. RSC Advances, 2017, 7, 21484-21491.	3.6	22

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37	Fungal biomineralization of lead phosphates on the surface of lead metal. Minerals Engineering, 2017, 106, 46-54.	4.3	27
38	Structural Analysis of Uranyl Complexation by the EFâ€Hand Motif of Calmodulin: Effect of Phosphorylation. Chemistry - A European Journal, 2017, 23, 15505-15517.	3.3	18
39	Draft Genome Sequence of Stenotrophomonas bentonitica BII-R7 ^T , a Selenite-Reducing Bacterium Isolated from Spanish Bentonites. Genome Announcements, 2017, 5, .	0.8	8
40	Stenotrophomonas bentonitica sp. nov., isolated from bentonite formations. International Journal of Systematic and Evolutionary Microbiology, 2017, 67, 2779-2786.	1.7	31
41	High resolution electron microscopy study of biologically derived ruthenium and palladium/ruthenium nanoparticles. , 2016, , .		1
42	Combined use of flow cytometry and microscopy to study the interactions between the gram-negative betaproteobacterium Acidovorax facilis and uranium(VI). Journal of Hazardous Materials, 2016, 317, 127-134.	12.4	40
43	Nanopatterning of Magnetic CrNi Prussian Blue Nanoparticles Using a Bacterial S-Layer as a Biotemplate. Inorganic Chemistry, 2015, 54, 6758-6762.	4.0	6
44	Characterization of intracellular palladium nanoparticles synthesized by Desulfovibrio desulfuricans and Bacillus benzeovorans. Journal of Nanoparticle Research, 2015, 17, 264.	1.9	61
45	Potential application of biomineralization by Synechococcus PCC8806 for concrete restoration. Ecological Engineering, 2015, 82, 459-468.	3.6	64
46	Bacterial Diversity in Bentonites, Engineered Barrier for Deep Geological Disposal of Radioactive Wastes. Microbial Ecology, 2015, 70, 922-935.	2.8	39
47	Spectroscopic study on uranyl carboxylate complexes formed at the surface layer of Sulfolobus acidocaldarius. Dalton Transactions, 2015, 44, 2684-2692.	3.3	22
48	Biosorption and Biomineralization of U(VI) by the Marine Bacterium Idiomarina loihiensis MAH1: Effect of Background Electrolyte and pH. PLoS ONE, 2014, 9, e91305.	2.5	39
49	Microbial communities in bentonite formations and their interactions with uranium. Applied Geochemistry, 2014, 49, 77-86.	3.0	48
50	Interaction of U(VI) with Schizophyllum commune studied by microscopic and spectroscopic methods. BioMetals, 2014, 27, 775-785.	4.1	23
51	Decrease of U(VI) Immobilization Capability of the Facultative Anaerobic Strain Paenibacillus sp. JG-TB8 under Anoxic Conditions Due to Strongly Reduced Phosphatase Activity. PLoS ONE, 2014, 9, e102447.	2.5	24
52	Molecular Structure, UV/Vis Spectra, and Cyclic Voltammograms of Mn(II), Co(II), and Zn(II) 5,10,15,20-Tetraphenyl-21-oxaporphyrins. Inorganic Chemistry, 2013, 52, 1515-1524.	4.0	23
53	Microbial synthesis of core/shell gold/palladium nanoparticles for applications in green chemistry. Journal of the Royal Society Interface, 2012, 9, 1705-1712.	3.4	95
54	Strong Paramagnetism of Gold Nanoparticles Deposited on aSulfolobus acidocaldarius<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>S</mml:mi></mml:math>Layer. Physical Review Letters, 2012, 109, 247203.	7.8	33

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55	Magnetic Au Nanoparticles on Archaeal S-Layer Ghosts as Templates. Nanomaterials and Nanotechnology, 2011, 1, 13.	3.0	18
56	Bio-precipitation of uranium by two bacterial isolates recovered from extreme environments as estimated by potentiometric titration, TEM and X-ray absorption spectroscopic analyses. Journal of Hazardous Materials, 2011, 197, 1-10.	12.4	89
57	Selective Oxidation of Benzyl-Alcohol over Biomass-Supported Au/Pd Bioinorganic Catalysts. Topics in Catalysis, 2011, 54, 1110-1114.	2.8	27
58	Bioaccumulation of U(VI) by Sulfolobus acidocaldarius under moderate acidic conditions. Radiochimica Acta, 2011, 99, 543-554.	1.2	15
59	S-Layer protein fromLysinibacillus sphaericusJG-A12 as matrix for Au^{III}sorption and Au-nanoparticle formation. Spectroscopy, 2010, 24, 177-181.	0.8	18
60	Biomineralization and biotransformations of actinide materials. MRS Bulletin, 2010, 35, 849-857.	3.5	23
61	Interactions of Sulfolobus acidocaldarius with uranium. Radiochimica Acta, 2010, 98, .	1.2	13
62	Bacterial biomineralization: new insights from Myxococcus -induced mineral precipitation. Geological Society Special Publication, 2010, 336, 31-50.	1.3	85
63	Accumulation of Heavy Metals by Micro-organisms: Biomineralization and Nanocluster Formation. , 2010, , 483-500.		12
64	Biogeochemical changes induced in uranium mining waste pile samples by uranyl nitrate treatments under anaerobic conditions. Geobiology, 2009, 7, 282-294.	2.4	22
65	Bacterial interactions with uranium: An environmental perspective. Journal of Contaminant Hydrology, 2008, 102, 285-295.	3.3	206
66	Uranium biomineralization by uranium mining waste isolates: a multidisciplinary approach study. , 2008, , 723-724.		1
67	Spectroscopic and Microscopic Characterization of Uranium Biomineralization inMyxococcus xanthus. Geomicrobiology Journal, 2007, 24, 441-449.	2.0	63
68	Novel supported Pd hydrogenation bionanocatalyst for hybrid homogeneous/heterogeneous catalysis. Catalysis Today, 2007, 128, 80-87.	4.4	109
69	Spectroscopic characterization of gold nanoparticles formed by cells and S-layer protein of Bacillus sphaericus JG-A12. Materials Science and Engineering C, 2007, 27, 188-192.	7.3	26
70	Magnetic properties of transition-metal nanoclusters on a biological substrate. Journal of Magnetism and Magnetic Materials, 2007, 310, e821-e823.	2.3	1
71	Microbacterium isolates from the vicinity of a radioactive waste depository and their interactions with uranium. FEMS Microbiology Ecology, 2007, 59, 694-705.	2.7	104
72	Secondary Structure and Pd(II) Coordination in S-Layer Proteins from Bacillus sphaericus Studied by Infrared and X-Ray Absorption Spectroscopy. Biophysical Journal, 2006, 91, 996-1007.	0.5	75

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73	Manufacturing and characterization of Pd nanoparticles formed on immobilized bacterial cells. Letters in Applied Microbiology, 2006, 43, 39-45.	2.2	26
74	Metal binding by bacteria from uranium mining waste piles and its technological applications. Biotechnology Advances, 2006, 24, 58-68.	11.7	171
75	Interaction mechanisms of bacterial strains isolated from extreme habitats with uranium. Radiochimica Acta, 2006, 94, 723-729.	1.2	54
76	The interaction of Desulfovibrio ÃspÃ¶ensis DSM 10631T with plutonium. Radiochimica Acta, 2006, 94, 815-824.	1.2	14
77	Complexation of Uranium by Cells and S-Layer Sheets of Bacillus sphaericus JG-A12. Applied and Environmental Microbiology, 2005, 71, 5532-5543.	3.1	246
78	Time-Resolved Laser Fluorescence Spectroscopy Study on the Interaction of Curium(III) withDesulfovibrio ÃspÃ¶ensisDSM 10631T. Environmental Science & Technology, 2004, 38, 1455-1459.	10.0	29
79	Complexation of uranium (VI) by three eco-types of Acidithiobacillus ferrooxidans studied using time-resolved laser-induced fluorescence spectroscopy and infrared spectroscopy. BioMetals, 2003, 16, 331-339.	4.1	66
80	Lanthanum fixation by Myxococcus xanthus: cellular location and extracellular polysaccharide observation. Chemosphere, 2003, 52, 113-120.	8.2	80
81	Characterization of U(VI)-Acidithiobacillus ferrooxidans complexes using EXAFS, transmission electron microscopy, and energy-dispersive X-ray analysis. Radiochimica Acta, 2003, 91, 583-592.	1.2	73
82	Molecular and atomic analysis of uranium complexes formed by three eco-types of Acidithiobacillus ferrooxidans. Biochemical Society Transactions, 2002, 30, 669-672.	3.4	27
83	Interactions of three eco-types of Acidithiobacillus ferrooxidans with U(VI). BioMetals, 2001, 14, 171-179.	4.1	37
84	Silver Sorption to Myxococcus xanthus Biomass. Geomicrobiology Journal, 2001, 18, 183-192.	2.0	18
85	Myxococcus xanthus biomass as biosorbent for lead. Journal of Applied Microbiology, 1998, 84, 63-67.	3.1	16
86	Comparative heavy metal biosorption study of brewery yeast and Myxococcus xanthus biomass. Chemosphere, 1997, 35, 2277-2283.	8.2	34
87	Biosorption of uranium by Myxococcus xanthus. International Biodeterioration and Biodegradation, 1997, 40, 107-114.	3.9	36
88	Brewery yeast as a biosorbent for uranium. Journal of Applied Bacteriology, 1996, 81, 283-287.	1.1	39