

Catherine Joulian

List of Publications by Year in descending order

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93
papers

3,010
citations

117625

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182427

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95
docs citations

95
times ranked

3451
citing authors

#	ARTICLE	IF	CITATIONS
1	Diversity Surveys and Evolutionary Relationships of <i>aoxB</i> Genes in Aerobic Arsenite-Oxidizing Bacteria. Applied and Environmental Microbiology, 2008, 74, 4567-4573.	3.1	134
2	Structure, Function, and Evolution of the <i>Thiomonas</i> spp. Genome. PLoS Genetics, 2010, 6, e1000859.	3.5	123
3	<i>Desulfatibacillum aliphaticivorans</i> gen. nov., sp. nov., an n-alkane- and n-alkene-degrading, sulfate-reducing bacterium. International Journal of Systematic and Evolutionary Microbiology, 2004, 54, 77-83.	1.7	103
4	Precipitation of arsenic sulphide from acidic water in a fixed-film bioreactor. Water Research, 2012, 46, 3923-3933.	11.3	100
5	Oxidation of arsenite by <i>Thiomonas</i> strains and characterization of <i>Thiomonas arsenivorans</i> sp. nov.. Antonie Van Leeuwenhoek, 2006, 89, 99-108.	1.7	97
6	Complete removal of arsenic and zinc from a heavily contaminated acid mine drainage via an indigenous SRB consortium. Journal of Hazardous Materials, 2017, 321, 764-772.	12.4	97
7	<i>Sulfobacillus benefaciens</i> sp. nov., an acidophilic facultative anaerobic Firmicute isolated from mineral bioleaching operations. Extremophiles, 2008, 12, 789-798.	2.3	90
8	Population Structure and Abundance of Arsenite-Oxidizing Bacteria along an Arsenic Pollution Gradient in Waters of the Upper Isle River Basin, France. Applied and Environmental Microbiology, 2010, 76, 4566-4570.	3.1	86
9	Molecular microbiology methods for environmental diagnosis. Environmental Chemistry Letters, 2016, 14, 423-441.	16.2	75
10	Quantitative Monitoring of Microbial Species during Bioleaching of a Copper Concentrate. Frontiers in Microbiology, 2016, 07, 2044.	3.5	73
11	<i>Desulfatibacillum alkenivorans</i> sp. nov., a novel n-alkene-degrading, sulfate-reducing bacterium, and emended description of the genus <i>Desulfatibacillum</i> . International Journal of Systematic and Evolutionary Microbiology, 2004, 54, 1639-1642.	1.7	67
12	Oxygen Tolerance of Sulfate-Reducing Bacteria in Activated Sludge. Environmental Science & Technology, 2004, 38, 2038-2043.	10.0	66
13	<i>Petrotoga halophila</i> sp. nov., a thermophilic, moderately halophilic, fermentative bacterium isolated from an offshore oil well in Congo. International Journal of Systematic and Evolutionary Microbiology, 2007, 57, 40-44.	1.7	65
14	Decoupling of arsenic and iron release from ferrihydrite suspension under reducing conditions: a biogeochemical model. Geochemical Transactions, 2007, 8, 12.	0.7	63
15	Relationship between bioleaching performance, bacterial community structure and mineralogy in the bioleaching of a copper concentrate in stirred-tank reactors. Applied Microbiology and Biotechnology, 2011, 89, 441-448.	3.6	62
16	As(III) oxidation by <i>Thiomonas arsenivorans</i> in up-flow fixed-bed reactors coupled to As sequestration onto zero-valent iron-coated sand. Water Research, 2010, 44, 5098-5108.	11.3	61
17	<i>Desulfonauticus submarinus</i> gen. nov., sp. nov., a novel sulfate-reducing bacterium isolated from a deep-sea hydrothermal vent. International Journal of Systematic and Evolutionary Microbiology, 2003, 53, 1585-1590.	1.7	57
18	Ecosystem effects of elevated CO ₂ concentrations on microbial populations at a terrestrial CO ₂ vent at Laacher See, Germany. Energy Procedia, 2009, 1, 1933-1939.	1.8	57

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19	Congruent Phylogenies of Most Common Small-Subunit rRNA and Dissimilatory Sulfite Reductase Gene Sequences Retrieved from Estuarine Sediments. <i>Applied and Environmental Microbiology</i> , 2001, 67, 3314-3318.	3.1	55
20	<i>Desulfomicrobium thermophilum</i> sp. nov., a novel thermophilic sulphate-reducing bacterium isolated from a terrestrial hot spring in Colombia. <i>Extremophiles</i> , 2007, 11, 295-303.	2.3	54
21	<i>Clostridium tunisiense</i> sp. nov., a new proteolytic, sulfur-reducing bacterium isolated from an olive mill wastewater contaminated by phosphogypse. <i>Anaerobe</i> , 2004, 10, 185-190.	2.1	53
22	<i>Methanobacterium oryzae</i> sp. nov., a novel methanogenic rod isolated from a Philippines ricefield.. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2000, 50, 525-528.	1.7	51
23	Enhanced chalcopyrite dissolution in stirred tank reactors by temperature increase during bioleaching. <i>Hydrometallurgy</i> , 2018, 179, 125-131.	4.3	51
24	Recovery of metals in a double-stage continuous bioreactor for acidic bioleaching of printed circuit boards (PCBs). <i>Separation and Purification Technology</i> , 2020, 238, 116481.	7.9	50
25	<i>Desulfatiferula olefinivorans</i> gen. nov., sp. nov., a long-chain n-alkene-degrading, sulfate-reducing bacterium. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2007, 57, 2699-2702.	1.7	48
26	Reclassification of the sulfate- and nitrate-reducing bacterium <i>Desulfovibrio vulgaris</i> subsp. <i>oxamicus</i> as <i>Desulfovibrio oxamicus</i> sp. nov., comb. nov.. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2006, 56, 1495-1499.	1.7	46
27	A Simple Biogeochemical Process Removing Arsenic from a Mine Drainage Water. <i>Geomicrobiology Journal</i> , 2006, 23, 201-211.	2.0	46
28	Biological attenuation of arsenic and iron in a continuous flow bioreactor treating acid mine drainage (AMD). <i>Water Research</i> , 2017, 123, 594-606.	11.3	45
29	Continuous bioleaching of a pyrite concentrate in stirred reactors: Population dynamics and exopolysaccharide production vs. bioleaching performance. <i>Hydrometallurgy</i> , 2008, 94, 34-41.	4.3	43
30	Arsenite-induced changes in abundance and expression of arsenite transporter and arsenite oxidase genes of a soil microbial community. <i>Research in Microbiology</i> , 2013, 164, 457-465.	2.1	43
31	Evaluation of three activated carbons for combined adsorption and biodegradation of PCBs in aquatic sediment. <i>Water Research</i> , 2014, 59, 304-315.	11.3	41
32	Metal precipitation in an ethanol-fed, fixed-bed sulphate-reducing bioreactor. <i>Journal of Hazardous Materials</i> , 2011, 189, 677-684.	12.4	38
33	The efficiency of indigenous and designed consortia in bioleaching stirred tank reactors. <i>Minerals Engineering</i> , 2011, 24, 1149-1156.	4.3	37
34	Effect of pesticides and metabolites on groundwater bacterial community. <i>Science of the Total Environment</i> , 2017, 576, 879-887.	8.0	37
35	Kinetics of bacterial sulfate reduction in an activated sludge plant. <i>FEMS Microbiology Ecology</i> , 2003, 46, 129-137.	2.7	36
36	Continuous production of a biogenic ferric iron lixiviant for the bioleaching of printed circuit boards (PCBs). <i>Hydrometallurgy</i> , 2018, 180, 180-191.	4.3	34

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37	Bioleaching to reprocess sulfidic polymetallic primary mining residues: Determination of metal leaching mechanisms. <i>Hydrometallurgy</i> , 2020, 197, 105484.	4.3	29
38	Characterization, morphology and composition of biofilm and precipitates from a sulphate-reducing fixed-bed reactor. <i>Journal of Hazardous Materials</i> , 2008, 153, 514-524.	12.4	28
39	Influence of dissolved oxygen on the bioleaching efficiency under oxygen enriched atmosphere. <i>Minerals Engineering</i> , 2017, 106, 64-70.	4.3	28
40	Effects of oxygen exposure on respiratory activities of <i>Desulfovibrio desulfuricans</i> strain DvO1 isolated from activated sludge. <i>FEMS Microbiology Ecology</i> , 2005, 53, 275-284.	2.7	25
41	Bioleaching of an organic-rich polymetallic concentrate using stirred-tank technology. <i>Hydrometallurgy</i> , 2009, 99, 137-143.	4.3	25
42	Proposal that the arsenite-oxidizing organisms <i>Thiomonas cuprina</i> and <i>Thiomonas arsenivorans</i> ™ be reclassified as strains of <i>Thiomonas delicata</i> , and emended description of <i>Thiomonas delicata</i> . <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2011, 61, 2816-2821.	1.7	25
43	Innovative CO ₂ pretreatment for enhancing biohydrogen production from the organic fraction of municipal solid waste (OFMSW). <i>International Journal of Hydrogen Energy</i> , 2012, 37, 14062-14071.	7.1	24
44	Mercury mobilization and speciation linked to bacterial iron oxide and sulfate reduction: A column study to mimic reactive transfer in an anoxic aquifer. <i>Journal of Contaminant Hydrology</i> , 2015, 180, 56-68.	3.3	24
45	Dynamics of Bacterial Communities Mediating the Treatment of an As-Rich Acid Mine Drainage in a Field Pilot. <i>Frontiers in Microbiology</i> , 2018, 9, 3169.	3.5	24
46	Enhanced heterotrophic denitrification in clay media: The role of mineral electron donors. <i>Chemical Geology</i> , 2014, 390, 87-99.	3.3	23
47	Dichloromethane biodegradation in multi-contaminated groundwater: Insights from biomolecular and compound-specific isotope analyses. <i>Water Research</i> , 2018, 142, 217-226.	11.3	23
48	Side Effects of Pesticides and Metabolites in Groundwater: Impact on Denitrification. <i>Frontiers in Microbiology</i> , 2021, 12, 662727.	3.5	23
49	Characterization of <i>Halanaerocella petrolearia</i> gen. nov., sp. nov., a new anaerobic moderately halophilic fermentative bacterium isolated from a deep subsurface hypersaline oil reservoir. <i>Extremophiles</i> , 2011, 15, 565-571.	2.3	21
50	Functional Genes and Bacterial Communities During Organohalide Respiration of Chloroethenes in Microcosms of Multi-Contaminated Groundwater. <i>Frontiers in Microbiology</i> , 2019, 10, 89.	3.5	21
51	A field-pilot for passive bioremediation of As-rich acid mine drainage. <i>Journal of Environmental Management</i> , 2019, 232, 910-918.	7.8	21
52	Chlorinated ethene biodegradation and associated bacterial taxa in multi-polluted groundwater: Insights from biomolecular markers and stable isotope analysis. <i>Science of the Total Environment</i> , 2021, 763, 142950.	8.0	19
53	Electro-stimulated biological production of hydrogen from municipal solid waste. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 10682-10692.	7.1	18
54	Effect of temperature, gas phase composition, pH and microbial activity on As, Zn, Pb and Cd mobility in selected soils in the Ebro and Meuse Basins in the context of global change. <i>Environmental Pollution</i> , 2007, 148, 749-758.	7.5	17

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55	Temperature and nutrients as drivers of microbially mediated arsenic oxidation and removal from acid mine drainage. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 2413-2424.	3.6	17
56	CO ₂ mass transfer in bioleaching reactors: CO ₂ enrichment applied to a complex copper concentrate. <i>Hydrometallurgy</i> , 2018, 180, 277-286.	4.3	15
57	Rehabilitation of mine soils by phytostabilization: Does soil inoculation with microbial consortia stimulate <i>Agrostis</i> growth and metal(loid) immobilization?. <i>Science of the Total Environment</i> , 2021, 791, 148400.	8.0	15
58	Iron and arsenic speciation in marine sediments undergoing a resuspension event: the impact of biotic activity. <i>Journal of Soils and Sediments</i> , 2014, 14, 615-629.	3.0	14
59	Preservation of ancestral Cretaceous microflora recovered from a hypersaline oil reservoir. <i>Scientific Reports</i> , 2016, 6, 22960.	3.3	14
60	Bacterial Community Structure and Functional Gene Diversity Associated with Arsenic Reduction and Release in an Industrially Contaminated Soil. <i>Geomicrobiology Journal</i> , 2016, 33, 839-849.	2.0	14
61	Regulation of carbon and nitrogen exchange rates in biological soil crusts by intrinsic and land use factors in the Sahel area. <i>Soil Biology and Biochemistry</i> , 2014, 72, 133-144.	8.8	13
62	Shift in Natural Groundwater Bacterial Community Structure Due to Zero-Valent Iron Nanoparticles (nZVI). <i>Frontiers in Microbiology</i> , 2019, 10, 533.	3.5	13
63	Bioleaching of E-Waste: Influence of Printed Circuit Boards on the Activity of Acidophilic Iron-Oxidizing Bacteria. <i>Frontiers in Microbiology</i> , 2021, 12, 669738.	3.5	13
64	Relationship Between Sulphate Starvation and Chromate Reduction in a H ₂ -fed Fixed-film Bioreactor. <i>Water, Air, and Soil Pollution</i> , 2007, 183, 341-353.	2.4	12
65	Representative sampling of natural biofilms: influence of substratum type on the bacterial and fungal communities structure. <i>SpringerPlus</i> , 2016, 5, 822.	1.2	12
66	The structure and role of the microbial mat in sea salt production of the Sečovlje (Slovenia). <i>Science of the Total Environment</i> , 2018, 644, 1254-1267.	8.0	12
67	Microbial community response to environmental changes in a technosol historically contaminated by the burning of chemical ammunitions. <i>Science of the Total Environment</i> , 2019, 697, 134108.	8.0	12
68	Impact of Fe(III) (Oxyhydr)oxides Mineralogy on Iron Solubilization and Associated Microbial Communities. <i>Frontiers in Microbiology</i> , 2020, 11, 571244.	3.5	12
69	Impact of CO ₂ concentration on autotrophic metabolisms and carbon fate in saline aquifers – A case study. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 119, 61-76.	3.9	11
70	Genome Sequence of <i>Halomonas</i> sp. Strain A3H3, Isolated from Arsenic-Rich Marine Sediments. <i>Genome Announcements</i> , 2013, 1, .	0.8	11
71	Decrease of the level of extractable polychlorinated biphenyls in soil microcosms: Influence of granular activated carbon and inoculation by natural microbial consortia. <i>International Biodeterioration and Biodegradation</i> , 2015, 105, 127-136.	3.9	10
72	Hydraulic retention time affects bacterial community structure in an As-rich acid mine drainage (AMD) biotreatment process. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 9803-9813.	3.6	9

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73	Selection, Instrumentation and Characterization of a Pilot Site for CO ₂ Leakage Experimentation in a Superficial Aquifer. <i>Energy Procedia</i> , 2014, 63, 3172-3181.	1.8	8
74	Simple or complex organic substrates inhibit arsenite oxidation and aioA gene expression in two β -Proteobacteria strains. <i>Research in Microbiology</i> , 2020, 171, 13-20.	2.1	8
75	Modified zeolite-supported biofilm in service of pesticide biodegradation. <i>Environmental Science and Pollution Research</i> , 2021, 28, 45296-45316.	5.3	7
76	The Use of CARD-FISH to Evaluate the Quantitative Microbial Ecology Involved in the Continuous Bioleaching of a Cobaltiferous Pyrite. <i>Advanced Materials Research</i> , 0, 20-21, 565-568.	0.3	6
77	Continuous Bioleaching of a Cobaltiferous Pyrite in Stirred Reactors: Population Dynamics and EPS Production vs. Bioleaching Performances. <i>Advanced Materials Research</i> , 2007, 20-21, 62-65.	0.3	4
78	Microbial Populations in a 110 Ton-Scale Column for the Recovery of Metals from Black Schist Ores. <i>Advanced Materials Research</i> , 2007, 20-21, 170-170.	0.3	4
79	Bioprecipitation of Arsenic Sulphide at Low pH. <i>Advanced Materials Research</i> , 2009, 71-73, 581-584.	0.3	4
80	Adaptation and Evolution of Microbial Consortia in a Stirred Tank Reactor Bioleaching System: Indigenous Population versus a Defined Consortium. <i>Advanced Materials Research</i> , 2009, 71-73, 79-82.	0.3	4
81	Influence of agricultural amendments on arsenic biogeochemistry and phytotoxicity in a soil polluted by the destruction of arsenic-containing shells. <i>Journal of Hazardous Materials</i> , 2021, 409, 124580.	12.4	4
82	Effect of Temperature Ramping on Stirred Tank Bioleaching of a Copper Concentrate. <i>Solid State Phenomena</i> , 0, 262, 3-6.	0.3	3
83	Influence of CO ₂ Supplementation on the Bioleaching of a Copper Concentrate from Kupferschiefer Ore. <i>Solid State Phenomena</i> , 0, 262, 242-245.	0.3	3
84	Bioleaching of pyritic coal wastes: bioprospecting and efficiency of selected consortia. <i>Research in Microbiology</i> , 2020, 171, 260-270.	2.1	3
85	Laboratory-Scale Bio-Treatment of Real Arsenic-Rich Acid Mine Drainage. <i>Water, Air, and Soil Pollution</i> , 2021, 232, 1.	2.4	3
86	Rapid and simple As(III) quantification using a turbidimetric test for the monitoring of microbial arsenic bio-transformation. <i>Journal of Microbiological Methods</i> , 2020, 177, 106026.	1.6	3
87	Phenotypic and phylogenetic characterization of dominant culturable methanogens isolated from ricefield soils. <i>FEMS Microbiology Ecology</i> , 1998, 25, 135-145.	2.7	3
88	Multi-Bioindicators to Assess Soil Microbial Activity in the Context of an Artificial Groundwater Recharge with Treated Wastewater: A Large-Scale Pilot Experiment. <i>Journal of Microbiology and Biotechnology</i> , 2014, 24, 843-853.	2.1	2
89	Effects of ammonium sulphate fertilization on arsenic mobility, speciation, and toxicity in soils planted with barley. <i>Journal of Soils and Sediments</i> , 2022, 22, 2422-2434.	3.0	2
90	Start-Up and Performance of a Full Scale Passive System In-Cluding Biofilters for the Treatment of Fe, as and Mn in a Neutral Mine Drainage. <i>Water (Switzerland)</i> , 2022, 14, 1963.	2.7	2

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91	Microbial and Geochemical Investigation down to 2000 m Deep Triassic Rock (Meuse/Haute Marne,) Tj ETQq1 1 0.784314 rgBT /Over 2.2	1	1
92	Characterization of an agricultural site historically polluted by the destruction of arsenic-containing chemical weapons. , 2019, , 241-242.		1
93	Biogeochemical behaviour of geogenic As in a confined aquifer of the Sologne region, France. Chemosphere, 2022, 304, 135252.	8.2	1