Lynne E Macaskie

List of Publications by Year
in descending order

129	6,803	66250	78623
papers	citations	44 h-index	77 g-index

131	131	131	5433
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enzymatic Recovery of Elemental Palladium by Using Sulfate-Reducing Bacteria. Applied and Environmental Microbiology, 1998, 64, 4607-4609.	1.4	286
2	Uranium bioaccumulation by a Citrobacter sp. as a result of enzymically mediated growth of polycrystalline HUO2PO4. Science, 1992, 257, 782-784.	6.0	277
3	Bioreduction and biocrystallization of palladium byDesulfovibrio desulfuricans NCIMB 8307. Biotechnology and Bioengineering, 2002, 80, 369-379.	1.7	272
4	Microbially-Enhanced Chemisorption of Heavy Metals:Â A Method for the Bioremediation of Solutions Containing Long-Lived Isotopes of Neptunium and Plutonium. Environmental Science & Technology, 1998, 32, 184-187.	4.6	232
5	The Application of Biotechnology to the Treatment of Wastes Produced from the Nuclear Fuel Cycle: Biodegradation and Bioaccumulation as a Means of Treating Radionuclide-Containing Streams. Critical Reviews in Biotechnology, 1991, 11, 41-112.	5.1	229
6	Enzymically mediated bioprecipitation of uranium by a Citrobacter sp.: a concerted role for exocellular lipopolysaccharide and associated phosphatase in biomineral formation. Microbiology (United Kingdom), 2000, 146, 1855-1867.	0.7	215
7	Chromate reduction and 16S rRNA identification of bacteria isolated from a Cr(VI)-contaminated site. Applied Microbiology and Biotechnology, 2001, 57, 257-261.	1.7	205
8	Involvement of hydrogenases in the formation of highly catalytic Pd(0) nanoparticles by bioreduction of Pd(II) using Escherichia coli mutant strains. Microbiology (United Kingdom), 2010, 156, 2630-2640.	0.7	197
9	Palladium and platinum recovery from bicomponent mixtures using chitosan derivatives. Hydrometallurgy, 2005, 76, 131-147.	1.8	161
10	Biorecovery of gold by Escherichia coli and Desulfovibrio desulfuricans. Biotechnology and Bioengineering, 2008, 99, 1055-1064.	1.7	158
11	Palladium and gold removal and recovery from precious metal solutions and electronic scrap leachates by Desulfovibrio desulfuricans. Biotechnology Letters, 2006, 28, 1475-1484.	1.1	134
12	Integrating dark and light bio-hydrogen production strategies: towards the hydrogen economy. Reviews in Environmental Science and Biotechnology, 2009, 8, 149-185.	3.9	131
13	Metal reduction by sulphate-reducing bacteria: physiological diversity and metal specificity. Hydrometallurgy, 2001, 59, 327-337.	1.8	116
14	Dissecting the roles ofEscherichia colihydrogenases in biohydrogen production. FEMS Microbiology Letters, 2008, 278, 48-55.	0.7	114
15	An immobilized cell bioprocess for the removal of heavy metals from aqueous flows. Journal of Chemical Technology and Biotechnology, 1990, 49, 357-379.	1.6	113
16	Bioaccumulation of palladium byDesulfovibrio desulfuricans. Journal of Chemical Technology and Biotechnology, 2002, 77, 593-601.	1.6	109
17	Sulphate-reducing bacteria, palladium and the reductive dehalogenation of chlorinated aromatic compounds. Biodegradation, 2003, 14, 83-90.	1.5	109
18	Biosorption of palladium and platinum by sulfate-reducing bacteria. Journal of Chemical Technology and Biotechnology, 2004, 79, 49-56.	1.6	106

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19	Biorecovered Precious Metals from Industrial Wastes:Â Single-Step Conversion of a Mixed Metal Liquid Waste to a Bioinorganic Catalyst with Environmental Application. Environmental Science & Technology, 2006, 40, 1015-1021.	4.6	102
20	Biotechnological Application of Metal-reducing Microorganisms. Advances in Applied Microbiology, 2003, 53, 85-128.	1.3	96
21	Microbial synthesis of core/shell gold/palladium nanoparticles for applications in green chemistry. Journal of the Royal Society Interface, 2012, 9, 1705-1712.	1.5	95
22	Biological Reduction and Removal of Np(V) by Two Microorganisms. Environmental Science & Technology, 2000, 34, 1297-1301.	4.6	90
23	A two-stage, two-organism process for biohydrogen from glucose. International Journal of Hydrogen Energy, 2006, 31, 1514-1521.	3.8	86
24	Catalytic activity of biomass-supported Pd nanoparticles: Influence of the biological component in catalytic efficacy and potential application in â€˜greenâ€™ synthesis of fine chemicals and pharmaceuticals. Applied Catalysis B: Environmental, 2014, 147, 651-665.	10.8	86
25	Effect of nutrient limitation on biofilm formation and phosphatase activity of a Citrobacter sp.. Microbiology (United Kingdom), 2002, 148, 277-288.	0.7	80
26	Biodegradation of Metal-EDTA Complexes by an Enriched Microbial Population. Applied and Environmental Microbiology, 1998, 64, 1319-1322.	1.4	79
27	Bioremediation of uranium-bearing wastewater: Biochemical and chemical factors influencing bioprocess application. , 1997, 53, 100-109.		73
28	Localization of enzymically enhanced heavy metal accumulation by Citrobacter sp. and metal accumulation in vitro by liposomes containing entrapped enzyme. Microbiology (United Kingdom), 1997, 143, 2497-2507.	0.7	68
29	Influence of pH, competing ions and salinity on the sorption of strontium and cobalt onto biogenic hydroxyapatite. Scientific Reports, 2016, 6, 23361.	1.6	66
30	The use of Escherichia coli bearing a phoN gene for the removal of uranium and nickel from aqueous flows. Applied Microbiology and Biotechnology, 1998, 50, 266-272.	1.7	65
31	Effect of complexing agents on reduction of Cr(VI) byDesulfovibrio vulgaris ATCC 29579. Biotechnology and Bioengineering, 2002, 79, 389-397.	1.7	65
32	Reduction of Cr(VI) by ?palladized? biomass ofDesulfovibrio desulfuricans ATCC 29577. Biotechnology and Bioengineering, 2004, 87, 104-109.	1.7	63
33	Characterization of intracellular palladium nanoparticles synthesized by Desulfovibrio desulfuricans and Bacillus benzeovorans. Journal of Nanoparticle Research, 2015, 17, 264.	0.8	61
34	A novel isolate of Desulfovibrio sp. with enhanced ability to reduce Cr(VI). Biotechnology Letters, 2001, 23, 683-687.	1.1	59
35	Enhancement of uranium bioaccumulation by aCitrobacter sp. via enzymically-mediated growth of polycrystalline NH4UO2PO4. Journal of Chemical Technology and Biotechnology, 1995, 63, 101-108.	1.6	58
36	Bioremediation of Radionuclide-Containing Wastewaters. , 0, , 277-327.		56

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37	Enzymatically-mediated uranium accumulation and uranium recovery using aCitrobacter sp. Immobilised as a biofilm within a plug-flow reactor. Journal of Chemical Technology and Biotechnology, 1995, 63, 1-16.	1.6	55
38	Phosphate release and heavy metal accumulation by biofilm-immobilized and chemically-coupled cells of acitrobacter sp. pre-grown in continuous culture. , 1999, 63, 87-97.		54
39	Applications of bacterial hydrogenases in waste decontamination, manufacture of novel bionanocatalysts and in sustainable energy. Biochemical Society Transactions, 2005, 33, 76-79.	1.6	54
40	In-situ catalytic upgrading of heavy oil using dispersed bionanoparticles supported on gram-positive and gram-negative bacteria. Applied Catalysis B: Environmental, 2017, 203, 807-819.	10.8	54
41	Biorefining of precious metals from wastes: an answer to manufacturing of cheap nanocatalysts for fuel cells and power generation via an integrated biorefinery?. Biotechnology Letters, 2010, 32, 1821-1828.	1.1	53
42	Reduction of Cr(VI) by immobilized cells ofDesulfovibrio vulgaris NCIMB 8303 andMicrobacterium sp. NCIMB 13776. Biotechnology and Bioengineering, 2005, 90, 589-596.	1.7	52
43	An integrated biohydrogen refinery: Synergy of photofermentation, extractive fermentation and hydrothermal hydrolysis of food wastes. Bioresource Technology, 2012, 119, 384-392.	4.8	52
44	Bioaccumulation of nickel by intercalation into polycrystalline hydrogen uranyl phosphate deposited via an enzymatic mechanism. Nature Biotechnology, 1996, 14, 635-638.	9.4	50
45	Nano-crystalline hydroxyapatite bio-mineral for the treatment of strontium from aqueous solutions. Biotechnology Letters, 2011, 33, 79-87.	1.1	50
46	A new approach for the recovery of precious metals from solution and from leachates derived from electronic scrap. Biotechnology and Bioengineering, 2007, 96, 631-639.	1.7	49
47	Manufacture of stable palladium and gold nanoparticles on native and genetically engineered flagella scaffolds. Biotechnology and Bioengineering, 2008, 101, 873-880.	1.7	49
48	Lanthanum accumalation from acidic solutions using aCitrobacter sp. immobilized in a flow-through bioreactor. Journal of Industrial Microbiology, 1995, 14, 271-280.	0.9	47
49	A novel non line-of-sight method for coating hydroxyapatite onto the surfaces of support materials by biomineralization. Journal of Biotechnology, 2005, 118, 187-200.	1.9	47
50	Biomassâ€supported palladium catalysts on Desulfovibrio desulfuricans and Rhodobacter sphaeroides. Biotechnology and Bioengineering, 2008, 99, 1045-1054.	1.7	47
51	Biosynthesis of Platinum Nanoparticles byEscherichia coliMC4100: Can Such Nanoparticles Exhibit Intrinsic Surface Enantioselectivity?. Langmuir, 2012, 28, 5267-5274.	1.6	47
52	Use of immobilized biofilm of Citrobacter sp. for the removal of uranium and lead from aqueous flows. Enzyme and Microbial Technology, 1987, 9, 2-4.	1.6	46
53	Hydrogenation of 2-Butyne-1,4-diol Using Novel Bio-Palladium Catalysts. Industrial & Engineering Chemistry Research, 2010, 49, 980-988.	1.8	44
54	Inactivation of theEscherichia coliK-12 twin-arginine translocation system promotes increased hydrogen production. FEMS Microbiology Letters, 2006, 262, 135-137.	0.7	42

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55	Utilisation of a hydrogen uranyl phosphate-based ion exchanger supported on a biofilm for the removal of cobalt, strontium and caesium from aqueous solutions. Hydrometallurgy, 2006, 83, 141-145.	1.8	42
56	Cadmium accumulation by microâ€organisms. Environmental Technology Letters, 1982, 3, 49-56.	0.4	41
57	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.	1.5	41
58	Dehalogenation of polychlorinated biphenyls and polybrominated diphenyl ethers using a hybrid bioinorganic catalyst. Journal of Environmental Monitoring, 2007, 9, 314.	2.1	40
59	Electro-extractive fermentation for efficient biohydrogen production. Bioresource Technology, 2012, 107, 166-174.	4.8	40
60	Bioaccumulation of lanthanum, uranium and thorium, and use of a model system to develop a method for the biologically-mediated removal of plutonium from solution. Journal of Chemical Technology and Biotechnology, 1998, 71, 15-26.	1.6	39
61	Fungal volatilization of arsenic and antimony and the sudden infant death syndrome. FEMS Microbiology Letters, 1998, 158, 261-265.	0.7	38
62	Novel catalytically active Pd/Ru bimetallic nanoparticles synthesized by Bacillus benzeovorans. Scientific Reports, 2019, 9, 4715.	1.6	38
63	Identification of the Nickel Uranyl Phosphate Deposits onCitrobactersp. Cells by Electron Microscopy with Electron Probe X-ray Microanalysis and by Proton-Induced X-ray Emission Analysis. Environmental Science & Technology, 1998, 32, 760-765.	4.6	37
64	Selective hydrogenation using palladium bioinorganic catalyst. Applied Catalysis B: Environmental, 2016, 199, 108-122.	10.8	36
65	Title is missing!. Biotechnology Letters, 1998, 20, 857-863.	1.1	35
66	[20] Study of biofilm within a packed-bed reactor by theee-dimensional magnetic resonance imaging. Methods in Enzymology, 2001, 337, 285-305.	0.4	35
67	Title is missing!. Biotechnology Letters, 2001, 23, 1749-1757.	1.1	35
68	Growth of naturally occurring microbial isolates in metal-citrate medium and bioremediation of metal-citrate wastes. Journal of Chemical Technology and Biotechnology, 2000, 75, 187-195.	1.6	34
69	Advances and bottlenecks in microbial hydrogen production. Microbial Biotechnology, 2017, 10, 1120-1127.	2.0	32
70	Cadmium accumulation by immobilized cells of aCitrobacterSP.. Environmental Technology Letters, 1984, 5, 177-186.	0.4	31
71	Nanoparticles of Pd supported on bacterial biomass for hydroprocessing crude bio-oil. Fuel, 2017, 209, 449-456.	3.4	31
72	A New Method for Mercury Removal. Biotechnology Letters, 2005, 27, 1649-1655.	1.1	30

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73	Platinum and Palladium Bio-Synthesized Nanoparticles as Sustainable Fuel Cell Catalysts. Frontiers in Energy Research, 2019, 7, .	1.2	29
74	Polyhydroxybutyrate accumulation by a Serratia sp.. Biotechnology Letters, 2008, 30, 481-491.	1.1	27
75	Characterization of Palladium Nanoparticles Produced by Healthy and Microwave-Injured Cells of Desulfovibrio desulfuricans and Escherichia coli. Nanomaterials, 2019, 9, 857.	1.9	26
76	Pd nanoparticles supported on reduced grapheneâ€"E. coli hybrid with enhanced crystallinity in bacterial biomass. RSC Advances, 2015, 5, 84093-84103.	1.7	25
77	Use of Desulfovibrio and Escherichia coli Pdâ€nanocatalysts in reduction of Cr(VI) and hydrogenolytic dehalogenation of polychlorinated biphenyls and used transformer oil. Journal of Chemical Technology and Biotechnology, 2012, 87, 1430-1435.	1.6	24
78	Comparison of the effects of dispersed noble metal (Pd) biomass supported catalysts with typical hydrogenation (Pd/C, Pd/Al2O3) and hydrotreatment catalysts (CoMo/Al2O3) for in-situ heavy oil upgrading with Toe-to-Heel Air Injection (THAI). Fuel, 2016, 180, 367-376.	3.4	24
79	Removal of the tetravalent actinide thorium from solution by a biocatalytic system. Journal of Chemical Technology and Biotechnology, 1995, 64, 87-95.	1.6	23
80	A Novel Aerobic Mechanism for Reductive Palladium Biomineralization and Recovery byEscherichia coli. Geomicrobiology Journal, 2016, 33, 230-236.	1.0	23
81	Microbially enhanced chemisorption of nickel into biologically synthesized hydrogen uranyl phosphate: A novel system for the removal and recovery of metals from aqueous solutions. , 1997, 54, 319-328.		22
82	Biosynthesis of zinc sulfide quantum dots using waste off-gas from a metal bioremediation process. RSC Advances, 2017, 7, 21484-21491.	1.7	22
83	A new bioinorganic process for the remediation of Cr(VI). Journal of Chemical Technology and Biotechnology, 2002, 77, 1169-1175.	1.6	21
84	Bacterial biosynthesis of a calcium phosphate bone-substitute material. Journal of Materials Science: Materials in Medicine, 2004, 15, 403-406.	1.7	21
85	A New Incorporation Mechanism for Trivalent Actinides into Bioapatite: A TRLFS and EXAFS Study. Langmuir, 2012, 28, 3845-3851.	1.6	21
86	The biodegradation of tributyl phosphate by naturally occurring microbial isolates. FEMS Microbiology Letters, 2006, 155, 155-159.	0.7	20
87	Metallic bionanocatalysts: potential applications as green catalysts and energy materials. Microbial Biotechnology, 2017, 10, 1171-1180.	2.0	20
88	Production of two phosphatases by a Citrobacter sp. grown in batch and continuous culture. Enzyme and Microbial Technology, 1999, 24, 218-224.	1.6	19
89	Measurement of flow field in biofilm reactors by 3-D magnetic resonance imaging. AICHE Journal, 2005, 51, 3072-3079.	1.8	19
90	Biorecovery of Gold from Jewellery Wastes by Escherichia Coli and Biomanufacture of Active Au-Nanomaterial. Advanced Materials Research, 2007, 20-21, 647-650.	0.3	18

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91	Microstructure and composition of biosynthetically synthesised hydroxyapatite. Journal of Materials Science: Materials in Medicine, 2008, 19, 3419-3427.	1.7	18
92	Bioremediation of Metals and Radionuclides. , 0, , 293-317.		18
93	Strontium accumulation by immobilized cells of aCitrobacter sp.. Biotechnology Letters, 1985, 7, 627-630.	1.1	17
94	Effect of substrate concentration and nitrate inhibition on product release and heavy metal removal by aCitrobacter sp.. , 1997, 55, 821-830.		17
95	Accumulation of zirconium and nickel byCitrobacter sp. Journal of Chemical Technology and Biotechnology, 1999, 74, 509-514.	1.6	17
96	Chapter 11 Biochemical basis of microbe-radionuclide interactions. Radioactivity in the Environment, 2002, , 313-342.	0.2	17
97	Direct solid state NMR observation of the 105Pd nucleus in inorganic compounds and palladium metal systems. Physical Chemistry Chemical Physics, 2018, 20, 26734-26743.	1.3	16
98	Reduction of Cr(VI) by palladized biomass ofDesulfovibrio vulgaris NCIMB 8303. Journal of Chemical Technology and Biotechnology, 2005, 80, 1378-1382.	1.6	14
99	Visualization of the Function of a Biofilm Reactor by Magnetic Resonance Imaging. Canadian Journal of Chemical Engineering, 2008, 83, 68-72.	0.9	14
100	Biorecovery of Platinum Group Metals from Secondary Sources. Advanced Materials Research, 2007, 20-21, 651-654.	0.3	13
101	Biorefining of platinum group metals from model waste solutions into catalytically active bimetallic nanoparticles. Microbial Biotechnology, 2018, 11, 359-368.	2.0	12
102	Biorecycling of Precious Metals and Rare Earth Elements. , 0, , .		11
103	Probing the viability of palladiumâ€challenged bacterial cells using flow cytometry. Journal of Chemical Technology and Biotechnology, 2019, 94, 295-301.	1.6	11
104	Biorecovery of Precious Metals from Wastes and Conversion into Fuel Cell Catalyst for Electricity Production. Advanced Materials Research, 0, 71-73, 729-732.	0.3	10
105	The role of sulfate as a competitive inhibitor of enzymatically-mediated heavy metal uptake byCitrobacter sp: implications in the bioremediation of acid mine drainage water using biogenic phosphate precipitant. Journal of Chemical Technology and Biotechnology, 1999, 74, 1149-1156.	1.6	9
106	Cr(VI) reduction by bio and bioinorganic catalysis via use of bio-H2: a sustainable approach for remediation of wastes. Journal of Chemical Technology and Biotechnology, 2007, 82, 182-189.	1.6	9
107	Continuous biocatalytic recovery of neodymium and europium. RSC Advances, 2015, 5, 8496-8506.	1.7	9
108	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.	1.5	9

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109	Inhibition of growth of Brochothrix thermosphacta by palmitic acid. Journal of Applied Bacteriology, 1982, 52, 339-343.	1.1	8
110	The effects of trialkyl lead compounds on bacteria. Environmental Technology Letters, 1985, 6, 237-250.	0.4	8
111	Accumulation of zirconium phosphate by a Serratia sp.: a benign system for the removal of radionuclides from aqueous flows. Biotechnology Letters, 2010, 32, 1419-1427.	1.1	8
112	The Role of Thiamine as a Factor for the Growth of Brochothrix thermosphacta. Journal of Applied Bacteriology, 1981, 50, 267-273.	1.1	7
113	The use of bioreactor kinetics to quantify the effects of interfering agents on bioreactor efficiency: ?Proof of principle? using uranium-accumulating Citrobacter sp. in a plug flow reactor. Biotechnology Letters, 1990, 4, 83-88.	0.5	7
114	Electron Paramagnetic Resonance Analysis of Active Bio-Pd-Based Electrodes for Fuel Cells. Advanced Materials Research, 0, 71-73, 737-740.	0.3	7
115	Hydroxyapatite Biosynthesis by aSerratiasp. and Application of Nanoscale Bio-HA in the Recovery of Strontium and Europium. Geomicrobiology Journal, 2016, 33, 267-273.	1.0	7
116	The biodegradation of tributyl phosphate by naturally occurring microbial isolates. FEMS Microbiology Letters, 1997, 155, 155-9.	0.7	7
117	Selective hydrogenation catalyst made via heat-processing of biogenic Pd nanoparticles and novel â€˜greenâ€™ catalyst for Heck coupling using waste sulfidogenic bacteria. Applied Catalysis B: Environmental, 2022, 306, 121059.	10.8	7
118	Glycerol utilization by Brochothrix thermosphacta*. Journal of Applied Bacteriology, 1984, 56, 137-143.	1.1	5
119	Local magnetism in palladium bionanomaterials probed by muon spectroscopy. Biotechnology Letters, 2011, 33, 969-976.	1.1	5
120	Eu³⁺ Sequestration by Biogenic Nano-Hydroxyapatite Synthesized at Neutral and Alkaline pH. Geomicrobiology Journal, 2017, 34, 753-759.	1.0	5
121	Biorecovery of Uranium from Minewaters into Pure Mineral Product at the Expense of Plant Wastes. Advanced Materials Research, 2009, 71-73, 621-624.	0.3	4
122	Biotechnology Processes for Scalable, Selective Rare Earth Element Recovery. , 0, , .		3
123	Todayâ€™s Wastes, Tomorrowâ€™s Materials for Environmental Protection. Advanced Materials Research, 0, 71-73, 541-548.	0.3	2
124	A Study of Biofilm and Non-Line-of-Sight Bio-Hydroxyapatite Coatings Using a <i>Serratia</i> sp.. Advanced Materials Research, 0, 71-73, 741-744.	0.3	2
125	Bacterially Derived Nanomaterials and Enzyme-Driven Lipid-Associated Metallic Particle Catalyst Formation. Behavior Research Methods, 2013, 18, 237-261.	2.3	2
126	Enhanced hydrogenation catalyst synthesized by DesulfovibrioÂdesulfuricans exposed to a radio frequency magnetic field. Microbial Biotechnology, 2021, 14, 2041-2058.	2.0	2

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127	A Novel Fuel Cell Catalyst for Clean Energy Production Based on a Bionanocatalyst. Advanced Materials Research, 2007, 20-21, 655-658.	0.3	1
128	A Novel Hydrogenation and Hydrogenolysis Catalyst Using Palladized Biomass of Gram-negative and Gram-positive Bacteria. Advanced Materials Research, 2007, 20-21, 603-606.	0.3	1
129	Coupled Biohydrogen Production and Bio-Nanocatalysis for Dual Energy from Cellulose: Towards Cellulosic Waste Up-Conversion into Biofuels. Catalysts, 2022, 12, 577.	1.6	1