Lynne E Macaskie

List of Publications by Year
in descending order

129	6,803	57758 44	69250 77
papers	citations	h-index	g-index

131	131	131	4852
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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.	20.2	7
2	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
3	Enhanced hydrogenation catalyst synthesized by DesulfovibrioÂdesulfuricans exposed to a radio frequency magnetic field. Microbial Biotechnology, 2021, 14, 2041-2058.	4.2	2
4	Probing the viability of palladiumâ€challenged bacterial cells using flow cytometry. Journal of Chemical Technology and Biotechnology, 2019, 94, 295-301.	3.2	11
5	Platinum and Palladium Bio-Synthesized Nanoparticles as Sustainable Fuel Cell Catalysts. Frontiers in Energy Research, 2019, 7, .	2.3	29
6	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
7	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
8	Characterization of Palladium Nanoparticles Produced by Healthy and Microwave-Injured Cells of Desulfovibrio desulfuricans and Escherichia coli. Nanomaterials, 2019, 9, 857.	4.1	26
9	Novel catalytically active Pd/Ru bimetallic nanoparticles synthesized by Bacillus benzeovorans. Scientific Reports, 2019, 9, 4715.	3.3	38
10	Biorefining of platinum group metals from model waste solutions into catalytically active bimetallic nanoparticles. Microbial Biotechnology, 2018, 11, 359-368.	4.2	12
11	Direct solid state NMR observation of the 105Pd nucleus in inorganic compounds and palladium metal systems. Physical Chemistry Chemical Physics, 2018, 20, 26734-26743.	2.8	16
12	Eu³⁺ Sequestration by Biogenic Nano-Hydroxyapatite Synthesized at Neutral and Alkaline pH. Geomicrobiology Journal, 2017, 34, 753-759.	2.0	5
13	Biosynthesis of zinc sulfide quantum dots using waste off-gas from a metal bioremediation process. RSC Advances, 2017, 7, 21484-21491.	3.6	22
14	Nanoparticles of Pd supported on bacterial biomass for hydroprocessing crude bio-oil. Fuel, 2017, 209, 449-456.	6.4	31
15	Metallic bionanocatalysts: potential applications as green catalysts and energy materials. Microbial Biotechnology, 2017, 10, 1171-1180.	4.2	20
16	Advances and bottlenecks in microbial hydrogen production. Microbial Biotechnology, 2017, 10, 1120-1127.	4.2	32
17	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.	20.2	54
18	Selective hydrogenation using palladium bioinorganic catalyst. Applied Catalysis B: Environmental, 2016, 199, 108-122.	20.2	36

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19	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.	6.4	24
20	Influence of pH, competing ions and salinity on the sorption of strontium and cobalt onto biogenic hydroxyapatite. Scientific Reports, 2016, 6, 23361.	3.3	66
21	A Novel Aerobic Mechanism for Reductive Palladium Biomineralization and Recovery byEscherichia coli. Geomicrobiology Journal, 2016, 33, 230-236.	2.0	23
22	Hydroxyapatite Biosynthesis by aSerratiasp. and Application of Nanoscale Bio-HA in the Recovery of Strontium and Europium. Geomicrobiology Journal, 2016, 33, 267-273.	2.0	7
23	Characterization of intracellular palladium nanoparticles synthesized by Desulfovibrio desulfuricans and Bacillus benzeovorans. Journal of Nanoparticle Research, 2015, 17, 264.	1.9	61
24	Pd nanoparticles supported on reduced grapheneâ€“E. coli hybrid with enhanced crystallinity in bacterial biomass. RSC Advances, 2015, 5, 84093-84103.	3.6	25
25	Continuous biocatalytic recovery of neodymium and europium. RSC Advances, 2015, 5, 8496-8506.	3.6	9
26	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.	20.2	86
27	Bacterially Derived Nanomaterials and Enzyme-Driven Lipid-Associated Metallic Particle Catalyst Formation. Behavior Research Methods, 2013, 18, 237-261.	4.0	2
28	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
29	A New Incorporation Mechanism for Trivalent Actinides into Bioapatite: A TRLFS and EXAFS Study. Langmuir, 2012, 28, 3845-3851.	3.5	21
30	An integrated biohydrogen refinery: Synergy of photofermentation, extractive fermentation and hydrothermal hydrolysis of food wastes. Bioresource Technology, 2012, 119, 384-392.	9.6	52
31	Biosynthesis of Platinum Nanoparticles byEscherichia coliMC4100: Can Such Nanoparticles Exhibit Intrinsic Surface Enantioselectivity?. Langmuir, 2012, 28, 5267-5274.	3.5	47
32	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.	3.2	24
33	Electro-extractive fermentation for efficient biohydrogen production. Bioresource Technology, 2012, 107, 166-174.	9.6	40
34	Nano-crystalline hydroxyapatite bio-mineral for the treatment of strontium from aqueous solutions. Biotechnology Letters, 2011, 33, 79-87.	2.2	50
35	Local magnetism in palladium bionanomaterials probed by muon spectroscopy. Biotechnology Letters, 2011, 33, 969-976.	2.2	5
36	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.	2.2	8

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37	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.	2.2	53
38	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.	1.8	197
39	Hydrogenation of 2-Butyne-1,4-diol Using Novel Bio-Palladium Catalysts. Industrial & Engineering Chemistry Research, 2010, 49, 980-988.	3.7	44
40	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
41	Integrating dark and light bio-hydrogen production strategies: towards the hydrogen economy. Reviews in Environmental Science and Biotechnology, 2009, 8, 149-185.	8.1	131
42	Microstructure and composition of biosynthetically synthesised hydroxyapatite. Journal of Materials Science: Materials in Medicine, 2008, 19, 3419-3427.	3.6	18
43	Polyhydroxybutyrate accumulation by a Serratia sp.. Biotechnology Letters, 2008, 30, 481-491.	2.2	27
44	Visualization of the Function of a Biofilm Reactor by Magnetic Resonance Imaging. Canadian Journal of Chemical Engineering, 2008, 83, 68-72.	1.7	14
45	Biorecovery of gold by Escherichia coli and Desulfovibrio desulfuricans. Biotechnology and Bioengineering, 2008, 99, 1055-1064.	3.3	158
46	Biomassâ€supported palladium catalysts on Desulfovibrio desulfuricans and Rhodobacter sphaeroides. Biotechnology and Bioengineering, 2008, 99, 1045-1054.	3.3	47
47	Manufacture of stable palladium and gold nanoparticles on native and genetically engineered flagella scaffolds. Biotechnology and Bioengineering, 2008, 101, 873-880.	3.3	49
48	Dissecting the roles ofEscherichia colihydrogenases in biohydrogen production. FEMS Microbiology Letters, 2008, 278, 48-55.	1.8	114
49	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
50	Biorecovery of Platinum Group Metals from Secondary Sources. Advanced Materials Research, 2007, 20-21, 651-654.	0.3	13
51	A Novel Fuel Cell Catalyst for Clean Energy Production Based on a Bionanocatalyst. Advanced Materials Research, 2007, 20-21, 655-658.	0.3	1
52	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
53	Dehalogenation of polychlorinated biphenyls and polybrominated diphenyl ethers using a hybrid bioinorganic catalyst. Journal of Environmental Monitoring, 2007, 9, 314.	2.1	40
54	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.	3.3	49

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55	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.	3.2	9
56	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.	10.0	102
57	The biodegradation of tributyl phosphate by naturally occurring microbial isolates. FEMS Microbiology Letters, 2006, 155, 155-159.	1.8	20
58	Inactivation of theEscherichia coliK-12 twin-arginine translocation system promotes increased hydrogen production. FEMS Microbiology Letters, 2006, 262, 135-137.	1.8	42
59	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.	4.3	42
60	A two-stage, two-organism process for biohydrogen from glucose. International Journal of Hydrogen Energy, 2006, 31, 1514-1521.	7.1	86
61	Palladium and gold removal and recovery from precious metal solutions and electronic scrap leachates by Desulfovibrio desulfuricans. Biotechnology Letters, 2006, 28, 1475-1484.	2.2	134
62	Applications of bacterial hydrogenases in waste decontamination, manufacture of novel bionanocatalysts and in sustainable energy. Biochemical Society Transactions, 2005, 33, 76-79.	3.4	54
63	Palladium and platinum recovery from bicomponent mixtures using chitosan derivatives. Hydrometallurgy, 2005, 76, 131-147.	4.3	161
64	Reduction of Cr(VI) by immobilized cells ofDesulfovibrio vulgaris NCIMB 8303 andMicrobacterium sp. NCIMB 13776. Biotechnology and Bioengineering, 2005, 90, 589-596.	3.3	52
65	Measurement of flow field in biofilm reactors by 3-D magnetic resonance imaging. AICHE Journal, 2005, 51, 3072-3079.	3.6	19
66	Reduction of Cr(VI) by palladized biomass ofDesulfovibrio vulgaris NCIMB 8303. Journal of Chemical Technology and Biotechnology, 2005, 80, 1378-1382.	3.2	14
67	A New Method for Mercury Removal. Biotechnology Letters, 2005, 27, 1649-1655.	2.2	30
68	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.	3.8	47
69	Bacterial biosynthesis of a calcium phosphate bone-substitute material. Journal of Materials Science: Materials in Medicine, 2004, 15, 403-406.	3.6	21
70	Reduction of Cr(VI) by ?palladized? biomass ofDesulfovibrio desulfuricans ATCC 29577. Biotechnology and Bioengineering, 2004, 87, 104-109.	3.3	63
71	Biosorption of palladium and platinum by sulfate-reducing bacteria. Journal of Chemical Technology and Biotechnology, 2004, 79, 49-56.	3.2	106
72	Sulphate-reducing bacteria, palladium and the reductive dehalogenation of chlorinated aromatic compounds. Biodegradation, 2003, 14, 83-90.	3.0	109

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73	Biotechnological Application of Metal-reducing Microorganisms. Advances in Applied Microbiology, 2003, 53, 85-128.	2.4	96
74	Chapter 11 Biochemical basis of microbe-radionuclide interactions. Radioactivity in the Environment, 2002, , 313-342.	0.2	17
75	Bioaccumulation of palladium byDesulfovibrio desulfuricans. Journal of Chemical Technology and Biotechnology, 2002, 77, 593-601.	3.2	109
76	A new bioinorganic process for the remediation of Cr(VI). Journal of Chemical Technology and Biotechnology, 2002, 77, 1169-1175.	3.2	21
77	Effect of complexing agents on reduction of Cr(VI) byDesulfovibrio vulgaris ATCC 29579. Biotechnology and Bioengineering, 2002, 79, 389-397.	3.3	65
78	Bioreduction and biocrystallization of palladium byDesulfovibrio desulfuricans NCIMB 8307. Biotechnology and Bioengineering, 2002, 80, 369-379.	3.3	272
79	Effect of nutrient limitation on biofilm formation and phosphatase activity of a Citrobacter sp.. Microbiology (United Kingdom), 2002, 148, 277-288.	1.8	80
80	[20] Study of biofilm within a packed-bed reactor by theee-dimensional magnetic resonance imaging. Methods in Enzymology, 2001, 337, 285-305.	1.0	35
81	Chromate reduction and 16S rRNA identification of bacteria isolated from a Cr(VI)-contaminated site. Applied Microbiology and Biotechnology, 2001, 57, 257-261.	3.6	205
82	A novel isolate of Desulfovibrio sp. with enhanced ability to reduce Cr(VI). Biotechnology Letters, 2001, 23, 683-687.	2.2	59
83	Title is missing!. Biotechnology Letters, 2001, 23, 1749-1757.	2.2	35
84	Metal reduction by sulphate-reducing bacteria: physiological diversity and metal specificity. Hydrometallurgy, 2001, 59, 327-337.	4.3	116
85	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.	3.2	34
86	Biological Reduction and Removal of Np(V) by Two Microorganisms. Environmental Science & Technology, 2000, 34, 1297-1301.	10.0	90
87	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.	1.8	215
88	Production of two phosphatases by a Citrobacter sp. grown in batch and continuous culture. Enzyme and Microbial Technology, 1999, 24, 218-224.	3.2	19
89	Accumulation of zirconium and nickel byCitrobacter sp. Journal of Chemical Technology and Biotechnology, 1999, 74, 509-514.	3.2	17
90	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.	3.2	9

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91	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
92	Title is missing!. Biotechnology Letters, 1998, 20, 857-863.	2.2	35
93	Fungal volatilization of arsenic and antimony and the sudden infant death syndrome. FEMS Microbiology Letters, 1998, 158, 261-265.	1.8	38
94	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.	3.2	39
95	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.	3.6	65
96	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.	10.0	232
97	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.	10.0	37
98	Biodegradation of Metal-EDTA Complexes by an Enriched Microbial Population. Applied and Environmental Microbiology, 1998, 64, 1319-1322.	3.1	79
99	Enzymatic Recovery of Elemental Palladium by Using Sulfate-Reducing Bacteria. Applied and Environmental Microbiology, 1998, 64, 4607-4609.	3.1	286
100	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.	1.8	68
101	Bioremediation of uranium-bearing wastewater: Biochemical and chemical factors influencing bioprocess application. , 1997, 53, 100-109.		73
102	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
103	Effect of substrate concentration and nitrate inhibition on product release and heavy metal removal by aCitrobacter sp.. , 1997, 55, 821-830.		17
104	The biodegradation of tributyl phosphate by naturally occurring microbial isolates. FEMS Microbiology Letters, 1997, 155, 155-159.	1.8	7
105	Bioaccumulation of nickel by intercalation into polycrystalline hydrogen uranyl phosphate deposited via an enzymatic mechanism. Nature Biotechnology, 1996, 14, 635-638.	17.5	50
106	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.	3.2	55
107	Removal of the tetravalent actinide thorium from solution by a biocatalytic system. Journal of Chemical Technology and Biotechnology, 1995, 64, 87-95.	3.2	23
108	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

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109	Enhancement of uranium bioaccumulation by aCitrobacter sp. via enzymically-mediated growth of polycrystalline NH4UO2PO4. Journal of Chemical Technology and Biotechnology, 1995, 63, 101-108.	3.2	58
110	Uranium bioaccumulation by a Citrobacter sp. as a result of enzymically mediated growth of polycrystalline HUO2PO4. Science, 1992, 257, 782-784.	12.6	277
111	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.	9.0	229
112	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
113	An immobilized cell bioprocess for the removal of heavy metals from aqueous flows. Journal of Chemical Technology and Biotechnology, 1990, 49, 357-379.	3.2	113
114	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.	3.2	46
115	The effects of trialkyl lead compounds on bacteria. Environmental Technology Letters, 1985, 6, 237-250.	0.4	8
116	Strontium accumulation by immobilized cells of aCitrobacter sp.. Biotechnology Letters, 1985, 7, 627-630.	2.2	17
117	Glycerol utilization by Brochothrix thermosphacta*. Journal of Applied Bacteriology, 1984, 56, 137-143.	1.1	5
118	Cadmium accumulation by immobilized cells of aCitrobacterSP.. Environmental Technology Letters, 1984, 5, 177-186.	0.4	31
119	Cadmium accumulation by microâ€organisms. Environmental Technology Letters, 1982, 3, 49-56.	0.4	41
120	Inhibition of growth of Brochothrix thermosphacta by palmitic acid. Journal of Applied Bacteriology, 1982, 52, 339-343.	1.1	8
121	The Role of Thiamine as a Factor for the Growth of Brochothrix thermosphacta. Journal of Applied Bacteriology, 1981, 50, 267-273.	1.1	7
122	Todayâ€™s Wastes, Tomorrowâ€™s Materials for Environmental Protection. Advanced Materials Research, 0, 71-73, 541-548.	0.3	2
123	Electron Paramagnetic Resonance Analysis of Active Bio-Pd-Based Electrodes for Fuel Cells. Advanced Materials Research, 0, 71-73, 737-740.	0.3	7
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	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
126	Biorecycling of Precious Metals and Rare Earth Elements. , 0, , .		11

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127	Bioremediation of Metals and Radionuclides. , 0, , 293-317.		18
128	Bioremediation of Radionuclide-Containing Wastewaters. , 0, , 277-327.		56
129	Biotechnology Processes for Scalable, Selective Rare Earth Element Recovery. , 0, , .		3