Francesca Pagnanelli

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

121 papers

3,950 citations

36 h-index 60 g-index

129 ext. papers

4,429 ext. citations

avg, IF

5.64 L-index

#	Paper	IF	Citations
121	Biosorption of Metal Ions onArthrobacter sp.: Biomass Characterization and Biosorption Modeling. <i>Environmental Science & Discrete Manager (1988)</i> 84, 2773-2778	10.3	266
120	Heavy metal removal by olive pomace: biosorbent characterisation and equilibrium modelling. <i>Chemical Engineering Science</i> , 2003 , 58, 4709-4717	4.4	236
119	Biosorption of heavy metals by Sphaerotilus natans: an equilibrium study at different pH and biomass concentrations. <i>Hydrometallurgy</i> , 2001 , 60, 129-141	4	228
118	Metal speciation and pH effect on Pb, Cu, Zn and Cd biosorption onto Sphaerotilus natans: Langmuir-type empirical model. <i>Water Research</i> , 2003 , 37, 627-33	12.5	177
117	pH-related equilibria models for biosorption in single metal systems. <i>Chemical Engineering Science</i> , 2002 , 57, 307-313	4.4	175
116	Product recovery from Li-ion battery wastes coming from an industrial pre-treatment plant: Lab scale tests and process simulations. <i>Journal of Power Sources</i> , 2012 , 206, 393-401	8.9	114
115	Cobalt products from real waste fractions of end of life lithium ion batteries. <i>Waste Management</i> , 2016 , 51, 214-221	8.6	96
114	Simultaneous recycling of nickel metal hydride, lithium ion and primary lithium batteries: Accomplishment of European Guidelines by optimizing mechanical pre-treatment and solvent extraction operations. <i>Journal of Power Sources</i> , 2012 , 212, 205-211	8.9	90
113	Equilibrium biosorption studies in single and multi-metal systems. <i>Process Biochemistry</i> , 2001 , 37, 115-1	24 8	83
112	Acid reducing leaching of cathodic powder from spent lithium ion batteries: Glucose oxidative pathways and particle area evolution. <i>Journal of Industrial and Engineering Chemistry</i> , 2014 , 20, 3201-32	20 7 3	80
111	Multi-metallic modelling for biosorption of binary systems. Water Research, 2002, 36, 4095-105	12.5	80
110	Olive mill solid residues as heavy metal sorbent material: a preliminary study. <i>Waste Management</i> , 2002 , 22, 901-7	8.6	75
109	Mechanisms of heavy-metal removal by activated sludge. <i>Chemosphere</i> , 2009 , 75, 1028-34	8.4	70
108	Shrinking core model with variable activation energy: a kinetic model of manganiferous ore leaching with sulphuric acid and lactose. <i>Hydrometallurgy</i> , 2001 , 60, 167-179	4	68
107	Ionic strength effect on copper biosorption by Sphaerotilus natans: equilibrium study and dynamic modelling in membrane reactor. <i>Water Research</i> , 2006 , 40, 144-52	12.5	67
106	Biosorption of copper by Sphaerotilus natans immobilised in polysulfone matrix: equilibrium and kinetic analysis. <i>Hydrometallurgy</i> , 2003 , 70, 101-112	4	65
105	Chemical treatment of olive pomace: effect on acid-basic properties and metal biosorption capacity. <i>Journal of Hazardous Materials</i> , 2008 , 156, 448-57	12.8	64

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104	Biotreatment and bioassessment of heavy metal removal by sulphate reducing bacteria in fixed bed reactors. <i>Water Research</i> , 2010 , 44, 151-8	12.5	63	
103	New biosorbent materials for heavy metal removal: product development guided by active site characterization. <i>Water Research</i> , 2008 , 42, 2953-62	12.5	60	
102	Recycling of end of life photovoltaic panels: A chemical prospective on process development. <i>Solar Energy</i> , 2019 , 177, 746-761	6.8	60	
101	Reductive acid leaching of manganese dioxide with glucose: Identification of oxidation derivatives of glucose. <i>Hydrometallurgy</i> , 2006 , 81, 234-240	4	59	
100	Biosorption of protons and heavy metals onto olive pomace: modelling of competition effects. <i>Water Research</i> , 2005 , 39, 1639-51	12.5	54	
99	Physical and chemical treatment of end of life panels: An integrated automatic approach viable for different photovoltaic technologies. <i>Waste Management</i> , 2017 , 59, 422-431	8.6	51	
98	Isolation and quantification of cadmium removal mechanisms in batch reactors inoculated by sulphate reducing bacteria: biosorption versus bioprecipitation. <i>Bioresource Technology</i> , 2010 , 101, 298	1 1 7	51	
97	Leaching of electrodic powders from lithium ion batteries: Optimization of operating conditions and effect of physical pretreatment for waste fraction retrieval. <i>Waste Management</i> , 2017 , 60, 706-715	8.6	50	
96	Biotreatment of Cr(VI) contaminated waters by sulphate reducing bacteria fed with ethanol. <i>Journal of Hazardous Materials</i> , 2012 , 199-200, 186-92	12.8	46	
95	Preparation and characterisation of chemical manganese dioxide: Effect of the operating conditions. <i>Journal of Power Sources</i> , 2007 , 166, 567-577	8.9	45	
94	Closed-loop hydrometallurgical treatment of end-of-life lithium ion batteries: Towards zero-waste process and metal recycling in advanced batteries. <i>Journal of Energy Chemistry</i> , 2019 , 35, 220-227	12	44	
93	Mixotrophic growth of Chlorella vulgaris and Nannochloropsis oculata: interaction between glucose and nitrate. <i>Journal of Chemical Technology and Biotechnology</i> , 2014 , 89, 652-661	3.5	44	
92	Leaching of low-grade manganese ores by using nitric acid and glucose: optimization of the operating conditions. <i>Hydrometallurgy</i> , 2004 , 75, 157-167	4	43	
91	Modelling of the acid-base properties of natural and synthetic adsorbent materials used for heavy metal removal from aqueous solutions. <i>Chemosphere</i> , 2004 , 54, 905-15	8.4	43	
90	Preliminary screening of purification processes of liquor leach solutions obtained from reductive leaching of low-grade manganese ores. <i>Hydrometallurgy</i> , 2004 , 71, 319-327	4	41	
89	Integrated biomass production and biodegradation of olive mill wastewater by cultivation of Scenedesmus sp <i>Algal Research</i> , 2015 , 9, 306-311	5	40	
88	Electrochemical nucleation and three-dimensional growth of metal nanoparticles under mixed kinetic-diffusion control: model development and validation. <i>Electrochimica Acta</i> , 2016 , 206, 116-126	6.7	40	
87	Treatment of concentrated arsenic(V) solutions by micellar enhanced ultrafiltration with high molecular weight cut-off membrane. <i>Journal of Hazardous Materials</i> , 2007 , 148, 116-21	12.8	38	

86	Micellar enhanced ultrafiltration for arsenic(V) removal: effect of main operating conditions and dynamic modelling. <i>Environmental Science & Environmental Science & Environm</i>	10.3	37
85	Pulsed electrodeposition of cobalt nanoparticles on copper: influence of the operating parameters on size distribution and morphology. <i>Electrochimica Acta</i> , 2015 , 155, 228-235	6.7	36
84	Recovery of manganese from zinc alkaline batteries by reductive acid leaching using carbohydrates as reductant. <i>Hydrometallurgy</i> , 2009 , 99, 115-118	4	36
83	Study of the synthesis of copper nanoparticles: the role of capping and kinetic towards control of particle size and stability. <i>Journal of Nanoparticle Research</i> , 2016 , 18, 1	2.3	36
82	Assessment of solid reactive mixtures for the development of biological permeable reactive barriers. <i>Journal of Hazardous Materials</i> , 2009 , 170, 998-1005	12.8	35
81	Morphology-controlled synthesis of cobalt nanostructures by facile electrodeposition: transition from hexagonal nanoplatelets to nanoflakes. <i>Electrochimica Acta</i> , 2016 , 220, 405-416	6.7	33
80	Adsorption onto activated carbon for molybdenum recovery from leach liquors of exhausted hydrotreating catalysts. <i>Hydrometallurgy</i> , 2011 , 110, 67-72	4	32
79	Selective recovery of cobalt from mixed lithium ion battery wastes using deep eutectic solvent. <i>Chemical Engineering Journal</i> , 2021 , 417, 129249	14.7	31
78	Automobile shredded residue valorisation by hydrometallurgical metal recovery. <i>Journal of Hazardous Materials</i> , 2011 , 185, 44-8	12.8	30
77	Two-layer shrinking-core model: parameter estimation for the reaction order in leaching processes. <i>Chemical Engineering Journal</i> , 2002 , 90, 231-240	14.7	28
76	Integrated microalgae biomass production and olive mill wastewater biodegradation: Optimization of the wastewater supply strategy. <i>Chemical Engineering Journal</i> , 2018 , 349, 539-546	14.7	28
75	Toxic elements at a disused mine district: Particle size distribution and total concentration in stream sediments and mine tailings. <i>Journal of Hazardous Materials</i> , 2007 , 148, 409-18	12.8	27
74	Development of new composite biosorbents from olive pomace wastes. <i>Applied Surface Science</i> , 2010 , 256, 5492-5497	6.7	26
73	Electrodeposition of cobalt nanowires into alumina templates generated by one-step anodization. <i>Electrochimica Acta</i> , 2018 , 259, 711-722	6.7	26
72	Biosorption-mediated reduction of Cr(VI) using heterotrophically-grown Chlorella vulgaris: Active sites and ionic strength effect. <i>Chemical Engineering Journal</i> , 2013 , 231, 94-102	14.7	25
71	Modeling of copper biosorption by Arthrobacter sp. in a UF/MF membrane reactor. <i>Environmental Science & Environmental Science</i>	10.3	23
70	The influence of phenols extracted from olive mill wastewater on the heterotrophic and mixotrophic growth of Scenedesmus sp <i>Journal of Chemical Technology and Biotechnology</i> , 2018 , 93, 3619-3626	3.5	21
69	Non-electrostatic surface complexation models for protons and lead(II) sorption onto single minerals and their mixture. <i>Chemosphere</i> , 2006 , 63, 1063-73	8.4	21

68	Electrochemical synthesis of nanowire anodes from spent lithium ion batteries. <i>Electrochimica Acta</i> , 2019 , 319, 481-489	6.7	20
67	Selective precipitation of metals from synthetic spent refinery catalyst leach liquor with biogenic H2S produced in a lactate-fed anaerobic baffled reactor. <i>Hydrometallurgy</i> , 2013 , 139, 154-161	4	20
66	Full recycling of spent lithium ion batteries with production of core-shell nanowires//exfoliated graphite asymmetric supercapacitor. <i>Journal of Energy Chemistry</i> , 2021 , 58, 336-344	12	20
65	Heterotrophic cultivation of T. obliquus under non-axenic conditions by uncoupled supply of nitrogen and glucose. <i>Biochemical Engineering Journal</i> , 2019 , 145, 127-136	4.2	18
64	Extraction of Carotenoids and Fat-Soluble Vitamins from Microalgae: An Optimized Approach by Using Supercritical CO. <i>Molecules</i> , 2019 , 24,	4.8	18
63	Biosorption of binary heavy metal systems onto Sphaerotilus natans cells confined in an UF/MF membrane reactor: dynamic simulations by different Langmuir-type competitive models. <i>Water Research</i> , 2004 , 38, 1055-61	12.5	18
62	Use of natural materials for the inhibition of iron oxidizing bacteria involved in the generation of acid mine drainage. <i>Hydrometallurgy</i> , 2007 , 87, 27-35	4	17
61	Optimisation and validation of mechanistic models for heavy metal bio-sorption onto a natural biomass. <i>Hydrometallurgy</i> , 2005 , 80, 107-125	4	17
60	A versatile electrochemical method to synthesize Co-CoO core-shell nanowires anodes for lithium ion batteries with superior stability and rate capability. <i>Electrochimica Acta</i> , 2018 , 290, 347-355	6.7	17
59	Continuous biosorption of copper and lead in single and binary systems using Sphaerotilus natans cells confined by a membrane: experimental validation of dynamic models. <i>Hydrometallurgy</i> , 2005 , 76, 73-85	4	16
58	Electrochemical nucleation and three-dimensional growth under mixed kinetic-diffusion control: analytical approximation of the current transient. <i>Electrochimica Acta</i> , 2016 , 205, 113-117	6.7	16
57	Effect of surfactant/water ratio and reagentsItoncentration on size distribution of manganese carbonate nanoparticles synthesized by microemulsion mediated route. <i>Applied Surface Science</i> , 2015 , 331, 463-471	6.7	15
56	Effect of Ca concentration on Scenedesmus sp. growth in heterotrophic and photoautotrophic cultivation. <i>New Biotechnology</i> , 2018 , 40, 228-235	6.4	14
55	Effect of equilibrium models in the simulation of heavy metal biosorption in single and two-stage UF/MF membrane reactor systems. <i>Biochemical Engineering Journal</i> , 2003 , 15, 27-35	4.2	14
54	Production of an iron-coated adsorbent for arsenic removal by hydrothermal carbonization of olive pomace: Effect of the feedwater pH. <i>Journal of Environmental Management</i> , 2020 , 273, 111164	7.9	14
53	Quantification of Tetradesmus obliquus (Chlorophyceae) cell size and lipid content heterogeneity at single-cell level. <i>Journal of Phycology</i> , 2018 , 54, 187-197	3	14
52	Electrodeposition of cobalt nanoparticles: An analysis of the mechanisms behind the deviation from three-dimensional diffusion-control. <i>Journal of Electroanalytical Chemistry</i> , 2019 , 851, 113413	4.1	13
51	Mechanistic modelling of copper biosorption by wild type and engineered Saccharomyces cerevisiae biomasses. <i>Chemical Engineering Journal</i> , 2014 , 244, 561-568	14.7	13

50	Synthesis of MnCO3 nanoparticles by microemulsions: statistical evaluation of the effects of operating conditions on particle size distribution. <i>Journal of Nanoparticle Research</i> , 2013 , 15, 1	2.3	10
49	Bioassessment of a combined chemical-biological treatment for synthetic acid mine drainage. <i>Journal of Hazardous Materials</i> , 2008 , 159, 567-73	12.8	10
48	Structural modelling for the dissolution of non-porous ores: dissolution with sporulation. <i>Chemical Engineering Journal</i> , 2004 , 99, 89-104	14.7	10
47	A closed-form solution of population-balance models for the dissolution of polydisperse mixtures. <i>Chemical Engineering Journal</i> , 2002 , 87, 275-284	14.7	10
46	Heavy metal biosorption in binary systems: simulation in single- and two-stage UF/MF membrane reactors. <i>Hydrometallurgy</i> , 2002 , 66, 107-115	4	10
45	Mechanistic modeling of heavy metal biosorption in batch and membrane reactor systems. <i>Hydrometallurgy</i> , 2003 , 71, 201-208	4	10
44	Multivariate modeling for microalgae growth in outdoor photobioreactors. <i>Algal Research</i> , 2020 , 45, 101663	5	10
43	Sequential extraction of lutein and Etarotene from wet microalgal biomass. <i>Journal of Chemical Technology and Biotechnology</i> , 2020 , 95, 3024-3033	3.5	9
42	Theoretical and Experimental Analysis of the Role of Sludge Age on the Removal of Adsorbed Micropollutants in Activated Sludge Processes. <i>Industrial & Discounty of Chemistry Research</i> , 2008 , 47, 6775-6782	3.9	9
41	Copper and cadmium biosorption onto Sphaerotilus natans: application and discrimination of commonly used adsorption models. <i>Separation Science and Technology</i> , 2002 , 37, 677-699	2.5	8
40	Equilibrium, Kinetic and Dynamic Modelling of Biosorption Processes 2011 , 59-120		7
39	Copper biosorption by Sphaerotilus natans confined in UF membrane module: experimental study and kinetic modeling. <i>Hydrometallurgy</i> , 2004 , 72, 21-30	4	7
38	Microalgae cultivation by uncoupled nutrient supply in sequencing batch reactor (SBR) integrated with olive mill wastewater treatment. <i>Chemical Engineering Journal</i> , 2021 , 410, 128417	14.7	7
37	Nucleation and growth of metal nanoparticles on a planar electrode: A new model based on iso-nucleation-time classes of particles. <i>Electrochimica Acta</i> , 2019 , 296, 82-93	6.7	7
36	Two electrodeposition strategies for the morphology-controlled synthesis of cobalt nanostructures 2018 ,		7
35	Solvent versus thermal treatment for glass recovery from end of life photovoltaic panels: Environmental and economic assessment. <i>Journal of Environmental Management</i> , 2019 , 248, 109313	7.9	6
34	Metal recovery from end-of-life hydrotreating catalysts by selective precipitation: Laboratory tests and preliminary process analysis. <i>Environmental Progress and Sustainable Energy</i> , 2015 , 34, 703-712	2.5	6
33	Optimizing the structure of NiNi(OH)2/NiO core-shell nanowire electrodes for application in pseudocapacitors: The influence of metallic core, Ni(OH)2/NiO ratio and nanowire length. <i>Journal of Alloys and Compounds</i> , 2021 , 856, 157718	5.7	6

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32	Development and Techno-Economic Analysis of an Advanced Recycling Process for Photovoltaic Panels Enabling Polymer Separation and Recovery of Ag and Si. <i>Energies</i> , 2020 , 13, 6690	3.1	5
31	Photovoltaic panel recycling: from type-selective processes to flexible apparatus for simultaneous treatment of different types. <i>Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy</i> , 2016 , 125, 221-227		5
30	Manganese ferrite nanoparticle production from industrial wastes as sorbent material for arsenic removal from aqueous solutions. <i>Particulate Science and Technology</i> , 2020 , 38, 433-442	2	5
29	Proton binding onto soil by nonelectrostatic models: isolation and identification of mineral contributions. <i>Environmental Science & Environmental Environ</i>	10.3	4
28	New strategies enhancing feasibility of microalgal cultivations. <i>Studies in Surface Science and Catalysis</i> , 2020 , 179, 287-316	1.8	4
27	Valorization of polymeric fractions and metals from end of life photovoltaic panels. <i>Waste Management</i> , 2021 , 122, 89-99	8.6	4
26	Upcycling Real Waste Mixed Lithium-Ion Batteries by Simultaneous Production of rGO and Lithium-Manganese-Rich Cathode Material. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 13303-1	8 33 ³ 11	4
25	Ti/TiO2/Cu2O electrodes for photocatalytic applications: Synthesis and characterization 2019 ,		3
24	Shape evolution and effect of organic additives in the electrosynthesis of Cu nanostructures. Journal of Solid State Electrochemistry, 2019 , 23, 2723-2735	2.6	3
23	Two-Dimensional Restructuring of CuO Can Improve the Performance of Nanosized n-TiO/p-CuO Photoelectrodes under UV-Visible Light. <i>ACS Applied Materials & Distributed Section</i> , 13, 47932-47944	9.5	3
22	Recovery and application of magnetic nanosized sorbents from waste lithium-ion batteries. <i>Ceramics International</i> , 2020 , 46, 7559-7567	5.1	3
21	Recycling of solar photovoltaic panels: Techno-economic assessment in waste management perspective. <i>Journal of Cleaner Production</i> , 2022 , 132384	10.3	3
20	Sulphate bioreduction for the treatment of polluted waters: solid versus liquid organic substrates. Journal of Chemical Technology and Biotechnology, 2009 , 84, 859-863	3.5	2
19	Influence of surface heterogeneity in electroosmotic flowsImplications in chromatography, fluid mixing, and chemical reactions in microdevices. <i>Applied Surface Science</i> , 2007 , 253, 5785-5790	6.7	2
18	The sporulation model for manganiferous ore dissolution. <i>Chemical Engineering Science</i> , 2004 , 59, 5107-	·5 ₄ 1.412	2
17	Cryo-Mechanical Treatment and Hydrometallurgical Process for Recycling Li-MnO2 Primary Batteries with the Direct Production of LiMnPO4 Nanoparticles. <i>Energies</i> , 2020 , 13, 4004	3.1	2
16	Recovery of critical metals from LCDs and Li-ion batteries 2016 ,		2
15	Extracellular and intracellular phenol production by microalgae during photoautotrophic batch cultivation. <i>New Biotechnology</i> , 2021 , 62, 1-9	6.4	2

14	Material Flux through an Innovative Recycling Process Treating Different Types of End-of-Life Photovoltaic Panels: Demonstration at Pilot Scale. <i>Energies</i> , 2021 , 14, 5534	3.1	2
13	Electrochemical synthesis of nanowires electrodes and their application in energy storage devices 2019 ,		1
12	Bioactive and passive mechanisms of pollutant removal in bioreduction processes in fixed bed columns: Numerical simulations. <i>Environmental Progress and Sustainable Energy</i> , 2014 , 33, 70-80	2.5	1
11	Sulphate Reducing Bacteria for the Treatment of Heavy Metals Contaminated Waters in Permeable Reactive Barriers. <i>Advanced Materials Research</i> , 2009 , 71-73, 565-568	0.5	1
10	Inhibition of Iron Oxidizing Bacteria Involved in the Generation of Acid Mine Drainage. <i>Advanced Materials Research</i> , 2009 , 71-73, 681-684	0.5	1
9	Acid mine drainage attenuation by inhibition of pyrite bioleaching using limestone and olive pomace. <i>Chemistry and Ecology</i> , 2012 , 28, 293-303	2.3	1
8	Two-phase synthesis of Fe-loaded hydrochar for As removal: The distinct effects of initial pH, reaction time and Fe/hydrochar ratio. <i>Journal of Environmental Management</i> , 2022 , 302, 114058	7.9	1
7	Recovery of nanoferrites from metal bearing wastes: Synthesis, characterization and adsorption study. <i>Journal of Molecular Liquids</i> , 2020 , 318, 114047	6	1
6	Process Simulation for Li-MnO2 Primary Battery Recycling: Cryo-Mechanical and Hydrometallurgical Treatments at Pilot Scale. <i>Energies</i> , 2020 , 13, 4546	3.1	1
5	Electrodeposited Copper Nanocatalysts for CO2 Electroreduction: Effect of Electrodeposition Conditions on Catalysts Morphology and Selectivity. <i>Energies</i> , 2021 , 14, 5012	3.1	1
4	Biosorption of Copper by Saccharomyces cerevisiae: From Biomass Characterization to Process Development 2017 , 205-224		О
3	Magnetic force microscopy characterization of corellhell cobalt-oxide/hydroxide nanoparticles. Journal of Magnetism and Magnetic Materials, 2020, 516, 167299	2.8	O
2	Single Cell Analysis of Microalgae and Associated Bacteria Flora by Using Flow Cytometry. <i>Biotechnology and Bioprocess Engineering</i> , 2021 , 26, 898-909	3.1	О
1	Nanostructured TiO2 -Based Hydrogen Evolution Reaction (HER) Electrocatalysts: A Preliminary Feasibility Study in Electrodialytic Remediation with Hydrogen Recovery 2021 , 227-249		