Luigi Toro

List of Publications by Year in Descending Order

64 papers	2,575 citations	30 h-index	50 g-index
65 ext. papers	2,767 ext. citations	6.8 avg, IF	4.75 L-index

#	Paper	IF	Citations
64	Process Simulation for Li-MnO2 Primary Battery Recycling: Cryo-Mechanical and Hydrometallurgical Treatments at Pilot Scale. *Energies*, **2020**, 13, 4546	3.1	1
63	Development and Techno-Economic Analysis of an Advanced Recycling Process for Photovoltaic Panels Enabling Polymer Separation and Recovery of Ag and Si. *Energies*, **2020**, 13, 6690	3.1	5
62	Heterotrophic cultivation of T. obliquus under non-axenic conditions by uncoupled supply of nitrogen and glucose. *Biochemical Engineering Journal*, **2019**, 145, 127-136	4.2	18
61	Leaching of electrodic powders from lithium ion batteries: Optimization of operating conditions and effect of physical pretreatment for waste fraction retrieval. *Waste Management*, **2017**, 60, 706-715	8.6	50
60	Physical and chemical treatment of end of life panels: An integrated automatic approach viable for different photovoltaic technologies. *Waste Management*, **2017**, 59, 422-431	8.6	51
59	Cobalt products from real waste fractions of end of life lithium ion batteries. *Waste Management*, **2016**, 51, 214-221	8.6	96
58	Recovery of critical metals from LCDs and Li-ion batteries **2016**,		2
57	Metal recovery from end-of-life hydrotreating catalysts by selective precipitation: Laboratory tests and preliminary process analysis. *Environmental Progress and Sustainable Energy*, **2015**, 34, 703-712	2.5	6
56	Pulsed electrodeposition of cobalt nanoparticles on copper: influence of the operating parameters on size distribution and morphology. *Electrochimica Acta*, **2015**, 155, 228-235	6.7	36
55	Mixotrophic growth of Chlorella vulgaris and Nannochloropsis oculata: interaction between glucose and nitrate. *Journal of Chemical Technology and Biotechnology*, **2014**, 89, 652-661	3.5	44
54	Acid reducing leaching of cathodic powder from spent lithium ion batteries: Glucose oxidative pathways and particle area evolution. *Journal of Industrial and Engineering Chemistry*, **2014**, 20, 3201-3207	6.3	80
53	Bioactive and passive mechanisms of pollutant removal in bioreduction processes in fixed bed columns: Numerical simulations. *Environmental Progress and Sustainable Energy*, **2014**, 33, 70-80	2.5	1
52	Biosorption-mediated reduction of Cr(VI) using heterotrophically-grown Chlorella vulgaris: Active sites and ionic strength effect. *Chemical Engineering Journal*, **2013**, 231, 94-102	14.7	25
51	Synthesis of MnCO3 nanoparticles by microemulsions: statistical evaluation of the effects of operating conditions on particle size distribution. *Journal of Nanoparticle Research*, **2013**, 15, 1	2.3	10
50	Product recovery from Li-ion battery wastes coming from an industrial pre-treatment plant: Lab scale tests and process simulations. *Journal of Power Sources*, **2012**, 206, 393-401	8.9	114
49	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. *Journal of Power Sources*, **2012**, 212, 205-211	8.9	90
48	Acid mine drainage attenuation by inhibition of pyrite bioleaching using limestone and olive pomace. *Chemistry and Ecology*, **2012**, 28, 293-303	2.3	1

47	Automobile shredded residue valorisation by hydrometallurgical metal recovery. *Journal of Hazardous Materials*, **2011**, 185, 44-8	12.8	30
46	Biotreatment and bioassessment of heavy metal removal by sulphate reducing bacteria in fixed bed reactors. *Water Research*, **2010**, 44, 151-8	12.5	63
45	Development of new composite biosorbents from olive pomace wastes. *Applied Surface Science*, **2010**, 256, 5492-5497	6.7	26
44	Isolation and quantification of cadmium removal mechanisms in batch reactors inoculated by sulphate reducing bacteria: biosorption versus bioprecipitation. *Bioresource Technology*, **2010**, 101, 2981-7	11	51
43	Sulphate Reducing Bacteria for the Treatment of Heavy Metals Contaminated Waters in Permeable Reactive Barriers. *Advanced Materials Research*, **2009**, 71-73, 565-568	0.5	1
42	Inhibition of Iron Oxidizing Bacteria Involved in the Generation of Acid Mine Drainage. *Advanced Materials Research*, **2009**, 71-73, 681-684	0.5	1
41	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
40	Recovery of manganese from zinc alkaline batteries by reductive acid leaching using carbohydrates as reductant. *Hydrometallurgy*, **2009**, 99, 115-118	4	36
39	Assessment of solid reactive mixtures for the development of biological permeable reactive barriers. *Journal of Hazardous Materials*, **2009**, 170, 998-1005	12.8	35
38	Chemical treatment of olive pomace: effect on acid-basic properties and metal biosorption capacity. *Journal of Hazardous Materials*, **2008**, 156, 448-57	12.8	64
37	Influence of surface heterogeneity in electroosmotic flows: Implications in chromatography, fluid mixing, and chemical reactions in microdevices. *Applied Surface Science*, **2007**, 253, 5785-5790	6.7	2
36	Use of natural materials for the inhibition of iron oxidizing bacteria involved in the generation of acid mine drainage. *Hydrometallurgy*, **2007**, 87, 27-35	4	17
35	Toxic elements at a disused mine district: Particle size distribution and total concentration in stream sediments and mine tailings. *Journal of Hazardous Materials*, **2007**, 148, 409-18	12.8	27
34	Preparation and characterisation of chemical manganese dioxide: Effect of the operating conditions. *Journal of Power Sources*, **2007**, 166, 567-577	8.9	45
33	Non-electrostatic surface complexation models for protons and lead(II) sorption onto single minerals and their mixture. *Chemosphere*, **2006**, 63, 1063-73	8.4	21
32	Ionic strength effect on copper biosorption by Sphaerotilus natans: equilibrium study and dynamic modelling in membrane reactor. *Water Research*, **2006**, 40, 144-52	12.5	67
31	Reductive acid leaching of manganese dioxide with glucose: Identification of oxidation derivatives of glucose. *Hydrometallurgy*, **2006**, 81, 234-240	4	59
30	Biosorption of protons and heavy metals onto olive pomace: modelling of competition effects. *Water Research*, **2005**, 39, 1639-51	12.5	54

29	Continuous biosorption of copper and lead in single and binary systems using Sphaerotilus natans cells confined by a membrane: experimental validation of dynamic models. *Hydrometallurgy*, **2005**, 76, 73-85	4	16
28	Optimisation and validation of mechanistic models for heavy metal bio-sorption onto a natural biomass. *Hydrometallurgy*, **2005**, 80, 107-125	4	17
27	Copper biosorption by Sphaerotilus natans confined in UF membrane module: experimental study and kinetic modeling. *Hydrometallurgy*, **2004**, 72, 21-30	4	7
26	Structural modelling for the dissolution of non-porous ores: dissolution with sporulation. *Chemical Engineering Journal*, **2004**, 99, 89-104	14.7	10
25	The sporulation model for manganiferous ore dissolution. *Chemical Engineering Science*, **2004**, 59, 5107-5112	4.1	2
24	Preliminary screening of purification processes of liquor leach solutions obtained from reductive leaching of low-grade manganese ores. *Hydrometallurgy*, **2004**, 71, 319-327	4	41
23	Leaching of low-grade manganese ores by using nitric acid and glucose: optimization of the operating conditions. *Hydrometallurgy*, **2004**, 75, 157-167	4	43
22	Proton binding onto soil by nonelectrostatic models: isolation and identification of mineral contributions. *Environmental Science & Technology*, **2004**, 38, 5443-9	10.3	4
21	Modelling of the acid-base properties of natural and synthetic adsorbent materials used for heavy metal removal from aqueous solutions. *Chemosphere*, **2004**, 54, 905-15	8.4	43
20	Heavy metal removal by olive pomace: biosorbent characterisation and equilibrium modelling. *Chemical Engineering Science*, **2003**, 58, 4709-4717	4.4	236
19	Biosorption of copper by Sphaerotilus natans immobilised in polysulfone matrix: equilibrium and kinetic analysis. *Hydrometallurgy*, **2003**, 70, 101-112	4	65
18	Mechanistic modeling of heavy metal biosorption in batch and membrane reactor systems. *Hydrometallurgy*, **2003**, 71, 201-208	4	10
17	Metal speciation and pH effect on Pb, Cu, Zn and Cd biosorption onto Sphaerotilus natans: Langmuir-type empirical model. *Water Research*, **2003**, 37, 627-33	12.5	177
16	Olive mill solid residues as heavy metal sorbent material: a preliminary study. *Waste Management*, **2002**, 22, 901-7	8.6	75
15	A closed-form solution of population-balance models for the dissolution of polydisperse mixtures. *Chemical Engineering Journal*, **2002**, 87, 275-284	14.7	10
14	Two-layer shrinking-core model: parameter estimation for the reaction order in leaching processes. *Chemical Engineering Journal*, **2002**, 90, 231-240	14.7	28
13	Reductive leaching of manganiferous ores by glucose and H2SO4: effect of alcohols. *Hydrometallurgy*, **2001**, 59, 1-14	4	52
12	Column leaching of a manganese dioxide ore: a study by using fractional factorial design. *Hydrometallurgy*, **2001**, 59, 31-44	4	19

11	Shrinking core model with variable activation energy: a kinetic model of manganiferous ore leaching with sulphuric acid and lactose. *Hydrometallurgy*, **2001**, 60, 167-179	4	68
10	Acid leaching of manganiferous ores by sucrose: Kinetic modelling and related statistical analysis. *Minerals Engineering*, **2001**, 14, 175-184	4.9	37
9	Bioleaching of a pyrrhotite ore by a sulfooxidans strain: kinetic analysis. *Chemical Engineering Science*, **2000**, 55, 783-795	4.4	24
8	Gold recovery from a refractory pyrrhotite ore by biooxidation. *International Journal of Mineral Processing*, **2000**, 60, 247-262		22
7	Combined bio-hydrometallurgical process for gold recovery from refractory stibnite. *Minerals Engineering*, **2000**, 13, 1641-1646	4.9	14
6	Acid leaching process by using glucose as reducing agent: A comparison among the efficiency of different kinds of manganiferous ores. *Minerals Engineering*, **2000**, 13, 217-221	4.9	50
5	Biosorption of Metal Ions onArthrobacter sp.:Biomass Characterization and Biosorption Modeling. *Environmental Science & Technology*, **2000**, 34, 2773-2778	10.3	266
4	Biosorption of toxic metals by immobilised biomass and UF/MF membrane reactor. *Process Metallurgy*, **1999**, 9, 463-472		1
3	Inversion of sucrose by immobilized beta-fructooxidase in an integral reactor. *Biotechnology and Bioengineering*, **1983**, 25, 1435-9	4.9	2
2	A new recirculation reactor system for kinetic studies of immobilized enzymes. *Canadian Journal of Biochemistry*, **1978**, 56, 1120-3		1
1	A Factorial technique for selecting dimension of Hougen-Watson models. *Chemical Engineering Science*, **1977**, 32, 1345-1348	4.4	3