Alexandre Chagnes

List of Publications by Year
in descending order

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75 papers	2,528 citations	201575 27 h-index	206029 48 g-index
77 all docs	77 docs citations	77 times ranked	2894 citing authors

#	Article	IF	Citations
1	A brief review on hydrometallurgical technologies for recycling spent lithiumâ€ion batteries. Journal of Chemical Technology and Biotechnology, 2013, 88, 1191-1199.	1.6	384
2	Recovery of Uranium from Wet Phosphoric Acid by Solvent Extraction Processes. Chemical Reviews, 2014, 114, 12002-12023.	23.0	151
3	Mixed ionic liquid as electrolyte for lithium batteries. Journal of Power Sources, 2005, 146, 682-684.	4.0	134
4	Interphase chemistry of Si electrodes used as anodes in Li-ion batteries. Applied Surface Science, 2013, 266, 5-16.	3.1	134
5	Imidazolium-organic solvent mixtures as electrolytes for lithium batteries. Journal of Power Sources, 2005, 145, 82-88.	4.0	115
6	XPS, XRD and SEM characterization of a thin ceria layer deposited onto graphite electrode for application in lithium-ion batteries. Applied Surface Science, 2011, 257, 9110-9119.	3.1	106
7	Guidelines to design organic electrolytes for lithium-ion batteries: environmental impact, physicochemical and electrochemical properties. Green Chemistry, 2017, 19, 1828-1849.	4.6	83
8	Extraction of Gold(III) from Acidic Chloride Media Using Phosphonium-based Ionic Liquid as an Anion Exchanger. Industrial & Engineering Chemistry Research, 2015, 54, 1350-1358.	1.8	75
9	Recent advances on electrodialysis for the recovery of lithium from primary and secondary resources. Hydrometallurgy, 2019, 189, 105124.	1.8	71
10	Highly selective separation of individual platinum group metals (Pd, Pt, Rh) from acidic chloride media using phosphonium-based ionic liquid in aromatic diluent. RSC Advances, 2016, 6, 62717-62728.	1.7	49
11	Solubility of niobium(V) and tantalum(V) under mild alkaline conditions. Hydrometallurgy, 2015, 156, 99-106.	1.8	48
12	Chemical properties of trihexyl(tetradecyl)phosphonium chloride and bis(2,4,4-trimethylpentyl)phosphinic acid mixtures: Interaction study by FT-IR and NMR spectroscopies. Journal of Molecular Liquids, 2013, 187, 165-170.	2.3	47
13	Cycling Ability of Î³-Butyrolactone-Ethylene Carbonate Based Electrolytes. Journal of the Electrochemical Society, 2003, 150, A1255.	1.3	46
14	Investigation of the leaching mechanism of NMC 811 (LiNi_{0.8}Mn_{0.1}Co_{0.1}O₂) by hydrochloric acid for recycling lithium ion battery cathodes. RSC Advances, 2019, 9, 38612-38618.	1.7	45
15	Speciation of vanadium (V) extracted from acidic sulfate media by trioctylamine in n-dodecane modified with 1-tridecanol. Hydrometallurgy, 2010, 104, 20-24.	1.8	42
16	Insight into the Solid Electrolyte Interphase on Si Nanowires in Lithium-Ion Battery: Chemical and Morphological Modifications upon Cycling. Journal of Physical Chemistry C, 2014, 118, 2919-2928.	1.5	42
17	Effects of structural changes of new organophosphorus cationic exchangers on a solvent extraction of cobalt, nickel and manganese from acidic chloride media. RSC Advances, 2017, 7, 5660-5668.	1.7	36
18	Excess thermodynamic properties of binary liquid mixtures containing dimethylcarbonate and Î³-butyrolactone. Journal of Chemical Thermodynamics, 2002, 34, 1847-1856.	1.0	35

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19	Thermal analysis of Î³-butyrolactone+1 butyl-3-methyl-imidazolium ionic liquids mixtures. Solid State Ionics, 2005, 176, 1419-1427.	1.3	35
20	Modeling of the extraction of uranium (VI) from concentrated phosphoric acid by synergistic mixtures of bis-(2-ethylhexyl)-phosphoric acid and tri-n-octylphosphine oxide. Hydrometallurgy, 2012, 129-130, 118-125.	1.8	35
21	A review on clogging of recirculating steam generators in Pressurized-Water Reactors. Progress in Nuclear Energy, 2017, 97, 182-196.	1.3	35
22	Electrochemical behavior of sebaconitrile as a cosolvent in the formulation of electrolytes at high potentials for lithium-ion batteries. Electrochimica Acta, 2014, 115, 223-233.	2.6	34
23	Solvent extraction studies of uranium(VI) from phosphoric acid: Role of synergistic reagents in mixture with bis(2-ethylhexyl) phosphoric acid. Hydrometallurgy, 2014, 144-145, 207-214.	1.8	34
24	Abnormal Temperature Dependence of the Viscosity of Ethylammonium Nitrateâ€“Methanol Ionic Mixtures. Journal of Solution Chemistry, 2004, 33, 247-255.	0.6	29
25	Rational Design of Original Materials for the Electrocatalytic Hydrogenation Reactions:Â Concept, Preparation, Characterization, and Theoretical Analysis. Langmuir, 2004, 20, 6365-6373.	1.6	28
26	Recovery of uranium (VI) from concentrated phosphoric acid by mixtures of new bis(1,3-) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 467 Td (28-33.	1.8	28
27	Development of New Cationic Exchangers for the Recovery of Uranium (VI) from Concentrated Phosphoric Acid. Separation Science and Technology, 2013, 48, 480-486.	1.3	27
28	Investigation of the speciation of uranium(VI) in concentrated phosphoric acid and in synergistic extraction systems by time-resolved laser-induced fluorescence spectroscopy (TRLFS). Journal of Molecular Liquids, 2014, 190, 42-49.	2.3	27
29	Separation of Co(II) and Ni(II) from aqueous solutions by bis(2,4,4-trimethylpentyl)phosphinic acid (Cyanex 272) using trihexyl(tetradecyl)phosphonium chloride (Cyphos IL 101) as solvent. Journal of Molecular Liquids, 2015, 209, 203-208.	2.3	27
30	Sustainable extraction and separation of precious metals from hydrochloric media using novel ionic liquid-in-water microemulsion. Hydrometallurgy, 2017, 171, 344-354.	1.8	27
31	Phosphoric acid recovery from concentrated aqueous feeds by a mixture of di-isopropyl ether (DiPE) and tri-n-butylphosphate (TBP): extraction data and modelling. RSC Advances, 2017, 7, 6922-6930.	1.7	25
32	Chemical degradation of trioctylamine and 1-tridecanol phase modifier in acidic sulfate media in the presence of vanadium (V). Hydrometallurgy, 2011, 105, 328-333.	1.8	24
33	Modelling of uranium(VI) extraction by D2EHPA/TOPO from phosphoric acid within a wide range of concentrations. Hydrometallurgy, 2016, 165, 57-63.	1.8	23
34	New insights in the leaching kinetics of cathodic materials in acidic chloride media for lithium-ion battery recycling. Hydrometallurgy, 2021, 204, 105705.	1.8	23
35	Is 3-methyl-2-oxazolidinone a suitable solvent for lithium-ion batteries?. Journal of Power Sources, 2006, 156, 634-644.	4.0	21
36	Morphology and antimicrobial properties of Luffa cylindrica fibers/chitosan biomaterial as micro-reservoirs for silver delivery. Materials Letters, 2012, 79, 238-241.	1.3	21

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37	Highly Selective Solvent Extraction of Zn(II) and Cu(II) from Acidic Aqueous Chloride Solutions with Mixture of Cyanex 272 and Aliquat 336. Separation Science and Technology, 2015, 50, 1302-1309.	1.3	20
38	Literature Review and Thermodynamic Modelling of Roasting Processes for Lithium Extraction from Spodumene. Metals, 2020, 10, 1312.	1.0	20
39	Solvent extraction of uranium from acidic sulfate media by AlamineÂ®336: computer simulation and optimization of the flow-sheets. Journal of Chemical Technology and Biotechnology, 2009, 84, 1331-1337.	1.6	19
40	First investigation of polyoxoniobate and polyoxotantalate aqueous speciation by capillary zone electrophoresis. RSC Advances, 2015, 5, 64119-64124.	1.7	19
41	Multinuclear Solid-State NMR Investigation of Hexaniobate and Hexatantalate Compounds. Inorganic Chemistry, 2016, 55, 5946-5956.	1.9	19
42	Ion-Dipole Interactions in Concentrated Organic Electrolytes. ChemPhysChem, 2003, 4, 559-566.	1.0	18
43	Rheological behaviour of binary mixtures containing hexyl(tetradecyl)phosphonium chloride (Cyphos) Tj ETQq1 1 0.784314 rgBT /Ove Molecular Liquids, 2012, 169, 27-32.	2.3	18
44	X-ray powder diffraction structure determination of Î³-butyrolactone at 180â€…K: phase-problem solution from the lattice energy minimization with two independent molecules. Acta Crystallographica Section B: Structural Science, 2005, 61, 312-320.	1.8	16
45	Development of a Novel Solvent Extraction Process to Recover Cobalt, Nickel, Manganese, and Lithium from Cathodic Materials of Spent Lithium-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2022, 10, 582-593.	3.2	16
46	A density functional theory study of uranium(vi) nitrate monoamide complexes. Physical Chemistry Chemical Physics, 2011, 13, 19371.	1.3	15
47	Development of a capillary electrophoresis method for the analysis in alkaline media as polyoxoanions of two strategic metals: Niobium and tantalum. Journal of Chromatography A, 2016, 1437, 210-218.	1.8	14
48	IR Fingerprints of U(VI) Nitrate Monoamides Complexes: A Joint Experimental and Theoretical Study. Journal of Physical Chemistry A, 2010, 114, 10878-10884.	1.1	12
49	Antisolvent Precipitation for Metal Recovery from Citric Acid Solution in Recycling of NMC Cathode Materials. Metals, 2022, 12, 607.	1.0	12
50	Experimental Determination and Modeling of the Speciation of Uranium(VI) in Phosphoric Acid Medium. Solvent Extraction and Ion Exchange, 2016, 34, 241-259.	0.8	11
51	New cationic exchangers for the recovery of cobalt(II), nickel(II) and manganese(II) from acidic chloride solutions: Modelling of extraction curves. Hydrometallurgy, 2018, 180, 96-103.	1.8	10
52	Chemical Degradation of a Mixture of tri-n-Octylamine and 1-Tridecanol in the Presence of Chromium(VI) in Acidic Sulfate Media. Metals, 2018, 8, 57.	1.0	10
53	Computer simulation of flowâ€sheets for the solvent extraction of uranium: a new route to delay the effect of chemical degradation of the organic phase during uranium recovery from acidic sulfate media. Journal of Chemical Technology and Biotechnology, 2009, 84, 1899-1907.	1.6	9
54	Characterization of palladium species after Î³-irradiation of a TBPâ€“alkaneâ€“Pd(NO₃)₂system. RSC Advances, 2018, 8, 21513-21527.	1.7	9

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55	Simulation of Solvent Extraction Flowsheets by a Global Model Combining Physicochemical and Engineering Approachesâ€"Application to Cobalt(II) Extraction by D2EHPA. Solvent Extraction and Ion Exchange, 2020, 38, 3-13.	0.8	9
56	Phase diagram of Î³-butyrolactone-dimethyl-carbonate mixtures. European Physical Journal Special Topics, 2001, 11, Pr10-27-Pr10-33.	0.2	8
57	Experimental and computational investigation of the electrocatalytic hydrogenation of phenol in an electrochemical cell. Canadian Journal of Chemistry, 2004, 82, 641-648.	0.6	8
58	In Vitro Biomineralization and Bulk Characterization of Chitosan/Hydroxyapatite Composite Microparticles Prepared by Emulsification Cross-Linking Method: Orthopedic Use. Applied Biochemistry and Biotechnology, 2012, 168, 1459-1475.	1.4	8
59	Fundamentals in Electrochemistry andÂHydrometallurgy. , 2015, , 41-80.		8
60	Physico-Chemical Characteristics of Spodumene Concentrate and Its Thermal Transformations. Materials, 2021, 14, 7423.	1.3	8
61	Application of Electrodialysis for the Selective Lithium Extraction Towards Cobalt, Nickel and Manganese from Leach Solutions Containing High Divalent Cations/Li Ratio. Recycling, 2022, 7, 14.	2.3	8
62	Influence of Phase Modifiers on the Degradation of Tri-n-octylamine/dodecane Extracting Mixture by an Acidic Solution of Vanadium (V). Solvent Extraction and Ion Exchange, 2012, 30, 67-76.	0.8	7
63	Effect of the Addition of Amine in Organophosphorus Compounds on Molecular Structuration of Ionic Liquidsâ€"Application to Solvent Extraction. Molecules, 2020, 25, 2584.	1.7	6
64	New insights for titanium(<scp>iv</scp>) speciation in acidic media based on UV-visible and ³¹P NMR spectroscopies and molecular modeling. RSC Advances, 2021, 11, 27059-27073.	1.7	6
65	In-Silico Calculations as a Helpful Tool for Designing New Extractants in Liquid-Liquid Extraction. Solvent Extraction and Ion Exchange, 2013, 31, 499-518.	0.8	5
66	In silico Design, Virtual Screening and Synthesis of Novel Electrolytic Solvents. Molecular Informatics, 2019, 38, 1900014.	1.4	5
67	Advances in Hydrometallurgy. Metals, 2019, 9, 211.	1.0	5
68	Recovery of Metal Values from Ni-Cd Cake Waste Residue of an Iranian Zinc Plant by Hydrometallurgical Route. Metals, 2020, 10, 655.	1.0	5
69	Physicochemical properties of fluorine-containing electrolytes for lithium batteries. , 2005, , 137-171.		4
70	On the Metal Ion Selectivity of Oxoacid Extractants. Solvent Extraction and Ion Exchange, 2013, 31, 95-105.	0.8	4
71	Physicochemical properties of novel cholinium ionic liquids for the recovery of silver from nitrate media. RSC Advances, 2015, 5, 78268-78277.	1.7	4
72	The Future of Scandium Recovery from Wastes. , 2021, 5, .		4

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73	Pysicochemical Phenomena Involved in the Recovery of Uranium from Phosphate by BiDiBOPP/di-n-HMOPO and Development of New Cationic Extractants. Procedia Engineering, 2014, 83, 259-264.	1.2	3
74	Liquid-Liquid Extraction of Cobalt(II), Nickel(II) and Manganese(II) from Acidic Chloride Media. Minerals, Metals and Materials Series, 2018, , 2027-2032.	0.3	0
75	Development of a Physiochemical Model Combined with an Engineering Model for Predicting Solvent Extraction Performances Within the Context of Lithium-Ion Battery Recycling. Minerals, Metals and Materials Series, 2020, , 3-9.	0.3	0