Rafael PÃ©rez-LÃ³pez

List of Publications by Year
in descending order

83 papers	3,718 citations	126708 33 h-index	138251 58 g-index
85 all docs	85 docs citations	85 times ranked	3336 citing authors

#	Article	IF	Citations
1	Mineral sequestration of CO2 by aqueous carbonation of coal combustion fly-ash. Journal of Hazardous Materials, 2009, 161, 1347-1354.	6.5	286
2	Recovery of Rare Earth Elements and Yttrium from Passive-Remediation Systems of Acid Mine Drainage. Environmental Science & Technology, 2016, 50, 8255-8262.	4.6	204
3	Changes in mobility of hazardous elements during coal combustion in Santa Catarina power plant (Brazil). Fuel, 2012, 94, 495-503.	3.4	185
4	Changes in mobility of toxic elements during the production of phosphoric acid in the fertilizer industry of Huelva (SW Spain) and environmental impact of phosphogypsum wastes. Journal of Hazardous Materials, 2007, 148, 745-750.	6.5	127
5	Dynamics of contaminants in phosphogypsum of the fertilizer industry of Huelva (SW Spain): From phosphate rock ore to the environment. Applied Geochemistry, 2010, 25, 705-715.	1.4	126
6	Pollutant flows from a phosphogypsum disposal area to an estuarine environment: An insight from geochemical signatures. Science of the Total Environment, 2016, 553, 42-51.	3.9	126
7	Use of sequential extraction procedure for assessing the environmental impact at regional scale of the SÃ£o Domingos Mine (Iberian Pyrite Belt). Applied Geochemistry, 2008, 23, 3452-3463.	1.4	112
8	Leaching of potential hazardous elements of coal cleaning rejects. Environmental Monitoring and Assessment, 2011, 175, 109-126.	1.3	102
9	Procedure to use phosphogypsum industrial waste for mineral CO2 sequestration. Journal of Hazardous Materials, 2011, 196, 431-435.	6.5	99
10	Enrichment of rare earth elements as environmental tracers of contamination by acid mine drainage in salt marshes: A new perspective. Marine Pollution Bulletin, 2012, 64, 1799-1808.	2.3	95
11	Carbonation of alkaline paper mill waste to reduce CO2 greenhouse gas emissions into the atmosphere. Applied Geochemistry, 2008, 23, 2292-2300.	1.4	94
12	Fractionation and fluxes of metals and radionuclides during the recycling process of phosphogypsum wastes applied to mineral CO2 sequestration. Waste Management, 2015, 45, 412-419.	3.7	90
13	Potential environmental impact at SÃ£o Domingos mining district (Iberian Pyrite Belt, SW Iberian) Tj ETQq1 1 0.784314 rgBT /Overlo 2008, 55, 1797-1809.	1.2	88
14	Rare earth element geochemistry of sulphide weathering in the SÃ£o Domingos mine area (Iberian Pyrite) Tj ETQq0 0 0 rgBT /Overlock 1 29-40.	1.4	82
15	Valorization of wastes from the fertilizer industry: Current status and future trends. Journal of Cleaner Production, 2018, 174, 678-690.	4.6	81
16	Evaluation of heavy metal bio-availability from Almagrera pyrite-rich tailings dam (Iberian Pyrite Belt,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 87-94.	1.5	75
17	Utilization of fly ash to improve the quality of the acid mine drainage generated by oxidation of a sulphide-rich mining waste: Column experiments. Chemosphere, 2007, 67, 1637-1646.	4.2	68
18	From highly polluted Zn-rich acid mine drainage to non-metallic waters: Implementation of a multi-step alkaline passive treatment system to remediate metal pollution. Science of the Total Environment, 2012, 433, 323-330.	3.9	66

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19	Management strategies and valorization for waste sludge from active treatment of extremely metal-polluted acid mine drainage: A contribution for sustainable mining. Journal of Cleaner Production, 2017, 141, 1057-1066.	4.6	65
20	An anomalous metal-rich phosphogypsum: Characterization and classification according to international regulations. Journal of Hazardous Materials, 2017, 331, 99-108.	6.5	60
21	Biologically-induced precipitation of sphaleriteâ€“wurtzite nanoparticles by sulfate-reducing bacteria: Implications for acid mine drainage treatment. Science of the Total Environment, 2012, 423, 176-184.	3.9	57
22	The potential role of aluminium hydroxysulphates in the removal of contaminants in acid mine drainage. Chemical Geology, 2015, 417, 414-423.	1.4	56
23	Environmental Assessment and Management of Phosphogypsum According to European and United States of America Regulations. Procedia Earth and Planetary Science, 2017, 17, 666-669.	0.6	56
24	Evaluation of heavy metals and arsenic speciation discharged by the industrial activity on the Tinto-Odiel estuary, SW Spain. Marine Pollution Bulletin, 2011, 62, 405-411.	2.3	50
25	The iron-coating role on the oxidation kinetics of a pyritic sludge doped with fly ash. Geochimica Et Cosmochimica Acta, 2007, 71, 1921-1934.	1.6	49
26	Characterization of the role of phosphogypsum foam in the transport of metals and radionuclides in the Southern Mediterranean Sea. Journal of Hazardous Materials, 2019, 363, 258-267.	6.5	49
27	Neutralization of acid mine drainage using the final product from CO2 emissions capture with alkaline paper mill waste. Journal of Hazardous Materials, 2010, 177, 762-772.	6.5	46
28	Immobilization of toxic elements in mine residues derived from mining activities in the Iberian Pyrite Belt (SW Spain): Laboratory experiments. Applied Geochemistry, 2007, 22, 1919-1935.	1.4	45
29	Environmental tracers for elucidating the weathering process in a phosphogypsum disposal site: Implications for restoration. Journal of Hydrology, 2015, 529, 1313-1323.	2.3	45
30	A novel approach for acid mine drainage pollution biomonitoring using rare earth elements bioaccumulated in the freshwater clam Corbicula fluminea. Journal of Hazardous Materials, 2017, 338, 466-471.	6.5	41
31	Erica andevalensis and Erica australis growing in the same extreme environments: Phytostabilization potential of mining areas. Geoderma, 2014, 230-231, 194-203.	2.3	38
32	Arsenate and Selenate Scavenging by Basaluminite: Insights into the Reactivity of Aluminum Phases in Acid Mine Drainage. Environmental Science & Technology, 2017, 51, 28-37.	4.6	37
33	Attenuation of pyrite oxidation with a fly ash pre-barrier: Reactive transport modelling of column experiments. Applied Geochemistry, 2009, 24, 1712-1723.	1.4	35
34	New method for carbon dioxide mineralization based on phosphogypsum and aluminium-rich industrial wastes resulting in valuable carbonated by-products. Journal of CO2 Utilization, 2017, 18, 15-22.	3.3	34
35	Assessment of natural radionuclides mobility in a phosphogypsum disposal area. Chemosphere, 2018, 211, 775-783.	4.2	32
36	Assessment of phosphogypsum impact on the salt-marshes of the Tinto river (SW Spain): Role of natural attenuation processes. Marine Pollution Bulletin, 2011, 62, 2787-2796.	2.3	31

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37	Effects of seawater mixing on the mobility of trace elements in acid phosphogypsum leachates. Marine Pollution Bulletin, 2018, 127, 695-703.	2.3	30
38	Stable isotope insights into the weathering processes of a phosphogypsum disposal area. Water Research, 2018, 140, 344-353.	5.3	30
39	Uncertainty in the measurement of toxic metals mobility in mining/mineral wastes by standardized BCRÂ®SEP. Journal of Hazardous Materials, 2018, 360, 587-593.	6.5	30
40	Evaluation of organic substrates to enhance the sulfate-reducing activity in phosphogypsum. Science of the Total Environment, 2012, 439, 106-113.	3.9	29
41	Combination of sequential chemical extraction and modelling of dam-break wave propagation to aid assessment of risk related to the possible collapse of a roasted sulphide tailings dam. Science of the Total Environment, 2009, 407, 5761-5771.	3.9	27
42	Arsenic speciation in soils and Erica andevalensis Cabezudo & Rivera and Erica australis L. from SÃ£o Domingos Mine area, Portugal. Journal of Geochemical Exploration, 2012, 119-120, 51-59.	1.5	27
43	Arsenic attenuation in tailings at a former Cuâ€“Wâ€“As mine, SW Finland. Applied Geochemistry, 2012, 27, 2289-2299.	1.4	26
44	Controls on acid mine water composition from the Iberian Pyrite Belt (SW Spain). Catena, 2016, 137, 12-23.	2.2	26
45	A geochemical approach to the restoration plans for the Odiel River basin (SW Spain), a watershed deeply polluted by acid mine drainage. Environmental Science and Pollution Research, 2017, 24, 4506-4516.	2.7	25
46	Sulfate reduction processes in salt marshes affected by phosphogypsum: Geochemical influences on contaminant mobility. Journal of Hazardous Materials, 2018, 350, 154-161.	6.5	25
47	Major hydrogeochemical processes in an Acid Mine Drainage affected estuary. Marine Pollution Bulletin, 2015, 91, 295-305.	2.3	24
48	Prediction of the environmental impact of modern slags: A petrological and chemical comparative study with Roman age slags. American Mineralogist, 2009, 94, 1417-1427.	0.9	23
49	Assessment of metals mobility during the alkaline treatment of highly acid phosphogypsum leachates. Science of the Total Environment, 2019, 660, 395-405.	3.9	23
50	Synchrotron-based X-ray study of iron oxide transformations in terraces from the Tinto-Odiel river system: Influence on arsenic mobility. Chemical Geology, 2011, 280, 336-343.	1.4	22
51	Formation of a hardpan in the co-disposal of fly ash and sulfide mine tailings and its influence on the generation of acid mine drainage. Chemical Geology, 2013, 355, 45-55.	1.4	22
52	The role of mineralogy on element mobility in two sulfide mine tailings from the Iberian Pyrite Belt (SW Spain). Chemical Geology, 2013, 345, 119-129.	1.4	21
53	Mineralogy of the hardpan formation processes in the interface between sulfide-rich sludge and fly ash: Applications for acid mine drainage mitigation. American Mineralogist, 2007, 92, 1966-1977.	0.9	20
54	Acid neutralization by dissolution of alkaline paper mill wastes and implications for treatment of sulfide-mine drainage. American Mineralogist, 2011, 96, 781-791.	0.9	19

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55	Raman identification of Fe precipitates and evaluation of As fate during phase transformation in Tinto and Odiel River Basins. Chemical Geology, 2015, 398, 22-31.	1.4	19
56	The nanocrystalline structure of basaluminite, an aluminum hydroxide sulfate from acid mine drainage. American Mineralogist, 2017, 102, 2381-2389.	0.9	19
57	Mine waters as a secondary source of rare earth elements worldwide: The case of the Iberian Pyrite Belt. Journal of Geochemical Exploration, 2021, 224, 106742.	1.5	19
58	Mineralogy and Geochemistry of Zn-Rich Mine-Drainage Precipitates From an MgO Passive Treatment System by Synchrotron-Based X-ray Analysis. Environmental Science & Technology, 2011, 45, 7826-7833.	4.6	18
59	Long-term interaction of wollastonite with acid mine water and effects on arsenic and metal removal. Applied Geochemistry, 2008, 23, 1288-1298.	1.4	16
60	Combined microstructural and mineralogical phase characterization of gallstones in a patient-based study in SW Spain - Implications for environmental contamination in their formation. Science of the Total Environment, 2016, 573, 433-443.	3.9	16
61	Metal and acidity fluxes controlled by precipitation/dissolution cycles of sulfate salts in an anthropogenic mine aquifer. Journal of Contaminant Hydrology, 2016, 188, 29-43.	1.6	16
62	Metal partitioning and speciation in a mining-impacted estuary by traditional and passive sampling methods. Science of the Total Environment, 2020, 722, 137905.	3.9	16
63	Influence of As(V) on precipitation and transformation of schwertmannite in acid mine drainage-impacted waters. European Journal of Mineralogy, 2019, 31, 237-245.	0.4	15
64	Eco-sustainable passive treatment for mine waters: Full-scale and long-term demonstration. Journal of Environmental Management, 2021, 280, 111699.	3.8	14
65	Design and optimization of sustainable passive treatment systems for phosphogypsum leachates in an orphan disposal site. Journal of Environmental Management, 2020, 275, 111251.	3.8	13
66	Trace element-mineral associations in modern and ancient iron terraces in acid drainage environments. Catena, 2016, 147, 386-393.	2.2	12
67	Mineralogically-induced metal partitioning during the evaporative precipitation of efflorescent sulfate salts from acid mine drainage. Chemical Geology, 2019, 530, 119339.	1.4	12
68	Mineral reactivity in sulphide mine wastes: influence of mineralogy and grain size on metal release. European Journal of Mineralogy, 2019, 31, 263-273.	0.4	12
69	Whole-nanoparticle atomistic modeling of the schwertmannite structure from total scattering data. Journal of Applied Crystallography, 2017, 50, 1617-1626.	1.9	11
70	Assessing the quality of potentially reclaimed mine soils: Environmental implications for the construction of a nearby water reservoir. Chemosphere, 2019, 216, 19-30.	4.2	11
71	Geochemical behaviour and transport of technology critical metals (TCMs) by the Tinto River (SW) Tj ETQq1 1 0.784314 rgBT /Overlo	3.9	11
72	Unraveling the impact of chronic exposure to metal pollution through human gallstones. Science of the Total Environment, 2018, 624, 1031-1040.	3.9	10

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73	Release of technology critical metals during sulfide oxidation processes: the case of the Poderosa sulfide mine (south-west Spain). Environmental Chemistry, 2020, 17, 93.	0.7	10
74	Environmental management and potential valorization of wastes generated in passive treatments of fertilizer industry effluents. Chemosphere, 2022, 295, 133876.	4.2	10
75	Role of Arsenic During the Aging of Acid Mine Drainage Precipitates. Procedia Earth and Planetary Science, 2017, 17, 233-236.	0.6	9
76	Combined procedure of metal removal and recovery of technology elements from fertilizer industry effluents. Journal of Geochemical Exploration, 2021, 221, 106698.	1.5	7
77	Metal(loid) release from sulfide-rich wastes to the environment: The case of the Iberian Pyrite Belt (SW Spain). Current Opinion in Environmental Science and Health, 2021, 20, 100240.	2.1	7
78	Assessment of the dissolved pollutant flux of the Odiel River (SW Spain) during a wet period. Science of the Total Environment, 2013, 463-464, 572-580.	3.9	6
79	Basaluminite Structure and its Environmental Implications. Procedia Earth and Planetary Science, 2017, 17, 237-240.	0.6	6
80	Effects of redox oscillations on the phosphogypsum waste in an estuarine salt-marsh system. Chemosphere, 2020, 242, 125174.	4.2	6
81	Experimental and theoretical evidence of zinc structurally bound in vermiculite from naturally metal-enriched soils. Clay Minerals, 2013, 48, 529-541.	0.2	5
82	New insights into the metal partitioning in different microphases of human gallstones. Journal of Trace Elements in Medicine and Biology, 2017, 44, 339-348.	1.5	5
83	Thallium distribution in an estuary affected by acid mine drainage (AMD): The RÃa de Huelva estuary (SW Spain). Environmental Pollution, 2022, 306, 119448.	3.7	2