Francisco A MacÃ-as

List of Publications by Year
in descending order

58 papers	1,918 citations	236612 25 h-index	264894 42 g-index
59 all docs	59 docs citations	59 times ranked	1638 citing authors

#	Article	IF	Citations
1	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
2	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
3	Valorization of wastes from the fertilizer industry: Current status and future trends. Journal of Cleaner Production, 2018, 174, 678-690.	4.6	81
4	Acid mine drainage in the Iberian Pyrite Belt: 2. Lessons learned from recent passive remediation experiences. Environmental Science and Pollution Research, 2013, 20, 7837-7853.	2.7	71
5	Field multi-step limestone and MgO passive system to treat acid mine drainage with high metal concentrations. Applied Geochemistry, 2009, 24, 2301-2311.	1.4	70
6	Natural pretreatment and passive remediation of highly polluted acid mine drainage. Journal of Environmental Management, 2012, 104, 93-100.	3.8	70
7	Long term remediation of highly polluted acid mine drainage: A sustainable approach to restore the environmental quality of the Odiel river basin. Environmental Pollution, 2011, 159, 3613-3619.	3.7	69
8	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
9	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
10	An anomalous metal-rich phosphogypsum: Characterization and classification according to international regulations. Journal of Hazardous Materials, 2017, 331, 99-108.	6.5	60
11	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
12	Metastability, nanocrystallinity and pseudo-solid solution effects on the understanding of schwertmannite solubility. Chemical Geology, 2013, 360-361, 22-31.	1.4	53
13	Long term fluctuations of groundwater mine pollution in a sulfide mining district with dry Mediterranean climate: Implications for water resources management and remediation. Science of the Total Environment, 2016, 539, 427-435.	3.9	53
14	Mobility of rare earth elements, yttrium and scandium from a phosphogypsum stack: Environmental and economic implications. Science of the Total Environment, 2018, 618, 847-857.	3.9	53
15	Passive elimination of sulfate and metals from acid mine drainage using combined limestone and barium carbonate systems. Journal of Cleaner Production, 2018, 182, 114-123.	4.6	49
16	Environmental assessment and management of metal-rich wastes generated in acid mine drainage passive remediation systems. Journal of Hazardous Materials, 2012, 229-230, 107-114.	6.5	47
17	Exploration of fertilizer industry wastes as potential source of critical raw materials. Journal of Cleaner Production, 2017, 143, 497-505.	4.6	41
18	Life cycle assessment of a passive remediation system for acid mine drainage: Towards more sustainable mining activity. Journal of Cleaner Production, 2019, 211, 1100-1111.	4.6	36

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19	Causes and impacts of a mine water spill from an acidic pit lake (Iberian Pyrite Belt). Environmental Pollution, 2019, 250, 127-136.	3.7	33
20	Water acidification trends in a reservoir of the Iberian Pyrite Belt (SW Spain). Science of the Total Environment, 2016, 541, 400-411.	3.9	30
21	Stable isotope insights into the weathering processes of a phosphogypsum disposal area. Water Research, 2018, 140, 344-353.	5.3	30
22	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
23	Hydrochemical performance and mineralogical evolution of a dispersed alkaline substrate (DAS) remediating the highly polluted acid mine drainage in the full-scale passive treatment of Mina Esperanza (SW Spain). American Mineralogist, 2011, 96, 1270-1277.	0.9	28
24	Seasonal variability of extremely metal rich acid mine drainages from the Tharsis mines (SW Spain). Environmental Pollution, 2020, 259, 113829.	3.7	28
25	New Herbicide Models from Benzoxazinones:Â Aromatic Ring Functionalization Effects. Journal of Agricultural and Food Chemistry, 2006, 54, 9843-9851.	2.4	26
26	Controls on acid mine water composition from the Iberian Pyrite Belt (SW Spain). Catena, 2016, 137, 12-23.	2.2	26
27	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
28	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
29	A bacterial consortium isolated from an Icelandic fumarole displays exceptionally high levels of sulfate reduction and metals resistance. Journal of Hazardous Materials, 2011, 187, 362-370.	6.5	24
30	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
31	Distribution and availability of rare earth elements and trace elements in the estuarine waters of the RÃa of Huelva (SW Spain). Environmental Pollution, 2020, 267, 115506.	3.7	21
32	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
33	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
34	The Evolution of Pollutant Concentrations in a River Severely Affected by Acid Mine Drainage: RÃo Tinto (SW Spain). Minerals (Basel, Switzerland), 2020, 10, 598.	0.8	18
35	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
36	Geochemical behavior of rare earth elements in acid drainages: Modeling achievements and limitations. Journal of Geochemical Exploration, 2020, 216, 106577.	1.5	16

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37	Temporal evolution of acid mine drainage (AMD) leachates from the abandoned tharsis mine (Iberian) Tj ETQq1 1 0.784314 rgBT /Ove	3.7	15
38	Geochemical processes in a highly acidic pit lake of the Iberian Pyrite Belt (SW Spain). Chemical Geology, 2015, 395, 144-153.	1.4	14
39	Hydrological characterization and prediction of flood levels of acidic pit lakes in the Tharsis mines, Iberian Pyrite Belt. Journal of Hydrology, 2018, 566, 807-817.	2.3	14
40	Eco-sustainable passive treatment for mine waters: Full-scale and long-term demonstration. Journal of Environmental Management, 2021, 280, 111699.	3.8	14
41	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
42	Hydrogeochemical behavior of an anthropogenic mine aquifer: Implications for potential remediation measures. Science of the Total Environment, 2018, 636, 85-93.	3.9	12
43	Mineralogically-induced metal partitioning during the evaporative precipitation of efflorescent sulfate salts from acid mine drainage. Chemical Geology, 2019, 530, 119339.	1.4	12
44	Ecological improvement assessment of a passive remediation technology for acid mine drainage: Water quality biomonitoring using bivalves. Chemosphere, 2019, 219, 695-703.	4.2	12
45	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
46	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
47	Geochemical behaviour and transport of technology critical metals (TCMs) by the Tinto River (SW) Tj ETQq1 1 0.784314 rgBT /Overlo	3.9	11
48	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
49	Environmental management and potential valorization of wastes generated in passive treatments of fertilizer industry effluents. Chemosphere, 2022, 295, 133876.	4.2	10
50	Metal-fluxes characterization at a catchment scale: Study of mixing processes and end-member analysis in the Meca River watershed (SW Spain). Journal of Hydrology, 2017, 550, 590-602.	2.3	9
51	Rare earth elements in a historical mining district (south-west Spain): Hydrogeochemical behaviour and seasonal variability. Chemosphere, 2020, 253, 126742.	4.2	9
52	Synthesis and antimicrobial activity of some benzoxazinoids derivatives of 2-nitrophenol and 3-hydroxy-2-nitropyridine. Synthetic Communications, 2019, 49, 286-296.	1.1	8
53	Combined procedure of metal removal and recovery of technology elements from fertilizer industry effluents. Journal of Geochemical Exploration, 2021, 221, 106698.	1.5	7
54	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

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55	Partition of Rare Earth Elements Between Sulfate Salts Formed by the Evaporation of Acid Mine Drainage. Mine Water and the Environment, 2022, 41, 42-57.	0.9	4
56	Stream-pit lake interactions in an abandoned mining area affected by acid drainage (Iberian Pyrite Belt). Science of the Total Environment, 2022, 833, 155224.	3.9	4
57	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
58	Toxicity and Anti-promastigote Activity of Benzoxazinoid Analogs Against Leishmania (Viannia) braziliensis and Leishmania (Leishmania) infantum. Advanced Pharmaceutical Bulletin, 2020, 10, 119-124.	0.6	1