

Carlos R Canovas

List of Publications by Year in descending order

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73
papers

2,819
citations

185998

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182168

51
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74
all docs

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docs citations

74
times ranked

2196
citing authors

#	ARTICLE	IF	CITATIONS
1	Acid mine drainage pollution in the Tinto and Odiel rivers (Iberian Pyrite Belt, SW Spain) and bioavailability of the transported metals to the Huelva Estuary. <i>Environment International</i> , 2007, 33, 445-455.	4.8	263
2	Seasonal water quality variations in a river affected by acid mine drainage: the Odiel River (South) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.9	212
3	Evaluation of the dissolved contaminant load transported by the Tinto and Odiel rivers (South West) Tj ETQq1 1 0.784314 rgBT /Overlock 156	1.4	156
4	Hydrogeochemical characteristics of the Tinto and Odiel Rivers (SW Spain). Factors controlling metal contents. <i>Science of the Total Environment</i> , 2007, 373, 363-382.	3.9	156
5	Hydrochemical characteristics and seasonal influence on the pollution by acid mine drainage in the Odiel river Basin (SW Spain). <i>Applied Geochemistry</i> , 2009, 24, 697-714.	1.4	150
6	Pollutant flows from a phosphogypsum disposal area to an estuarine environment: An insight from geochemical signatures. <i>Science of the Total Environment</i> , 2016, 553, 42-51.	3.9	126
7	Leaching of rare earth elements (REEs) and impurities from phosphogypsum: A preliminary insight for further recovery of critical raw materials. <i>Journal of Cleaner Production</i> , 2019, 219, 225-235.	4.6	105
8	Hydrochemical variations and contaminant load in the R�o Tinto (Spain) during flood events. <i>Journal of Hydrology</i> , 2008, 350, 25-40.	2.3	97
9	Acid mine drainage in the Iberian Pyrite Belt: 1. Hydrochemical characteristics and pollutant load of the Tinto and Odiel rivers. <i>Environmental Science and Pollution Research</i> , 2013, 20, 7509-7519.	2.7	85
10	Valorization of wastes from the fertilizer industry: Current status and future trends. <i>Journal of Cleaner Production</i> , 2018, 174, 678-690.	4.6	81
11	Wash-out processes of evaporitic sulfate salts in the Tinto river: Hydrogeochemical evolution and environmental impact. <i>Applied Geochemistry</i> , 2010, 25, 288-301.	1.4	66
12	Management strategies and valorization for waste sludge from active treatment of extremely metal-polluted acid mine drainage: A contribution for sustainable mining. <i>Journal of Cleaner Production</i> , 2017, 141, 1057-1066.	4.6	65
13	Natural attenuation processes in two water reservoirs receiving acid mine drainage. <i>Science of the Total Environment</i> , 2009, 407, 2051-2062.	3.9	60
14	An anomalous metal-rich phosphogypsum: Characterization and classification according to international regulations. <i>Journal of Hazardous Materials</i> , 2017, 331, 99-108.	6.5	60
15	Environmental Assessment and Management of Phosphogypsum According to European and United States of America Regulations. <i>Procedia Earth and Planetary Science</i> , 2017, 17, 666-669.	0.6	56
16	Mobility of rare earth elements, yttrium and scandium from a phosphogypsum stack: Environmental and economic implications. <i>Science of the Total Environment</i> , 2018, 618, 847-857.	3.9	53
17	Application of the SWAT model to an AMD-affected river (Meca River, SW Spain). Estimation of transported pollutant load. <i>Journal of Hydrology</i> , 2009, 377, 445-454.	2.3	49
18	Geochemical behaviour of rare earth elements (REE) along a river reach receiving inputs of acid mine drainage. <i>Chemical Geology</i> , 2018, 493, 468-477.	1.4	46

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19	Exploration of fertilizer industry wastes as potential source of critical raw materials. Journal of Cleaner Production, 2017, 143, 497-505.	4.6	41
20	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
21	Closing the upcoming EU gypsum gap with phosphogypsum. Resources, Conservation and Recycling, 2022, 182, 106328.	5.3	36
22	Metal cycling during sediment early diagenesis in a water reservoir affected by acid mine drainage. Science of the Total Environment, 2013, 461-462, 416-429.	3.9	35
23	Pollutant transport processes in the Odiel River (SW Spain) during rain events. Water Resources Research, 2012, 48, .	1.7	33
24	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
25	Geochemical behavior of metals and metalloids in an estuary affected by acid mine drainage (AMD). Environmental Science and Pollution Research, 2014, 21, 2611-2627.	2.7	32
26	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
27	Uncertainty in the measurement of toxic metals mobility in mining/mineral wastes by standardized BCR ⁺ SEP. Journal of Hazardous Materials, 2018, 360, 587-593.	6.5	30
28	Water Quality in the Future Alcolea Reservoir (Odiel River, SW Spain): A Clear Example of the Inappropriate Management of Water Resources in Spain. Water Resources Management, 2011, 25, 201-215.	1.9	29
29	Trace metal partitioning over a tidal cycle in an estuary affected by acid mine drainage (Tinto estuary,) Tj ETQq1 1 0,784314 rgBT /Overlock 10 Tf 50 30	3.9	29
30	Influence of releases from a fresh water reservoir on the hydrochemistry of the Tinto River (SW) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 30	3.9	28
31	Seasonal variability of extremely metal rich acid mine drainages from the Tharsis mines (SW Spain). Environmental Pollution, 2020, 259, 113829.	3.7	28
32	Controls on acid mine water composition from the Iberian Pyrite Belt (SW Spain). Catena, 2016, 137, 12-23.	2.2	26
33	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
34	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
35	Hydrological modeling of a watershed affected by acid mine drainage (Odiel River, SW Spain). Assessment of the pollutant contributing areas. Journal of Hydrology, 2016, 540, 196-206.	2.3	23
36	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

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37	Distribution and availability of rare earth elements and trace elements in the estuarine waters of the R�a of Huelva (SW Spain). <i>Environmental Pollution</i> , 2020, 267, 115506.	3.7	21
38	From floodplain to aquatic sediments: Radiogeochronological fingerprints in a sediment core from the mining impacted Sancho Reservoir (SW Spain). <i>Science of the Total Environment</i> , 2018, 631-632, 866-878.	3.9	19
39	Mine waters as a secondary source of rare earth elements worldwide: The case of the Iberian Pyrite Belt. <i>Journal of Geochemical Exploration</i> , 2021, 224, 106742.	1.5	19
40	The Evolution of Pollutant Concentrations in a River Severely Affected by Acid Mine Drainage: R�o Tinto (SW Spain). <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 598.	0.8	18
41	Oxycline formation induced by Fe(II) oxidation in a water reservoir affected by acid mine drainage modeled using a 2D hydrodynamic and water quality model "CE-QUAL-W2". <i>Science of the Total Environment</i> , 2016, 562, 1-12.	3.9	16
42	Metal and acidity fluxes controlled by precipitation/dissolution cycles of sulfate salts in an anthropogenic mine aquifer. <i>Journal of Contaminant Hydrology</i> , 2016, 188, 29-43.	1.6	16
43	Metal partitioning and speciation in a mining-impacted estuary by traditional and passive sampling methods. <i>Science of the Total Environment</i> , 2020, 722, 137905.	3.9	16
44	Refining the estimation of metal loads dissolved in acid mine drainage by continuous monitoring of specific conductivity and water level. <i>Applied Geochemistry</i> , 2012, 27, 1932-1943.	1.4	15
45	Dissolved and particulate metal fluxes in an AMD-affected stream under different hydrological conditions: The Odiel River (SW Spain). <i>Catena</i> , 2018, 165, 414-424.	2.2	15
46	Temporal evolution of acid mine drainage (AMD) leachates from the abandoned tharsis mine (Iberian) Tj ETQq0 0 0,rgBT /Overlock 10 Tf	3.9	15
47	Geochemical processes in a highly acidic pit lake of the Iberian Pyrite Belt (SW Spain). <i>Chemical Geology</i> , 2015, 395, 144-153.	1.4	14
48	Hydrological characterization and prediction of flood levels of acidic pit lakes in the Tharsis mines, Iberian Pyrite Belt. <i>Journal of Hydrology</i> , 2018, 566, 807-817.	2.3	14
49	Eco-sustainable passive treatment for mine waters: Full-scale and long-term demonstration. <i>Journal of Environmental Management</i> , 2021, 280, 111699.	3.8	14
50	Design and optimization of sustainable passive treatment systems for phosphogypsum leachates in an orphan disposal site. <i>Journal of Environmental Management</i> , 2020, 275, 111251.	3.8	13
51	Hydrogeochemical behavior of an anthropogenic mine aquifer: Implications for potential remediation measures. <i>Science of the Total Environment</i> , 2018, 636, 85-93.	3.9	12
52	Mineralogically-induced metal partitioning during the evaporative precipitation of efflorescent sulfate salts from acid mine drainage. <i>Chemical Geology</i> , 2019, 530, 119339.	1.4	12
53	Mineral reactivity in sulphide mine wastes: influence of mineralogy and grain size on metal release. <i>European Journal of Mineralogy</i> , 2019, 31, 263-273.	0.4	12
54	Assessing the quality of potentially reclaimed mine soils: Environmental implications for the construction of a nearby water reservoir. <i>Chemosphere</i> , 2019, 216, 19-30.	4.2	11

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55	Geochemical behaviour and transport of technology critical metals (TCMs) by the Tinto River (SW Tj ETQq1 1 0.784314 rgBT /Overlo	3.9	11
56	Trace metal mobility in sub-seabed sediments by CO2 seepage under high-pressure conditions. Science of the Total Environment, 2020, 700, 134761.	3.9	10
57	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
58	Environmental management and potential valorization of wastes generated in passive treatments of fertilizer industry effluents. Chemosphere, 2022, 295, 133876.	4.2	10
59	Metal(loid) Attenuation Processes in an Extremely Acidic River: The Rio Tinto (SW Spain). Water, Air, and Soil Pollution, 2014, 225, 1.	1.1	9
60	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
61	Rare earth elements in a historical mining district (south-west Spain): Hydrogeochemical behaviour and seasonal variability. Chemosphere, 2020, 253, 126742.	4.2	9
62	Combined procedure of metal removal and recovery of technology elements from fertilizer industry effluents. Journal of Geochemical Exploration, 2021, 221, 106698.	1.5	7
63	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
64	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
65	Characterization of Main AMD Inputs to the Odiel River Upper Reach (SW Spain). Procedia Earth and Planetary Science, 2017, 17, 602-605.	0.6	5
66	Surface and Groundwater Quality Evolution in the Agrio and Guadiamar Rivers After the Aznalc��llar Mine Spill (SW Spain): Lessons Learned. Mine Water and the Environment, 2021, 40, 235-249.	0.9	5
67	Temporal Variations of REE in Several AMD Sources of the Odiel River (SW Spain). Procedia Earth and Planetary Science, 2017, 17, 706-709.	0.6	4
68	Reconstruction of an Acid Water Spill in a Mountain Reservoir. Water (Switzerland), 2017, 9, 613.	1.2	4
69	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
70	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
71	Thallium distribution in an estuary affected by acid mine drainage (AMD): The R��a de Huelva estuary (SW Spain). Environmental Pollution, 2022, 306, 119448.	3.7	2
72	Metal/loid Release from Cyanidation Wastes in Response to Rainfalls. Procedia Earth and Planetary Science, 2017, 17, 436-439.	0.6	1

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73	Natural radioactivity and element characterization in pit lakes in Northern Sweden. PLoS ONE, 2022, 17, e0266002.	1.1	1