

Cesar Alberto Valderrama Angel

List of Publications by Year in descending order

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Version: 2024-02-01

103
papers

4,462
citations

87843

38
h-index

118793

62
g-index

106
all docs

106
docs citations

106
times ranked

4652
citing authors

#	ARTICLE	IF	CITATIONS
1	Sorption kinetics of polycyclic aromatic hydrocarbons removal using granular activated carbon: Intraparticle diffusion coefficients. <i>Journal of Hazardous Materials</i> , 2008, 157, 386-396.	6.5	239
2	Simultaneous phosphate and ammonium removal from aqueous solution by a hydrated aluminum oxide modified natural zeolite. <i>Chemical Engineering Journal</i> , 2015, 271, 204-213.	6.6	223
3	Phenol removal from aqueous solution by adsorption and ion exchange mechanisms onto polymeric resins. <i>Journal of Colloid and Interface Science</i> , 2009, 338, 402-409.	5.0	176
4	Implementation of best available techniques in cement manufacturing: a life-cycle assessment study. <i>Journal of Cleaner Production</i> , 2012, 25, 60-67.	4.6	150
5	Application of ZnO nanostructures in ceramic and polymeric membranes for water and wastewater technologies: A review. <i>Chemical Engineering Journal</i> , 2020, 391, 123475.	6.6	125
6	Concentration of NaCl from seawater reverse osmosis brines for the chlor-alkali industry by electrodialysis. <i>Desalination</i> , 2014, 342, 107-117.	4.0	120
7	Extraction of valuable metal ions (Cs, Rb, Li, U) from reverse osmosis concentrate using selective sorbents. <i>Desalination</i> , 2012, 286, 316-323.	4.0	99
8	Biogas deep clean-up based on adsorption technologies for Solid Oxide Fuel Cell applications. <i>Chemical Engineering Journal</i> , 2014, 255, 593-603.	6.6	99
9	Understanding the effects of the origin, occurrence, monitoring, control, fate and removal of siloxanes on the energetic valorization of sewage biogas: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 52, 366-381.	8.2	97
10	Polyphenols and their potential role to fight viral diseases: An overview. <i>Science of the Total Environment</i> , 2021, 801, 149719.	3.9	92
11	Oxidation by Fenton's reagent combined with biological treatment applied to a creosote-contaminated soil. <i>Journal of Hazardous Materials</i> , 2009, 166, 594-602.	6.5	89
12	Kinetics of sorption of polyaromatic hydrocarbons onto granular activated carbon and Macronet hyper-cross-linked polymers (MN200). <i>Journal of Colloid and Interface Science</i> , 2007, 310, 35-46.	5.0	87
13	Comparative LCA of sewage sludge valorisation as both fuel and raw material substitute in clinker production. <i>Journal of Cleaner Production</i> , 2013, 51, 205-213.	4.6	87
14	Integration of nanofiltration and bipolar electrodialysis for valorization of seawater desalination brines: Production of drinking and waste water treatment chemicals. <i>Desalination</i> , 2016, 382, 13-20.	4.0	85
15	Recovery of ammonia from domestic wastewater effluents as liquid fertilizers by integration of natural zeolites and hollow fibre membrane contactors. <i>Science of the Total Environment</i> , 2017, 584-585, 244-251.	3.9	85
16	Selectrodialysis and bipolar membrane electrodialysis combination for industrial process brines treatment: Monovalent-divalent ions separation and acid and base production. <i>Desalination</i> , 2016, 399, 88-95.	4.0	80
17	Liquid fertilizer production by ammonia recovery from treated ammonia-rich regenerated streams using liquid-liquid membrane contactors. <i>Chemical Engineering Journal</i> , 2019, 360, 890-899.	6.6	75
18	Integration of monopolar and bipolar electrodialysis for valorization of seawater reverse osmosis desalination brines: Production of strong acid and base. <i>Desalination</i> , 2016, 398, 87-97.	4.0	74

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19	Evaluation of hydroxyapatite crystallization in a batch reactor for the valorization of alkaline phosphate concentrates from wastewater treatment plants using calcium chloride. <i>Chemical Engineering Journal</i> , 2015, 267, 142-152.	6.6	71
20	Fly ash as reactive sorbent for phosphate removal from treated waste water as a potential slow release fertilizer. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 160-169.	3.3	66
21	Kinetic evaluation of phenol/aniline mixtures adsorption from aqueous solutions onto activated carbon and hypercrosslinked polymeric resin (MN200). <i>Reactive and Functional Polymers</i> , 2010, 70, 142-150.	2.0	63
22	Grey water reclamation by decentralized MBR prototype. <i>Resources, Conservation and Recycling</i> , 2013, 72, 102-107.	5.3	63
23	Application of two sites non-equilibrium sorption model for the removal of Cu(II) onto grape stalk wastes in a fixed-bed column. <i>Chemical Engineering Journal</i> , 2010, 156, 298-304.	6.6	57
24	Valorization of ammonia concentrates from treated urban wastewater using liquid-liquid membrane contactors. <i>Chemical Engineering Journal</i> , 2016, 302, 641-649.	6.6	55
25	Powdered Ca-activated zeolite for phosphate removal from treated wastewater. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 1962-1971.	1.6	53
26	Cadmium and Lead Removal from Aqueous Solution by Grape Stalk Wastes: Modeling of a Fixed-Bed Column. <i>Journal of Chemical & Engineering Data</i> , 2010, 55, 3548-3554.	1.0	51
27	Winery wastewater treatment for water reuse purpose: Conventional activated sludge versus membrane bioreactor (MBR). <i>Desalination</i> , 2012, 306, 1-7.	4.0	51
28	Application of electrodialysis for the removal of As from metallurgical process waters: Recovery of Cu and Zn. <i>Separation and Purification Technology</i> , 2018, 195, 404-412.	3.9	51
29	Kinetic study of acid red dye removal by activated carbon and hyper-cross-linked polymeric sorbents Macronet Hypersol MN200 and MN300. <i>Reactive and Functional Polymers</i> , 2008, 68, 718-731.	2.0	49
30	Modification of a natural zeolite with Fe(III) for simultaneous phosphate and ammonium removal from aqueous solutions. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 1737-1746.	1.6	49
31	Kinetics of polycyclic aromatic hydrocarbons removal using hyper-cross-linked polymeric sorbents Macronet Hypersol MN200. <i>Reactive and Functional Polymers</i> , 2007, 67, 1515-1529.	2.0	48
32	Evaluation of Selective Sorbents for the Extraction of Valuable Metal Ions (Cs, Rb, Li, U) from Reverse Osmosis Rejected Brine. <i>Solvent Extraction and Ion Exchange</i> , 2010, 28, 543-562.	0.8	48
33	Enhancing the efficiency of solar pond heat extraction by using both lateral and bottom heat exchangers. <i>Solar Energy</i> , 2016, 134, 82-94.	2.9	48
34	Sorption and mobility of Sb(V) in calcareous soils of Catalonia (NE Spain): Batch and column experiments. <i>Geoderma</i> , 2011, 160, 468-476.	2.3	44
35	Integration of liquid-liquid membrane contactors and electrodialysis for ammonium recovery and concentration as a liquid fertilizer. <i>Chemosphere</i> , 2020, 245, 125606.	4.2	44
36	Evaluation of hyper-cross-linked polymeric sorbents (Macronet MN200 and MN300) on dye (Acid red) Tj ETQq0 0 0,rgBT /Overlock 10 Tf	2.6	43

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37	Fruit and vegetable processing wastes as natural sources of antioxidant-rich extracts: Evaluation of advanced extraction technologies by surface response methodology. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105330.	3.3	41
38	Solar energy storage by salinity gradient solar pond: Pilot plant construction and gradient control. <i>Desalination</i> , 2011, 279, 445-450.	4.0	40
39	Phosphate removal from aqueous solution using a hybrid impregnated polymeric sorbent containing hydrated ferric oxide (<sc>HFO</sc>). <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 693-704.	1.6	40
40	Evaluation of NF membranes as treatment technology of acid mine drainage: metals and sulfate removal. <i>Desalination</i> , 2018, 440, 122-134.	4.0	39
41	Recovery of ammonium and phosphate from treated urban wastewater by using potassium clinoptilolite impregnated hydrated metal oxides as N-P-K fertilizer. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 3519-3526.	3.3	38
42	Phosphate removal from aqueous solutions using a hybrid fibrous exchanger containing hydrated ferric oxide nanoparticles. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 388-397.	3.3	38
43	Cr(III) removal from aqueous solutions: A straightforward model approaching of the adsorption in a fixed-bed column. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2014, 49, 179-186.	0.9	37
44	Simultaneous ammonium and phosphate recovery and stabilization from urban sewage sludge anaerobic digestates using reactive sorbents. <i>Science of the Total Environment</i> , 2018, 630, 781-789.	3.9	37
45	Design, construction, and operation of the first industrial salinity-gradient solar pond in Europe: An efficiency analysis perspective. <i>Solar Energy</i> , 2018, 164, 316-326.	2.9	37
46	Increasing the storage capacity of a solar pond by using solar thermal collectors: Heat extraction and heat supply processes using in-pond heat exchangers. <i>Solar Energy</i> , 2018, 171, 112-121.	2.9	37
47	Techno-economic evaluation and comparison of PAC-MBR and ozonation-UV revamping for organic micro-pollutants removal from urban reclaimed wastewater. <i>Science of the Total Environment</i> , 2019, 671, 288-298.	3.9	37
48	Salinity gradient solar pond: Validation and simulation model. <i>Solar Energy</i> , 2013, 98, 366-374.	2.9	35
49	Phosphate recovery from aqueous solution by K-zeolite synthesized from fly ash for subsequent valorisation as slow release fertilizer. <i>Science of the Total Environment</i> , 2020, 731, 139002.	3.9	34
50	Reactive transport of arsenic(III) and arsenic(V) on natural hematite: Experimental and modeling. <i>Journal of Colloid and Interface Science</i> , 2010, 348, 293-297.	5.0	33
51	Valorisation of Ca and Mg by-products from mining and seawater desalination brines for water treatment applications. <i>Journal of Chemical Technology and Biotechnology</i> , 2014, 89, 872-883.	1.6	33
52	Modelling of the Ni(II) removal from aqueous solutions onto grape stalk wastes in fixed-bed column. <i>Journal of Hazardous Materials</i> , 2010, 174, 144-150.	6.5	32
53	Stabilisation of dewatered domestic sewage sludge by lime addition as raw material for the cement industry: Understanding process and reactor performance. <i>Chemical Engineering Journal</i> , 2013, 232, 458-467.	6.6	32
54	Recovery of Rare Earth Elements from acidic mine waters by integration of a selective chelating ion-exchanger and a solvent impregnated resin. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105906.	3.3	31

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55	Biogas biological desulphurisation under extremely acidic conditions for energetic valorisation in Solid Oxide Fuel Cells. <i>Chemical Engineering Journal</i> , 2014, 255, 677-685.	6.6	29
56	Recovery of Ammonium by Powder Synthetic Zeolites from Wastewater Effluents: Optimization of the Regeneration Step. <i>Water, Air, and Soil Pollution</i> , 2017, 228, 1.	1.1	29
57	A Phosphorous Flow Analysis in Spain. <i>Science of the Total Environment</i> , 2018, 612, 995-1006.	3.9	29
58	Evaluation of a pilot-scale sewage biogas powered 2.8ÂkWe Solid Oxide Fuel Cell: Assessment of heat-to-power ratio and influence of oxygen content. <i>Journal of Power Sources</i> , 2015, 300, 325-335.	4.0	28
59	Evaluation of polyaromatic hydrocarbon removal from aqueous solutions using activated carbon and hyperâ€crosslinked polymer (Macronet MN200). <i>Journal of Chemical Technology and Biotechnology</i> , 2009, 84, 236-245.	1.6	27
60	Simultaneous recovery of ammonium and phosphate from simulated treated wastewater effluents by activated calcium and magnesium zeolites. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 2400-2409.	1.6	27
61	Use of nutrient-enriched zeolite (NEZ) from urban wastewaters in amended soils: Evaluation of plant availability of mineral elements. <i>Science of the Total Environment</i> , 2020, 727, 138646.	3.9	27
62	Integration of electrodialysis and solvent-impregnated resins for Zn(II) and Cu(II) recovery from hydrometallurgy effluents containing As(V). <i>Separation and Purification Technology</i> , 2019, 229, 115818.	3.9	26
63	Evaluating Binary Sorption of Phenol/Aniline from Aqueous Solutions onto Granular Activated Carbon and Hypercrosslinked Polymeric Resin (MN200). <i>Water, Air, and Soil Pollution</i> , 2010, 210, 421-434.	1.1	25
64	Valorisation of N and P from waste water by using natural reactive hybrid sorbents: Nutrients (N,P,K) release evaluation in amended soils by dynamic experiments. <i>Science of the Total Environment</i> , 2018, 612, 728-738.	3.9	25
65	Study of the operational parameters in the hollow fibre liquid-liquid membrane contactors process for ammonia valorisation as liquid fertiliser. <i>Separation and Purification Technology</i> , 2021, 255, 117768.	3.9	25
66	Potentiometric electronic tongue-flow injection analysis system for the monitoring of heavy metal biosorption processes. <i>Talanta</i> , 2012, 93, 285-292.	2.9	24
67	Stability analysis of an industrial salinity gradient solar pond. <i>Solar Energy</i> , 2019, 180, 216-225.	2.9	24
68	On-site cogeneration with sewage biogas via high-temperature fuel cells: Benchmarking against other options based on industrial-scale data. <i>Fuel Processing Technology</i> , 2015, 138, 654-662.	3.7	23
69	Valorisation options for Zn and Cu recovery from metal influenced acid mine waters through selective precipitation and ion-exchange processes: promotion of on-site/off-site management options. <i>Journal of Environmental Management</i> , 2021, 283, 112004.	3.8	23
70	Ammonium removal by liquidâ€liquid membrane contactors in water purification process for hydrogen production. <i>Desalination and Water Treatment</i> , 2015, 56, 3607-3616.	1.0	22
71	Recovery of nutrients (N-P-K) from potassium-rich sludge anaerobic digestion side-streams by integration of a hybrid sorption-membrane ultrafiltration process: Use of powder reactive sorbents as nutrient carriers. <i>Science of the Total Environment</i> , 2017, 599-600, 422-430.	3.9	20
72	Integration of membrane distillation as volume reduction technology for in-land desalination brines management: Pre-treatments and scaling limitations. <i>Journal of Environmental Management</i> , 2021, 289, 112549.	3.8	19

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73	Iron-doped natural clays: Low-cost inorganic adsorbents for phosphate recovering from simulated urban treated wastewater. <i>Journal of Water Process Engineering</i> , 2021, 43, 102274.	2.6	19
74	Simultaneous nutrients (N,P) removal by using a hybrid inorganic sorbent impregnated with hydrated manganese oxide. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 1516-1525.	3.3	17
75	Phosphate recovery from treated municipal wastewater using hybrid anion exchangers containing hydrated ferric oxide nanoparticles. <i>Journal of Chemical Technology and Biotechnology</i> , 2018, 93, 358-364.	1.6	17
76	Integration of Monopolar and Bipolar Electrodialysis Processes for Tartaric Acid Recovery from Residues of the Winery Industry. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 13387-13399.	3.2	17
77	Recovery of Added-Value Compounds from Orange and Spinach Processing Residues: Green Extraction of Phenolic Compounds and Evaluation of Antioxidant Activity. <i>Antioxidants</i> , 2021, 10, 1800.	2.2	17
78	Anticipatory life cycle analysis framework for sustainable management of end-of-life crystalline silicon photovoltaic panels. <i>Energy</i> , 2022, 245, 123207.	4.5	16
79	Thermal performance of 500 m ² salinity gradient solar pond in Granada, Spain under strong weather conditions. <i>Solar Energy</i> , 2018, 171, 223-228.	2.9	15
80	Nutrients recovery from treated secondary mainstream in an urban wastewater treatment plant: A financial assessment case study. <i>Science of the Total Environment</i> , 2019, 656, 902-909.	3.9	15
81	Impacts on effluent contaminants from mine sites: risk assessment, fate, and distribution of pollution at basin scale. <i>Environmental Science and Pollution Research</i> , 2014, 21, 5960-5971.	2.7	13
82	Evolution of electrolyte mixtures rejection behaviour using nanofiltration membranes under spiral wound and flat-sheet configurations. <i>Desalination and Water Treatment</i> , 2015, 56, 3519-3529.	1.0	13
83	Hydroxyapatite Coatings on Calcite Powder for the Removal of Heavy Metals from Contaminated Water. <i>Water (Switzerland)</i> , 2021, 13, 1493.	1.2	13
84	Life cycle assessment and economic analysis of the electric motorcycle in the city of Barcelona and the impact on air pollution. <i>Science of the Total Environment</i> , 2022, 821, 153419.	3.9	13
85	Integration of Powdered Ca-Activated Zeolites in a Hybrid Sorption Membrane Ultrafiltration Process for Phosphate Recovery. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 6204-6212.	1.8	12
86	Evaluation of Phenol/Aniline (Single and Binary) Removal from Aqueous Solutions onto Hyper-cross-linked Polymeric Resin (Macronet MN200) and Granular Activated Carbon in Fixed-Bed Column. <i>Water, Air, and Soil Pollution</i> , 2011, 215, 285-297.	1.1	11
87	Simultaneous and automated monitoring of the multimetal biosorption processes by potentiometric sensor array and artificial neural network. <i>Talanta</i> , 2013, 114, 17-24.	2.9	11
88	Trace ammonium removal by liquid-liquid membrane contactors as water polishing step of water electrolysis for hydrogen production from a wastewater treatment plant effluent. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 2983-2993.	1.6	11
89	Detrimental effects of magnesium (II) on hydroxyapatite precipitation from synthetic industrial brines. <i>Chemical Engineering Journal</i> , 2016, 283, 572-581.	6.6	11
90	Hybrid sorption and pressure-driven membrane technologies for organic micropollutants removal in advanced water reclamation: A techno-economic assessment. <i>Journal of Cleaner Production</i> , 2020, 273, 123108.	4.6	11

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91	Characterization of chromium (III) removal from aqueous solutions by an immature coal (leonardite). Toward a better understanding of the phenomena involved. <i>Clean Technologies and Environmental Policy</i> , 2014, 16, 127-136.	2.1	10
92	Characterization of Azo Dye (Acid Red 14) Removal with Granular Activated Carbon: Equilibrium and Kinetic Data. <i>Solvent Extraction and Ion Exchange</i> , 2008, 26, 271-288.	0.8	9
93	Computer controlled-flow injection potentiometric system based on virtual instrumentation for the monitoring of metal-biosorption processes. <i>Analytica Chimica Acta</i> , 2010, 668, 26-34.	2.6	9
94	Ion-Exchange Technology for Lactic Acid Recovery in Downstream Processing: Equilibrium and Kinetic Parameters. <i>Water (Switzerland)</i> , 2021, 13, 1572.	1.2	8
95	Binary Fixed Bed Modeling of Phenol/Aniline Removal from Aqueous Solutions onto Hyper-Cross-Linked Resin (Macronet MN200). <i>Journal of Chemical & Engineering Data</i> , 2012, 57, 1502-1508.	1.0	7
96	Transport of Strontium Through a Ca-bentonite (Almería, Spain) and Comparison with MX-80 Na-bentonite: Experimental and Modelling. <i>Water, Air, and Soil Pollution</i> , 2011, 218, 471-478.	1.1	6
97	Solar Ponds. , 2016, , 273-289.		6
98	Multivariate analysis of the operational parameters and environmental factors of an industrial solar pond. <i>Solar Energy</i> , 2021, 223, 113-124.	2.9	6
99	Wastewater treatment by MBR pilot plant: flat sheet and hollow fibre case studies. <i>Desalination and Water Treatment</i> , 2013, 51, 2423-2430.	1.0	5
100	Experimental Study of Mobility and Kinetic Characterization of Trace Elements in Contaminated Sediments from a River Basin in Northern Peru. <i>Human and Ecological Risk Assessment (HERA)</i> , 2015, 21, 828-844.	1.7	2
101	Shared curriculum at KTH and UPC universities: Blended learning experience at the MSc SELECT programme. , 2018, , .		1
102	Electronic Tongue-FIA system for the Monitoring of Heavy Metal Biosorption Processes. , 2011, , .		0
103	Increasing Sustainability on the Metallurgical Industry by Integration of Membrane NF Processes: Acid Recovery. <i>Advances in Science, Technology and Innovation</i> , 2020, , 411-413.	0.2	0