Carlos Barrera-DÃ-az

List of Publications by Year
in descending order

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90	3,737	159585 30	133252 59
papers	citations	h-index	g-index

90	90	90	4611
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A review of chemical, electrochemical and biological methods for aqueous Cr(VI) reduction. Journal of Hazardous Materials, 2012, 223-224, 1-12.	12.4	1,037
2	Influence of the anodic material on electrocoagulation performance. Chemical Engineering Journal, 2009, 148, 97-105.	12.7	147
3	A combined electrocoagulationâ€“electrooxidation treatment for industrial wastewater. Journal of Hazardous Materials, 2010, 175, 688-694.	12.4	124
4	Prosopis laevigata a potential chromium (VI) and cadmium (II) hyperaccumulator desert plant. Bioresource Technology, 2010, 101, 5862-5867.	9.6	112
5	Removal of hexavalent chromium in aquatic solutions by iron nanoparticles embedded in orange peel pith. Chemical Engineering Journal, 2011, 173, 480-485.	12.7	95
6	A comparative study of natural, formaldehyde-treated and copolymer-grafted orange peel for Pb(II) adsorption under batch and continuous mode. Journal of Hazardous Materials, 2009, 161, 1255-1264.	12.4	84
7	Synergy of electrochemical and ozonation processes in industrial wastewater treatment. Chemical Engineering Journal, 2010, 165, 71-77.	12.7	84
8	Removal of herbicide glyphosate by conductive-diamond electrochemical oxidation. Applied Catalysis B: Environmental, 2016, 188, 305-312.	20.2	82
9	Title is missing!. Journal of Applied Electrochemistry, 2003, 33, 61-71.	2.9	77
10	Electrochemical Treatment Applied to Food-Processing Industrial Wastewater. Industrial & Engineering Chemistry Research, 2006, 45, 34-38.	3.7	77
11	Removal of chromium and toxic ions present in mine drainage by Ectodermis of Opuntia. Journal of Hazardous Materials, 2006, 136, 846-853.	12.4	77
12	Use of pH-sensitive polymer hydrogels in lead removal from aqueous solution. Journal of Hazardous Materials, 2011, 192, 432-439.	12.4	73
13	Use of conductive-diamond electrochemical-oxidation for the disinfection of several actual treated wastewaters. Chemical Engineering Journal, 2012, 211-212, 463-469.	12.7	71
14	Aluminum electrocoagulation with peroxide applied to wastewater from pasta and cookie processing. Separation and Purification Technology, 2007, 54, 124-129.	7.9	68
15	Physicochemical Aspects of Electrocoagulation. Separation and Purification Reviews, 2011, 40, 1-24.	5.5	66
16	Synergy of electrochemical oxidation using boron-doped diamond (BDD) electrodes and ozone (O3) in industrial wastewater treatment. Electrochemistry Communications, 2013, 27, 34-37.	4.7	65
17	A combined electrocoagulationâ€“sorption process applied to mixed industrial wastewater. Journal of Hazardous Materials, 2007, 144, 240-248.	12.4	61
18	Use of a combined electrocoagulationâ€“ozone process as a pre-treatment for industrial wastewater. Desalination, 2010, 250, 144-149.	8.2	59

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19	Synergic effect of ozonation and electrochemical methods on oxidation and toxicity reduction: Phenol degradation. Fuel, 2017, 198, 82-90.	6.4	54
20	Removal of Biorefractory Compounds in Industrial Wastewater by Chemical and Electrochemical Pretreatments. Industrial & Engineering Chemistry Research, 2009, 48, 1253-1258.	3.7	53
21	Photocatalytically enhanced Cr(VI) removal by mixed oxides derived from MeAl (Me:Mg and/or Zn) layered double hydroxides. Applied Catalysis B: Environmental, 2013, 140-141, 546-551.	20.2	50
22	A comparison between Conductive-Diamond Electrochemical Oxidation and other Advanced Oxidation Processes for the treatment of synthetic melanoidins. Journal of Hazardous Materials, 2009, 164, 120-125.	12.4	46
23	Removal of organic pollutants in industrial wastewater with an integrated system of copper electrocoagulation and electrogenerated H2O2. Chemosphere, 2014, 105, 160-164.	8.2	46
24	Electrooxidation treatment for removal of emerging pollutants in wastewater sludge. Fuel, 2015, 149, 26-33.	6.4	43
25	Green Method to Form Iron Oxide Nanorods in Orange Peels for Chromium(VI) Reduction. Journal of Nanoscience and Nanotechnology, 2013, 13, 2354-2361.	0.9	42
26	Use of conductive diamond photo-electrochemical oxidation for the removal of pesticide glyphosate. Separation and Purification Technology, 2016, 167, 127-135.	7.9	42
27	Enhancing the electrochemical Cr(VI) reduction in aqueous solution. Journal of Hazardous Materials, 2011, 185, 1362-1368.	12.4	39
28	4-chlorophenol removal from water using graphite and graphene oxides as photocatalysts. Journal of Environmental Health Science & Engineering, 2015, 13, 33.	3.0	38
29	Integrated advanced oxidation process, ozonation-electrodegradation treatments, for nonylphenol removal in batch and continuous reactor. Catalysis Today, 2018, 305, 108-116.	4.4	33
30	Wastewater Ozonation Catalyzed by Iron. Industrial & Engineering Chemistry Research, 2011, 50, 2488-2494.	3.7	32
31	Performance evaluation of an electrochemical reactor used to reduce Cr(VI) from aqueous media applying CFD simulations. Journal of Cleaner Production, 2012, 34, 120-124.	9.3	32
32	Cr(VI) reduction in wastewater using a bimetallic galvanic reactor. Journal of Hazardous Materials, 2010, 176, 418-425.	12.4	30
33	Effect of the continuous and pulse in situ iron addition onto the performance of an integrated electrochemicalâ€“ozone reactor for wastewater treatment. Fuel, 2013, 110, 133-140.	6.4	30
34	New insights about the electrochemical production of ozone. Current Opinion in Electrochemistry, 2021, 27, 100697.	4.8	28
35	Surface fractal dimensions and textural properties of mesoporous alkaline-earth hydroxyapatites. Applied Surface Science, 2013, 279, 97-102.	6.1	27
36	Electrocoagulation: Fundamentals and Prospectives. , 2018, , 61-76.		27

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37	Processed wastewater sludge for improvement of mechanical properties of concretes. Journal of Hazardous Materials, 2011, 192, 108-15.	12.4	24
38	Recent Advances in Water and Wastewater Electrodisinfection. ChemElectroChem, 2019, 6, 1978-1983.	3.4	24
39	TiO2 protective coating processed by Atomic Layer Deposition for the improvement of MCFC cathode. International Journal of Hydrogen Energy, 2013, 38, 13443-13452.	7.1	23
40	Experimental correlation between the pKa value of sulfonphthaleins with the nature of the substituents groups. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2008, 69, 1235-1245.	3.9	22
41	Recovery and Modification of Waste Tire Particles and Their Use as Reinforcements of Concrete. International Journal of Polymer Science, 2015, 2015, 1-8.	2.7	22
42	Inside the removal of lead(II) from aqueous solutions by De-Oiled Allspice Husk in batch and continuous processes. Journal of Hazardous Materials, 2010, 181, 1095-1101.	12.4	21
43	Synergy of Electrochemical/O₃ Process with Aluminum Electrodes in Industrial Wastewater Treatment. Industrial & Engineering Chemistry Research, 2012, 51, 9335-9342.	3.7	21
44	An Effective Electrochemical Cr(VI) Removal Contained in Electroplating Industry Wastewater and the Chemical Characterization of the Sludge Produced. Industrial & Engineering Chemistry Research, 2012, 51, 5905-5910.	3.7	21
45	Solvent effect in the polyethylene recovery from multilayer postconsumer aseptic packaging. Waste Management, 2015, 38, 61-64.	7.4	21
46	Treatment of industrial effluents by a continuous system: Electrocoagulation â€“ Activated sludge. Bioresource Technology, 2010, 101, 7761-7766.	9.6	20
47	Development of a process using waste vegetable oil for separation of aluminum and polyethylene from Tetra Pak. Fuel, 2015, 149, 90-94.	6.4	20
48	Photocatalytic Activity in Phenol Removal of Water from Graphite and Graphene Oxides: Effect of Degassing and Chemical Oxidation in the Synthesis Process. Journal of Chemistry, 2015, 2015, 1-10.	1.9	19
49	A Comparison of Iron and Aluminium Electrodes in Hydrogen Peroxide-Assisted Electrocoagulation of Organic Pollutants. Environmental Engineering Science, 2008, 25, 529-538.	1.6	18
50	Azo dyes as electron transfer mediators in the electrochemical reduction of Cr(VI) using boron-doped diamond electrodes. Fuel, 2013, 110, 12-16.	6.4	18
51	Ozonation of Indigo Carmine Catalyzed with Fe-Pillared Clay. International Journal of Photoenergy, 2013, 2013, 1-7.	2.5	18
52	Improving lead sorption through chemical modification of de-oiled allspice husk by xanthate. Fuel, 2013, 110, 4-11.	6.4	17
53	Waste Tire Particles and Gamma Radiation as Modifiers of the Mechanical Properties of Concrete. Advances in Materials Science and Engineering, 2014, 2014, 1-7.	1.8	17
54	Lead Removal from Wastewater Using Cu(II) Polymethacrylate Formed by Gamma Radiation. Journal of Polymer Research, 2005, 12, 421-428.	2.4	16

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55	Reduction of pollutants and disinfection of industrial wastewater by an integrated system of copper electrocoagulation and electrochemically generated hydrogen peroxide. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2015, 50, 406-413.	1.7	16
56	Gamma Radiation-Polymerized Zn(II) Methacrylate as a Sorbent for Removal of Pb(II) Ions from Wastewater. Industrial & Engineering Chemistry Research, 2007, 46, 3382-3389.	3.7	14
57	Metal content in mosses from the Metropolitan Area of the Toluca Valley: a comparative study between inductively coupled plasma optical emission spectrometry (ICP-OES) and total reflection X-ray fluorescence spectrometry (TXRF). International Journal of Environmental Analytical Chemistry, 2014, 94, 1288-1301.	3.3	14
58	Waste Cellulose from Tetra Pak Packages as Reinforcement of Cement Concrete. Advances in Materials Science and Engineering, 2015, 2015, 1-6.	1.8	14
59	Ozonation enhancement by Feâ€“Cu biometallic particles. Journal of the Taiwan Institute of Chemical Engineers, 2017, 74, 225-232.	5.3	14
60	Pb(II) Sorption under Batch and Continuous Mode Using Natural, Pretreated, and Amino-Modified Ectodermis of Opuntia. Industrial & Engineering Chemistry Research, 2008, 47, 1026-1034.	3.7	11
61	Effect of organic acids on sorption of uranyl ions in solution onto ZrP2O7. Journal of Radioanalytical and Nuclear Chemistry, 2010, 283, 409-415.	1.5	11
62	Removal of Pb, Cu, Cd, and Zn Present in Aqueous Solution Using Coupled Electrocoagulation-Phytoremediation Treatment. International Journal of Electrochemistry, 2017, 2017, 1-11.	2.4	11
63	Fast reduction of Cr(VI) from aqueous solutions using alumina. Journal of Industrial and Engineering Chemistry, 2014, 20, 2477-2483.	5.8	10
64	Ozonation of Indigo Carmine Enhanced by Fe/Pimenta dioicaL. Merrill Particles. International Journal of Photoenergy, 2015, 2015, 1-9.	2.5	9
65	An Integrated Electrocoagulation-Phytoremediation Process for the Treatment of Mixed Industrial Wastewater. International Journal of Phytoremediation, 2010, 12, 772-784.	3.1	8
66	A Comparative Electrochemical-Ozone Treatment for Removal of Phenolphthalein. Journal of Chemistry, 2016, 2016, 1-9.	1.9	8
67	Adsorption of Lead Ions from Aqueous Solutions Using Gamma Irradiated Minerals. Journal of Chemistry, 2016, 2016, 1-7.	1.9	8
68	Pb(II) Removal Process in a Packed Column System with Xanthation-Modified Deoiled Allspice Husk. Journal of Chemistry, 2017, 2017, 1-8.	1.9	8
69	Toward real applicability of electro-ozonizers: Paying attention to the gas phase using actual commercial PEM electrolyzers technology. Chemosphere, 2022, 289, 133141.	8.2	8
70	Gamma irradiated orange peel for Cr(VI) bioreduction. Separation Science and Technology, 2017, 52, 2443-2455.	2.5	7
71	Solar-photovoltaic electrocoagulation of wastewater from a chocolate manufacturing industry: Anodic material effect (aluminium, copper and zinc) and life cycle assessment. Journal of Environmental Chemical Engineering, 2022, 10, 107969.	6.7	7
72	Solubility of Mesquite Gum in Supercritical Carbon Dioxide. Journal of Chemical & Engineering Data, 2011, 56, 2449-2452.	1.9	6

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73	Boron-Doped Diamond Electrode Performance in Cr(VI) Reduction Using Synthetic and Plating Wastewater. Separation Science and Technology, 2013, 48, 2900-2909.	2.5	6
74	Cr(VI) and Cr(VI) â€“ Diphenylcarbazide Removal from Aqueous Solutions Using an Iron Rotating Disc Electrode. Environmental Technology (United Kingdom), 2007, 28, 1-9.	2.2	5
75	Industrial Wastewater Treatment by Electrocoagulation-Direct Anodic Oxidation System. ECS Transactions, 2009, 20, 301-311.	0.5	4
76	Waste Materials from Tetra Pak Packages as Reinforcement of Polymer Concrete. International Journal of Polymer Science, 2015, 2015, 1-8.	2.7	4
77	Double aluminum recovery and its reuse in wastewater treatment. International Journal of Environmental Science and Technology, 2015, 12, 2979-2986.	3.5	4
78	Multielemental analysis by total reflection Xâ€ray fluorescence spectrometry and phytochelatins determination in aquatic plants. X-Ray Spectrometry, 2021, 50, 414-424.	1.4	4
79	Validation and uncertainty estimation of analytical method for quantification of phytochelatins in aquatic plants by UPLC-MS. Phytochemistry, 2021, 183, 112643.	2.9	4
80	Evaluation of a Blue Indigo Dye Degradation with Electrochemical Peroxidation by UV-Vis Spectrophotometry. ECS Transactions, 2010, 29, 251-257.	0.5	2
81	Comparative application of an irradiated and non-irradiated calcite-type material to improve the removal of Pb in batch and continuous processes. Journal of Environmental Chemical Engineering, 2018, 6, 6297-6307.	6.7	2
82	Effect of the electrolyte chemical nature on the formation and characteristics of TiO2 nanotubes synthesized by anodic oxidation using a Ti cathode. Journal of Materials Science: Materials in Electronics, 2020, 31, 15907-15918.	2.2	2
83	Cr(VI) Reduction in Aqueous Solution by Electrochemical Process Using Boron Doped Diamond Electrode (BDD). ECS Transactions, 2011, 36, 313-321.	0.5	1
84	Enhancing the ozonation of industrial wastewater with electrochemically generated copper(II) ions. Separation Science and Technology, 2016, 51, 542-549.	2.5	1
85	Nanostructured Metallic Oxides for Water Remediation. Engineering Materials, 2019, , 91-119.	0.6	1
86	Hexavalent Chromium Reduction by Iron: Electro-Generated and Galvanic Production. ECS Transactions, 2010, 29, 283-293.	0.5	0
87	Removal of Non-Biodegradable Compounds in a Complex Industrial Wastewater by Electrocoagulation - Activated Sludge Processes. ECS Transactions, 2010, 29, 227-239.	0.5	0
88	Improvement of Hexavalent Chromium Reduction Applying Boron Doped Diamond as Cathode Material. ECS Transactions, 2013, 47, 235-244.	0.5	0
89	Electrooxidation-Ozonation: A Synergistic Sustainable Wastewater Treatment Process. , 2017, , .		0
90	Towards Sustainability: Photochemical and Electrochemical Processes Applied for Environmental Protection. International Journal of Photoenergy, 2018, 2018, 1-3.	2.5	0