Carlos Rey-Castro

List of Publications by Year
in descending order

46 papers	1,681 citations	394421 19 h-index	276875 41 g-index
49 all docs	49 docs citations	49 times ranked	2287 citing authors

#	Article	IF	Citations
1	Developments in the diffusive gradients in thin-films technique for the speciation of oxyanions and platinum group elements in aquatic systems. TrAC - Trends in Analytical Chemistry, 2022, 147, 116513.	11.4	6
2	Speciation of Inorganic Compounds in Aquatic Systems Using Diffusive Gradients in Thin-Films: A Review. Frontiers in Chemistry, 2021, 9, 624511.	3.6	9
3	Editorial: Advances in Analytical Techniques and Methodology for Chemical Speciation Study. Frontiers in Chemistry, 2021, 9, 692144.	3.6	1
4	Seasonal Variations in Proton Binding Characteristics of Dissolved Organic Matter Isolated from the Southwest Baltic Sea. Environmental Science & Technology, 2021, 55, 16215-16223.	10.0	6
5	Acid-base properties of dissolved organic matter extracted from the marine environment. Science of the Total Environment, 2020, 729, 138437.	8.0	22
6	Assessment of labilities of metal complexes with the dynamic ion exchange technique. Environmental Chemistry, 2019, 16, 151.	1.5	2
7	Time weighted average concentrations measured with Diffusive Gradients in Thin films (DGT). Analytica Chimica Acta, 2019, 1060, 114-124.	5.4	15
8	Dissolution and Phosphate-Induced Transformation of ZnO Nanoparticles in Synthetic Saliva Probed by AGNES without Previous Solidâ€“Liquid Separation. Comparison with UF-ICP-MS. Environmental Science & Technology, 2019, 53, 3823-3831.	10.0	12
9	Effect of polymer coating composition on the aggregation rates of Ag nanoparticles in NaCl solutions and seawaters. Science of the Total Environment, 2018, 631-632, 1153-1162.	8.0	24
10	Effects of a mixture of ligands on metal accumulation in diffusive gradients in thin films (DGT). Environmental Chemistry, 2018, 15, 183.	1.5	7
11	Dynamics of trace metal sorption by an ion-exchange chelating resin described by a mixed intraparticle/film diffusion transport model. The Cd/Chelex case. Chemical Engineering Journal, 2017, 317, 810-820.	12.7	11
12	Extending the Use of Diffusive Gradients in Thin Films (DGT) to Solutions Where Competition, Saturation, and Kinetic Effects Are Not Negligible. Analytical Chemistry, 2017, 89, 6567-6574.	6.5	19
13	Dealing with longâ€range interactions in the determination of polyelectrolyte ionization properties. Extension of the transfer matrix formalism to the full range of ionic strengths. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 275-284.	2.1	14
14	Foreword to the Special Issue from the Interfaces Against Pollution 2016 Conference: Environmental Challenges and Opportunities. Environmental Chemistry, 2017, 14, i.	1.5	0
15	Suitability of analytical methods to measure solubility for the purpose of nanoregulation. Nanotoxicology, 2016, 10, 1-12.	3.0	25
16	Interpreting the DGT Measurement. , 2016, , 93-122.		4
17	Accumulation of Mg to Diffusive Gradients in Thin Films (DGT) Devices: Kinetic and Thermodynamic Effects of the Ionic Strength. Analytical Chemistry, 2016, 88, 10245-10251.	6.5	11
18	Influence of the settling of the resin beads on diffusion gradients in thin films measurements. Analytica Chimica Acta, 2015, 885, 148-155.	5.4	11

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19	Systematic Investigation of the Physicochemical Factors That Contribute to the Toxicity of ZnO Nanoparticles. Chemical Research in Toxicology, 2014, 27, 558-567.	3.3	70
20	The impact of electrodic adsorption on Zn, Cd and Pb speciation measurements with AGNES. Journal of Electroanalytical Chemistry, 2014, 722-723, 110-118.	3.8	19
21	Surface Tension of 1-Ethyl-3-methylimidazolium Ethyl Sulfate or 1-Butyl-3-methylimidazolium Hexafluorophosphate with Argon and Carbon Dioxide. Journal of Chemical & Engineering Data, 2013, 58, 1203-1211.	1.9	12
22	Experimental evidences for a new model in the description of the adsorption-coupled reduction of Cr(VI) by protonated banana skin. Bioresource Technology, 2013, 139, 181-189.	9.6	42
23	Limits of the Linear Accumulation Regime of DGT Sensors. Environmental Science & Technology, 2013, 47, 10438-10445.	10.0	21
24	Dissolution Kinetics and Solubility of ZnO Nanoparticles Followed by AGNES. Journal of Physical Chemistry C, 2012, 116, 11758-11767.	3.1	152
25	Full description of copper uptake by algal biomass combining an equilibrium NICA model with a kinetic intraparticle diffusion driving force approach. Bioresource Technology, 2011, 102, 2990-2997.	9.6	18
26	A semi-grand canonical Monte Carlo simulation model for ion binding to ionizable surfaces: Proton binding of carboxylated latex particles as a case study. Journal of Chemical Physics, 2011, 135, 184103.	3.0	16
27	Competition effects in cation binding to humic acid: Conditional affinity spectra for fixed total metal concentration conditions. Geochimica Et Cosmochimica Acta, 2010, 74, 5216-5227.	3.9	12
28	Ion binding to polyelectrolytes: Monte Carlo simulations versus classical mean field theories. Theoretical Chemistry Accounts, 2009, 123, 127-135.	1.4	15
29	Conditional affinity spectra underlying NICA isotherm. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 347, 156-166.	4.7	9
30	Effective Affinity Distribution for the Binding of Metal Ions to a Generic Fulvic Acid in Natural Waters. Environmental Science & Technology, 2009, 43, 7184-7191.	10.0	50
31	Model-Independent Link between the Macroscopic and Microscopic Descriptions of Multidentate Macromolecular Binding: Relationship between Stepwise, Intrinsic, and Microscopic Equilibrium Constants. Journal of Physical Chemistry B, 2009, 113, 15145-15155.	2.6	17
32	Competitive Cd²⁺/H⁺ Complexation to Polyacrylic Acid Described by the Stepwise and Intrinsic Stability Constants. Journal of Physical Chemistry B, 2008, 112, 10092-10100.	2.6	10
33	Competitive Ion Complexation to Polyelectrolytes:â€‰ Determination of the Stepwise Stability Constants. The Ca²⁺/H⁺/Polyacrylate System. Journal of Physical Chemistry B, 2007, 111, 10421-10430.	2.6	12
34	Effect of the flexibility and the anion in the structural and transport properties of ethyl-methyl-imidazolium ionic liquids. Fluid Phase Equilibria, 2007, 256, 62-69.	2.5	65
35	Transport Properties of the Ionic Liquid 1-Ethyl-3-Methylimidazolium Chloride from Equilibrium Molecular Dynamics Simulation. The Effect of Temperature. Journal of Physical Chemistry B, 2006, 110, 14426-14435.	2.6	188
36	Interactions of cadmium(II) and protons with dead biomass of marine algae Fucus sp.. Marine Chemistry, 2006, 99, 106-116.	2.3	73

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37	Interaction of acrylic-maleic copolymers with H+, Na+, Mg2+ and Ca2+: Thermodynamic parameters and their dependence on medium. Reactive and Functional Polymers, 2005, 65, 329-342.	4.1	22
38	Biosorption of cadmium by the protonated macroalga Sargassum muticum: Binding analysis with a nonideal, competitive, and thermodynamically consistent adsorption (NICCA) model. Journal of Colloid and Interface Science, 2005, 289, 352-358.	9.4	34
39	Removal of inorganic mercury from aqueous solutions by biomass of the marine macroalga Cystoseira baccata. Water Research, 2005, 39, 3199-3210.	11.3	130
40	Cation binding by acid-washed peat, interpreted with Humic Ion-Binding Model VI-FD. European Journal of Soil Science, 2004, 55, 433-447.	3.9	28
41	Gibbsâ€“Donnan and specific-ion interaction theory descriptions of the effect of ionic strength on proton dissociation of alginic acid. Journal of Electroanalytical Chemistry, 2004, 564, 223-230.	3.8	39
42	Surface charge and permeable gel descriptions of the ionic strength influence on proton binding to seaweed biomass. Chemical Speciation and Bioavailability, 2004, 16, 61-69.	2.0	18
43	Acidâ€“base equilibria of phthalic acid in saline media: ion association from Pitzer equations. Talanta, 2003, 60, 93-101.	5.5	14
44	Acidâ^'Base Properties of Brown Seaweed Biomass Considered As a Donnan Gel. A Model Reflecting Electrostatic Effects and Chemical Heterogeneity. Environmental Science & Technology, 2003, 37, 5159-5167.	10.0	48
45	Potentiometric Study of Acetylsalicylic Acid:â€‰ Solubility and Acidâ^'Base Equilibria in Different Saline Media at 298 K. Journal of Chemical & Engineering Data, 2002, 47, 1432-1435.	1.9	3
46	Al(III) and Fe(III) binding by humic substances in freshwaters, and implications for trace metal speciation. Geochimica Et Cosmochimica Acta, 2002, 66, 3211-3224.	3.9	339