Special Issue

Complexation of Metals in Natural Fluids: Simulations, Experiments and Applications

Message from the Guest Editors

Natural waters and biological fluids are multielectrolyte aqueous solutions in which a wide number of components is dissolved or dispersed, namely essential or toxic metal cations, and inorganic and organic anions at low and high molecular weight, having very different characteristics and concentrations. Metal complexation in such fluids is a key process for understanding environmental (such as mobility, bioavailability, and toxicity of species) and biological phenomena (such as transport through membranes, antibiotic activity, enzyme catalysis, etc.). The study of formation of complexes is of significant importance from both a theoretical point of view, to understand the chemical physics behind the interactions leading to complexation and the mechanisms of action of the species in natural aqueous systems, and an applicative one, to exploit the formation of complex species in processes such as removal of contaminants from natural waters, chelating therapies for detoxification from metals, transport of drugs in biological fluids, sensors, and so on.

Guest Editors

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Deadline for manuscript submissions

closed (15 October 2022)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/80267

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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