Special Issue

Heavy Metals Removal by Biosorbents

Message from the Guest Editor

Biosorption is the ability of biological materials to accumulate pollutants (mainly metals) from waters. The main absorption process occurs due to physicochemical interactions with the cellular structure of the biosorbent, the cytoplasmic membrane, and extracellular substances. Biosorbents include various biologically active cells, both living and dead, namely bacteria, algae, plants, fungi, etc. Waste is often used as a raw material for biosorbents, which significantly reduces the cost of biosorbent and the purification process. Scientific directions include: 1- Creation of new biosorption materials for the extraction of heavy metal ions and their biosorption properties; 2- Immobilization of the process of biosorption of heavy metal ions; 3- Chitin, chitosan, and materials based on them for the biosorption of heavy metal ions; 4- Microalgae, cyanobacteria, and materials based on them for the biosorption of heavy metal ions; 5- Microscopic fungi and materials based on them for the biosorption of heavy metal ions; 6 - Biomining of valuable metals (Au, Ag, Pt, Pd).

Guest Editor

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Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

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