Special Issue

Development of Materials for Separation and Detection of Metals and Chemicals

Message from the Guest Editor

Toxic substances are represented by organic and inorganic compounds such as pesticides, solvents, nanomaterials, halogenated compounds, phthalates, hydrocarbons, etc. Once in the environment, these chemicals can themselves be toxic for animals and vegetables or degraded into even more dangerous chemical species. Therefore, two main strategies can be applied to reduce the impact: 1) the monitoring of toxic substances in soil and water to opportunely identify possible pollutants; 2) the entrapment and removal of xenobiotics through their adsorption on solid surfaces. To this aim, new (nano)materials able to selectively recognize specific pollutants are needed. These innovative materials can be immobilized on the surface of a transducer to allow the selective detection of pollutants, can be used as separation phase in laboratory analysis and lab-on-chip technologies, or, if produced in the proper form, can be used for the in situ decontamination of soil and water. This Special Issue focuses mainly on the development of these innovative materials for pollutants adsorption and their application in sensors, solid phase extraction, and/or adsorbents in environmental remediation.

Guest Editor

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Separations offers the scientific community a high-quality, open-access journal option with rapid time-to-publication without any sacrifice of a rigorous peer-review process. We invite contributions ranging from fundamental characterization and instrumentation development through application of techniques to shed light on a broad spectrum of separation science needs. Since inception, *Separations*, has become unique in its combination of rapid publication and thorough scientific content. We invite you to consider us for your next contribution.

Editor-in-Chief

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