Special Issue

Synthesis and Characterization of Nanocomposites and Functional Coatings for Water Purification

Message from the Guest Editor

Currently, the prevention of environmental pollution caused by inorganic and organic toxic chemical compounds has recently focused the attention of the scientific community. The most investigated remediation techniques involve filtration, adsorption, and photocatalytic degradation using materials that are low cost and reusable after appropriate regeneration (such as graphene oxide, clay minerals, TiO2, Bi2O3, and iron compounds). This Special Issue will serve as a forum for papers on the following topics:

- The use of nanomaterials (i.e., carbon nanomaterials, metallic or semiconductor nanoparticles, clays) and polymeric nanocomposites for adsorption, filtration, or photocatalytic degradation of water pollutants;
- Synthesis and functionalization methodologies of nanostructures and polymeric nanocomposites;
- Methodologies for the preparation of active coating; structural and physicochemical characterization of materials;
- Applications in filtering, adsorption, and photocatalytic processes for water purification;
- Investigation of antimicrobial and antibiofouling coating properties.

Guest Editor

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About the Journal

Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.
Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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