

Special Issue

Design, Synthesis, and Application of Functional Nanomaterials in Environmental Analysis and Agriculture Protection

Message from the Guest Editor

With the development of modern society, the problems of environmental pollution and agricultural protection are becoming increasingly serious. The qualitative and quantitative evaluation of some important environmental pollutants, including ions, small molecules, and polymers, in water, air, soil, plant, animal, and food samples has great value in studying their effects, migration, and fate in the environment. Potential topics include, but are not limited to, the following:

- Preparation of novel functional nanomaterials and their composites for the detection and quantification of different environmental pollutants (e.g., heavy metal ions, anions, pesticides, antibiotics, microplastics, Bt protein, and poisonous gases) and agriculture monitoring targets (e.g., ROS, Ca²⁺, Fe²⁺, Na⁺, glucose, bacteria, and viruses);
- Studies on response mechanisms of novel functional nanomaterials and their composites in complex environmental and agricultural samples;
- Development of novel methodology using functional nanomaterials and their composites for improvement of analytical techniques (e.g., colorimetry, fluorometry, phosphorimetry, chemiluminometry, electrochemistry, and immunoassay).

Guest Editor

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Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 30th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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