

Special Issue on
Advanced Materials for Pollutant Management

CALL FOR PAPERS

Scientific, technological, and industrial development carried out in the second half of last century has caused an increasing pollution in the natural environment. Thus, a widespread recognition of the need to develop technologies and strategies for pollution control has arisen in the recent times because of the increased awareness of the effects of pollution on the health of both human beings and the earth's ecosystems.

In this sense, much effort has been carried out in order to develop technologies and new materials with enhanced properties that will contribute to eliminating or at least diminishing the pollutants in the environment such as soils, groundwater, sediments, surface water, or wastewater. Materials like activated carbon, sewage sludge, zeolites, chitosan, silica, soils, clays, and agricultural wastes have shown potential for pollutants' removal from aqueous media. Recently, nanoscale systems have also shown additional benefits for the removal/degradation of several contaminants. In the last years, metal nanoparticles (usually zero valent iron or copper nanoparticles), metal oxide nanoparticles (the most common iron oxide but also magnesium, zinc, chromo (VI), copper, or cerium oxides), and modified nanoparticles with organic and inorganic molecules have been applied in the remediation of water and soils. Also, different physical, chemical, and biological treatment methods have been applied for the pollutant removal from environment. Among the remediation technologies adsorption, ion-exchange, precipitation, coagulation, reverse osmosis, electrochemistry, photoelectrochemistry, oxidation processes, and biological methods have received much attention in recent times.

We invite investigators to contribute to high-quality and original research articles that will stimulate the continuous efforts to develop new materials focused on improving the environment by controlling the pollutants and the relationship between their structural parameters and their removal properties.

Potential topics include but are not limited to the following:

- ▶ Synthesis methods of new materials for pollutant control
- ▶ Materials development for pollutant management
- ▶ Functionalization strategy of materials related to their capacity of removal toxic substances
- ▶ Advanced technologies for pollutant management
- ▶ Analytical techniques for pollutant monitoring
- ▶ Characterization methodology: rheological, structural, and textural characterization

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jchem/environmental.chemistry/ampm/>.

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