

Special Issue on
Advanced Nanotechnologies in Water and Wastewater Treatment

CALL FOR PAPERS

The significance of the wastewater treatment, management, and its disposal is gradually increasing in the modern times and it has become a major concern for public health scientific interest. Nanotechnology holds great potential in advancing water and wastewater treatment to improve treatment efficiency as well as augment water supply through safe use of unconventional water sources.

The highly efficient, modular, and multifunctional processes enabled by nanotechnology are envisaged to provide high performance, affordable water, and wastewater treatment solutions that have less reliance on large infrastructures. Nanotechnology-enabled water and wastewater treatment promises to not only overcome major challenges faced by existing treatment technologies but also to provide new treatment capabilities that could allow economic utilization of unconventional water sources to expand the water supply. Nanomaterials were suggested as efficient cost-effective and environmental friendly alternative to existing treatment materials, from the standpoints of both resource conservation and environmental remediation.

We are inviting researchers in the field to contribute their valuable work for the possible publication in the special edition. We invite authors to submit original research and review articles that seek to describe environmental nanotechnologies, monitoring studies and management for water, waste, environmental pollutions as well as delivering solutions to these problems.

Potential topics include but are not limited to the following:

- ▶ Water purification nanotechnologies: opportunities and challenges
- ▶ Applications of green nanotechnology in water and wastewater treatment
- ▶ Advanced nanomaterial and approach for metal ions removal from aqueous solutions
- ▶ Carbon nanobased materials and processes related to water applications
- ▶ Cellulose nanomaterials in water treatment technologies
- ▶ Removal and recovery of heavy metals by amorphous metal oxide nanoparticles
- ▶ Applications of iron nanoparticles for groundwater remediation
- ▶ Nanoparticle assisted nanofiltration
- ▶ Sewage treatment using nanotechnology and disposal of waste nanomaterials
- ▶ Developments of new nanosorbents for groundwater, drinking water, and wastewater treatment
- ▶ The recent nano- and biotechnological advances to the removal of toxic contaminants from wastewater streams
- ▶ Polymeric nanoadsorbents
- ▶ Microbial cytotoxicity of carbon-based nanomaterials: implications for natural water and wastewater effluent
- ▶ Novel analytical methods applied to environmental and health samples

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

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