BioMed Research International

Special Issue on

The Monitoring and Assessment of Aquatic Toxicology

CALL FOR PAPERS

Chemicals have been widely used in agricultural crops, forests, and wetlands in the recent 30 years. However, the extensive use and discharge of these chemicals in aquatic environment will induce aquatic toxicology and may impair biological communities. Due to the lack of target specificity, these chemicals can cause severe and persistent toxic effects on nontarget aquatic species, including invertebrates and vertebrates.

The topic covers new monitoring technologies, mathematical analysis methods, and aquatic environment assessment of the aquatic toxicology. Knowledge and understanding of these conditions have led to the development of new monitoring, analysis, and assessment technologies based on biological and chemical methods. We invite investigators to contribute original research articles as well as review articles that will stimulate the continuing efforts to understand the above aspects.

Potential topics include, but are not limited to:

- Type analysis of environmental chemicals in the aquatic environment
- Transport and transformation of chemicals in aquatic environment
- The scientific methods for monitoring and assessment of aquatic toxicology: scaling methods, the use of biological indicators/biomarkers, dynamic and commitment models, pollution indices, and so forth
- Biological and chemical characteristics of water pollution due to different chemicals
- The design and development of sampling techniques, analysis methods, and monitoring systems of chemicals in groundwater and surface water
- Methods and procedures of pollution risk assessment, relating to aquatic environment
- The mechanisms of cytotoxicity, genotoxicity, and tumorigenicity exerted by environmental chemicals in the aquatic environment
- Use of wastewater and other quality waters
- Mitigation strategies for nanoparticles in water pollution
- Consequences on monitoring and assessment methods as a result of new trending in aquatic toxicology
- New laboratory techniques of emerging pollutants quantification
- Update of water, sediment, and tissue quality guidelines
- Marine environment and toxicology

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/bmri/toxicology/maat/.

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