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DESCRIPTION

Chemosphere is an international journal designed for the publication of original communications as well as review articles. *Chemosphere*, as a multidisciplinary journal, offers maximum dissemination of investigations related to all aspects of **environmental science**. *Chemosphere* will publish:

- Original communications describing important new discoveries or further developments in important fields of investigation related to the environment and human health
- Reviews, mainly of new developing areas of environmental science
- Special, themed issues on relevant topics.

The following sections and subject fields are included:

Persistent Organic Pollutants and Dioxins

This section is devoted to all scientific aspects of persistent organic pollutants, including monitoring studies in the environment, ecosystem, and people; environmental chemistry; toxicology; epidemiologic investigations; risk assessment; and processes that generate these pollutants and measures to reduce their emissions or concentrations in the environment. Organic pollutants targeted in this section can be of natural or synthetic origin but must be persistent in the environment or in organisms. Although the term "persistent" is somewhat subjective, with such definition, halogenated organic chemicals are of primary interest. Only studies that are of significance to an international audience and include a statistically representative population, sites of particular global interest, or lend themselves to interpretation at the global level should be submitted.

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This section will publish manuscripts dealing with fundamental processes in the environment that are related to dispersion, degradation and alteration of inorganic and organic contaminants of environmental concern focussed on the dynamics of contaminants in environmental compartments such as water, soil/sediment, and air and their interactions with biosphere. Specific topics of interest include:

- Environmental fate studies including transport, biodegradation, bio-accumulation and/or deposition as well as atmospheric (photo)chemical processes, hydrolysis, adsorption/desorption
- Transformation and mineralisation of chemicals e.g. by bio- and photodegradation, redox processes and hydrolysis, bio-accumulation and/or deposition as well as atmospheric (photo)chemical processes, hydrolysis, adsorption/desorption
- Soil and water chemistry focussed on interaction, degradation and speciation aspects of environmental contaminants
- Novel environmental analytical methods including case studies
- Phytoremediation employing new strategies, findings or interpretations of general interest

- Development and application of environmental modelling and quantitative structure-activity relationships to study fate and environmental dynamics
- Monitoring studies presenting new strategies, report of novel contaminants, findings or interpretations of general interest for an international readership. Monitoring studies based on standard methodology, and of regional importance, are not considered. Studies dealing only with nutrients in agricultural ecosystems are not considered.

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The Section on Environmental Toxicology and Risk Assessment covers all aspects of toxicology, i.e., the science of adverse effects of chemicals and toxic substances on living organisms including humans, and the scientific assessment of the risk that such adverse effects may occur.

Issues that would be appropriate for consideration include:

- Adverse effects of chemicals and toxic substances in environmental, aquatic and terrestrial, organisms
- Similar studies in experimental organisms (under laboratory conditions)
- Epidemiological studies on effects of chemicals in humans
- Biochemical studies related to mechanisms of adverse effects
- Toxicokinetics and metabolic studies on chemicals related to adverse effects
- Development and validation of testing methods based on living organisms or biological materials
- Biomonitoring of chemicals related to adverse effects
- Occupational chemical hazards and exposure.

Not considered are, e.g., studies which report only concentrations of chemicals in the environment, living organisms, food, other materials etc., or on techniques of remediation of environmental pollution, or on biochemical effects of chemicals non-relevant to toxicology.

Science for **Environmental Technology**

[Closer description](#)

- Advanced water and wastewater treatment process
- Incineration
- Remediation
- Hazardous Waste – industrial chemicals
- Green Chemistry

AUDIENCE

Environmental scientists, chemical engineers, biologists, toxicologists.

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