

Humic Substances in the Environment

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Humic substances (HS) are complex heterogeneous mixtures of polydispersed materials that are involved in most biogeochemical processes in soils and natural waters. The huge number of possible HS substances makes the identification difficult and from the quantitative point of view almost impossible. Therefore the term HS as the refractory part of natural organic matter (NOM) is often used for an integrative description.

Soil weathering and provision of plant nutrition are among the most important processes HS are involved in. Moreover, HS play a key role in pH buffering, in mobility and bioavailability of trace metals, degradation and transport of hydrophobic organic chemicals, and heterotrophic production in blackwater ecosystems. In the same context, HS are determinant in photochemical and redox processes, in the formation of disinfection by-products during water treatment, as well as on the environmental behavior and impact of nanomaterials.

We would like to invite contributions on HS and NOM in the environment related to:

- Characterization: Novel methods and approaches for molecular understanding
- Physico-chemical aspects: Its mobility and transport and mediated transport of contaminants, as well as effects on photochemical and redox processes
- Transformation in natural and in technological processes
- Biological aspects
- Ecological aspects and genesis
- Application: Agricultural practices, composting and remediation
- Environmental chemistry of nanomaterials

See you in Oslo!