



Biosketch Prof.Dr. Willie Peijnenburg

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Professor at the Institute of Environmental Sciences (CML) of the Faculty of Science of Leiden University, Leiden, The Netherlands. Extraordinary chair position “Environmental Toxicology and Biodiversity”.

Current research interests

- 1- Implementation of bioavailability of heavy metals in risk assessment procedures. The aim of this research is to develop methodologies for assessing soil-type and water-type specific heavy metal standards. Models are developed and validated that combine chemical insights in the area of metal speciation, with biological insights regarding uptake of metals as influenced by compartment-specific and organism-specific factors.
- 2- Development and application of quantitative structure-activity relationships (QSARs) for the estimation of physical-chemical properties and transformation rates of chemical substances in the environment, with the aim of using these QSARs in models for ecological risk assessment.
- 3- Biotic and abiotic transformation processes of chemical substances in natural ecosystems: development of methods for extrapolating data obtained in laboratory settings to realistic field conditions.
- 4- Fate and effects of organic and inorganic nanomaterials in the environment: fate studies as affected by interactions with biotic and abiotic matrices, and effect studies on aquatic and benthic organisms following assessment of the bioavailable form of the nanomaterials.

Additional:

- Member Editorial Advisory Board “Environmental Science & Technology Letters”
- Associate Editor “Nanoimpact”
- Associate Editor “Chemosphere”
- Member Editorial Board “Journal of Environmental Sciences”
- Member Editorial Board “Environmental Pollution”
- Member Editorial Board “Environmental Sciences”
- Member Editorial Board “Int. Journal of Environmental Research and Public Health”
- Member Editorial Board “Journal of Safety and Environment”
- Member Advisory Board “Environmental Science: Nano”

- Past Secretary IUPAC Commission on Soil and Water Chemistry
- Past Secretary of the IUPAC Division on Chemistry and the Environment
- Chairman of the Section 'Environmental Toxicology and Chemistry' of the Dutch Royal Chemical Society and the Dutch Society on Toxicology

Published over 260 peer-reviewed publications