

International Master 2 Atmospheric Sciences: Research Training 2021-2022

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CaPPA Work Package: WP2

Persistent Organic Pollutants in the Environment

Phthalates are ubiquitous Persistent Organic Pollutants (POPs). Emitted by plastics, phthalates are mostly found indoors and act as endocrinian perturbators. Beside human health effects, insects behaviors may be impaired by those pollutants. However outdoor contamination, as well as insects contamination, is far from well-described in litterature.

This project is an attempt to better describe the contamination of pollinisators (bumblebees), flowers and atmospheric aerosols by phthalates. This work is a collaboration between atmospheric chemists (LASIRE) and ecologists (EEP).

This internship will focus on GCMS analysis of phthalates and polycyclic aromatic hydrocarbons in different environmental compartments (insects, flowers, pollen, aerosols). The goals will be to determine the levels of phtalate environmental contaminations and the ways of exposure of insects. A thorough bibliographic work is also expected to compare measurements with data available in litterature. Effects on the behavior and health of insects will not be studied in this internship.

Key words: Analytical Chemistry, Chromatography, Atmospheric Pollution