UNIVERSITAT ROVIRA I VIRGILI

TECNATOX

CLIMATE CHANGE INDUCTION OVER THE ENVIRONMENTAL DEGRADATION OF POLYCYCLIC AROMATIC HYDROCARBONS. HUMAN HEALTH RISKS.

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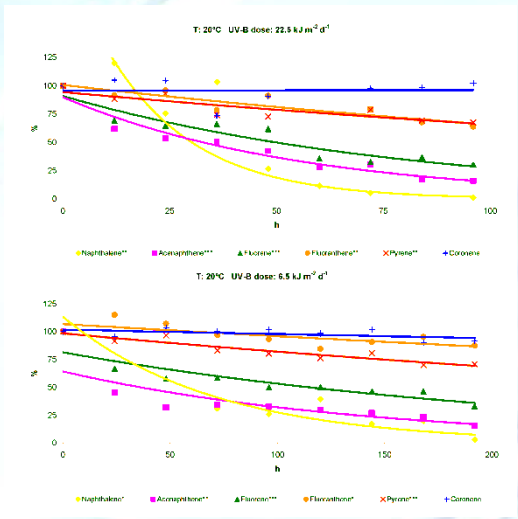
Goals

- **To study the effect of the climate change on the environmental degradation of polycyclic aromatic hydrocarbons (PAHs) due to temperature and solar radiation.**
- **To estimate potential changes in the human exposure and to assess human health risks.**
- **To determine degradation rates of PAHs at lab scale in soil and vegetation samples considering different climate change scenarios.**
- **To identify potential photodegradation products of PAHs.**
- **To design and validate a pollutant transport model as well as an integrated exposure and risk model that can be extrapolated to the Iberian Peninsula.**

Sampling and analysis of PAHs



Identification of PAH photodegradation rates

Expected Results

- **Photodegradation rates of PAHs in soil and vegetation at laboratory and real scales, according to different climate change (IPCC) scenarios.**
- **Temporal trends in the human health risks associated to the environmental exposure to PAHs, and estimation of the main exposure pathways.**
- **Identification of potentially generated photodegradation products with more toxicity than parental compounds. which are more toxic causing an adverse human health risk.**
- **Elaboration of a long-term risk map of PAH exposure of the Iberian Peninsula according to changes in the PAH levels.**

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GOBIERNO DE ESPAÑA