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Environmental pollution and water quality criteria of perfluorinated chemicals in China

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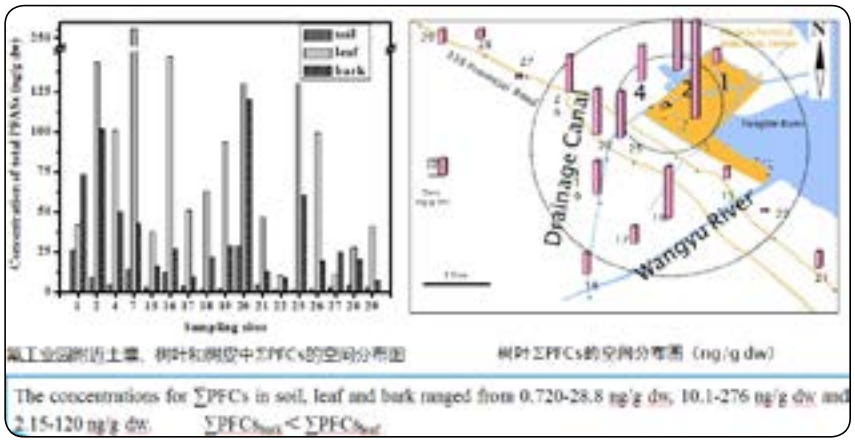
Perfluorooctane sulfonate (PFOS) and Perfluorooctanoic acid (PFOA) are emerging persistent organic pollutants, the global eco-system of pollution caused by them have become a fact. In this study, the use and the physico-chemical properties of perfluorinated compounds (PFCs) were summarized. The pollution level of PFOS and PFOA in environment media (water; atmospheric; soil and the deposition) and organisms in China were analyzed. Moreover, toxicity data of aquatic and terrestrial species were screened and selected, and the water quality criteria of PFOS and PFOA pollutants were developed based on Chinese native species. Thereafter, ecological risk assessment of PFCs was carried out based on the environmental concentration level and the water quality criteria of PFCs in China.



Recent Publications

1. Development of water quality criteria for phenanthrene and comparison of the sensitivity between native and non-native species. Environ Pollut, 2015, 196:141-146
2. Development of predicted no effect concentration (PNEC) for TCS to terrestrial species, Chemosphere, 2015,139: 428–433
3. Derivation of predicted no effect concentration (PNEC) for HHCB to terrestrial species, Science of the Total Environment, 2015, 508: 122-127.
4. Species sensitivity analysis of heavy metals to freshwater organisms. Ecotoxicology, 2015, 4(7-8):1621-1631.
5. Screening of high phytotoxicity priority pollutants and their ecological risk assessment in China's surface waters. Chemosphere, 2015, 128:28-35.

Biography

Liu Zheng Tao has his expertise in ecotoxicology, environmental criteria and risk assessment in China.

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