

40

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**Determination of Perfluoroalkylated Substances:
Aquatic Distribution and Assessment of
Estrogenic Modulation using MCF-7 Cells**

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Perfluoroalkylated substances (PFAS) have found widespread use as water repellants on paper and textiles, in fire fighting foams, as polymer additives and as surfactants.

Recently perfluorooctanesulfonate (PFOS), perfluorohexanesulfonate (PFHS) and perfluorobutanesulfonate (PFBS) have been detected in both occupationally exposed workers and the general population. Further studies have assessed the distribution of these compounds in various aquatic systems. Little is known about the toxicity of perfluoroalkylated compounds, although some have been found to be potent peroxisome proliferators.

We are currently developing a solid phase extraction (SPE) with liquid chromatography - mass spectrometry (LC-MS) method, for determination of a wider range of PFAS, at more relevant concentrations (ppt) in the aquatic environment. We are also assessing the estrogenic modulation potential, of these PFAS, using the MCF-7 focus assay.