

**CON-PRA-042**

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## CONFIRMATORY METHODS

The special case of perfluorinated compounds

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### • Context

Perfluorinated compounds (PFCs) are a class of widespread environmental and food contaminants considered as persistent organic pollutants. They have been employed as surfactants and surface protectors for paper, food containers, leather, carpets, industry and a range of other applications. Furthermore, these compounds are regarded as potential hazards to human health, so it is of great importance to develop an effective method for trace-level analysis.

### • General objective(s)

After a general presentation of PFCs structures, occurrence and toxicity, a method for their identification in milk and fish will be described using LC-MS/MS. PFCs analytical strategy will be performed on latest generation of LC-MS/MS, giving informations to optimise important parameters of the instrument to improve its capability of detection in MRM mode.

### • Main items

PFCs / Negative ESI / tandem mass spectrometry / MRM

### • Pedagogical objectives

- ✓ To show analytical strategy devoted to a new family of POPs
- ✓ To optimise *ad hoc* parameters in an electrospray source
- ✓ To select specific ions in the SRM mode

### • Pedagogical tools

- ✓ Demonstration on an LC-MS/MS instrument
- ✓ Slide show

### • Duration

- ✓ 1 hour

### • Pre-requisite

- ✓ Theoretical lectures on confirmatory methods (CON-THE-010, CON-THE-020, CON-THE-030)