

## Compound-specific isotope analysis (CSIA) for tracking the fate of environmental pollutants

In the last 15 years, compound-specific isotopes analysis (CSIA) of environmental pollutants became an important tool for tracking natural attenuating processes in the sub-surface. It was shown that trends in the isotopic composition of target compounds can shed light on in-situ processes that are otherwise difficult to track. In addition, it was shown that the isotopic trends can promote unique understanding of the biochemical aspects of degradation mechanism.

Analytical methods for CSIA of  $^{13}\text{C}$ ,  $^{15}\text{N}$  and  $^2\text{H}$  most frequently based on a GC connected via a combustion unit to an IRMS. In recent years, other techniques were introduced for isotope analysis of halogens (Cl, Br) as well.

In my talk, I will shortly review the most common analytical methods for CSIA and demonstrate their environmental and mechanistic applications.