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Determination of arsenic in agricultural soil samples using High-resolution Continuum Source Graphite Furnace Atomic Absorption Spectrometry and direct solid sample analysis.

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ABSTRACT

Soils around coal-fired thermal power plants based on coal combustion can present high concentrations of arsenic. This fact has a direct effect on the food chain. Arsenic can be absorbed by plants and vegetables through the soil, which will then serve as food for different animals, spreading the contamination. A method has been developed using high-resolution continuum source graphite furnace atomic absorption spectrometry (HR-CS GFAAS) for direct determination of arsenic in solid soil samples. Different chemical modifiers were tested to suppress the matrix effects observed.

¹ In memoriam

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