

## **A New Separation / Preconcentration and Determination Procedure Based on Solidified Floating Organic Drop Microextraction (SFODME) of Lead by Using Graphite Furnace Atomic Absorption Spectrometry**

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**Abstract :** Solidified floating organic drop microextraction was used for a preconcentration method of trace amount of lead. The analyte was complexed with 1-(2-pyridylazo)-2-naphthol and 1-undecanol, acetonitrile was added as an extraction and dispersive solvent respectively. The influences of some analytical parameters pH, volumes of extraction and disperser solvent, concentration of chelating agent, and concentration of salt were optimized. Under the optimum conditions the detection limits of Pb (II) was determined. The procedure was validated for the analysis of NCS DC 73347a hair standard reference material with satisfactory result. The developed procedure was successfully applied to food and water samples for detection of Pb (II) ions.

**Keywords :** analytical methods, graphite furnace atomic absorption spectrometry, heavy metals, solidified floating organic drop microextraction

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