



A preliminary study to develop a novel method to analyse heavy ion metals and organic pollutants in human biological samples.

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Abstract

Accumulation of heavy metals in human body may produce various health problems. In addition, volatile organic compounds in the environment may have short and long term adverse health effects.

This study is a preliminary study to investigate a novel method to identify heavy metals and organic pollutants in human urine and serum samples.

The metal ion concentrations in urine and blood samples were determined by using atomic absorption spectroscopy. Novel method of isolation of heavy metals from biological fluids have been developed and validated. This method could be used to determine the level of other heavy metal ions in biological samples.

Organic compounds present in blood samples were quantify by using gas chromatography and UV-Visible spectroscopy. Organic compounds present in biological samples were extracted into the organic solvents such as methylene chloride and analyzed by using gas chromatography The extracted organic compounds were analysed using UV-Visible spectroscopy and the obtained spectrum were compared with spectra of known compound.