

# Speciation of mercury in environmental samples

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## **Abstract**

Although mercury is a naturally occurring element, human activities have increased the amount of mercury cycling in the environment several times. When mercury is released into the atmosphere, it is subjected to various physical, chemical, and photochemical processes and interactions. It is well known that the properties of mercury are highly dependent on its chemical form.

The aims of presented thesis are suggestion and application of analytical procedures for speciation analysis of mercury. The selective and sequential extractions, thermal desorption and gas chromatography techniques were used for mercury characterization in the environmental samples from both the urban areas (particulate matter, street dust) and the pristine nature (Antarctic soils and lichens).

The new insights into the speciation of mercury in the investigated materials and its distribution in the environment were obtained.