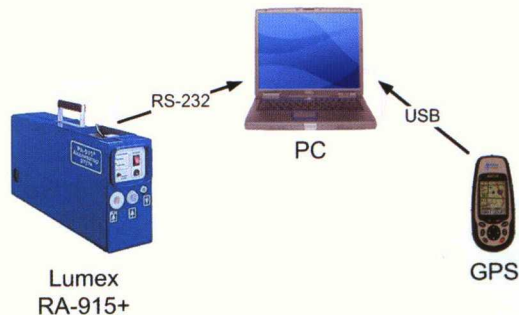


Mercury Pollution Determination in Air Using Zeeman Atomic Absorption Spectrometer RA 915+

The portable LUMEX RA 915+ analyzer is intended for quantitative mercury determination in different samples. Operational principle is based on differential Zeeman atomic absorption spectrometry using high frequency modulation of light polarization (ZAAS-HFM). The use of the ZAAS-HFM and a multi-path cell allows direct measuring of mercury in the air at the background level, i.e., around 2 ng/m^3 with response time of 1 sec.

When LUMEX RA 915+ is used together with GPS, measurement results can be assigned to particular measurement places. Such solution is portable and can be used when walking or from a driving car. The solution gives a possibility to establish a digitalized pollution database for different geographic coordinates in different times.

It is the most rapid and effective method of detection and identification of active sources of mercury emission into atmosphere. It can be applied for rapid analysis of mercury in liquid and solid samples like soils, rocks, and waters too.



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