

# DETERMINATION OF SOME HALOGEN ALKANES, IN SEVERAL CITIES IN ALBANIA, DEPOSED THROUGH ACTIVE INDICATORS (PARTICLES) USING THE GC/ECD TECHNIQUE.

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## ABSTRACT

This study presents data for a determination method of some volatile organic pollutants (halogen alkanes) in air deposited through particles that were collected, in February 2014, in different stations in Albania. Five stations were in Tirana city, two in Durres, one in Kavaja, one in Elbasani and two in Fieri city.

Chlorodifluoromethane, tetrafluoro-1,1,1,2-ethane, trichloromethane, dichloromethane, tetra chloromethane, trichloro -1,1,1-ethane, dichloro-1,2-propane, tetrachloroethylene were analyzed. The analyses of organic pollutants in air samples are limited for many laboratories because of the lack of materials for the sampling of air samples. Another limitation is that data obtained from air samples represent of-the-moment data because of vertical and horizontal air current, temperature, humidity, etc.

The quantitative analysis of halogen alkanes was performed by the gas chromatography method using an electron capture detector (ECD). The column used was a VF-1ms capillary column (30 m x 0.33 mm x 0.25  $\mu$ m). The concentration of halogen alkanes in particles ranges between 0.015 from 0.015 to 0.096  $\mu$ g/g fresh weight sample. Dichloromethane, tetra chloromethane and, trichloro -1,1,1-ethane were detected at higher levels than other halogen alkanes obtained in the study.

**Keywords:** Halogen alkanes, Particle samples, Electron capture detector, Gas chromatography.