

**O 25.      ORGANOCHLORINATED PESTICIDES AND PCB IN SOME MEDICINAL PLANTS  
                 FROM SOUTH-EAST ALBANIA**

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**ABSTRACT:** In this paper are presented concentrations of organochlorinated pesticides and polychlorinated biphenyls (PCB) in some medicinal plants from South-East Albania. Many medicinal plants grow in Albania due to appropriate Mediterranean climate. Twelve different species of medicinal plants were taken in May 2017 in Pogradeci-Korca-Kolonja-Permeti region (South-East Albania).

Ultrasonic extraction used for extracting organochlorinated pesticides, their residues and PCBs from medicinal plant samples. Clean-up procedure was performed using firstly silicagel with sulfuric acid and a second clean-up procedure in an “open” florisil column. Qualitative and quantitative analysis was realized in HP 6890 Series II, gas chromatograph equipped with  $\mu$ ECD detector. For separation of organochlorinated pesticides and PCB markers was used Rtx-5 capillary column (30m x 0.32mm x 0.25 $\mu$ m).

The highest level of organochlorine pollutants was found to the samples of *Mentha longifolia* because these plants were grown near the agricultural areas. The main origin of organochlorine pesticides could be as result of their previous uses for agricultural purposes. Profile PCB marker were as following: PCB 28 > PCB 138 > PCB 153. This fact confirms atmospheric origin of these compounds in the wild ecosystem of medicinal plants.

*Keywords: Organochlorinated pesticides; PCBs; Medicinal plants; GC/ECD*