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Levels of Organchlorinated Pesticides and PCB in OliveOil of Vlora Region, Albania

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Abstract: In this study were evaluated levels of organochlorinated pesticides and polychlorinated biphenyls in extra virgin olive oil samples from Vlora region (South Albania), in January 2015. Vlora region is known for olive oil production. Organoclorinated pesticides are used wide for agricultural purposes until 90' in Albania. PCBs were used in Albania as electric transformer oil after 90' therefore these compound were reported in many areas because of their atmospheric deposition. In general these pollutants are stable compounds, lipophilic, withtoxic properties. Ultrasonic bath extraction assisted with n-Hexane as organic solvent and two clean-up steps have been used for analytical treatment of olive oil samples. The quantitative analysis of organochlorinateds pesticides and PCBs were performed by the gas chromatography method with electron capture detector. The profiles of detected pesticides were: Endosulphanes > HCHs > Aldrines Mirex > Methoxychlor > DDTs. PCB 28, the volatile PCB marker was the main congener for all analyzed samples. The levels of contaminants observed for the olive oil samples could be because of their before use for agricultural purposes, oil production proces, atmospheric deposition for Vlora region.

Keywords: *Organochlorinated pesticides, PCBs, Olive oil, Gas chromatography*

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