



Evaluation of mercury in the Vlora Gulf Albania and impacts on the environment

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Abstract: Mercury (Hg) in the Vlora gulf survey area exists in high levels for more than two decades now. This is the reason why there have been and there are still studies being carried out in this area. Hg is now considered as a potential polluter. The study is based on environmental and test indicators. The obtained indicators on land, water and plants give a summarized account of the Hg situation in this area. The utilized method was based on the opening of profiles and the obtaining of the samples according to distance from the source, the electrolysis section. The obtained results after the tests show that land and water media are polluted with Hg. From the plant tests it results that there are high amounts of Hg accumulated in the organ tissues of the plants. The plant species in the surveyed area absorb different Hg, levels, from *Juncus acutus* 0.115 up to 0.271 *Kladofora*. Based on the geometric average GA and the median MED, according to distances from 25-100 m the content of mercury results to be 0.9 in 500 mg/kg in the environment. The geometric average is in geographic proportion regarding the content. According to the geographic position of the surveyed environment, minimum values result on the northern and eastern part and the maximal ones on the western part at a GA value (mg/kg) 142.2 and MED (mg/kg) 421.8. This area with high Hg content becomes a cause not only for environmental pollution, but also pollution in animal and human beings and, stimulating carcinogenic diseases.

Key words: *mercury, pollution, environmental area, land, water, plant, losses.*

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