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## **EVALUATION OF ATMOSPHERIC POLLUTION BY USING NATURAL LOW-COST SORBENTS**

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### **Abstract**

In this study, we have tested the possibility of utilization of three types of natural low-cost sorbents: (Sphagnum moss peat, natural moss peat and alkaline treated moss peat) for the active biomonitoring of air quality from Căliman National Park area (Dorna Basin), during of two months (September – October 2010). The concentrations of some heavy metals (Pb, Cd, Cu, Mn and Fe) in the sorbent samples were used as an indicator of the level of air pollution in the studied region. After exposure period, the sorbent samples were analyzed by graphite-furnace electrothermal atomic absorption spectrometry, in order to determine the total concentration of heavy metals. Accumulated heavy metals in the exposes sorbents samples were assessed and the enrichment factor (EF) values were calculated in each case. The obtained result were use to evaluated the efficiency of considered natural low-cost sorbents in the active biomonitoring of air quality, from protected area.

*Key words:* active biomonitoring, air quality, heavy metals, low-cost sorbents

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