

**ASSESSMENT OF AIR POLLUTION IN THE VICINITY OF OIL  
REFINERY PLANT USING MOSS BAGS TECHNIQUE**

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Active biomonitoring technique using the species *Sphagnum girgensohnii* was used to examine heavy metals and trace element atmospheric deposition around the oil refinery plant “Slavneft” in Yaroslavl. Moss was collected in pristine area in Tver region, Russia.

Three moss-bags were exposed for 2-month periods (June –August 2022) at eight representative sites. The concentrations of Al, Cu, Cd, Co, Pb, Zn, Ba, Cr, Mn, Fe, Sr, V, Ni, S, P and Hg were determined using ICP-OES and direct mercury analyzer.

Significant accumulation of some elements in the exposed moss bags compared to the control was observed. Content of V and Ni, tracers of oil-refinery industry, increased up to 8 times, depends on wind direction. Moss bags biomonitoring proved to be a cheap and efficient tool to assess heavy metal pollution in urban area.

**Keywords:** *biomonitoring, moss bags, oil refinery plant.*