Abstract, key words

Fluvoxamine is one of the most used psychoactive drugs nowadays. In human body at least nine metabolites are formed and only 4 % is excreted unmetabolised by urine. This substance can be harmful for the environment at very low concentrations already.

The aim of this Bachelor thesis is to find out whether we can use phytoremediation to remove the fluvoxamine from the environment. Phytoextraction of the fluvoxamine was tested on \textit{in vitro} cultivated \textit{Zea mays} and \textit{Pisum sativum} plants. Murashige-Skoog medium contaminated with the fluvoxamine was added to cultivations. Samples were collected every 24 hours and the concentration of the drug was determined by HPLC with UV detection at 235 nm. The average concentration decrease was 54,6 % for \textit{Zea mays} and 37,6 % for \textit{Pisum sativum} within 72 hours. In the case of \textit{Pisum sativum}, the decrease of fluvoxamine showed a linear pattern.

Key words: phytoremediation, phytoextraction, psychoactive drugs, fluvoxamine, HPLC.