

Abstract

This work has studied interaction between ibuprofen, naproxen and diclofenac for phytoextraction efficiency by *Helianthus annuus*, *Zea mays*, *Pisum sativum* and *Brassica napus* plants. The experiments were focussed to massively used non-steroidal anti-inflammatory drugs. The results showed differences when compare of the phytoextraction efficiency single substance and their mixtures. The presence of diclofenac or ibuprofen in plants decreased extraction of naproxene from the cultivation medium. The presence of salicylic acid showed no influence in extraction of mixtures. The efficiency of plants depends on the amount of produced biomass and root surface. The analysis of plant showed the presence of extractable residues. The compounds excreted into medium by back-transport did not found. This is a positive factor for practical using of tested system in constructed wetlands.