

Abstract

Horáková Veronika, Ecotoxicological evaluation of the non-steroidal and anti-inflammatory drug, (graduation thesis)

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There is getting more higher occurrence of residuals of healing substance connected with growing consumption of medicals in our environment, where they influence a range of organisms. In this work the ecotoxicity of diclofenac was monitored. Four tests of toxicity were selected for evaluation of this influence – one acute test (with *Thamnocephalus platyurus*), two semi-chronic tests (with *Tetrahymena thermophila*, *Sinapis alba* seeds) and one chronic test (with *Brachionus calyciflorus*). Values for diclofenac have been found from these tests: 24hEC₅₀ 5,058 mg/l - THAMNOTOXKIT FTM, 24h EC₅₀ 32,88 mg/l (23,07 – 46,86 mg/l) at 492 nm – more generation test with organism *Tetrahymena thermophila*, 48h EC₅₀ 1,363 mg/l (0,7848 – 2,366 mg/l) – ROTOXKIT F CHRONIC, 72h EC₅₀ 71,42 mg/l (62,51 – 81,60 mg/l) – a semi chronic test with *Sinapis alba* seeds.

Key words: ecotoxicology, diclofenac, *Tetrahymena thermophila*, *Thamnocephalus platyurus*, *Brachionus calyciflorus*, *Sinapis alba*