TOXICITY ASSESSMENT OF HOSPITAL WASTEWATER BY THE USE OF A BIOTEST BATTERY

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Abstract: In the paper toxicity assessment of hospital wastewaters samples was performed using direct-contact tests consisting of five species, which represent three different trophic levels of the food chain. IC_{50} or EC_{50} values were estimated for each tested organism: *Pseudokirchneriella subcapitata* $IC_{50/72h}$ 18.77%, *Daphnia magna* $EC_{50/48h}$ 20.76%, *Thamnocephalus platyurus* $EC_{50/24h}$ 22.62%, *Artemia salina* $EC_{50/24h}$ 59.87% and *Vibrio fisheri* $EC_{50/15min}$ 46.17%. Toxic potential of hospital wastewater was described using a system of wastewater toxicity classification. The toxic units (TU) values estimated for each test indicate that hospital wastewaters are toxic (Class III). The variable results of the tests' sensitivity confirmed the need of application of microbiotests battery with organisms of different trophic levels.