

**05-084**

**ECOTOXICOLOGY AS A TOOL IN NANOTECHNOLOGY**

Cavalcante, A.K.(1); Lugão, A.B.(1); Rogero, J.R.(1); Rogero, S.(1); Mamede, F.C.S.(1); Maziero, J.S.(1);  
(1) IPEN;

The commercial applications of nanoparticles are diverse, such as use in the food industry, textile industry, electronics, water treatment and products used in medicine and health. The increase in the production and use of nanoparticles has caused great concern about the potential impacts and risks that these can cause to the environment and to human health. Nanoparticles can be released to the environment in a variety of ways and can reach the aquatic ecosystem and pose biota risks. Ecotoxicology is the study of the behavior and transformations of chemical agents and abiotic factors in the environment, as well as their effects on biota. The evaluation of the toxicity of chemical agents in the aquatic environment occurs by means of ecotoxicological tests. The purpose of this review was to summarize some ecotoxicological assays by addressing some concepts and data from nanoparticle ecotoxicity assays in order to demonstrate that ecotoxicological evaluation is an important tool for nanotechnology and that it has efficient methodologies for analyzing the Environmental health of aquatic ecosystems.