World Academy of Science, Engineering and Technology
International Journal of Bioengineering and Life Sciences
Vol:8, No:12, 2014

Embryotoxicity of Nano-Iron Oxide (Fe2O3) to Bio-Indicator of Pollution of Land Helix Aspersa

Authors : S. Besnaci, S. Bensoltane, H. Locif, S. Saadi

Abstract : To validate an ecotoxicological approach to assessing toxicological effects caused by the oxide powder of nano-iron Fe2O3, we searched in the ecotoxicology laboratory cell bodies bio accumulators and bio-indicators of soil pollution the snail Helix aspersa. In this study, we evaluated the toxicity of nano Fe2O3 during a very sensitive phase of development H.aspersa (embryonic stage). During embryonic development, we observed in treated with various concentrations of nano Fe2O3 (1.25 g/l, 1.5 g/l, and 2 g/l) compared to control, the deformation of the membrane of the egg and accumulation of this molecule at the rear of the egg proven by the photographs, as with the influence on the hatching percentage.

Keywords : eggs, embryotoxicity, Fe2O3, Helix aspersa, nanoparticles
Conference Title : ICBSET 2014 : International Conference on Biological Science, Engineering and Technology
Conference Location : Istanbul, Türkiye
Conference Dates : December 22-23, 2014

Open Science Index, Bioengineering and Life Sciences Vol:8, No:12, 2014 publications.waset.org/abstracts/18500.pdf