

## THE CHRONIC TOXICITY OF PANI-Nps TO THE LARVAE STAGE OF RHINELLA ARENARUM

### **Autor/es:**

LUIS E. IBARRA; SILVESTRE BONGIOVANNI; CÉSAR A. BARBERO; VIVIANA A. RIVAROLA; MABEL L. BERTUZZI; EDITH I. \*

### **Revista:**

JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY

### **Editorial:**

AMER SCIENTIFIC PUBLISHERS

### **Referencias:**

Lugar: California; Año: 2015

### **ISSN:**

1533-4880

### **Resumen:**

The interaction between live organisms and nanosized materials has become a current focus in toxicology. The aim of this study was to establish the chronic effects of PANI-Nps in different dispersant on *Rhinella arenarum* toad larvae. We propose the use of organism's models to understand the toxic mechanistic modes of action that could occur by exposure to Nps. AMPHITOX is proving to be a quick, cheap, and facile model to conservatively assess toxicity of nanomaterials. The toxicity of both: PANI-Np1 (PANI-Np dispersed in PVP) and PANI-Np2 (PANI-Np dispersed in PVP+PNIPAM) was time- and concentration- dependent. The range of concentrations used were 182-980 mg/L for PANI-Np1 or 250-1000 mg/L for PANI-Np2 and the larval stage used was S.25 (closed branchiae). PANI-Np2 was more toxic than PANI-Np1 based on the chronic toxicity results. At stage S.25, no alterations in the larvae skin were observed while nanoparticle precipitations were detected into the digestive tract; suggesting that PANI nanoparticles are probably unable to enter through the oral route