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**Neutron Activation Analyses for investigation of antilonomic serum for caterpillars**

***Lonomia obliqua Walker (Lepidoptera: Saturniidae)***

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Since 1996 the Butantan Institute (IBu, São Paulo city), in collaboration with the Health Departments of some Brazilian states, produces serum antilonomic using the caterpillars of the species *L. obliqua* from several regions of Brazil. However, no data of their elemental composition to ensure that the antivenom produced (considering the different origins) may be used to manufacture serum unchanged in the final product, as regards the toxicity of inorganic elements. In this investigation, we intend to check the elemental characterization of this antidote using Neutron Activation Analyses technique (NAA). The NAA measurements were performed in the IEA-R1 nuclear reactor (IPEN/CNEN-SP, Brasil). Each sample was irradiated by 120s and gamma counting by 300s using HPGe detector (ORTEC-GEM 60195) coupled to a MCA (ORTEC - 919E). The elements concentration were obtained using the *ATIVACÃO* software. These quantitative analyzes of the antilonomic serum will generate data to evaluate the possibility of establishing a standard extract, which would reduce costs in the antilonomic serum production process, as well as improvements in serum production process antilonomic in the Butantan Institute, meeting the standards of good manufacturing practices and good laboratory practice.

**Keywords:** NAA, *L. obliqua*, antilonomic serum, antivenom

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