

**Blood evaluation in equines using NAA: study of the similarities equines versus humans**T.S. Baptista, C.B Zamboni, J.A.G. Medeiros*Instituto de Pesquisas Energéticas e Nucleares (IPEN / CNEN - SP)*

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Using Neutron Activation Analysis biochemical values in blood of horses were evaluated. These measurements have been done to check the similarities with the human being blood estimation values. This comparison is an important because in the last year these animals, have been used in the immunization procedure for the antivenom production at Butantan Institute (SP, Brazil). Twenty adults animals, average mass 350 kg without clinical signs of disease, age with 12-36 months, females and males animals, kept on pasture in São Joaquim Farm at Butantan Institute, were used as control group. The biological samples (100 to 500?l) were then transferred to the filter paper and dried for few minutes using an infrared lamp. Each sample was sealed into an individual polyethylene bag and irradiated with thermal neutrons in the IEA-R1 nuclear reactor at IPEN/SP (IEA-R1, 2-4MW, pool type) and the mass fractions were obtained by the comparator method using the in-house software. Considering that Na, Cl, Mg and Ca are the majority component in blood their evaluation in equines blood were performed. Statistic differences between the equines and humans were verified by Student test. No significant difference was observed among them. These data emphases that choose of equines for hyperimmune sera production is adequate.