

INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS OF *BIDENS PILOSA*, A MEDICINAL PLANT USED FOR DIABETES TREATING.

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Medicinal plants have been used since long time ago in traditional medicine for treatment of several diseases. *Bidens pilosa*, popularly known as *picão-preto* in Brazil, is a plant commonly found in several regions of the world, among its many applications in folk medicine, stands out its use for the treatment of Diabetes Mellitus. The objective of this study was to evaluate the elementary concentration of Mg, Mn and V in samples of *B. pilosa* and its growth substrate, since their minerals may influence the pharmacological activity of plants, and diabetes patients studies have indicated that some minerals also exert influence in its metabolism. Obtaining samples has done by planting seeds. Three months after planting, the adult plants were collected and separated into a two groups: the control group and another called treatment group, in which solution containing Mg, Mn and V elements were added. Soil was collected from the beds of plants and also separated into control and treatment. To evaluate the concentration of minerals Instrumental Neutron Activation Analysis technique was used. Samples were irradiated in the nuclear reactor IEA-R1 under a neutron flux of 10^{12} n cm⁻² s⁻¹ for 20 seconds and then counted in hyperpure germanium detector.