

Characterization of the extract of propolis produced by *Scaptotrigona* aff. *Postiça* bee from Brazil using NAA and XRF techniques

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The objective of this investigation was to perform a multielemental characterization of the extract of the propolis produced by *Scaptotrigona* aff. *Postiça* Bee (“tubi”) from Barra do Corda (MA-Brasil). The extract produced by this propolis have several medical applications: it is used in the healing of wounds with an inflammatory process, in treatment of prostate tumors and, it has activity against herpes and rubella virus [1-3]. Two analytic techniques were applied for investigation: Neutron Activation Analysis (NAA) and X Ray Fluorescence (XRF). The neutron activation measurements were performed using the IEA-R1 nuclear reactor at IPEN - CNEN/SP and XRF data were obtained using a compact X- Ray spectrometer (X-123 SDD, Amptek) constituted by a Silicon detector coupled a mini X-ray tube (Ag). Direct analysis using EDXRF was compared with INAA procedure to evaluate the effect matrix and the results were satisfactory. These data increase the knowledge of the components and can introduce improvements in the production these extracts, mainly as regards to toxicity and nutritional composition.

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