

## **GRANITOGENESIS EVENTS IN THE PORTO NACIONAL-PALMAS-PARAÍSO DO TOCANTINS REGION, TOCANTINS PROVINCE, BRAZIL**

GORAYEB, P.S.S., MOURA, C.A.V., ARCANJO, S.H.S. Centro de Geociências, Universidade Federal do Pará, Belém, Brazil.

A number of geological mapping carried out in the Porto Nacional-Palmas-Paraíso do Tocantins area has suggested a Paleoproterozoic evolution for the granites occurring in this region of the Tocantins Province. Among these granites there are the Matança and Palmas batholites, whose Pb-Pb zircon ages are presented in this work as a contribution for determining the timing of this granitogenesis. The Matança Granite is a batholite trending NNE-SSW along the limit of two Paleoproterozoic metamorphic terrains dominated by granulites (Porto Nacional Complex) and gneisses (Rio dos Mangues Complex). Zircons from two samples gave  $^{207}\text{Pb}/^{206}\text{Pb}$  ages of  $552 \pm 4$  Ma and  $564 \pm 4$  Ma. The Palmas Granite, a batholite formerly included in the Lajeado Suite, cut the granulites and gave a zircon age of  $548 \pm 5$  Ma. These ages date the timing of emplacement of these two batholites, which are interpreted as representative of a Proterozoic/Paleozoic granitogenesis event. The available zircon ages for the granites of the Porto Nacional-Palmas-Paraíso do Tocantins region, suggest at least four major granitogenesis events. Two of Paleoproterozoic age recorded by the Carmo Granite ( $2025 \pm 26$  Ma) and Serrote Granite ( $1851 \pm 41$  Ma). Two younger events represented by the Santa Luzia Granite ( $655 \pm 24$  Ma) related with the evolution of the Araguaia Belt, and by the Matança and Palmas granites (550-560 Ma).