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SHRIMP ZIRCON AGE OF RIO DO POÇO GRANITIC SUITE IN THE GEOCHRONOLOGICAL SETTING OF PARANAGUÁ DOMAIN - SOUTHERN BRAZIL.

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ABSTRACT

The Paranaguá Domain is a collisional belt located in the southern portion of the Brazilian territory, limited at east by the Atlantic ocean's coastal line and by Luis Alves Microplate and Atuba gneiss-migmatitic complex (Curitiba Domain) at west. The western contact is delineated by transcurrent shears zones with dextral kinematics, named Palmital, Alexandra and Serra Negra. In another hand, the northern contact is made by a low angle shear zone with suggestions of nappism processes. This Domain is represented by a igneous complex that include a several granitic rocks, mainly represented by three different suites: (I) Morro Inglês calc-alkaline suite, (II) Canavieiras sin-collisional suite and (III) Rio do Poço late to post collisional suite. The country rocks of this granitic complex are represented by the Rio das Cobras metasedimentary sequence, composed by gneiss, schist, quartzite and amphibolite metamorphosed in different grades.

The Rio do Poço Suite outcrop as restricted bodies along the Paranaguá Domain, in most represented by leucocratic and hololeucocratic rocks with medium to fine-grained equigranular texture, frequently foliated as magmatic flow. The geochemical data allows recognized a alkaline to sub-alkaline signature with a peraluminous association. The analytical data refers to zircon grains of biotite-muscovite leucogranite (sample BP-10), which belong to the most representative facies of Rio do Poço Suite. The SHRIMP analyses of 11 spots in 9 zircon grains supply ages about $615 \text{ Ma} \pm 7 \text{ Ma}$. This age is interpreted here as the crystallization interval of Rio do Poço Suite, which represent the late to post-collisional magmatism in Paranaguá Domain.