U-PB GEOCHRONOLOGY AND SM-ND AND PB-PB ISOTOPIC STUDIES OF CUNHAPORANGA AND TRÊS CÓRREGOS GRANITOID COMPLEXES-PARANÁ STATE, SOUTHERN BRAZIL

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The Apiaí Fold Belt (AFB) is composed of supracrustal rocks deformed and metamorphosed at greenschist to amphibolite facies during the Brasiliano Cycle of Neoproterozoic age. Related to the same orogeny the Cunhaporanga (CC) and Três Córregos (TCC) batholiths were emplaced. These batholiths covered an area of about 4000 km2 showing tectonic or intrusive contact with the supracrustal host rocks. In both Complexes I type calc-alkaline coarse-grained porphyirític syenogranites to granodiorite predominate. Subordinately pink alkali-feldspar granites and quartz monzodiorites occur. The TCC western border is composed by tonalite to granodiorite granitoids strongly deformed by low angle mylonitic foliation. Concordia plots for Cunhaporanga and Três Córregos main types (microcline megacrystal coarse-grained facies) yield 567+/-5.8Ma, 559+/- 4.5Ma (CC) and 599+/-7.3, 604+/-3.5 Ma respectively. Sm-Nd model ages (TDM) are similar for both Complexes ranging from 1.84 to 2.17Ga suggesting a Paleoproterozoic source for the protholiths of these granitoids. The crustal contribution in the origin of these rocks demostrated by the high negative Epsilon NdT (- 13 to -20) is also suggested by the isotopic inheritance observed in the analyzed zircons (whose points plot close to the lower intercept).The U-Pb data indicate that the TCC is ca 40 Ma older than CC what is in good agreement with the plumbotectonic results that suggested different crustal sources for the two complexes.