



PT.017

NEW GEOCHRONOLOGICAL DATA FROM GRANITES OF EMBU TERRANE – RIBEIRA BELT – SOUTHERN BRAZIL

Passarelli CR¹, Basei MAS¹, Siga Jr O¹ - ¹Instituto de Geociências/USP - Departamento de Mineralogia e Geotectônica

The southeastern Ribeira Belt in the Mantiqueira Province, SE Brazil, consists of tectonic domains limited by significant shear zones, related to the Neoproterozoic Brasiliano Orogen. The northern Embu Supracrustal terrane is separated from the southern granite-gneissic migmatitic terrane by the Cubatão – Itariri Shear System. The Embu Terrane is a complex domain that hosts low to high metasedimentary successions and several granitic bodies of varied composition and size. It corresponds to an exotic block accreted to a continental mass -formed by the amalgamation between the São Francisco and Paranapanema cratons.

Petrographic and geochronological studies were carried out on granites of the Embu Terrane, southeast São Paulo state. Most of the small granitic bodies are undifferentiated as “syn-orogenic granites”, and this study provide new information of two small peraluminous granitic bodies, Juquiá and Sete Barras granites, hosted by high metamorphic supracrustal rocks.

The Juquiá granite, near the Cubatão shear zone is a megacrystic-deformed granite that yielded LA-ICP-MS U-Pb zircon ages of 809 Ma and the Sete Barras protomylonitic granite provided new U-Pb LA-ICP-MS zircon ages of ca 583 Ma.

These ages represent tectono-thermal events and record two important orogenic episodes (Brasiliano I and II) of the Brasiliano collage indicating the complexity of the Embu terrane that comprises several successive geological events and different kind of magmatism that took place over a ca. 200 million year time interval.