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U-Pb GEOCHRONOLOGY OF MESOPROTEROZOIC AND NEOPROTEROZOIC SEQUENCES OF SOUTHERN APIAÍ FOLD BELT, PARANÁ STATE - SOUTH/BRAZIL

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ABSTRACT

The southern Apiaí Domain is comprises a sequence of metavolcanic and metasedimentary rocks that crops out in the northeastern portion of south Brazil. Discussions concerning the timing of its deposition, deformation and tectonic setting are frequent among the authors who study the Apiaí Domain. Superimposed thermo-tectonic events, major shear zones, juxtaposition of allochthonous supracrustal sequences and large intrusions of granitic bodies make the reconstruction of the Precambrian history a rather difficult task.

Previous works indicates that the major tectonic compartments of the Apiaí Fold Belt were juxtaposed by extensive shearing, including thrusting and transcurrent faulting. The dynamics of this deformation is still uncertain. This paper shows a review of previous data and present new U-Pb zircon ages for the Apiaí metasedimentary sequences. The magmatism and sedimentation ages are associated with extensional processes during both the end of the Paleoproterozoic (1.750 Ma) and the Mesoproterozoic (1.600 Ma-1.450 Ma), and with compressive regimes during the Neoproterozoic (~600 Ma). The Neoproterozoic tectonics is responsible for metamorphism and emplacement of major granitic massifs representative of magmatic arcs, such as Cunhaporanga and Três Córregos.