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**EDIACARAN HIGH-PRESSURE COLLISION METAMORPHISM AND THRUST NAPPE TECTONICS IN THE CURITIBA DOMAIN, SOUTHERN RIBEIRA BELT**

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**Resumo:** The Curitiba Domain represents a segment of the Ribeira Belt, which was derived from the collision between the São Francisco, Congo and Paranapanema cratons during the Neoproterozoic. This domain comprises high-grade Paleoproterozoic orthogneisses from the Atuba Complex, low to high-grade metasedimentary rocks of the Turvo-Cajati Complex, and low-grade metasedimentary rocks of the Capiiru and Setuva formations. These four lithotectonic units form the Curitiba Terrane, a composite terrane confined between the Apiaí and Luís Alves terranes.

Geological mapping and petrological studies revealed eight metamorphic zones for the Turvo-Cajati Complex: biotite zone, garnet zone, staurolite zone, staurolite-kyanite zone, staurolite-sillimanite zone, muscovite-sillimanite zone, kyanite-K-feldspar zone and sillimanite-K-feldspar zone. Although these metamorphic zones seem to the classical barrovian zones, the kyanite-K-feldspar assemblage indicates a metamorphic field gradient above the barrovian type for part of this unit. The high-grade portion of the Turvo-Cajati Complex exhibits metamorphic peak between 650 and 800°C under relatively high pressures (9-12 kbar). Two distinct metamorphic path types were calculated using the Gibbs method of differential thermodynamics. Kyanite-bearing paragneisses underwent clockwise P-T paths typical of collision zones, with isobaric heating until to reach the thermal peak, while sillimanite-bearing paragneisses of higher temperatures underwent a near isothermal decompression from ~13 to 9 kbar at ~770-800°C. Chemical dating of monazite crystals indicates that the metamorphic peak of the Turvo-Cajati Complex paragneisses occurred between 580 and 575 Ma, a period significantly younger than the minimal date for the metamorphic climax of the Apiaí Terrane units ( $\geq$  600-620 Ma).

P-T data and petrological evidence of rocks from the Atuba Complex suggest a retrograde metamorphic path following near isobaric cooling from 750°C to a reequilibration at around 650-700°C and 6-7 kbar. The integration of petrological, microstructural and geochronological data suggests that the metamorphic peak would have occurred during the Paleoproterozoic and the metamorphic reequilibration during the Ediacaran. Available K-Ar and  $^{40}\text{Ar}$ - $^{39}\text{Ar}$  (mica) data indicate that the Atuba Complex rocks were cold, below 400-250°C, between 590 and 575 Ma. The fact that the Turvo-Cajati Complex was undergoing its metamorphic climax in this period indicates that both units were not juxtaposed during this time.

Partial stratigraphic inversion with the Atuba Complex covering the Turvo-Cajati Complex, inverted metamorphic zonation in the Turvo-Cajati Complex, top-to-west shear sense indicators on both units, petrological evidence and available geochronological data indicate that the structural pattern of the Curitiba Terrane is related to a Ediacaran westward thrust nappe tectonics during late- to post-metamorphic periods. Geological mapping coupled with petrological studies allow us to reconstruct a nappe stacking model characterized by four principal nappes (from the base to the top): (1) a high-pressure high-temperature Turvo-Cajati unit covering the basal Atuba unit; (2) an alloctonous Atuba nappe; (3) a low- to medium-temperature Turvo-Cajati unit; and (4) a low-temperature Capiiru Formation unit. Cylindrical folds with E-W-trending subhorizontal axes parallel to the syn-thrusting stretching lineations were responsible for partial inversion of shear sense indicators, resulting in an apparent extensional tectonics.

**Palavras-chave:** curitiba terrane; collision metamorphism; thrust nappe tectonics.

**EMPURRÃO NEOPROTEROZÓICO NA ÁREA DO SERROTE SANTA RITA, SÃO GONÇALO DO SAPUCAÍ, SUL DE MINAS GERAIS.**

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**Resumo:** O Serrote Santa Rita é uma elevação de rumo NE-SW localizada a sudeste de São Gonçalo do Sapucaí no sul de Minas Gerais, no extremo meridional da Faixa Brasília. Nesta área foi caracterizado um empurrão para NE, formando um sinclinal aberto, que coloca o Ortognaisse Santa Luzia, do embasamento Paleoproterozóico, sobre paragneisses e xistos Neoproterozóicos da Megassequência Andrelândia. A ausência de milonitos sugere deformação precoce em relação ao auge do metamorfismo, que deve ter obliterado as possíveis texturas miloníticas. O empurrão é truncado por uma zona de cisalhamento subvertical destrógrica de rumo NE-SW, caracterizada por milonitos de ortogneisses e paragneisses. Esta zona é um ramo da Zona de Cisalhamento Três Corações. Estas estruturas envolvem metassedimentos neoproterozóicos e por tal razão podem ser associadas a a Orogênese Brasileira. O empurrão do Serrote Santa Luzia deve ser relacionado aos estágios iniciais da deformação Brasília e a zona de cisalhamento subvertical aos estágios finais da Orogênese Brasileira.

**Palavras-chave:** empurrão; são gonçalo do sapucaí; zona de cisalhamento.