

Granulitic/Charnockitic Rocks from the Juiz de Fora Domain, Central Segment of the Brasiliano-Pan-African Ribeira Belt

¹DUARTE, B.; ¹HEILBRON, M. and CAMPOS NETO, M.

TEKTOS Faculty of Geology. University of the State of Rio de Janeiro. Rio de Janeiro, Brazil.

The Juiz de Fora Domain of the Brasiliano Ribeira Belt includes three different tectonically bounded lito-stratigraphic units, each comprised by a distinct type of granulitic/charnockitic rock. The older unit (pre-1.8 Ga) is composed of basic to acidic orthopyroxene-clinopyroxene-bearing orthogneisses with a granoblastic fabric. Field and petrological data indicate that the Paleoproterozoic granulitic metamorphism was promoted by the infiltration of CO₂-rich fluids. A late mylonitic foliation and retrogressive mineral products are contemporaneous to the Brasiliano-Pan-African tectonic stacking.

Post-1.8 Ga metasedimentary rocks were metamorphosed during the Brasiliano Orogeny. These rocks display garnet-bearing granulite facies paragenesis within a foliated and/or mylonitic structure and show features of *in situ* migmatization caused by the breakdown of biotite.

The younger unit comprises Brasiliano charnockitic bodies which occur as garnet-(orthopyroxene)-bearing leucosomes within the paragneisses and also as isotropic to slightly foliated individualized igneous bodies with enclaves of lithotypes of the other units. These bodies are interpreted as the product of the anatexis of the paragneisses with minor contributions of the orthogranulites.

Partial hydration of the orthogranulites and granulitic metamorphism on the paragneisses with production of anhydrous melting were promoted by the tectonic stacking related to the Brasiliano Orogeny.