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Hercynite-Quartz-bearing Granulites From the Brejões Dome Area, Jequié Block, Bahia, Brazil: Influence of Charnockite Intrusion on Granulite Facies Metamorphism

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In the present study, we describe and discuss the geology of aluminous-magnesian granulites and associated garnet-bearing charnockitic granulite from the Brejões Dome area, located in the Jequié Block, part of the São Francisco Craton in Bahia, Brazil. Investigation of metamorphic mineral assemblages allows the evaluation of *P-T* conditions for the formation of these rocks, and therefore to obtain constraints for the better understanding of the geological evolution of the area. We conclude that the rocks from the Brejões Dome area were formed under granulite facies conditions of low to intermediate pressure (5-8 kbar). Temperatures determined in samples of aluminous-magnesian granulites collected away from the dome are in the order of 850°C, similar to those determined elsewhere in the southern part of the Itabuna-Salvador-Curaçá Orogen. However, samples of the same rock type collected close to the Brejões Dome are hercynite + quartz-bearing and record higher temperatures of about 900-1000° C. It is suggested that the intrusion of the Brejões charnockite diapir was responsible for a local increase in temperature above the peak temperature of regional granulite metamorphism.