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NEW GEOCHRONOLOGICAL U/Pb SHRIMP CONSTRAINTS FOR THE PALEOPROTEROZOIC GEODYNAMIC EVOLUTION OF THE SERIDÓ BELT (BORBOREMA PROVINCE)

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ABSTRACT

U/Pb Sensitive High Resolution Ion MicroProbe (SHRIMP) zircon ages from augen gneiss occurring in the Seridó Belt (Borborema Province) yielded crystallization ages about ca. 2,2 Ga and ca. 1,75 Ga. These data place new constraints on the geodynamic significance of the Seridó since even recently these metaplutonic rocks have been using to support a polyorogenic evolution of the belt. Ages of ca. 2,2 Ga are quite similar to ages obtained for regional basement rocks, indicating that the augen gneisses are part of an important arc-type accretionary event during the Paleoproterozoic time. Conversely, the 1,75 Ga ages suggest that an intraplate magmatic event was also present during the Paleoproterozoic geodynamic evolution of the Seridó Belt.