

TRANSAMAZONIC EVOLUTION OF THE SÃO LUIS CRATON AND NORTHWEST CEARÁ - BRAZIL, AND ITS CORRELATION WITH WEST AFRICA

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In the north-northeast coast of Brazil, Paleoproterozoic granitoids occur in a crustal segment, over 1000 km long, which includes the Rio Gurupi, Rosario and Northwestern Ceará Precambrian regions. Part of this region has been correlated with the West African Craton based on geochronological, structural, and geophysical data. In order to define the timing of this widespread granitogenesis, a number of granitoids of these three regions were dated by Pb-evaporation zircon technique. The Meta-tonalite Gurupi-Mirim (Tromai Suite) gave a $^{207}\text{Pb}/^{206}\text{Pb}$ zircon age of 2132 ± 18 Ma. Meta-tonalites and meta-granodiorites of the Rosario Suite gave ages of 2079 ± 48 Ma, 2139 ± 22 Ma, 2136 ± 14 Ma, 2129 ± 11 Ma, and 2112 ± 32 Ma. In Northwestern Ceará, ages of 2253 ± 27 Ma, 2076 ± 12 Ma were obtained for tonalitic gneisses (Granja Complex), 2049 ± 10 Ma for Forquilha Gneiss, and 2132 ± 4 Ma for Rio Cruxati Gneiss. The period between 2,08 and 2,14 Ma indicates the main timing of emplacement of these granitic rocks, and records an important Transamazonian tectono-magmatic event of granitic plutonism with calc-alkaline affinity. In the West African Craton, plutonism of similar age is related with a number of magmatic arcs welded to the Archean terrains during the Eburnean event.