

STRUCTURAL EVOLUTION OF ARCHEAN GRANITOIDS FROM XINGUARA REGION, RIO MARIA GRANITE GREENSTONE TERRAIN, AMAZONIAN CRATON, BRAZIL

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The Xinguara region is situated in the northern part of the Rio Maria Granite-Greenstone Terrain, eastern Amazonian craton, a classic Archean terrain with low-grade greenstone belts surrounded by granitoid plutons. Two periods of granitoids formation are recognized in the Xinguara region: (i) 2.95 - 2.92 Ga - emplacement and deformation of tonalitic-trochymitic granitoids and gneisses, correlated to the Arco Verde Tonalite, situated in the southern part of the Rio Maria Granite-Greenstone Terrain; (ii) $\sim 2.87 \pm 0.01$ Ga - emplacement of the younger TTG suite, Rio Maria Granodiorite and Xinguara potassic leucogranite, in a short time period (20 Ma). Remnants of an N-S- trending foliation are observed in the early TTG. This foliation is transposed to E-W-trending regional foliation, dominant in different granitic plutons. In the Rio Maria Granodiorite, foliation varies from weak and discontinuous to penetrative. This unit, locally, shows strongly shortened mafic enclaves. In the Xinguara pluton, an elongated WNW-ESE trending dome, foliation is weak, almost horizontal in the center of intrusion, and more pronounced, with steep dips in the borders. In thin sections, the Xinguara Granite shows a moderate to strongly recrystallized fabric. In its northeastern contact, the Xinguara Granite the younger TTG granitoids show triple junctions. The structural framework of the Xinguara region is interpreted in terms of interference between granitoid pluton emplacements and N-S horizontal crustal shortening.