

# **SHRIMP U-Pb Geochronology, of Neoproterozoic Supracrustal Sequences from PEAL Domain, NE Brazil, from Rodinia break-up to Gondwana Amalgamation**

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The Borborema Province is the western part of a major Brasiliano belt that extends from Brazil through NW Africa in pre-drift reconstructions. This province results from the convergence and collision among the West African, Congo-São Francisco, and Amazonia cratons about 600 Ma. The data comes from the PEAL Domain of the Borborema Province. U-Pb and Nd data suggest that the Rio Una sequence was deposited over a juvenile paleoproterozoic basement. Rio Una sequence unit 1 and 2 show maximum depositional age similar to the Cariris Velhos metasediments, suggesting the Zona Transversal, PEAL and Sergipano Domains were close to the same source region. Rio Una sequence unit 2 show cluster of ages similar to the Surubim and Frei Paulo sequences. It suggests partially the domains Zona Transversal, PEAL and Sergipano were close connected during the Gondwana amalgamation. Rio Una unit 3 and Inhapi sequences show maximum depositional ages quite common in various Borborema Province sequences located in different domains (Ceará, Rio Grande do Norte, Zona Transversal and Sergipano), containing only Neoproterozoic zircons. Rio Una unit 1 and 2 show ages compatible with those of Rodinia break-up, while Rio Una unit 3 and Inhapi sequences show a syn-collision/arc-related character related to Gondwana amalgamation.

**PALAVRAS CHAVE:** Sequências Neoproterozóicas, Gondwana