

## **A CAMBRIAN-ORDOVICIAN OROGENY IN THE RIBEIRA BELT (SE BRAZIL) – LATE AMALGAMATION IN THE CENTER OF WEST GONDWANA: NEW STRUCTURAL AND GEOCHRONOLOGICAL DATA**

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New U/Pb data, obtained in the Cabo Frio Block, southeastern part of the central Ribeira belt (between São Francisco and Congo Cratons), reveal that in the Mid-Cambrian the central part of West Gondwana was still undergoing a high grade tectonometamorphic event, coeval with its marginal orogenies (e.g. Pampean). The studied area, located to the east of Rio de Janeiro city, comprises two main lithological units: an orthogneissic basement and a paragneissic sequence, folded and metamorphosed at upper amphibolite to granulite facies. The metamorphic peak, associated with a NW-SE stretching lineation, occurred at ~525 Ma, based on U/Pb ages in zircons from leucosomes. The pseudomorphism of sillimanite over kyanite and subsequent deformation of the leucosomes, associated with an E-W lineation, are related to a clockwise P-T-t path, lasting until ~510 Ma (U/Pb in monazites from metapelites - 513 $\pm$ 2 Ma - and in titanites from amphibolites - 510 $\pm$ 5 Ma). A 207Pb/206Pb age in rutile (480 $\pm$ 5 Ma) together with a U/Pb zircon age in a post-tectonic pegmatite (440 $\pm$ 11Ma) mark the cooling and stabilization of central West Gondwana, during the Ordovician-Silurian transition. The late docking of the Cabo Frio block into the Ribeira Belt is considered as the cause for this orogeny, named here Búzios Orogeny.