

## **U-PB GEOCHRONOLOGY OF THE BORRACHUDOS SUITE: EVIDENCE OF BRASILIANO TECTONISM RECORDED BY LATE PALEOPROTEROZOIC ANOROGENIC GRANITES (ARAÇUAÍ BELT, MINAS GERAIS, BRAZIL)**

1Fernandes, M.I.S., 1Pedrosa Soares, A.C., 1Noce, C.M., 2Wiedemann, C., 3Correia Neves, J.M. 1CPMTC/IGC/UFMG, 2 CCMN/UFRJ, 3 IGC/UFMG

The Borrachudos Suite comprises a set of A-type granitic bodies emplaced in Archean-Paleoproterozoic rocks eastward from Espinhaço Ridge, Minas Gerais, Brazil. They are gray to pink, medium grain and foliated rocks, essentially composed of mesoperthitic microcline, quartz, albite and minor hastingsite ( $\pm$  hedenbergite) and/or annite. Zircon, apatite, magnetite, allanite, titanite and fluorite are accessory minerals. They are subsolvus, metaluminous and subalkaline granites, presenting high values of Fe/Mg, Na/Ka, Nb, Ga, Y and ETR (except Eu). Magmatic features are masked by the Brasiliano metamorphic recrystallization that imprinted a striking gneissic foliation, locally with mylonitic features. Migmatitic mobilizates are also recognized. U-Pb analysis of three zircon fractions from Morro do Urubu pluton (Dores de Guanhões region) yield a discordia line with an upper intercept at  $1770 \pm 30$  Ma, interpreted as the magmatic crystallization age. Previous zircon ages for other Borrachudos-type plutons and related volcanics suggest anorogenic magmatism lasted for ca. 100 Ma, indicating a long-lived continental extensional event. The discordia line lower intercept at 620 Ma is related to the Brasiliano syntectonic metamorphism and anatexis. Titanites are concordant at 507 Ma, suggesting a regional re-heating induced by the myriad of post-collisional granitoid intrusions (530-500 Ma) found along the Araçuaí Belt.