Chronology of Mesoproterozoic Guanhães River Sequence: $^{207}Pb/^{206}Pb$ Single Zircon Evaporation Data of Metavolcanic Rocks (Minas Gerais, Brazil)

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The Araçuaí Mobile Belt determines the eastern boundary of the São Francisco Craton forming in the southern portion the Espinhaço Range. Toward the east Archean/Paleoproterozoic granite-gneissic complex with supracrustal sequences crops out. Granitoids range in age from Paleo- to Neoproterozoic intruded the complex. Near the Guanhães town, the basement encompass a volcanic-sedimentary sequence that crops out in the Guanhães River valley as a narrow structure along major NE-SW extensional fault. The sequence comprises amphibole and mica schists, quartzites and metapelites. A steep-dipping NE-SW foliation imprinted on the sequence is discordant of regional structures.

Isotopic studies were carrieded out on the sequence. Single-zircon Pb-evaporation analysis of five crystals from the amphibolite interlayed with metasediments were performed in varying temperature intervals. Consistent $^{207}Pb/^{206}Pb$ average ratios obtained indicates small Pb loss in the crystals. The data point to an average of 1697±10 Ma (2s) based on 250 $^{207}Pb/^{206}Pb$ measured ratios. This result is interpreted as crystallization age of the amphibolite and indicates that the Guanhães River sequence is broadly coeval with metasediments and volcanic rocks of Espinhaço Supergroup and implies the process of crustal fracturation, sedimentation and volcanism on the Mesoproterozoic extended toward the east, farther that precedingly registered.