THE IPANEMA LAYERED COMPLEX AND ITS ROLE IN THE PROTEROZOIC CRUSTAL EVOLUTION OF THE ATLANTIC BELT, EASTERN BRAZIL.

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The Paleoproterozoic Mantiqueira (West) and Juiz de Fora (East) Complexes and the Neoproterozoic Araçuaí Fold Belt (North) comprise the geologic framework of eastern Brazil. The Ipanema Layered Complex (ILC) is intrusive into the Juiz de Fora Complex, and is closely associated with 590 Ma calc-alkaline granitoid suite (I-type). The ILC rocks are reequilibrated under high grade of metamorphism, similar the country rocks, ilustrated by the opx+cpx+ol+Al-spinel paragenesis in the metapyroxenites.

The metanorthosites contains low and high-uranium zircons populations. The first group presents U-Pb lower concordia intercept age of 630 ± 3 Ma, whereas the latter yields 1719 ± 4 Ma ($^{207}Pb/^{206}$ Pb). Sm/Nd whole rock isochron for the ILC rocks yields 1030 ± 67 Ma ($\varepsilon_{Nd}(t)$=+4,7). Our results point that: the ILC originated from a depleted mantle source at ca. 1030 Ma; tectonically it may reflect the rift-stage of the Rodinia Supercontinent, and therefore the 630 Ma, is the time of the high grade metamorphism, whilst the 1719 Ma age refers to xenocrystals from the protolith.