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**New SHRIMP age and microstructures from a deformed A-type granite, Kanigiri, southern India: constraining hiatus between orogenic closure and post-orogenic rifting**

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A new U-Pb zircon SHRIMP age of 1285 Ma from the Kanigiri granite, India is reported to help constrain middle to late Mesoproterozoic tectonic evolution of the Nellore schist belt (NSB), a composite accretionary belt along the Eastern Dharwar craton margin, India. The Kanigiri granite having whole-rock chemical characteristics of A-type granite (A1 subtype [1]), is marked by LREE enrichment, strong negative Eu anomaly, as well as negative Ba-, Sr-, P-, Ti- and Yb anomaly, indicating feldspar, apatite and ilmenite/magnetite fractionation. Samples show Y/Nb to Yb/Ta ratios in the range for granites associated with Ocean Island basalts. But the peraluminous, alkali-calcic to calc alkaline Kanigiri granite is a two mica granite with high annite to muscovite proportion (92%-98%). Strong alignment of flattened mafic microgranular enclaves in the granite together with relatively high to moderate temperature crystal plastic deformation fabric in shear zones within the granite suggest overprinting of subsolidus deformation over a relict magmatic fabric, a feature not very common in true anorogenic granites, but reported from late to post-orogenic granites elsewhere [2]. An intrusive relationship with the 1334 Ma Kanigiri ophiolitic melange [3] within the NSB indicate that there is  $\leq 50$  My gap between Mesoproterozoic subduction-accretion represented by the ophiolite melange and post-orogenic to anorogenic granite emplacement. Although the Kanigiri granite occurs close to mafic and felsic alkaline plutons belonging to 1400-1250 Ma Praksam alkaline province (PAkP) [4] in the northern NSB, and there is overlap in age, magma source for Kanigiri granite is apparently unrelated to PAkP magmatism. Our work further substantiates the observation that A-type granites originate in varied tectonic settings, and not necessarily only in rift-related (intraplate) setting.

*References:*

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[3] Dharma Rao C V et al. (2011) *Gond Res* 19: 384-401

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