

## Neoproterozoic and Middle Neoproterozoic bimodal magmatism in the Gondwana orogeny, South India

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Detailed petrological investigations for bimodal association of basaltic and rhyolitic magmas, which is regarded to have formed at subduction or rift zones, provides important information to investigate magma petrogenesis and tectonic evolution in a convergent or divergent margin settings. Here, we report first preliminary petrological and geochemical data of the Neoproterozoic charnockite-mafic granulite association in the Madras Block and Middle Neoproterozoic granite-amphibolite association in the Mesoarchean Coorg Block, southern India. Irregular-shaped mafic granulite (basaltic andesite) occurs as blocks of about tens of centimeter within charnockite (dacitic) in the Madras Block, while amphibolite (basaltic trachy-andesite) blocks in the Coorg Block are surrounded by sub-alkaline granite. Although there is no obvious texture of magma mixing in the Madras samples probably due to post-magmatic high-grade metamorphism and complete recrystallization, plagioclase in the contact zone between mafic enclave and host granite from the Coorg Block shows oscillatory and dusty zonings, which might suggest bimodal magmatism in Middle Neoproterozoic divergent margin in southern India.