

## Petrology of eclogitic garnet-clinopyroxene rocks from Namakkal, southern India

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We report new petrological data of eclogitic garnet-clinopyroxene rocks from two new localities in Namakkal region within the Palghat-Cauvery suture zone, which corresponds to the Gondwana suture zone in southern India. The eclogitic rocks from Pavithram comprise garnet and clinopyroxene with accessory orthopyroxene, hornblende, plagioclase, and quartz. The garnet is often mantled by orthopyroxene + plagioclase corona, suggesting decompression from high-pressure stage possibly along a clockwise P-T path. This is a common reaction texture of magic granulites in this region. In contrast, clinopyroxene in garnet-clinopyroxene rocks from Vadugappatti is mantled by garnet + quartz corona, suggesting the progress of reaction: clinopyroxene + plagioclase => garnet + quartz probably due to near-isobaric cooling. The two contrasting textures in garnet-clinopyroxene rocks from this region might indicate the occurrence of discrete metamorphic blocks with different P-T history within the suture.