

THE RARE OCCURRENCE OF
MELILITE-DIOPSIDE-NEPHELINE
ASSOCIATION IN A CALCIPHYRE,
NEAR NANJANGUD, MYSORE

IN my present detailed studies of the Charnockite rocks in Mysore, while re-examining the micro-sections of some specimens of re-crystallised calc-granulites (Caliphyres) I had collected near Nanjangud in 1923, I recently noticed in one of them a mineral—which, from its optical characters and micro-chemical tests—I recognise as Melilite. A careful examination of the several specimens I had previously collected in the area discloses that Melilites, of varying optical characters, occur in a narrow band of garnetiferous-hornblende diopside granulite,—a component of a thin composite series of calc-granulites which are injected and veined by a later set of pegmatite. Melilites—presumably of varying composition—where found, are intimately associated with diopside, or zoisite and epidote; and are seen either as separate stout laths or in intergrowth with the one or the other of its associated minerals. One of the specimens of these granulites discloses in addition, large plates of nepheline enclosing, poikilitically, several coarse grains of diopside and granular sphene. Scapolite, lime, alumina, garnet, sphene, epidote, and some unidentified rare types of lime silicate minerals are also found in some of the specimens of highly calciferous types.

The occurrence of Melilite and Nepheline in these Calciphyres, is not only of great interest as the first recorded discovery of these minerals in Mysore, but their close association with diopside would throw some light on their paragenesis and on the mode of origin of the melilite rocks which, at least so far as this area is concerned, seem to have been formed from re-actions between an older impure dolomitic limestone and the later injected alkalic liquids connected with the granitic intrusions of the region. A full description of these melilite-bearing rocks, which are still under a detailed study, will be given in Volume XLI, *Records of the Mysore Geological Department*, which will be published in the course of a few months.

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