

Metadata Details

Title

Mineralogical Variation in the Gneisses from Dakshin Gangotri, Antarctica.

Science Keywords

Category	Land Surface
Topic	Geomorphology
Expedition Year	1982-1983
ISO Topic	Geodesy

Summary

Abstract

Mineralogical variations in the gneisses of Dakshin Gangotri was studied by determination of R.I. by liquid immersion method, optic axial angle measurement, determination of composition of plagioclase by the help of a universal stage and determination of composition of biotite and hornblende from R.I. (Ny and Nz).

Purpose

Geological mapping has been carried out around the Indian Research Station Dakshin Gangotri (Lat. 74° 45'S, Long. 11° 37'E), which is on the Schirmacher Range of Antarctica. The dominant rock type present is the biotite-hornblende bearing quartzofeldspathic gneiss which is the country rock in which are intruded dykes and sills of pegmatite, metadolerite, amphibolite and melasyenite. The biotite-hornblende bearing quartzofeldspathic gneiss is further sub-divided on field and petro-graphic basis into the following four units: 1. Microcline rich granoblastic gneiss with faint foliation (Migmatitic gneiss). 2. Garnet porphyroblastic gneiss with pegmatite veins (Migmatitic gneiss). 3. Porphyroblastic gneiss with mafics showing strong foliation. 4. Microcline porphyroblastic gneiss.

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