

Metadata Details

Title

Results of Electromagnetic and Electrical Measurements in Antarctica.

Science Keywords

Category	Land Surface
Topic	Geomorphology
Expedition Year	1984-1985
ISO Topic	Meteorology

Summary

Abstract

Transient electromagnetic (TEM) soundings were carried out in Dronning Maud Land region of Antarctica. Self-potential (SP) and vertical electrical sounding (VES) measurements were also made in the Schirmacher Oasis. The thickness of the ice shelf in the Dronning Maud Land is about 200 m. The thickness of the ice cap over the rocky terrain south of Schirmacher Oasis increases rapidly and at the place of TEM sounding is of the order of 400 m. Self-potential profiles do not show any characteristic anomaly. VES data reveal that the depth to fresh rock in the oasis is less than ten metres. There is extensive scope of using TEM method in Antarctica for determining the thickness of ice cover.

Purpose

The thickness of the shelf ice in the neighbourhood of Dakshin Gangotri Station, the thickness of the weathered zone in the Schirmacher Oasis, and self-potential anomaly zone, if any, in the Schirmacher Oasis.

Data Center