

Metadata Details

Title

Distribution of a Few Trace Metals in a Section in the South-Western Indian Ocean.

Science Keywords

Category	Marine Science
Topic	Ocean Chemistry
Expedition Year	1981-1982
ISO Topic	Atmosphere

Summary

Abstract

Determination of Cu, Cd, Fe, Mn, Zn, Pb, Co and Ni has been carried out at different depths at 8 stations- one station being in an Antarctic polynya and 7 in the Southern Ocean. The depth wise and surface-wise variations have been discussed in different parts of the sampling region - Antarctic polynya, Antarctic divergence, Antarctic convergence and subtropical convergence regions. Average dissolved Cu and Cd in the 100-500 m depth layer in the Antarctic region is nearly the same as the average concentrations of the two metals in the sub-tropical surface water. In general, dissolved Fe shows enrichment towards the bottom except in the Antarctic divergence region. Particulate Fe is high in the Antarctic region. Mn concentration is almost similar in the 100-500 m layer throughout the sampling region. Dissolved as well as particulate Zn is higher at surface and lower in the bottom layer. Pb, Co and Ni have no definite trend of variation in both dissolved as well as particulate forms.

Purpose

Utilizing the opportunity to collect data from the unpolluted Southern Ocean, water samples were collected for trace metal analysis during the First Indian Expedition to Antarctica on board M. V. Polar Circle from December 1981 to February 1982. This study deals with the distribution of dissolved and particulate forms of a few trace metals in the Southern Ocean and their comparison with earlier data

Data Center