

Metadata Details

Title

A Note on Comparative Methane Measurements on an Antarctic Air Sample.

Science Keywords

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| Category | Atmosphere |
| Topic | Air Quality |
| Expedition Year | 1985-1986 |
| ISO Topic | Atmosphere |

Summary

Abstract

Methane concentration measurements in the air samples was carried out for three samples including one from Antarctica collected during the Fifth Indian Expedition. The Antarctic air sample was collected on 28/12/85 and 27/2/86, coinciding with the beginning and end, respectively, of the summer work. The comparative results of the three analyses are presented in this short note, with future plans for such work at Antarctica.

Purpose

Measurement of the methane concentration in the grab samples obtained from Antarctica, Ajabpur in Dehradun and Muratipur in Nadia district of West Bengal were made. Stainless steel containers were evacuated to 1×10^{-5} mm Hg while being degassed at 200°C. These were checked for any possible leakage over a period 466 D. C. Parashar et al. of one month and also when subjected to low temperature down to 70°C. The samples from Antarctica were collected by Mr. D.R. Nakra, Scientist, NPL on 28.12.85 and 27.2.86, i.e. in the beginning and end of his stay in Fifth Antarctic Expedition. These samples were analysed at NPL. The samples from Nadia and Dehradun were collected in evacuated stainless steel containers as well as in teflon bags and analysed at Kalyani University and NPL, respectively. Methane efflux measurements were also performed in the Nadia paddy fields. Portable Gas Chromatograph with flame ionisation detector and 6 feet long Molecular Sieve 5A column was used for these measurements.

Data Center