

ANALCITE-NODULES FROM THE MEDITERRANEAN RIDGE - EVIDENCE OF SUB-MARINE VOLCANISM IN THE IONIAN SEA ?

Jens MÜLLER

Lehrstuhl für Geologie, Technische Universität, Arcisstrasse 21,
D-8000 München 2

A grab-sample from the Mediterranean Ridge (Ionian Sea) contained a layer of light-yellow chip-like nodules which reach diameter of several centimeters. These nodules have inclusions of pteropods and coccoliths which indicate cementation at the sea-floor. The matrix of the nodules consists of yet unidentified hexagonal platy crystals several microns in size with abundant subhedral to euhedral analcite crystals. Other main components include pyroxene, biotite and feldspars.

Two cores taken in the neighborhood contain no such nodules, the only volcanogenic material present are the Ischia tephra layers at a core depth of about 1 meter, that is, much deeper than in the grab sample. These tephra layers consist mainly of alkali-trachytic glass and do not show any halmyrolytic alteration.

The occurrence of these hitherto unknown analcite nodules and their apparent local restriction could either mean an unusual diagenetic alteration of tephra material for yet unknown reasons or it could be tentatively interpreted as indicating the presence of local submarine volcanism on the Mediterranean Ridge. The eruption might have been recent or subrecent as shown by the inclusions of planktonic organisms of Quaternary age.

