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### PALYGORSKITE FROM THE DEEP SEA: A DISCUSSION

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In an interesting paper E. Bonnati and O. Joensuu (1968) have recently reported the occurrence of palygorskite (or attapulgitite) in deep sea deposits of the Barracuda Escarpment.

They state, "Palygorskite has not been previously reported from the deep sea environment. It has been found to form in fresh water and lagunal sediments . . . or in shallow marine environment."

I think this statement too categorical, and I know, at least, one exception. B. C. Heezen *et al.* (1965) have reported, three years ago, the occurrence of attapulgitite in deep sea deposits of North Indian Ocean (Aden Gulf) and Red Sea, between 1000 and 2500 meters below sea level.

Concerning the origin of this mineral various hypothesis can be put forward. It is possible that attapulgitite was inherited from neighbouring lands where deposits of this mineral have been described (G. Müller 1961). It could also have been produced by hydrothermal reaction of the type discussed by Bonnati and Joensuu for the Barracuda Escarpment.

This second hypothesis is particularly attractive owing to the fractured nature of the sea floor in the North Indian Ocean and the Red Sea.

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