

ties of the asbestos correspond to those of chrysotile. When heated, the fibres suffered a loss in weight of 1, 10 and 13% at 500°, 700° and 850° C respectively. The mineral lost its lustre completely at 850° and became dull grey in colour. The fibres became brittle and could be easily crushed to powder with a slight pressure. From 850° C onwards upto 1100° C the weight remained constant. This indicates at 850° C the crystal structure of the mineral breaks down. The mineral has been found to be resistant to acid and alkali.

The examination of thin sections of serpentinites reveals that the asbestos is formed by the action of hydrothermal solutions on olivine present in the rock. According to Nagy and Faust², fibres appear to be best developed in serpentinites deficient in Fe and Al. The mineral veins may be considered to be formed by filling fractures through the agency of hydrothermal solutions aided by requisite structural deformation, as chrysotile asbestos is a stress-controlled mineral. Anhaeusser¹ is of the opinion that folding is the dominant regional controlling factor for asbestos development whereas faulting and fracturing provide the more localised control governing fibre growth and fibre density.

Finally, it is suggested that the present variety of asbestos is of long fibre type, which is easily separable. It can be used for the manufacture of yarn, asbestos cement, etc.

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A PRELIMINARY REPORT ON THE FAUNA IN RADIOLARITES OF OPHIOLITE-MELANGE ZONE AROUND MULBEKH, LADAKH

THE note gives a first report of the planktonic foraminiferal and radiolarian assemblage from cherts and jasperites associated with the ophiolite-melange suite from Mulbekh (34° 07' 30" N.; 76° 22' 30" E.) in Ladakh district of Kashmir. The ophiolite-melange belongs to the Indus ophiolite belt sandwiched bet-

ween the Kashmir-Rupshu basin to the south and Ladakh granitic mass with its sedimentary cover to the north. The geology of the area is discussed by Shah *et al.*¹.

The ophiolite-melange consists of tectonically emplaced serpentinite bodies and associated sedimentary material. The latter consists of chert, cherty shale, jasperite and occasional limestone. The fauna was recovered from a number of beds of chert and jasperite around Mulbekh and north of Shergol (34° 24' 00" N.; 76° 19' 20" E.). It could be studied only in thin sections since the rock did not respond to maceration. As such the specific identification of foraminifers could not be made and the generic identification of radiolarians is doubtful. The foraminifers identified include *Globotruncana* sp., *Heterohelix* sp. and *Rugoglobigerina* sp. while the radiolarians include *Liosphaera* sp., *Rhodosphaera* sp., *Cenosphaera* sp., *Dictyomitra* sp., *Sethocyrtis* sp. and *Flustrella* (*Flustrella*) sp. Tewari *et al.*² have reported *Globotruncana fornicata* and other planktonic and benthonic foraminifera from Gya in Ladakh from the rocks of the 'Indus Flysch'; the present report, however, is the first one from the 'melange' zone. *Globotruncana* and *Heterohelix* indicate a Middle to Upper Cretaceous age. These genera are also known from Sangcha Malla Formation³ of Kumaun where their specific determination has been made.

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