

## Geology of Ladakh Himalayas in northern India: Radiolarian fossils from chert clasts in the lower part of Indus Formation

# Satoru Kojima[1]; Masayuki Ehiro[2]; Tomoyuki Ohtani[3]; Thanh X. Ngo[4]; Tetsumaru Itaya[5]; Talat Ahmad[6]

[1] Dept. of Civil Eng., Gifu Univ.; [2] Tohoku Univ. Museum; [3] Gifu Univ.; [4] Applied Sci., Okayama Univ. of Sci.; [5] RINS, Okayama Univ. of Sci.; Earth Planet. System Sci., Kobe Univ.; [6] Dept. of Geol., Univ. of Delhi

The Indus Formation distributed along the Indus suture zone in Ladakh Himalayas, northern India, is composed mainly of Cretaceous to Paleogene clastic formations. Conglomerate beds of the lower part of this formation include reddish brown chert clasts about several centimeters in diameter. The chert clasts collected near Upshi and Hemis to the southeast of Leh yield the following radiolarians; 1) the Lower Cretaceous assemblage including *Pantanellium squinaboli*, *Archaeodictyomitra apiarium*, *Pseudodictyomitra carpatica*, *Pseudodictyomitra lanceoloti*, *Wrangellium puga*, *Thanarla* spp., etc., 2) the Middle Jurassic assemblage characterized by the coexistence of *Tricolocapsa plicarum* and *Tricolocapsa tetragona*, and 3) the Late Triassic assemblage including *Capnuchosphaera* spp. associated with conodont fragments. The chert formations were probably accumulated as the deep-sea pelagic sediments on the oceanic plate between the Eurasian plate and the Indian subcontinent. The rifting history of the Karakoram block from Gondwana could be back to Late Triassic in the Ladakh-Pakistan sector of the Indus suture zone, although only the Cretaceous evidence of deep-sea deposits has been reported from this area of the Tethys.