

PALAEOGEOGRAPHY, BIOSTRATIGRAPHY AND GEODYNAMIC OF THE URALS (RUSSIA) IN ORDOVICIAN

1KOROTEEV V.A., 1IVANOV K.S.1Institute of Geology and Geochemistry, Ekaterinburg, Russia.

The Urals folded belt consists of two sectors. West Urals (paleocontinental sector) is composed of the East European platform basement and cover and complexes of its passive continental margin and rise. East Urals (paleoisland-arc sector) consists dominantly of ophiolites, island-arc volcano-sedimentary formations of Early-Middle Paleozoic. During Ordovician Urals undergone: 1.Continental rifting stage (Cambrian-Early Ordovician). Shallow water terrigenous deposits with alkaline volcanic formations were typical for this stage. 2.Oceanic spreading stage (Early-Middle Ordovician). Spreading and ophiolite generation began in Late Arenigian. Three different conodont complexes (from bottom to top) established in several zones of the Urals in jaspers among tholeiitic basalts (thickness up to 2500 m):*Periodon flabellum* - *P. aculeatus zgierzensis*; *Periodon aculeatus aculeatus*-*P. aculeatus zgierzensis* - *Pygodus serrus*; *Periodon aculeatus aculeatus* - *Pygodus anserinus*. Spreading interval was 25-30 Ma, width of Uralian paleoocean was probably not less then 600-800 km. *Periodon grandis* found in lower part of island-arc succession. Paleomagnetic data obtained by I.Sviashina with our participants shown that Uralian Ordovician terrains were formed in sub-equatorial area, mostly in south hemisphere. During Upper Paleozoic terrains were drifted to the North not less than 3500 km (palaeogeographical, paleomagnetic data). Ordovician ophiolites similar to Uralian ones revealed recently in Tyan-Shan. It is possible that they are parts of a single oceanic basin, which was dismembered later. Investigations were done under support of RFBR (99-05-64311).