

## Paleozoic and Earlier Mesozoic evolution of the Mongol-Okhotsk Foldbelt (Russia)

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The Mongol-Okhotsk Foldbelt, which formed due to closing of paleo-ocean, is characterized by a vast development of accretionary complexes of the Mid- Late Paleozoic and Early Mesozoic age. These complexes include fragments of ophiolites and island arcs. In eastern Trans-Baikal area of Mongol-Okhotsk Foldbelt ophiolites comprise dismembered slices of serpentinized ultrabasites (harzburgites, lherzolites, wehrlites, pyroxenites), blocks of layered gabbro with rare metabasaltic (N-MORB) dykes, associated with volcano-sedimentary sequences in which metabasalts of OIB type dominate over metabasalts of N-MORB. Ophiolite associations of the western Amur basin include zones of serpentinite melange with blocks of harzburgites, pyroxenites, metadiabases (N-MORB type), associated band-shaped massifs of gabbro and volcanic-sedimentary series with OIB type metabasalts. The island arc sequence (Bereja Island Arc) of Eastern Trans-Baikal consists of intrusive gabbro-diorite-trondjemite complex and volcanic-sedimentary suite, which contain basalts, basaltic andesites, andesites, dacites and rhyolites. All kinds of magmatic rocks have "island arc" geochemical affinities. Available K-Ar age determination is 212 Ma. The island arc fragments (Pikan Island Arc) of the Western part of Amur basin comprise intrusions of gabbro, diorites, trondjemites and granites. K-Ar age determinations range in the interval 280 Ma. Paleomagnetic data for Carbonaceous, Permian and Jurassic sedimentary complexes of Mongol-Okhotsk Foldbelt indicate existence of oceanic space between the Siberian continent and collage of southern terranes making up the Amuria microcontinent in the Late Paleozoic – Early Mesozoic. The Mongolian-Okhotsk paleo-ocean closed in the Late Jurassic - Early Cretaceous.