

GEODYNAMICS, MAGMATIC AND METALLOGENIC ZONATION OF THE MIDDLE TIEN SHAN SECTOR OF THE LATE PALEOZOIC CONTINENTAL MARGIN OF THE PALEOTHETYS

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Some global paleotectonic reconstructions show that in the late Namurian the Middle Tien Shan was a continental margin of the northern (in modern co-ordinates) branch of the Paleothetys ocean (the Turkestan paleocean). The western part of the Middle Tien Shan is taken here as an example to consider geodynamics of this margin, magmatic and metallogenic zonation caused by it as well.

The geodynamic situation in the middle Devonian - early Carbonian conformed to shelf conditions of the passive continental margin. However the indications of the avolcanic (non-volcanic) subduction had been appearing by the end of the early Carbonian time. In the late Paleozoic the paleocean subduction was underward the northern active continental margin and was attended by the formation of the marginal-continental volcanic-plutonic belt. Lateral zonation in placing various formation rows of magmatites (from front to rear, from south-east to north-west): calc-alkaline-latic-agpaitic-plumasitic and alkaline granites and rhyolites-alkaline (potassium) gabbroids and basaltoids are established in it. So there is a trend of increasing the common alkalinity from front to rear, potassium alkalinity and decreasing the magmatite age.

Within the volcanic-plutonic belt three metallogenic zones (from the front to the rear side) of non-ferrous, precious and rare metals are determined. These zones are characterized with typical attendant components in ores, definite temperature rate of ore formation and different ore age, specific ore formation and geologo-economic types of ore objects. Changeability of mineralization across the stretching of geostructures is caused by changeability of magmatite composition. It is expressed with increasing (from front to rear of the active margin) the development of ores, closely connected with granites, and with rejuvenation of their age.

DAS FLUORITVORKOMMEN VORDERKRIMML (LAND SALZBURG): GEOLOGIE, MINERALOGIE UND GEOCHEMIE DER FLUORITE

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Das im Zuge eines Steinbruchbetriebes entdeckte Fluoritvorkommen liegt NW der Endstelle der Pinzgauer Lokalbahn. Es ist derzeit mit einer ca. 50 m langen Stollenanla-