



Regeneration and recrystallization of gold dusts in gravel deposits of Adycha-Tarynsk's ore zone

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Adycha-Tarynsk's ore zone is located in the area of Indigirka megasynclorium of Verkhoyano-Kolyma fold system where number of small deposits of gold-antimonial and gold-quartz formations is developed. They were formed as a result of hydrothermal processes in the making hypogene batholithic massifs.

Deposits of gold are represented as gravel and vein types. Morphological research of watercourse gold dusts by optical-microscopic and electronic-microscopic methods was done by us in order to establish a link with indigenous power source.

It was determined that two morphological types are distinguished among the gold dusts of alluvial deposits and placers. The first type is gold dust of utterly incorrect shape, in a form of "crescent roll" bearing traces of rust. The second type is relatively of big size with crystallographic faces of microchips, frequently with hatching as a growth step. It's connected with processes of recrystallization of gold dusts in alluvial deposits during the burial period. Abrasion of gold dusts has occurred during the time of active transfer and as a result microchips of gold are represented only as detached faces.

The next basic processes were established such as regeneration and recrystallization of gold dusts during their transfer to the place of concentration. This explains the phenomenon of the presence of large gold dusts in gravel deposits which are absent in indigenous vein deposits of studied region.