

Remote sensed structural models of the ore giants

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On the base of remote sensing data the universal complex of ring and linear structures controlling a disposal of gigantic ore objects have been revealed. Between these the remote sensing materials for next ore districts were studied: Au-bearing-Lena-Bodaybo (Russia), Muruntau-Kokpatas (Uzbekistan), Subprovince Abitibi (Canada), Witwaterstrand Basin (SAR); Cu-Zn-bearing-South Ural Subprovince with large Gay deposit; Ni-Cu-Pt Pechenga and Norilsk districts and Sn-bearing Pirkakay district, Chukotka Peninsula (all in Russia). The uniformity of regional structural control such largest ore objects with different mineralization suppose uniform cause of oreforming. As most real cause is it proposed the hypothesis of heat points, generated by plumbtectonics. In connect with this idea, it is understand that heat point regions within continental crust (where ore giants are present) develop conformity to the earth crust and mantle structural dislocations. These lasts reflect projections of abyssal plums, which on the earth surface present as large ring structures arranged for regions of intersection depth-penetrating riftogenic structures with transform and regional deep faults. Zones of local faults and local ring structures control most intensive ore-forming processes so generation of ore giants caused by an acting of multigenetic, long developed oreforming systems. Accordingly, similar objects correspond to intricately constructed geological structures, which can be revealed by the remote sensing methods. Generalized remote sensing model of giant ore object for rank of ore district can be presented by next components: external belt of composite ring structure of 50-150 km in diameter; transit-type intersecting rift and transform-like faults located close to composite ring structure; uniform system of local faults within ring or rift structure and simple local rings. RFFI support 98-05-65531.