

KIMBERLITES OF THE UKRAINE

CHASHKA ALEXANDER I., THE STATE INSTITUTE
OF MINERAL RESOURCES, CRIMEA, UKRAINE

Now in the Ukraine it is known three kimberlite regions. They are: Near Azov, Kirovograd and the North - Volyn' regions.

In the Near - Azov region the revealed bodies are united into a kimberlite field, which consists of one pipe of the Petrov section, three pipes and two dykes of a Novolaspi section. Kimberlites of the Petrov body are characteristic of pyrope - Cr - spinel association, and the Novolaspi bodies - of pyrope - picroilmenitic one, with significant prevalence of picroilmenite. The minerals - indicators presence of single grains, which belong to the diamond paragenesis. In their predominant mass pyropes belong to the lherzolite paragenesis.

In the Kirovograd kimberlite region two section of kimberlite dykes development, stripped by wells at the depth from 133 to 385 m., have been established. Dykes are presented by micaceous porphyry rocks. The complete set of indicator minerals has been established in rocks. Pyropes are low - chromous (up to 0,2 % Cr_2O_3), picroilmenite has 7,95 - 11,25 % of magnesium oxides, Cr - spinellid differ with comparatively low content of chromium (31,16 - 43,78 % Cr_2O_3). In Cr - diopsides the content of Cr_2O_3 is 0,69 - 1,09 %.

In the North - Volyn' region kimberlite - bearing polymictic breccias are met within the limits of two sub - meridional fracture zones. In Kukhotskovolskaya fracture zone in fragments three varieties of kimberlites, differing by structural - textural features, are separated. From indicator - minerals in kimberlites of this zone pyrope is the most abundant. The high - chromous varieties, containing more than 14 % Cr_2O_3 and more than 27 % of knorringitic component, occur. But, as a whole, pyropes of lherzolite paragenesis prevail. From 83 of pyrope grains analysed 14,5 % fall into a field of diamondiferous compositions. In the next - the Serkhov fracture zone - in polymictic breccias only micaceous varieties of kimberlites.

As a whole, the territory of the Ukraine has been determined as the kimberlite sub - province of the East - European platform, in which, according to available data now, the most worth - while region on a plan of discovery of primary diamond deposits is the north of Volyn' - Podoliya.