

## **Application of Ore-Formation Analysis and PGM Feature Models Medium-Scale Metallogenic Mapping.**

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Peculiarities of distribution of platinum group metals ( PGM) in various mafic-ultramafic rocks reflect their evaluation and are traced in PGM placers. Structural-formation and ore-geochemical data shown on the medium-scale prognostic-metallogenic maps allow to classify primary sources of PGM for the purpose of prospecting placers. Identification of the formation attribute of primary source within the studied territory is based on the geostructural position and setting of plutons and comparison of PGM heavy concentrate typomorphic feature with the entire set of features ( PGM feature models) related to the reference deposits. The entire set of features includes a type of PGM heavy concentrate aureoles and a ratio between trace-element abundance in the isoferrousplatinum, thus permitting to define an erosional level of dunite cores within the mafic-ultramafic complexes (primary sources). Textural-structural features of dunite and typomorphic features of rock-forming and accessory minerals can be used for determination of the level of erosional level. If the type of PGM and their typomorphic features are incompatible with those belonging to reference deposits one may suggest the presence of uncommon primary sources of PGM within the studied territory. The application of this methodology for developing the map of exogenous gold- and platinum-bearing potential of Russia to a scale of 1: 2 500 000 has shown its efficiency for metallogenic mapping within the territory with wide spread mafic-ultramafic complexes.