

BASIC-ULTRABASIC FORMATION AND PROBLEMS OF DIAMONDFEROUS OF THE JAPAN SEA REGION

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The basic-ultrabasic formation of the Japan Sea Region are controlled by riftogenic faults of Eastern-Chinese system. Industrial deposits of diamonds are opened in kimberlitic pipes, injected in Sn, O, D₁, C₃, P₂-T₁ and K₁ on the Lyaodun and Shandun shields. Manifestations of kimberlites are known also within Nannim and Khanka Lake massives. The peridotites of S? and J₃-K₁ age, distributed in the range of Khanka Lake massif and in its folded border, have the diamondiferous attributes. These basic-ultrabasic associations, being intrusive and volcanogenic analogs of the kimberlitic and lamproitic complexes, are presented of following formations: ultrabasic-alkaline (J₃-K₁), alkaline-basaltoid (D₃, N₂, N₂-Q), gabbro-sienitic (O, D₁, C₁₋₂, P), gabbro-troctolite-cortlanditic (AR?, PR₁, O-D, PZ₃, P₂, K₁), olivenite-wehrlic (J₃-K₁), dunite-wehrlic-pyroxenic (S₁, PZ₂?, J₃-K₁, K₁, K₁-P), dunite-harzburgitic (PR₁, PZ₃?, S₁?, P₂?, J, J₃-K₁), metagabbroid (AR₁₋₂, AR₃, -PR₁). This basic-ultrabasic group embraces all formational range from oceanic (high-magnesium, low-alkaline, low-titanium) to continental (high-titanium, alkaline) associations. Ultrabasic-alkaline and alkaline-basaltoid formations are most perspective for the diamondiferous. At the Main Component diagram an ultrabasic-alkaline formation, included meimechite-picrite explosion pipes, is situated between the evolutionary trends of the kimberlitic and lamproitic series. An alkaline-basaltoid formation are located between standards of the kimberlitic and the gabbro-sienitic associations. Thus, the Japan Sea Continent-Ocean Transitional Zone includes numerous manifestations of the basic-ultrabasic magmatism, related to typically-diamondiferous formations (kimberlites) and to other genetic types, perspective for the diamonds.