

PETRO-GEOCHEMICAL FEATURES OF THE PHLOGOPITE LAMPROITES (ORENDITES) IN MANG XIM AREA, CENTRAL VIETNAM

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The geological, mineralogical and petro-geochemical data of the high magnesium - high potassium dikes in Mang Xim area suggested that these rocks belong to silica-saturated intermediate lamproite affinity – phlogopite lamproites (orendites). They have typically rock-forming minerals: clinopyroxene (diopside) + phlogopite + sanidine, and trace element geochemically are enriched in incompatible elements (REE, Ba), have high La/Yb ratio, low Nb, Ta contents relative to primitive mantle melts, represented similarity in the phlogopite lamproites of Murcia - Almeria type (PL-MA). The Mang Xim phlogopite lamproites (PL-MX) are believed to result from the partial melting of low degrees of ancient enriched (metasomatized) harzburgites derived from subcontinental mantle lithosphere sources. The primitive magma from which the Mang Xim phlogopite lamproites are derived by fractional crystallization or contamination is relatively silica (52 - 57%) and Mg (5-8%) rich. The presence of paleo-Benioff zones and multiple mantle metasomatic events prerequisites for the long - term development of this source. These conditions restrict the occurrence of Mang Xim phlogopite lamproites to mobile belt surrounding Kontum geoblock in central Vietnam. The occurrence of phlogopite lamproites (orendites) in Mang Xim area is one of very important parameters for diamond discovery at future time in Vietnam.