

DIOPSIDE DEPOSITS IN NORTH-WESTERN AND CENTRAL PART OF VIET NAM AND THEIR ORIGIN

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Diopside deposits in north-western and central part of Việt Nam are discovered recently, located at the ophiolite complex Song Ma, which was riftogenetic formations, destroyed in late Rifei era and formed new oceanic crust, where magmatic intrusion activity was developed rather strongly.

The host rocks of the deposits belong to metamorphic formations of late proterozoic era.

The mineralization zone consists of three lenses, which total length - 1000 meters, total width - 25 - 30 meters and thickness - 5 - 6 meters.

By SEM and EDX microscope, X-ray date base, the mineralogical composition of the ore is composed by diopside, grossular, clinoclор ferroan. By microsond analysis, the chemical composition is following: %SiO₂ - 54,38; Al₂O₃ - 1,76; MgO - 16,47; CaO - 24,29; Na₂O - 0,76; MnO - 0,05; FeO - 2,25. The harmful components such as TiO₂ and Fe₂O₃ are rather low. The colour is rather beautiful, very like green jade.

The handicraftsmen made from diopside minerals some kinds of nice souvenirs. The porcelain making experiments show that from diopside ores one can produce many kinds of ceramic products, economize energy consumption and burning out time.

The paper presents geological characteristics of deposits. Based on the evidences of fluid inclusion, isotope, rare-earth elements geochemistry, mineralogy and petrography, diopside deposits are considered as complex ore-forming systems of metamorphogenic-metasonatic-hydrothermal process and their mineralization had multiple periods and sources. Analogue deposits can be found along hidden faults of N-W and Truong Son geotectonic zone of Viet Nam.