

# **Characteristics and Petrogenesis of Granulite Enclaves in S-type Granites in the Junction of Guangdong and Guangxi**

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Granulite enclaves in S-type granites in the junction of Guangxi and Guangdong are homoeogene ones and have an assemblage of plagioclase + quartz + biotite + hyperthene  $\pm$  garnet  $\pm$  K-feldspar. The granulites define a narrower range of total REE contents (135.95 - 268.83ppm) and LREE / HREE ratios (1.85 - 5.70) and patterns with uniform shapes, indicating their similarities with lower crust. A Rb - Sr isochron age for the granulites is 638Ma - 813Ma, with initial  $^{87}\text{Sr} / ^{86}\text{Sr}$  ratios = 0.7151 to 0.7152. Temperature and pressure in metamorphic peak period are calculated to be 781°C - 883°C and 5.27Kb - 7.09Kb, corresponded to those of middle to lower crust. The data mentioned above lead to suggest that the granulites are the representatives of middle to lower crust formed round about late Proterozoic era. In addition, evidences in lithology, mineralogy and other aspects show that the granulites in Southwest Guangdong are formed by regional metamorphism influenced by a thermal dome while those in Southeast Guangxi by dynamothermal regional metamorphism.