

HELIUM ISOTOPIC GEOCHEMISTRY OF ECLOGITE IN THE DABIE MOUNTAIN AREA

SHANFANG LI, CHINESE ACADEMY OF GEOEXPLORATION, BEIJING 100083, P.R.CHINA

Located between North China landmass and Yangtze landmass, the Dabie Mountain area occupies a very important tectonic position. According to a preliminary study of six superhigh-metamorphic eclogite samples from this area, $^3\text{He}/^4\text{He}$ ratios of eclogite lies mostly in the range of 0.056-5.6 R/Ra ($0.78-78.2 \times 10^{-7}$), and the $^3\text{He}/^4\text{He}$ ratios of Bixiling eclogite is especially high (5.6 R/Ra), showing the character of mantle-derived rocks. In recent years, representative core samples were collected along the Lu'an-Huangshi reflection seismic profile, and samples of various sorts of eclogite and wall rocks were gathered at surface. The Helium isotopic and Cr, Ni, Li etc. Analyses of these samples give valuable implications. The paper deals emphatically with the helium isotopic composition of eclogite and its geological significance.