

$^{40}\text{Ar}/^{39}\text{Ar}$ SINGLE MINERAL DATING OF THE METAMORPHIC AND GRANITIC ROCKS FROM THE OGcheon METAMORPHIC BELT, SOUTH KOREA

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The Phanerozoic Ogcheon metamorphic belt is situated in the middle part of South Korea. Recently, it has been proposed as possible eastward extension of Qingling-Dabie-Sulu belt in China together with the Imjingang belt in South Korea. The middle part of the Ogcheon metamorphic belt, mainly consists of metasedimentary rocks which experienced an intermediate high P/T type of regional metamorphism. The metamorphic rocks have been partly intruded by Mesozoic granitic rocks. We carried out laser step heating $^{40}\text{Ar}/^{39}\text{Ar}$ analyses on single mineral grains from some metamorphic and granitic rocks to reconstruct tectonothermal histories of the belt. Muscovite, biotite and amphibole separates from the metamorphic rocks yielded $^{40}\text{Ar}/^{39}\text{Ar}$ ages of 140 - 170 Ma. Muscovite and biotite separates from granitic rocks yield ages of 150 - 170 Ma. Feldspars of granitic rocks show typically saddle ages of 100 - 120 Ma. The ages of these granitic rocks are in Mesozoic ages reported previously. The $^{40}\text{Ar}/^{39}\text{Ar}$ ages of the metamorphic and plutonic rocks show no evidence of excess argon and nearly the same spectra. These results suggest that they have experienced the same cooling history in late Jurassic.