

## **METAMORPHIC EVOLUTION OF THE CENTRAL OGCHAEON METAMORPHIC BELT IN KOREA AND ITS TECTONIC INTERPRETATION**

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In the middle part of the Ogcheon Metamorphic Belt in Korea, three metamorphic events (M1, M2, M3) had occurred. M2 regional metamorphism formed prevailing mineral assemblages in the study area. M3 contact metamorphism occurred locally due to the intrusion of granites after M2 metamorphism. M1 metamorphism is recognized by inclusions within garnet. The metamorphic P-T conditions estimated from M2 garnets are 595-690°C/5.7-8.9kb, which indicates M2 metamorphism is intermediate-P/T type metamorphism. However, at some M2 garnet rim with flat end or weak overgrowth, grossular content is low and 573-624°C/4.7-5.8kb are estimated. The P-T conditions calculated from plagioclase and biotite inclusions in M2 garnet are 460-500°C/1.9-3.0kb. These P-T conditions indicate that low-P/T type M1 regional metamorphism might have occurred before intermediate-P/T type M2 regional metamorphism. The P-T conditions of M3 metamorphism are 547-610°C/2.1-5.0kb, which indicates the M3 metamorphism is low-P/T type metamorphism. The possible tectonic model is as follows; 1) the M1 metamorphism occurred at the bottom of volcanic arc during subduction, 2) the M2 metamorphism occurred due to the collision which followed subduction, 3) the M3 metamorphism occurred due to the granite intrusion after collision. This result suggests that the Ogcheon Metamorphic Belt in Korea is the extension of Dabie-Sulu collision belt in East China.