

Metamorphic conditions of Gotsu blueschists in the Suo metamorphic belt, SW Japan

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The Suo metamorphic belt in SW Japan is a representative of Jurassic accretionary terranes characterized by blueschist facies metamorphism of 160-230 Ma in metamorphic age (Nishimura, 1998). The metamorphic facies series of the Suo schists from pumpellyite-actinolite facies through glaucophane schist facies to epidote amphibolite facies (e.g. Nishimura, 1998). The Gotsu area in the Suo metamorphic belt is composed mainly of glaucophanic metamorphic rocks of blueschists and pelitic schists.

The metamorphism of the Gotsu blueschists is divided into three stages, i.e. pre-peak, peak and retrograde stages. The peak metamorphism of Gotsu blueschists is defined by porphyroblastic epidote, glaucophane, phengite, chlorite, hematite and titanite, suggesting epidote-blueschist facies conditions of 430-530 °C and 12-15.5 kbar.

The blueschists from the the Gotsu area and the Heilongjiang Complex, NE China suggest that both blueschists were formed within the same subduction system, which is related to the Paleo-Pacific plate subduction. This subduction event produced voluminous Jurassic accretionary complexes along the eastern margin of the Asian Continent.

Keywords: blueschist, Heilongjiang Complex, NE China, Suo metamorphic belt