

# Uplift process from thermo-chronological study of the Shimanto accretionary complex in the Kanto Mountains, central Japan

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K-Ar ages of illite-rich fraction and fission track dating of zircon have been analyzed for phyllite and sandstone from the Shimanto accretionary complex in the Mitsumine district of the Kanto Mountains, central Japan. The K-Ar ages indicate 65 and 76 Ma from the Futase Unit of the Shimanto accretionary complex. Results of fission track age for detrital zircon in sandstone indicate approximately 54 and 59 Ma. In the Shimanto accretionary complex of the Mitsumine district, paleo-temperature from illite crystallinity is estimated over 300 degrees at least (Hara et al., 1998; Hara and Kimura, 2003). Paleo-temperature of 300 degrees is lower than the closure temperature in K-Ar dating of muscovite, and is under the condition of total annealing zone in fission track dating of zircon. It is considered that the Southern Chichibu and Shimanto accretionary complexes underwent the metamorphism at the same time of 65-76 Ma in the Latest Cretaceous time. After metamorphism, the Shimanto accretionary complex was cooled below 260 degrees at 54-59 Ma.