

## In-situ CHIME dating of detrital zircon in the Renghe blueschist, SW Japan: The first data from Okayama University of Science

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The in-situ CHIME (chemical Th-U-total Pb isochron method) dating was determined for detrital zircons from a rock thin-section of lawsonite blueschist, Chugoku Mountains (SW Japan). The lawsonite blueschist consists mainly of Na-amphibole (glaucophane to ferro glaucophane), lawsonite, pumpellyite and quartz with minor amount of albite, titanite, chlorite, K-feldspar, Ca-amphibole, rutile and zircon. K-feldspar, rutile and zircon are found as detrital minerals. Zircon occurs as aggregate of several broken piece (maximum 0.3 mm in size), and original zonal structure is partly assembled using back-scattered electron images from each piece. A total of 57 spots on an aggregate of detrital zircons were analyzed by EPMA (JEOL JXA-8900R) with five wavelength-dispersive spectrometers at Okayama University of Science. The PbO content varies from 0.021-0.049 wt.%, and  $^{238}\text{UO}_2$  content from 0.095 to 0.361 wt.%. The apparent ages for individual spots are subdivided into three groups; namely 745-794 Ma (subgrain I), 962-1095 Ma (subgrain II), and 1412-1671 Ma (subgrain III). They define three different isochron ages of 785 Ma (I), 975 Ma (II) and 1501 Ma (III). These differences are consistent with zonal structure observed by back-scattered electron image. Such multiple overgrowth of zircon is expected in high-grade metamorphic rocks that record polymetamorphic evolution. The detrital zircon in the late Paleozoic Renghe blueschist may be derived from of Precambrian basement of present East Asia.