The oldest supra-crustal rocks in Japan and its implications to tectonic history of Japan

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A fine-grained felsic tuff sample from the Hitoegane area in the Hida Marginal Belt, Southwest Japan was dated to be about 512 Ma, Early Cambrian to earliest Ordovician, on the basis of the separated zircon U-Pb concordia method by LA-ICP-MS. This age demonstrates the presence of the oldest, so-far reported supra-crustal rocks of Japan in the Hitoegane area. The zircon-bearing felsic pyroclastic rock lies stratigraphically below the previously recognized oldest conodont-bearing rock of Middle Ordovician (461-472 Ma) age (Tsukada and Koike, 1997), and suggests the presence of much older rocks in Japan.