

## Primary folding structures of accretionary process in high-grade metacherts in the Ryoke metamorphic belt, SW Japan

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A distinct foliation developed in high-grade metamorphic rocks is thought to be formed by intensive ductile deformation, which can be recognized as a tectonic foliation. However, even in high-grade metamorphic rocks, primary structures that formed during sedimentation and deformation in the original sedimentary basin or accretionary prism can often be preserved. Many folded layered metacherts outcrop within the Cretaceous high-temperature/low-pressure Ryoke metamorphic belt of southwest Japan, a metamorphic equivalent to the Jurassic accretionary complex of the Mino-Tamba terrane. The fold axis of the metacherts does not correspond to those of the surrounding metapelites, suggesting that different generation processes for the folding structures preserved in the metacherts and metapelites. Based on the strain analysis using deformed radiolarian fossils in the metacherts and pebbles in the metapelites, it is revealed that the deformation of the radiolarian fossils was not related to the formation of the folding structures recognized in the metacherts, but rather to the development of schistosity and the deformation of pebbles in the surrounding metapelites. This indicates that the foliation in the layered metacherts is related to inherited bedding planes and the folding structures in the metacherts may have formed during the accretionary process that produced the Mino-Tamba terrane. In other words, the tectonic foliation formed during a metamorphism was developed in the polymineralic pelitic rocks, but not in the monomineralic cherts. This difference in the development of schistosity may result from the differences in strain magnitudes and mineral assemblages between the metacherts and metapelites.