Hydrothermal alteration of the Taitao ophiolite

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Anma et al. (2003) reconstructed a complete section of oceanic ridge emplaced near the Chile Triple Junction based on the geological investigation of the Taitao ophiolite. The Taitao ophiolite consists of harzburgite, massive and layered gabbro, sheeted dike complex and sequence of pillow lavas and sedimentary rocks in ascending order from the south. Observation of thin sections and analysis by EPMA revealed that metamorphic grade ranges from zeolite facies, through the greenschist facies, to amphibolite facies, and increases progressively downwards. Metamorphic facies series of the Taitao ophiolite corresponds to the low-pressure type. According to our results, ocean-floor hydrothermal alteration/metamorphism is well preserved in the Taitao ophiolite.