

## Long-lived Early Cretaceous intra-plate volcanism on the western Magellan Seamounts, western Pacific Ocean

# Naoto Hirano[1]

[1] Ocean Res. Inst., Univ. Tokyo

An alkaline differentiated volcanic rock sample, peralkaline rhyolite pillow lava, in addition to some radiolarian-bearing pelagic sedimentary rocks, were collected by the Japanese submersible Shinkai 6500 from an Quesada Seamount on the oceanward slope of the Mariana Trench in the Magellan Seamount Chain, and the ages were analyzed. The  $^{40}\text{Ar}$ - $^{39}\text{Ar}$  dating resulted in a plateau age of  $129.3 \pm 2.6$  Ma which is approximately 10 m.y. younger than the radiolarian age of the oldest intercalated tuffaceous radiolarian claystone, early Berriasian (approximately 140 Ma), which includes fragments of volcanic glass of alkali-basalt composition of the shield-building volcanic stage. Because the peralkaline rhyolite is a very differentiated volcanic rock, and commonly erupts in the last stage of the main shield volcanic activity, I interpret that the activity lasted for a long period (approximately 10 m. y.). In this case the long-lived petrologic sequence is similar to the Canary hotspot in the Atlantic Ocean rather than the Hawaiian case. I suggest that the reason why the slow rate of motion of the Early Cretaceous Pacific Plate resulted in the volcanic edifice remaining above the source hotspot for a long time.