

## The formation of layering due to sill injections in the layered gabbros of Wadi Fizh area, Oman ophiolite

# Shiki Okazawa[1], Yoshiko Adachi[1], Sumio Miyashita[2]

[1] Fac. Sci., Niigata Univ., [2] Dep. Geol., Fac. Sci., Niigata Univ.

Layering due to difference in grain-size occurs in gabbros of Wadi Fizh area in the Oman ophiolite. Coarse-grained layers show fine scale modal layering but fine-grained layers are usually massive. Two types of boundaries are found, 1: fine-grained layer becomes to fine toward both side of margins, and 2: becomes to fine toward the lower margin but to coarsen toward the upper boundary then overlain by fine-grained layer again. Mineral composition and bulk rock compositions reveal that these two layers are derived from magmas with different compositions. Plagioclase shows different zoning pattern, i.e. normal zoning in the coarse layer and reverse zoning in the fine layer. It is concluded that fine-grained layer intruded into or on cooler and slightly solidified coarse-grained layer.