

Slab-wedge mantle boundary preserved in the Sanbagawa belt, SW Japan

WALLIS, Simon^{1*} ; MORI, Hiroshi¹ ; NAGAYA, Takayoshi¹ ; KAWAHARA, Hirokazu¹

¹Dept. Earth & Planetary Sci., Nagoya Uni.

The Sanbagawa belt of SW Japan is a high-pressure low-temperature subduction type metamorphic belt. The rock types consists of mafic, siliceous and pelitic schists derived from the subducted slab. There are also a series of ultramafic bodies whose origin is disputed: both a slab and wedge mantle origin have been proposed. However, the clear relationship between the distribution of the mantle rocks and metamorphic grade provides strong evidence that they were derived from the wedge mantle. We carried out a detailed study of the Shiragayama body as an example of serpentized mantle from close to the corner of the wedge. Studies of this region can contribute to our understanding of non-volcanic tremor and fluid flow that occurs in these otherwise inaccessible parts of subduction zones.

Keywords: fore arc mantle, subduction metamorphism, slab mantle boundary