

The Circum-Izu-Massif peridotite and its tectonic implication

Shoji Arai[1]

[1] Dept. Earth Sci., Kanazawa Univ.

<http://kgeopp6.s.kanazawa-u.ac.jp/Arai/>

It has been well known that small peridotite (serpentinite) masses are exposed from the Mineoka belt to the Setogawa belt via the Hayama belt (Miura Peninsula) and Kobotoke belt. Their sedimentary nature has been shown in some places, especially well at the Setogawa belt (Arai et al., 1978). The peridotite is predominantly harzburgite sometimes with Ca-rich plagioclase, which is common to these belts surrounding the Izu Massif. Arai and Ishida (1987) called the peridotite as the Circum-Izu-Massif peridotite, but the term has not been so commonly used by the researchers of this area. The petrological characteristics of peridotite common to these belts are, however, are very important and give us an important constraint on the tectonic history of this area.

The Circum-Izu-Massif harzburgite is similar to some abyssal harzburgite: its plagioclase is secondary and is a product of so-called melt impregnation. Sub-arc dunite with high-Cr# spinel has been found from the Mineoka belt. Arai (1991) and Arai and Okada (1991) interpreted the Circum-Izu-Massif peridotite as a back-arc basin mantle peridotite that had been emplaced along a transform-like fault. This classical interpretation will be revisited and discussed.