

## Relationship between the distribution of Quaternary adakitic magma on Japanese Island and the geophysical characteristics

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Since Defant & Drummond (1990) suggested that subducting slab is partial molten when the slab is young and hot, a lot of research about the partial melting of the subducting slab has been accomplished. Because it is important to discuss the material balance at the subduction zone, the genesis of continental crust, and the mantle & crust recycling. However, Yododzinski et al. (2001) reported the adakite magma derived from partial molten of subducting slab, where the old and cold slab is subducting. so that the knowledge about the occurrence condition of the slab melting is insufficient. It can be considered that comparing the distribution of the adakitic magmas and geophysical characteristic of the subducting slab lead us the information about the occurrence condition of the slab melting.

On Japanese Islands, the Philippine Sea plate is subducting at the wide area, from the Kanto district to the Kyushu&Okinawa-district. From these districts, Quaternary adakite magmas are reported (Morris, 1995; Ujike et al., 1999, Kimura et al, 2005, Shibata et al., 2005). On the other hand, the geophysical characteristics of the Philippine Sea plate, such as directions and dips of subduction, the shape of the plate and seismicity, changes from place to place. Therefore, it seems that these areas are a very suitable area to discuss the relationship between the distribution of adakitic magma and the geophysical characteristics of the subducting slab. In this report, we will show the distribution of Quaternary adakite magmas in the areas from Kanto district to Kyushu-Okinawa district on the basis of the compiled data and also our new data set of the trace element and isotopic compositions, and try to discuss the relationship between the distribution of the adakitic magmas and geophysical characteristic of the subducting slab