

Distribution of dike, creator, and parasitic volcano around active volcanoes

Eiji Nakata[1]; Kazuhiro Tanaka[2]

[1] CRIEPI; [2] Earth Sci., Yamaguchi Univ.

Magma intrusion is one of destructive evidence for electric power facilities. CRIEPI investigated to evaluate the influence of magma intrusion for permeability, chemistry and rock properties of sedimentary rocks until 2001¹⁾. This data was collected the distribution of dike, creator, and parasitic volcano around active volcanoes based on published research.

Then, we investigated to extract data from 42 active volcanoes on Japan Island. The following conclusions are reached:(1) Aso volcano has the most wide width in 42 volcanoes about 30km. (2) Volcanoes consisting of mainly basalt and felsic magma formed caldera have spread to compare with andesitic volcanoes. (3) Many spread volcanoes commonly exist in Hokkaido and Kyushu area to compare with Touhoku region. (4) Old volcanoes have wide length for magma intrusion. But this does not indicate that old volcanoes be actively. We need to investigate the relationship between erupting scale and lifetime of volcanoes for practical purposes at around active volcanoes.

¹⁾ E. Nakata and K. Tanaka(2001):Influence of magma intrusion on the bedrock. 2001 proceedings of Society of Engineering Geology Japan, 55-58.