

The change time from magmatic to phreatomagmatic eruption, in the Hachodaira caldera eruption at Miyakejima Volcano

OIKAWA, Teruki^{1*} ; GESHI, Nobuo¹

¹GSI, AIST

The Miyakejima volcano formed the caldera in 2000. This volcano erupted Hachodaira Scoria and Hachodaira Ash at ca.3ka of Hachodaira caldera collapse. Many plant fossils (*Miscanthus* sp.) are recognized in Hachodaira Scoria and Ash. Based on plant fossils in these tephras occurrence, deposition late of soil in the Miyakejima volcano, and form of the boundary of Hachodaira Scoria and Ash, The change time from magmatic eruption (Hachodaira Scoria eruption) to phreatomagmatic eruption (Hachodaira Ash) is under 1 year, probably it is several days or less. Thus, there was no time gap almost between magma eruption and phreatomagmatic eruption. This eruption style change can be explained such as 2000 eruption (Geshi and Oikawa,2008:JVGR) as follows. The altitude of the summit part approached the sea level by caldera collapse; as a result, phreatomagmatic eruption occurred.

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