

Chronology of the Miyakejima 2000 eruption and the products

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The Miyakejima 2000 eruption started with submarine eruption, followed by the sudden collapse of summit area. The collapse that had continued was associated with phreatic to phreatomagmatic eruptions. The activity can be divided into stages of magma intrusion, summit collapse, explosion, and degassing. The characteristics of eruption products and observation results by electromagnetism and seismic activity imply the contribution of a hydrothermal system to these eruptions. Juvenile materials related to these eruptions are not evident except for the submarine eruption. Though it was proposed that lava blocks issued by the largest eruption on August 18 would be juvenile, the paleomagnetic study did not support the high temperature of these materials.