

## Phenomena prior to the 1914 eruption of Sakurajima volcano based on recent observation at the volcano for branching of e

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In the 20th century, 3 eruptions occurred at Sakurajima volcano. The 1914 eruption started by plinian type at parasitic craters at west and east flank and extruded lava of  $1.4 \times 10^9 \text{ m}^3$ . The 1946 eruption effused lava flow from the crater at eastern flank, however the volume of lava is 1/10 of the 1914. Vulcanian eruptions frequently repeated at the summit crater of Minamidake since 1955. Volcanic ash amounted  $2 \times 10^8 \text{ m}^3$  during the period from 1978 to 1992. It is expected that such eruptions will repeat in the 21 century. Eruption scenarios are 1) effusion of magma of  $2 \times 10^8 \text{ m}^3$  in short term, 2) intermittent effusion of magma of  $2 \times 10^8 \text{ m}^3$  in long term, similarly to vulcanian activity at Minamidake summit crater, and 3) large eruptions at two flanks with extrusion of magma of  $2 \times 10^9 \text{ m}^3$ . It is possible that branching to the 3 scenario is controlled by intrusion rate of magma. Phenomena prior to the 1914 eruption are examined based on recent volcanic observation at the Sakurajima. The phenomena is referred to **The day of explosion of Sakurajima Fear, panic and lessons still alive** summarized by Takeshi Nozoe.

Keywords: Sakurajima, 1914 eruption, eruption scenario, precursor