

阿蘇火山中岳における2016年10月7日～8日噴火とその噴出物

The October 7-8, 2016 eruptions of Nakadake crater,
Aso Volcano, Japan and their deposits

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Summary

1. The October 7-8, 2016 eruptions emplaced a large amount of poorly-sorted deposits containing abundant block-size clasts around the Nakadake first crater. Most of proximal deposits were interpreted to be derived from pyroclastic density currents (PDCs).
2. The October 8 ash-fall deposit was clearly distributed about 70 km to the northeast of the source crater. Lapilli-size clasts were dispersed to areas up to about 30 km east-northeast of the crater. The mass of the ash-fall deposit (including lapilli-size clasts) was calculated at about 1.8×10^5 tons. Adding the mass of the PDC deposits, the total eruptive mass of the October 7-8, 2016 event was $6\text{-}6.5 \times 10^5$ tons.
3. The polarizing microscope observations revealed that a sample of the ash-fall deposit consisted of glass shards (20%), crystal (18%) and lithic (62%) grains. Most glass shards were unaltered poorly crystallized pale brown glasses and highly-crystallized black glasses, which probably represented juvenile magma. Results of EPMA analysis indicate that chemical composition of glass shards included in the October 8 ash-fall deposit was similar to those of glasses in the 1979, 1989-1990 and November 2014-September 2015 ash.