

FT-IR analysis of water contents in small melt inclusions

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Using FT-IR did we investigate water content of in melt inclusions in cpx phenocrysts included in the eruptive materials of Hokkaido-Komagatake 1929 eruption. The melt inclusions were smaller than spacial resolution of FT-IR so that we could not directly obtain their water contents. To overcome this problem, a new correction method has been developed. The proportion of melt inclusion to all the measured volume was calculated from intensity ratio of the peaks that are characteristic of hydrous obsidian and anhydrous clinopyroxene. The intensity ratio was calibrated by obsidian-cpx layered standard sample. This method, though accompanied by large errors so far, could give us good approximation of water content in small melt inclusions.