

Evolution of the new volcanic gas from Kuju volcano

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The volcanic gases from a new vent created after the eruption in 1995 at Kuju volcano was analyzed. The chemical composition of the gas was significantly different from the gases from a old fumarolic area with persistent activity located closely the new vent. The gases from the new vent contains HCl and SO₂ with low concentrations and CO with a detectable concentration. The gases from new vent shows a large variation in CO₂/H₂O ratio with a limited variation in the D/H or ¹⁸O/¹⁶O ratio of water vapor. These features would be explained by a partial condensation of water vapor in the gas from new vent. The composition of gas before the condensation would be similar to the gases from the old fumarolic area.