

## Depositions of the Asian dust suspended in precipitation collected on the west slope of the Mt. Tateyama and Toyama city

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Ion constituents and suspended particles were contained in precipitation. Asian dust might be main particles of soil particles in precipitation at high mountain area of Japan. Recent research reveals that Asian dust path through in the sky over Japan by using aircrafts and LIDER.

Ten sampling stations were set at west slope of Mt. Tateyama and one sampling station was set at Toyama city. Altitude of the highest sampling station is 2450 m. Precipitation samples of all sampling stations were collected in same sampling day.

Precipitation samples were filtered by silica fiber filter. Weight of Asian dust particles were measured after heating at temperature of 500°C.

Concentration of Asian dust particles in precipitation at Toyama city and the highest altitude sampling station of Mt. Tateyama were 0.59mg/l and 0.09mg/l, respectively, from August to September in 2011. Altitude effects were observed in concentrations of Asian dust particles in precipitation. However, peak concentration of 0.82 mg/l was observed the station at altitude of 1420m. Wet deposition of Asian dust was the highest at this sampling station and deposition of Asian dust was 647.9mg/m<sup>2</sup>, from August to September in 2011. Asian dust might contribute to formation of soil at high mountain area in Japan.

Keywords: kosa, Asian dust, wet deposition, altitude effect, Mt. Tateyama