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AHW28-P06 Room:Convention Hall Time:May 20 17:00-18:00

Spatial distribution of chemical components in snow layers at mountainous area, central Japan

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In mountainous area where less affected by human activities, we are able to collect efficiently chemical components in the snow layers, which is transported long-range from continent. In recent years, increase of acid material by the artificial source has been concerned. Although the studies about spatial distribution of chemical components have been executed actively on plain field and seacoast region, it is few in mountainous area of central Japan because of the difficulty of access. Therefore, it is significant to collect the data of chemical components in snow layers at mountainous area.

This study purposes of two things. First, we aim to clarify the origin of the chemical components preserved in snow layers on mountainous area of central Japan. Second, we discuss the spatial distribution of the chemical components in snow layers at mountainous area of central Japan.

We collected the samples of snow layers during February to April of 2011 in mountainous area of central Japan, and then we performed chemical analysis the samples using the ion chromatography.

In the results, it has become clear that the source of Na^+, Mg^{2+}, and Cl^- are sea salt components. On the other hand, the source of SO_4^{2-} and NO_3^- are mainly non-sea salt components. Additionally, Na^+/Cation and Cl^-/Anion are decreased with distance from the Sea of Japan. The opposite way round, nssSO_4^{2-}/Anion (non-sea salt SO_4^{2-}/Anion) is increase with distance from the Sea of Japan.