

The chemical characteristics of spring and river water in Kamikochi at the Japanese Alps

KURAMOTO, Takayuki^{1*} ; SASAKI, Akihiko¹ ; SUZUKI, Keisuke¹

¹IMS, Shinshu University

There are much spring waters in the Azusa River which flows through Kamikochi. These spring waters form the branch of the Azusa River. Spring water shows the characteristics reflecting an underground water flow. Therefore, in order to understand the water cycle of Kamikochi, it is important to understand the formation mechanism of spring water. The purpose of this study is to clarify the chemical characteristics of spring and river water in Kamikochi. We set up the thermometer in five places of a basin for the measuring of spring and river water temperature. The water samples were collected in water temperature measuring site and Azusa River. The pH, electric conductivity, major ions (Na^+ , K^+ , Mg^{2+} , Ca^{2+} , Cl^- , NO_3^- and SO_4^{2-}), and stable isotope of water were analyzed with the pH meter, conductivity meter, ion chromatographs, and isotopic water analyzer, respectively. In addition, HCO_3^- concentration was measured using the sulfuric acid titration method. At almost observation points, the temperatures of spring and river water showed seasonal change. However, only one site did not have change of spring water temperature through a whole year.