

The Roles of Clay Minerals in the Pedosphere of the Woods for Field Practice Owned by Sagano High School

*Nahoko Kubo¹, Yo Sayama¹, Yuna Miyachi¹, Arika Tsuji¹, Sae Takami¹, Yuzuki Kobayashi¹, Yuto Umeda¹, Tarsuki Morikawa¹, Ryota Yamasaki¹, Rina Matsuki¹

1. Kyoto Prefectural Sagano High School

Soil is in the central feature of the forest ecosystem. Clay minerals which are one of the component positions of forest soils the soil have certain some characteristics. For example, they have a large specific surface area, and have a negative net charge, characteristic, are a source of supply of the nourishment for the plants, and have a high water holding capacity ability from like the adsorbed water and pore spaces for water. There are many kinds of clay minerals have many kinds and each one has characteristics of that greatly different. From the research by Okubo (2015), the clay minerals called Lepidocrocite that are involved in the characteristic reddish layer of soils were confirmed within the soil profile in the WFS. In this research study, we analyzed the clay minerals of the soil profile by using X-ray diffraction in a spot is different from the prior research. We revealed the role of clay minerals from the point of view of pedogenesis. As a result of X-ray diffraction, Vermiculite, Mica, Kaolinite, Gibbsite, Quartz, and Hydroxyl interlayered vermiculite were confirmed to be present. And from the examination of the soil profile, we confirmed a reddish layer but did not confirmed Lepidocrocite because of the difference in tree species and topography. For our next steps, we will compare Now, I am comparing weighing the data gathered by of Okubo(2015) and Matsuki (2019) against this study' s data research' s one.

Keywords: Clay Minerals, Soil, Forestry