A possibility of annually-laminated tufa $\delta^{13}C$ record as a reflection of volcanic activity

*Nagayoshi Katsuta[1], Osamu Abe[2], ATSUSHI YASUDA[3], Sayuri Naito[1], Maki Morimoto[1], Takuma Murakami[2], Shin-ichi Kawakami[4]

1. Faculty of Education, Gifu University, 2. Graduate School of Enrionmental Studies, Nagoya University, 3. Earthquake Research Institute, University of Tokyo, 4. Faculty of Education, Gifu Shotoku Gakuen University

Mt. Asama, central Japan, is one of the most active volcano in the Japanese Archipelago, and many springs are distributed in the mountain body and its surrounding areas. The river from Nogori springs (R. Nigori) studied in this work is located in the southern part of the mountain, the spring water of which contains the high concentrations of carbonic acid and iron with 5.7 of pH. From the riverbed and the terrace, we found the carbonate-rich deposits with the annually-lamination (thereafter called tufa) which are formed during the CO_2 degassing after flowing out of the springs. In this talk, we present results of the $\delta^{13}C$ and $\delta^{18}O$ in R. Nogori and the tufa deposits, and then discuss the possibility of tufa $\delta^{13}C$ record as a reflection of volcanic activity.

Keywords: Tufa, δ13C, δ18O

