

Preliminary report on geochemistry of stalagmites from West Java, Indonesia

Yumiko Watanabe[1]; Hiroshige Matsuoka[2]; Jun Ueda[2]; Shun'ichi Nakai[3]; Takahiro Tagami[1]; Keiji Takemura[4]

[1] Earth and Planetary Sci., Kyoto Univ.; [2] Geology, Kyoto Univ.; [3] ERI, Univ. of Tokyo; [4] Beppu Geo. Res. Labo., Grad. Sci., Kyoto Univ.

In the last decade, decoding geochemical records in stalagmites has been widely recognized as a powerful tool for the elucidation of paleoclimate/environment of the terrestrial areas. The previous data are mainly reported from areas that are located in middle and high latitude. However, this study aims at reconstructing past climate variations in the Asian equatorial regions by using oxygen isotopes and other geochemical proxies recorded in Indonesian stalagmites. Especially, we focus on the detection of the precipitation anomaly that reflects the El Niño Southern Oscillation (ENSO).

We performed geological surveys in Buniayu limestone caves, Sukabumi, West Java, and Karangbolong, Central Java, Indonesia and collected a series of stalagmites/stalactites and drip water samples. Here, we will report preliminary geochemical results of stalagmites, such as U-Th dating, carbon and oxygen isotopes. Furthermore, we will discuss the relationship between geochemical proxies and local precipitation data in the 100 years.