

The structural formation processes of banded carbonates in Masutomi Mineral Springs

Yoshitarou Tanaka[1], Kazue Tazaki[2]

[1] Earth science, Kanazawa Univ., [2] Dept. Earth Sci., Kanazawa Univ.

Banded architectures can be often seen at the springs associated with limestone. Microbial mats induce biomineralization with banded layers that record their ambient water chemistry and environmental information. In this study, banded carbonates collected from Masutomi Mineral Springs, Yamanashi Pref. are revealed the structural formation processes based on biomineral. Porous layers were considered to be formed by any particles as nucleation site for authigenic minerals, whereas dense layers were considered to be formed by algal photosynthesis. Organisms' presence and activity are related to the forming process of banded carbonates, and the role of organisms between each layers is very important. This study could be helpful to understanding other banded minerals such as stromatolites.