

## Stromatolites and microbial mats in various environments.

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Bacterial cell is very small. So it is invisible to the naked eye. However, bacteria form colonies. It is visible to the naked eye. Stromatolites was formed by bacterial activities, in the geological age. At present, bacteria also have been forming microbial mats in hot springs. Because of the characteristics of microbial mats seem to be same on stromatolites. Both of them have layered structure and are constructed from carbonate minerals. The processes of formation what cyanobacteria produce stromatolites are unknown in many respects.

In this study, the formation mechanisms of Precambrian stromatolites and present microbial mats in hot springs of Japan is clarified, by using various electron microscopes. This article shows the comparative study between stromatolites and microbial mats.

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Stromatolites are the carbonate rocks formed by photosynthetic activity of cyanobacteria having certain rock forming characteristics. On the other hand, microbial mats have such a structure that have form a film or a terrace. The size of both the film and bed is so big that is visible to the naked eye. Microbial mats are composed of prokaryotes, including bacteria and unicellular eukaryote.

Cyanobacteria was flourished in the Precambrian age and produced much oxygen. It is important to consider of the development of the earth. Because of the characteristics of microbial mats seem to be same on stromatolites. Both of them have layered structure and are constructed from carbonate minerals. The processes of formation what cyanobacteria produce stromatolites are unknown in many respects.

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