

## Latest Finding about Copper Sulfide Biomineralization and General Features of Metal Sulfide Biominerals

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**Abstract :** Biopolymers produced by organisms highly contribute to the production of metal sulfides, both in extracellular and intracellular biomineralization. We discovered a new type of intracellular biomineral composed of copper sulfide in the periplasm of a sulfate-reducing bacterium. We suggest that the structural features of biomineral composed of 1-2 nm subgrains are based on biopolymer-based capping agents and an organic compartment. We further compare with other types of metal sulfide biominerals.

**Keywords :** biomineralization, copper sulfide, metal sulfide, biopolymer, capping agent

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