

Formation environment of framboidal pyrite and its precursor, and regular packing structure of microcrystals.

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There are various discussions on formation processes of framboidal pyrite grains which have unique forms. However, the details of the formation process have not been clarified yet. We studied TEM-SEM mineralogy of framboidal pyrite in muddy sediments of 70.40 m Holocene drilling core specimens at Shirone, Niigata Prefecture. The framboid in muddy sediment are classified into three types: (Isolated type), (Aggregated type), (small framboid). And some of them are weakly magnetized. Internal microcrystals of framboids arranged regularly. The regular arrangement is in the form of Body-Centered type packing of microcrystals which are linked to each other along [110] direction. Regular packing might be formed at precursor stage of framboidal pyrite.