

Microbial activities in the sedimentary basin of the 2.5 Ga Kuruman Iron Formation, S. Africa

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The Kuruman Banded Iron Formation is overlain by the carbonate sequence of the Champellrand Subgroup and underlain by the shale unit of Olifantshoek Group. It is found that both sediments were extremely enriched in Fe, probably introduced by submarine hydrothermal activities. The iron was fixed in sediments as pyrite by microbial activity; up to 45 wt % of Fe was fixed in sediments by biological activities. The sedimentary basin for the Precambrian banded iron formation was suitable for many of microbial activities.

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