Nitrogen fixation by Methanobacterium formicicum

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abstract

Methanobacterium formicicum utilized molecular nitrogen as the sole nitrogen source for growth as monitored by methane production and culture turbidity measurements. The rate of methane production by the bacteria was correlated to nitrogen gas concentrations. In the absence of nitrogen gas or any other nitrogen source, the bacteria completely stopped growing. The presence of selenium and molybdenum in the culture medium was vital for the growth of the bacteria under nitrogen fixing conditions.

Key words

Methanobacterium formicicum

Nitrogen fixation