

## **EFFECT OF COPPER CONCENTRATION ON THE GROWTH OF *METHYLOCOCCUS CAPSULATUS* (STRAIN M)**

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**Abstract.** Growth of cells *Methylococcus capsulatus* (strain M) under deficiency and exposure to various concentration of copper (concentration range 0-100  $\mu\text{M}$ ) in the culture media was studied. Morphocytological analysis has shown that the excess of copper ions is accumulated as granules concentrated near the cell surface and in the cytoplasm. Growth of *M. capsulatus* (M) cells under copper-excess (60-100  $\mu\text{M}$ ) growth conditions is also accompanied by increase of methanobactin secretion into the growth medium which binding excess of copper. Another maximum methanobactin secretion into the growth medium is observed when copper is present at low concentrations in the growth medium (up to 10  $\mu\text{M}$ ) which provides the cell with the essential copper.

**Keywords:** copper, biosorption, *Methylococcus capsulatus*, methanobactin.

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