

Optimization of the growth of magnetotactic bacteria

We introduced chemical molecules with high affinity for iron, known as iron-chelating agents, into the growth medium of magnetotactic bacteria. This resulted in:

- Stimulation of the growth of magnetotactic bacteria (up to a factor of 8);
- An increase in the production yield of magnetosomes (up to a factor of 6);
- An increase in the average size of magnetosomes by about 20%

The figure below summarizes the effect of adding iron-chelating agents to the bacterial growth medium on magnetosome production.

