

The present invention relates to a process for the production of iron selenite and for its use in the cultivation of *Spirulina platensis* cyanobacterium, with an increased content of selenium and iron, and can be used in medicine and food industry.

It is proposed a simple process for production in mild conditions of hexahydrate iron(III) selenite –  $\text{Fe}_2\text{Se}_3\text{O}_9 \cdot 6\text{H}_2\text{O}$ , providing for the interaction at 55...65°C of aqueous solutions of iron(II) and  $\text{H}_2\text{SeO}_3$ . The resulting product is a microcrystalline form of natural mandarinait mineral.

It is also claimed a process for cultivation of *Spirulina platensis* cyanobacterium, providing for the preparation of a nutrient medium, containing, g/L:  $\text{NaHCO}_3$  – 2.0,  $\text{K}_2\text{HPO}_4$  – 0.5,  $\text{NaNO}_3$  – 2.5,  $\text{K}_2\text{SO}_4$  – 0.5,  $\text{NaCl}$  – 1.0,  $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$  – 0.2,  $\text{CaCl}_2$  – 0.04,  $\text{FeSO}_4$  – 0.01, EDTA – 0.08, as well as microelements, introduced as a separate solution – 1 mL, containing in its turn (g/L):  $\text{H}_3\text{BO}_3$  – 2.86,  $\text{MnCl}_2 \cdot 4\text{H}_2\text{O}$  – 1.81,  $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$  – 0.22,  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$  – 0.08 and  $\text{MoO}_3$  – 0.015. Further said cyanobacterium is inoculated in a concentration of 0.40...0.45 mg/L, it is carried out its cultivation during 6 days at the temperature of  $30 \pm 2^\circ\text{C}$ , light of 3000 lx and pH 9.5...10.5, and then is separated and dried the resulting biomass. At the same time, in the nutrient medium in the first three days of cultivation as a source of selenium and iron is added in portions in the form of suspension the said iron(III) selenite calculated for 0.015...0.030 g/L.

The obtained technical result is to increase the content of selenium and iron in the biomass of cyanobacterium 2.0...2.9 and 1.4...2.9 times.

Claims: 2

Fig.: 4