

The invention refers to biotechnology, in particular to a process for cultivation of cyanobacteria *Spirulina platensis*, representing a source of phycobiliproteins and carotenoids, used in the pharmaceutical, food industries and in cosmetology.

The process for cultivation of cyanobacteria *Spirulina platensis* includes inoculation of spirulina in a quantity of 0,4...0,5 g/L on a nutrient medium in the following ratio of ingredients (g/L): NaHCO<sub>3</sub> - 16,8; K<sub>2</sub>HPO<sub>4</sub>×3H<sub>2</sub>O - 1,0; NaNO<sub>3</sub> - 2,5; NaCl - 1,0; K<sub>2</sub>SO<sub>4</sub> - 1,0; CaCl<sub>2</sub>×6H<sub>2</sub>O - 0,04; MgSO<sub>4</sub>×7H<sub>2</sub>O - 0,20; H<sub>3</sub>BO<sub>3</sub> - 0,00286; MnCl<sub>2</sub>×4H<sub>2</sub>O - 0,00181; ZnSO<sub>4</sub>×7H<sub>2</sub>O - 0,00022; CuSO<sub>4</sub>×5H<sub>2</sub>O - 0,00008; MoO<sub>3</sub> - 0,000015. On the third day of cultivation in the said medium it is added 5...10 mg/L of one of the following co-ordinative compounds with nitrate: hexa-m-glycinato (O,O')-m<sub>3</sub>-oxotriaquotriferum(III)trihydrate-[Fe<sub>3</sub>O(Gly)<sub>6</sub>(H<sub>2</sub>O)<sub>3</sub>]NO<sub>3</sub>×3H<sub>2</sub>O, hexa-m-treoninato(O,O')-m<sub>3</sub>-oxotriaquotriferum(III)-[Fe<sub>3</sub>O(Gly)<sub>6</sub>(H<sub>2</sub>O)<sub>3</sub>]NO<sub>3</sub> or hexa-m-alaninato(O,O')-m<sub>3</sub>-oxotriaquotriferum(III)tetrahydrate-[Fe<sub>3</sub>O(Ala)<sub>6</sub>(H<sub>2</sub>O)<sub>3</sub>]NO<sub>3</sub>×4H<sub>2</sub>O. The process is carried out at a temperature of 30...35°C and illumination of 3000...4000 lx.

The result of the invention consists in the intensification of the synthetic process that facilitates the increase of the spirulina biomass productivity as well as the content of carotenoids and phycobiliproteins.

Claims: 1