

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

The process for cultivation of cyanobacterium *Spirulina platensis* includes inoculation thereof on a nutrient medium in the following ratio of ingredients (g/L): NaHCO₃ - 16,8; K₂HPO₄·3H₂O - 1,0; NaNO₃ - 2,5; NaCl - 1,0; K₂SO₄ - 1,0; CaCl₂·6H₂O - 0,04; MgSO₄·7H₂O - 0,20; H₃BO₃ - 0,00286; MnCl₂·4H₂O - 0,00181; ZnSO₄·7H₂O - 0,00022; CuSO₄·5H₂O - 0,00008; MoO₃ - 0,000015. On the third day of cultivation in the said medium it is added one of the following coordinative compounds: nitrate of hexa-μ-glycinato(O,O')-μ₃-oxotriaquotriferrum(III)trihydrate-[Fe₃O(Gly)₆(H₂O)₃] NO₃·3H₂O, hexa-μ-treoninato(O,O')-μ₃-oxotriaquotriferrum(III)-[Fe₃O(Tre)₆(H₂O)₃]NO₃ or hexa-μ-alani-nato-(O,O')-μ₃-oxo-triaquotriferrum(III)tetrahydrate-[Fe₃O(Ala)₆ (H₂O)₃]NO₃·4H₂O in a quantity of 5...10 mg/L, the cultivation being carried out during 6 days. The process is carried out at the temperature of 30...35°C and the illumination of 3000... 4000 lx.

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

Claims: 1