

The invention relates to chemistry and biotechnology, in particular to the synthesis of a new coordinative compound of iron(III) with antioxidant properties that can be used in the food industry and in medicine, and to a process for cultivation of microalga *Porphyridium cruentum* with its use.

According to the invention, a coordinative compound – bis[N'-(2-hydroxy-kO-3-carboxybenzilidene)pyridine-3-carbohydrazidate(-1)-k²N',O]iron(III) perchlorate - water (4/5) is claimed.

Also claimed is a process for cultivation of microalga *Porphyridium cruentum*, which consists in that microalga is cultivated on a nutrient medium containing, g/L: NaNO₃ – 5.0; NaCl – 7.0; KCl – 7.5; MgSO₄·7H₂O – 1.8; Ca(NO₃)₂·4H₂O – 0.15; KBr – 0.05; KI – 0.05; K₂HPO₄ – 0.2; ZnSO₄·5H₂O – 0.00002; CuSO₄·5H₂O – 0.00005; MnSO₄·5H₂O – 0.0003; H₃BO₃ – 0.0006; MoO₃ – 0.00002; NaVO₃ – 0.00005, the compound bis[N'-(2-hydroxy-kO-3-carboxybenzilidene)pyridine-3-carbohydrazidate(-1)-k²N',O]iron(III) perchlorate - water (4/5) –0.009...0.01 and distilled water up to 1 L, having the pH 6.8...7.2, at the temperature of 23...25°C and the illumination of 2000...3000 lx/cm².

The result consists in increasing the phenol content in the microalga biomass.

Claims: 2

Fig.: 1