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The invention relates to biotechnology, namely to a process for cultivating *Porphyridium cruentum* microalga in order to obtain biomass with a high lipid content.

The process for cultivating *Porphyridium cruentum* CNMN-AR-01 microalga comprises cultivation on a nutrient medium containing, g/l: KCl 16.04; NaCl 12.52; KNO₃ 1.24; MgSO₄·7H₂O 2.5; CaCl₂ 0.118; K₂HPO₄·3H₂O 0.5; KI 0.05; KBr 0.05; 1 mL/L solution of microelements containing, mg/L: H₃BO₃ 2.86; MnCl₂·4H₂O 1.81; CuSO₄·5H₂O 0.08; MoO₃ 0.015; FeEDTA 0.5 mL; Au nanoparticles 5 nm stabilized in citrate 4.8-5.1 nM and distilled water the rest, at a temperature of 25-28°C, pH 6.8-7.2, constant illumination of 50-57 μM photon/m²·s, within 14 days.

The technical result consists in increasing the biosynthesis of lipids and their accumulation in the biomass of *Porphyridium cruentum* microalga.

Claims: 1