

Title (en)
METHOD FOR PRODUCING A CAROTINOID-CONTAINING BIOMASS

Title (de)
VERFAHREN ZUR HERSTELLUNG CAROTINOIDHALTIGER BIOMASSE

Title (fr)
PROCEDE DE PRODUCTION DE BIOMASSE A BASE DE CAROTINOIDE

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Application
EP 04786874 A 20040926

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Abstract (en)
[origin: WO2005030976A2] The invention relates to the production of a carotinoid-containing biomass. The aim of the invention is to provide a method for producing carotinoid-containing biomass that can be realized with a low level of complexity on a large scale and without antibiotics. To this end, the invention provides that non-genetically modified heterothallic fungi with an increased synthesis and storage capacity of ss-carotene are cultured in submerged cultures, whereby the biomass is propagated separately according to (+) and (-) pair type in multiple stages exclusively from spores. Biomass of the (+) pair type or culture liquid of the (+) pair type or homogenized biomass of the (+) pair type or, instead of the (+) pair type, gamone-type stimulators or lactones or trisporic acid or trisporic acid derivatives is/are added to the biomass of the (-) pair type after completion of the last biomass propagation phase before the production fermentation, and this submerged mixture is transferred into the nutrient solution of the product fermentation after a maturing time lasting from hours. The nutrient solution is composed in such a manner that at time t_w , the growth phase of the biomass is terminated by phosphorous limitation, the synthesis of ss-carotene is additionally triggered by creating a short-term stress situation, and the solvent-free extraction of the ss-carotene from the resulting dry biomass is made possible by a phosphorous limitation during the growth phase.

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