Title (en)

MICROORGANISMS AND METHOD FOR PRODUCING GLYCOLIC ACID FROM PENTOSES AND HEXOSES

Title (de)

MIKROORGANISMEN UND VERFAHREN ZUR HERSTELLUNG VON GLYKOLSÄURE AUS PENTOSEN UND HEXOSEN

Title (fr)

MICRO-ORGANISMES ET PROCÉDÉ POUR LA PRODUCTION D'ACIDE GLYCOLIQUE À PARTIR DE PENTOSES ET D'HEXOSES

Publication

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Application

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Abstract (en)

[origin: WO2020012138A1] The invention relates to a recombinant microorganism that exhibits (i) increased activity of conversion of D-ribulose-5-phosphate into D-arabinose-5-phosphate compared to the same non-modified microorganism; (ii) increased activity of catalysis of the cleavage of the D-arabinose-5-phosphate into D-glyceraldehyde-3- phosphate and glycolaldehyde compared to the same non-modified microorganism; (iii) increased activity of oxidation of the glycolaldehyde into glycolate compared to the same non-modified microorganism; and (iv) reduced activity of oxidation of the glyceraldehyde-3-phosphate into 1,3-bisphosphoglycerate compared to the same non-modified microorganism. The invention also relates to a method for producing glycolic acid from pentoses and/or hexoses using such a recombinant microorganism. The invention further relates to a method for producing glycolic acid involving a biomass production phase and a phase of bioconversion of the hexoses and/or pentoses into glycolic acid.

IPC 8 full level

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Citation (search report)

See references of WO 2020012138A1

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