

Title (en)

Process for the liquefaction of sugar beets and chicory roots by enzymatic hydrolysis and the obtained liquid hydrolysate.

Title (de)

Verfahren für die Verflüssigung von Zuckerrüben und Zichorienwurzeln durch enzymatische Hydrolyse und das so erhaltene Hydrolysat.

Title (fr)

Procédé de liquéfaction de betteraves et de racines de chicorée par hydrolyse enzymatique et hydrolysat liquide obtenu.

Publication

**EP 0256899 A1 19880224 (FR)**

Application

**EP 87401590 A 19870707**

Priority

FR 8609841 A 19860707

Abstract (en)

[origin: US4886672A] PCT No. PCT/FR87/00265 Sec. 371 Date Mar. 2, 1988 Sec. 102(e) Date Mar. 2, 1988 PCT Filed Jul. 7, 1987 PCT Pub. No. WO88/00243 PCT Pub. Date Jan. 14, 1988. A process for the liquifaction of beets or chicory roots which includes washing and grinding the beets or chicory roots to provide a ground product; mixing the ground product with a mixture of enzymes that include SPS-ase, cellulase and cellobiase, as well as an acid so as to provide a pH of about 3 to 5.5; leaving the mixture for about 1 to 6 hours to accomplish a prehydrolysis of the ground product; grinding the prehydrolyzed ground product; allowing the prehydrolyzed ground product to hydrolyze for about 20 to 120 hours; and recovering the liquid hydrolyzed product.

Abstract (fr)

L'invention se rapporte aux biotechnologies. Elle concerne un procédé de liquéfaction de betteraves ou de racines de chicorée mettant en jeu un mélange d'enzymes comprenant une SPS-ase, une cellulase et une cellobiase. Le produit obtenu est utile notamment pour la préparation d'alcool éthylique par fermentation.

IPC 1-7

**C12P 19/14; C13K 1/06**

IPC 8 full level

**C13K 1/00** (2006.01); **C13K 11/00** (2006.01)

CPC (source: EP US)

**C13K 1/00** (2013.01 - EP US); **C13K 11/00** (2013.01 - EP US)

Citation (search report)

- [X] WO 8200662 A1 19820304 - PELLEGRINI A
- CHEMICAL ABSTRACTS, vol. 104, no. 26, 30 juin 1986, page 169, résumé no. 227697x, Columbus, Ohio, US; G. BELDMAN et al.: "Enzymic liquefaction and saccharification of agricultural biomass", & COMM. EUR. COMMUNITIES, (REP.) EUR 1985, EUR 9940, 41pp
- RESEARCH DISCLOSURE, no. 217, mai 1982, pages 190-193, Havant, Hampshire, GB; H.S. OLSEN: "Method for decomposition of polysaccharides, preferably plant cell wall polysaccharides, by means of a carbohydrase"
- ENZYME MICROB. TECHNOL., vol. 6, novembre 1984, pages 503-507, Butterworth & Co. Ltd; G. BELDMAN et al.: "Application of cellulase and pectinase from fungal origin for the liquefaction and saccharification of biomass"

Designated contracting state (EPC)

AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

**US 4886672 A 19891212**; AT E83011 T1 19921215; CA 1331357 C 19940809; DE 3782884 D1 19930114; DE 3782884 T2 19930408; DK 63988 A 19880208; DK 63988 D0 19880208; EP 0256899 A1 19880224; EP 0256899 B1 19921202; ES 2038193 T3 19930716; FR 2601036 A1 19880108; FR 2601036 B1 19900119; GR 3006584 T3 19930630; WO 8800243 A1 19880114

DOCDB simple family (application)

**US 17100688 A 19880302**; AT 87401590 T 19870707; CA 541514 A 19870707; DE 3782884 T 19870707; DK 63988 A 19880208; EP 87401590 A 19870707; ES 87401590 T 19870707; FR 8609841 A 19860707; FR 8700265 W 19870707; GR 920402986 T 19921218