

Title (en)  
CONTINUOUS FERMENTATION PROCESS.

Title (de)  
KONTINUIERLICHES GÄRUNGSVERFAHREN.

Title (fr)  
PROCEDE DE FERMENTATION CONTINUE.

Publication  
**EP 0154647 A4 19860213 (EN)**

Application  
**EP 84903316 A 19840817**

Priority  
US 52643783 A 19830825

Abstract (en)  
[origin: WO8501064A1] A process for the continuous fermentation of milk or whey products and by-products from which a substantial portion of the high molecular weight components has been removed comprising the steps of: (a) continuously introducing one or more milk or whey products or by-products from which a substantial portion of the high molecular weight components has been removed to an agitated fermentation vessel including one or more microorganisms capable of metabolizing lactose, glucose or galactose to produce one or more metabolic products of low molecular weight and carbon dioxide; (b) continuously passing a portion of the contents of the fermentation vessel through a filtration module to produce a permeate fraction and a retentate fraction, the filtration module including a filtration membrane having a mean pore size sufficiently small to prevent passage of substantial amounts of carbon dioxide through the membrane and having a molecular weight cutoff above the molecular weight of all or some of the one or more metabolic products of low molecular weight; (c) recovering from the permeate fraction all or some of the one or more metabolic products of low molecular weight; and (d) recycling the retentate fraction to the fermentation vessel.

IPC 1-7  
**C12P 7/06; C12N 11/00; C12N 1/18; A23C 21/02**

IPC 8 full level  
**A23C 21/02** (2006.01); **C12M 1/12** (2006.01); **C12N 1/16** (2006.01)

CPC (source: EP)  
**A23C 21/02** (2013.01); **C12M 29/04** (2013.01); **C12M 29/18** (2013.01); **C12M 47/10** (2013.01); **C12N 1/16** (2013.01); **Y02E 50/10** (2013.01)

Citation (search report)  
• [XP] CHEMICAL ABSTRACTS, vol. 99, no. 19, November 1983, page 484, no. 156747d, Columbus, Ohio, US; M. CHERYAN et al.: "A high-performance membrane bioreactor for continuous fermentation of lactose to ethanol" & BIOTECHNOL. LETT. 1983, vol. 5, no. 8, pages 519 - 524  
• [A] BIOTECHNOLOGY AND BIOENGINEERING, vol. XX, 1978, pages 709-753, John Wiley & Sons, Inc, New York, US; A. MARGARITIS et al.: "The rotorfmentor. II. Application to ethanol fermentation"  
• [T] INTERNATIONAL SUGAR JOURNAL, vol. 86, no. 1028, August 1984, pages 227-229, London, GB; T.R. HANSSENS et al.: "Ultrafiltration as an alternative for raw juice purification in the beet sugar industry"  
• See references of WO 8501064A1

Designated contracting state (EPC)  
AT BE CH DE FR GB LI NL SE

DOCDB simple family (publication)  
**WO 8501064 A1 19850314**; EP 0154647 A1 19850918; EP 0154647 A4 19860213

DOCDB simple family (application)  
**US 8401345 W 19840817**; EP 84903316 A 19840817