

Title (en)

METHOD FOR PROCESSING COALESCENCE-INHIBITED EMULSIONS FROM WHOLE-CELL BIOTRANSFORMATIONS WITH COMPRESSED OR SUPERCRITICAL GASES, IN PARTICULAR WITH CARBON DIOXIDE

Title (de)

VERFAHREN ZUR AUFARBEITUNG VON KOALESZENZGEHEMMTEN EMULSIONEN AUS GANZZELL-BIOTRANSFORMATIONEN MIT KOMPRIMIERTEN ODER ÜBERKRITISCHEN GASEN, INSBESONDERE MIT KOHLENDIOXID

Title (fr)

PROCÉDÉ DE TRAITEMENT D'ÉMULSIONS INHIBÉES PAR COALESCENCE, ISSUES DE BIOTRANSFORMATIONS DE CELLULES COMPLÈTES, À L'AIDE DE GAZ COMPRIMÉS OU SUPERCRITIQUES, EN PARTICULIER À L'AIDE DE DIOXYDE DE CARBONE

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Abstract (en)

[origin: WO2009012754A2] The proposed method represents one possibility for separating emulsions of whole-cell biotransformations, making it possible to separate efficiently, by means of at least one compressed or supercritical gas, stable emulsions which arise in such a biotransformation from typical biocatalytic two-phase processes. It is possible through the use of compressed or supercritical gas as separating agent for a supercritical extraction to be carried out immediately thereafter in order to obtain the desired product. It is immaterial in this connection whether the desired product is present in the aqueous or organic phase. Recycling of the organic phase is possible because the surface-active cell constituents which are crucially responsible for the formation of the stable emulsion can be removed by sedimentation owing to the treatment. The separation achieved persists even after the compressed or supercritical gas has been discharged, making it possible for other methods for isolating the product, besides the extraction, to follow if necessary. The described invention involves an enormous potential for the industrial utilization of biocatalytic two-phase processes which are of great interest economically and ecologically.

IPC 8 full level

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