Title (en)

ENZYMATIC METHODS FOR POLYUNSATURATED FATTY ACID ENRICHMENT

Title (de)

ENZYMATISCHE VERFAHREN ZUR ANREICHERUNG DER FETTE AN POLYUNGESÄTTIGTEN FETTSÄUREN

Title (fr)

PROCEDES ENZYMATIQUES D'ENRICHISSEMENT EN ACIDES GRAS POLYINSATURES

Publication

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Application

EP 96904125 A 19960213

Priority

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- FR 9502153 A 19950224

Abstract (en)

[origin: WO9626287A1] A method for use in the field of chemistry and particularly in the chemistry of fats. The method is used to prepare polyunsaturated fatty acid concentrates and comprises selectively enzymatically hydrolysing a fish oil containing docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) in position 1, 2 or 3, to give a mixture of free fatty acids, monoglycerides and diglycerides, separating the components of the mixture, recovering the free fatty acids and purifying them by urea crystallisation to increase the EPA and DHA content, decomplexing the isolated fatty acids, and performing interesterification between the free fatty acids having a high polyunsaturated fatty acid concentration and the unprocessed oil, in the presence of a position- or steric hindrance-specific lipase, to give a polyunsaturated fatty acid triglyceride-enriched mixture which is separated while the free fatty acids are removed therefrom. A method for enzymatically enriching phospholipids with polyunsaturated fatty acids (EPA, DHA), and the synthesis of polyunsaturated fatty acid monoacylglycerols of series n3 by enzymatic synthesis using 1,2-dialkylene glycerol as the starting material, are also disclosed. The resulting products are suitable for use in foodstuffs, cosmetics and pharmaceuticals.

IPC 1-7

C12P 7/64; C11C 1/04; C11C 3/02; C11C 3/10

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

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