

Title (en)
PROCESS FOR THE PREPARATION OF METHYL ESTERS OF FATTY ACIDS

Publication
EP 0184740 B1 19910306 (DE)

Application
EP 85115217 A 19851130

Priority
DE 3444893 A 19841208

Abstract (en)
[origin: ES8606242A1] Fatty acid alkyl esters are produced by catalytic transesterification of natural fats and oils containing free fatty acids. In a preliminary esterifying step, the free fatty acids present are reacted with a C1-C4 alkanol (e.g., methanol) in the presence of an acidic esterification catalyst, at a temperature of about 50 DEG to 120 DEG C. and at substantially atmospheric pressure. The resulting reaction mixture is allowed to separate into two phases: (1) an alcohol phase containing the acidic esterification catalyst and part of the water of reaction and (2) an oil phase. These phases separately recovered. The oil phase is then extracted with an immiscible extractant, preferably comprising a mixture of glycerol and methanol, to remove residual water of reaction. In the final step the extracted oil phase is transesterified with a C1-C4 alkanol, e.g. methanol, in the presence of an alkali catalyst and at substantially atmospheric pressure.

IPC 1-7
C07C 67/02; C07C 67/03; C11B 3/02; C11C 3/04

IPC 8 full level
C07C 67/03 (2006.01); **C07C 67/02** (2006.01); **C07C 67/58** (2006.01); **C07C 69/24** (2006.01); **C07C 69/52** (2006.01); **C07C 69/58** (2006.01); **C11B 3/02** (2006.01); **C11C 3/00** (2006.01); **C11C 3/04** (2006.01)

CPC (source: EP US)
C11C 3/003 (2013.01 - EP US); **C11C 3/04** (2013.01 - EP US)

Cited by
WO2012054946A1; CN103013678A; DE3707563A1; EP1308498A1; AT399336B; US7951967B2; US7256301B2; WO9115452A1; WO2009123369A1; US8530684B2; WO2015012538A1; US9938487B2; WO2010053258A2; US7828978B2; US8895765B2; WO2011008058A2; US9322004B2; EP1322588B1; EP2358851B2

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

DOCDB simple family (publication)
EP 0184740 A2 19860618; EP 0184740 A3 19870909; EP 0184740 B1 19910306; AT E61332 T1 19910315; BR 8506119 A 19860826; CA 1261870 A 19890926; DE 3444893 A1 19860612; DE 3582022 D1 19910411; ES 549666 A0 19860416; ES 8606242 A1 19860416; GB 2168701 A 19860625; GB 2168701 B 19881130; GB 8528953 D0 19860102; JP H0662502 B2 19940817; JP S61140544 A 19860627; MX 162267 A 19910419; MY 101291 A 19910905; TR 25060 A 19920922; US 4652406 A 19870324; ZA 859371 B 19860730

DOCDB simple family (application)
EP 85115217 A 19851130; AT 85115217 T 19851130; BR 8506119 A 19851206; CA 497012 A 19851206; DE 3444893 A 19841208; DE 3582022 T 19851130; ES 549666 A 19851206; GB 8528953 A 19851125; JP 27777385 A 19851209; MX 86685 A 19851209; MY P119870423 A 19870402; TR 488985 A 19851204; US 80607485 A 19851206; ZA 859371 A 19851206