

Title (en)
VAPOUR PHASE ESTERIFICATION OF FREE FATTY ACIDS

Title (de)
DAMPFFPHASENVERESTERUNG VON FREIEN FETTSÄUREN

Title (fr)
ESTÉRIFICATION EN PHASE VAPEUR D'ACIDES GRAS LIBRES

Publication
EP 2215193 A4 20120829 (EN)

Application
EP 07855443 A 20071130

Priority
CA 2007002161 W 20071130

Abstract (en)
[origin: US2009139137A1] A method is presented for producing biodiesel from a triglyceride feedstock. The feedstock is pretreated by thermal cracking or rapid pyrolysis to form a middle distillate fraction rich in fatty acids. The middle distillate fraction is then treated by vapour phase esterification under vacuum and in the presence of an alcohol and a solid acid catalyst to produce a biodiesel stream. The biodiesel stream can be treated with a basic solution to convert residual free fatty acids to non-foaming metallic soaps, which are separated by known means. A method is also provided for producing a biodiesel/naphtha mixture, in which a triglyceride feedstock is pretreated by thermal cracking or rapid pyrolysis to produce a middle distillate fraction, a naphtha stream and a gas stream. The naphtha stream and the middle distillate fraction are then treated by vapour phase esterification under vacuum and in the presence of an alcohol and a solid acid catalyst to produce a mixed biodiesel/naphtha stream.

IPC 8 full level
C10G 3/00 (2006.01); **C10L 1/02** (2006.01); **C11C 3/00** (2006.01)

CPC (source: EP US)
C10L 1/026 (2013.01 - EP US); **C11C 3/003** (2013.01 - EP US); **Y02E 50/10** (2013.01 - US); **Y02P 30/20** (2015.11 - US)

Citation (search report)

- [A] US 2004186307 A1 20040923 - PIACENTINI ALDO [DE], et al
- [A] GB 957679 A 19640513 - RUHRCHEMIE AG
- [A] DATABASE WPI Week 200726, Derwent World Patents Index; AN 2007-256478, XP002680004
- See references of WO 2009067779A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
US 2009139137 A1 20090604; CA 2701136 A1 20090604; CA 2701136 C 20130108; EP 2215193 A1 20100811; EP 2215193 A4 20120829; WO 2009067779 A1 20090604

DOCDB simple family (application)
US 32496708 A 20081128; CA 2007002161 W 20071130; CA 2701136 A 20071130; EP 07855443 A 20071130