

Title (en)
METHOD FOR THE PRODUCTION OF A DICARBOXYLIC ACID FROM ACRYLIC ACID

Title (de)
VERFAHREN ZUR HERSTELLUNG EINER DICARBONS URE AUSGEHEND VON ACRYLS URE

Title (fr)
PROCEDE DE PRODUCTION D'UN ACIDE DICARBOXYLIQUE A PARTIR D'ACIDE ACRYLIQUE

Publication
EP 1521734 A1 20050413 (DE)

Application
EP 03735697 A 20030704

Priority
• DE 10231291 A 20020710
• DE 10240781 A 20020830
• EP 0307151 W 20030704

Abstract (en)
[origin: WO2004007415A1] Disclosed is a method for producing a dicarboxylic acid of formula (I) H-OOC-(n-C₄H_x)-COO-H, in which x represents 6 or 8, from acrylic acid. Said method is characterized by the fact that a) a dicarboxylic acid diester of formula (II) R<1>-OOC-(n-C₄H_x)-COO-R<2>, in which x represents 6 or 8 and R<1>, R<2> independently represent C₁-, C₂-, C₃-, C₄-alkyl, aryl, heteroaryl and can be identical or different, is reacted with acrylic acid so as to obtain a dicarboxylic acid of formula (I) and a mixture of acrylic acid ester of formula C₂H₃-COOR<1> and C₂H₃-COOR<2>, in which R<1> and R<2> have the meanings mentioned above; b) the dicarboxylic acid of formula (I) obtained in step (a) is separated from the reaction mixture obtained in step (a); c) the C₂H₃-COOR<1>, C₂H₃-COOR<2>, or the mixtures thereof obtained in step (a) are dimerized so as to obtain n-butene dicarboxylic acid diester; and d) the dicarboxylic acid diester obtained in step (c) is split into the corresponding dicarboxylic acid of formula (I).

IPC 1-7
C07C 51/09; **C07C 67/10**; **C07C 67/343**; **C07C 67/303**; **C07C 51/36**

IPC 8 full level
C07B 61/00 (2006.01); **C07C 51/09** (2006.01); **C07C 51/36** (2006.01); **C07C 55/14** (2006.01); **C07C 67/10** (2006.01); **C07C 67/303** (2006.01); **C07C 67/347** (2006.01); **C07C 69/44** (2006.01)

CPC (source: EP KR US)
C07C 51/09 (2013.01 - EP KR US); **C07C 51/36** (2013.01 - EP KR US); **C07C 67/10** (2013.01 - EP US); **C07C 67/303** (2013.01 - EP US); **C07C 67/347** (2013.01 - EP US)

Citation (search report)
See references of WO 2004007415A1

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

DOCDB simple family (publication)
WO 2004007415 A1 20040122; AU 2003238065 A1 20040202; BR 0311504 A 20050222; CA 2491280 A1 20040122; CN 1668566 A 20050914; EP 1521734 A1 20050413; JP 2005537260 A 20051208; KR 20050025946 A 20050314; MX PA04012457 A 20050819; MY 134312 A 20071231; TW 200413306 A 20040801; US 2006122425 A1 20060608

DOCDB simple family (application)
EP 0307151 W 20030704; AU 2003238065 A 20030704; BR 0311504 A 20030704; CA 2491280 A 20030704; CN 03816382 A 20030704; EP 03735697 A 20030704; JP 2004520480 A 20030704; KR 20057000312 A 20050107; MX PA04012457 A 20030704; MY PI20032572 A 20030709; TW 92118884 A 20030710; US 51952304 A 20041227