

Title (en)

METHOD FOR MANUFACTURING A POLYESTER CONTAINING AT LEAST ONE 1,4:3,6-DIANHYDROHEXITOL UNIT WITH REDUCED COLOURING AND IMPROVED RATES OF INCORPORATION OF THE UNIT(S)

Title (de)

VERFAHREN ZUM HERSTELLEN EINES POLYESTERS, DER MINDESTENS EINE 1,4:3,6-DIANHYDROHEXITOL-EINHEIT ENTHÄLT, MIT REDUZIRTER FÄRBUNG UND VERBESSERTEN EINBAURATEN DER EINHEIT(EN)

Title (fr)

PROCÉDÉ DE FABRICATION D'UN POLYESTER CONTENANT AU MOINS UN MOTIF 1,4 : 3,6-DIANHYDROHEXITOL À COLORATION RÉDUITE ET TAUX D'INCORPORATION DUDIT MOTIF AMÉLIORÉS

Publication

EP 4077471 A1 20221026 (FR)

Application

EP 20845786 A 20201217

Priority

- FR 1915172 A 20191220
- FR 2020052520 W 20201217

Abstract (en)

[origin: WO2021123655A1] The subject matter of the invention is a method for manufacturing a polyester containing at least one 1,4:3,6-dianhydrohexitol unit, comprising: - a step of introducing, into a reactor, monomers comprising at least one monomer (A) which is a diacid or a diester and at least one monomer (B) which is a 1,4:3,6-dianhydrohexitol; - a step of introducing, into the reactor, a catalytic system comprising either a catalyst comprising the element germanium and a catalyst comprising the element tin, or a catalyst comprising the elements germanium and tin or a mixture of said catalysts; - a step of polymerising the monomers to form the polyester; - a step of recovering a polyester composition comprising the polyester and the catalytic system. The invention also relates to a polyester composition containing a catalytic system comprising either a catalyst comprising the element germanium and a catalyst comprising the element tin, or a catalyst comprising the elements germanium and tin or a mixture of the two catalysts and the use of same to reduce the colouring of the polyester.

IPC 8 full level

C08G 63/672 (2006.01); **C08G 63/85** (2006.01)

CPC (source: EP KR US)

C08G 63/183 (2013.01 - US); **C08G 63/672** (2013.01 - EP KR); **C08G 63/85** (2013.01 - EP KR); **C08K 3/08** (2013.01 - US); **C08K 2003/0843** (2013.01 - US)

Citation (examination)

- US 2018362707 A1 20181220 - JACQUEL NICOLAS [FR], et al
- KR 20180131436 A 20181210 - SK CHEMICALS CO LTD [KR]
- US 2017335055 A1 20171123 - JACQUEL NICOLAS [FR], et al
- WON JAE YOON ET AL: "Synthesis and Characteristics of a Biobased High- T g Terpolyester of Isosorbide, Ethylene Glycol, and 1,4-Cyclohexane Dimethanol: Effect of Ethylene Glycol as a Chain Linker on Polymerization", MACROMOLECULES, vol. 46, no. 18, 12 September 2013 (2013-09-12), US, pages 7219 - 7231, XP055422933, ISSN: 0024-9297, DOI: 10.1021/ma4015092
- See also references of WO 2021123655A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

FR 3105232 A1 20210625; **FR 3105232 B1 20211224**; EP 4077471 A1 20221026; JP 2023506882 A 20230220; KR 20220119096 A 20220826; US 2023013441 A1 20230119; WO 2021123655 A1 20210624

DOCDB simple family (application)

FR 1915172 A 20191220; EP 20845786 A 20201217; FR 2020052520 W 20201217; JP 2022536904 A 20201217; KR 20227024773 A 20201217; US 202017757413 A 20201217