

Title (en)

ALIPHATIC POLYCARBONATES AND PRODUCTION METHODS FROM CYCLIC CARBONATES THEREOF

Title (de)

ALIPHATISCHEN POLYCARBONATE UND HERSTELLUNGSVERFAHREN AUS CYCLISCHEN CARBONATEN DAFÜR

Title (fr)

POLYCARBONATES ALIPHATIQUES ET PROCÉDÉS POUR LES PRODUIRE À PARTIR DE CARBONATES CYCLIQUES

Publication

**EP 3230341 A4 20181114 (EN)**

Application

**EP 15868537 A 20151207**

Priority

- US 201462088751 P 20141208
- US 201562199983 P 20150801
- KR 2015013331 W 20151207

Abstract (en)

[origin: WO2016093581A2] Aliphatic polycarbonates are prepared by ring opening polymerization of six-membered cyclic carbonates or various ratio of mixtures of six-membered cyclic carbonates using catalysts. The resulting materials are further polymerized using the extra functional group such as additional 2nd cyclic carbonate, (meth)acrylate and allylate. This process and material(s) obtained provide chlorine (e.g. phosgene and chloroformate)-free and bisphenol-free polycarbonates and their derivatives for environment-friendly applications.

IPC 8 full level

**C08G 64/02** (2006.01); **C08G 64/30** (2006.01)

CPC (source: EP)

**C08G 64/0216** (2013.01); **C08G 64/025** (2013.01); **C08G 64/30** (2013.01)

Citation (search report)

- [A] US 4501905 A 19850226 - KRIMM HEINRICH [DE], et al
- [A] JUN FENG ET AL: "Construction of functional aliphatic polycarbonates for biomedical applications", PROGRESS IN POLYMER SCIENCE, PERGAMON PRESS, OXFORD, GB, vol. 37, no. 2, 22 July 2011 (2011-07-22), pages 211 - 236, XP028395656, ISSN: 0079-6700, [retrieved on 20110802], DOI: 10.1016/J.PROGPOLYMSCI.2011.07.008
- [I] GABRIEL ROKICKI ET AL: "Synthesis of six-membered cyclic carbonate monomers by disproportionation of 1,3-Bis(alkoxycarbonyloxy)propanes and their polymerization", POLYMER JOURNAL, VOL. 32, NO. 5, 15 May 2000 (2000-05-15), pages 381 - 390, XP055487699, Retrieved from the Internet <URL:https://www.nature.com/articles/pj200070.pdf> [retrieved on 20180625]
- See references of WO 2016093581A2

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CN112745495A

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

DOCDB simple family (publication)

**WO 2016093581 A2 20160616**; **WO 2016093581 A3 20160804**; EP 3230341 A2 20171018; EP 3230341 A4 20181114; KR 20170121156 A 20171101

DOCDB simple family (application)

**KR 2015013331 W 20151207**; EP 15868537 A 20151207; KR 20177018897 A 20151207