

Title (en)
PROCESS FOR MAKING DIALKYL CARBONATES

Title (de)
VERFAHREN ZUR HERSTELLUNG VON CARBONSÄUREDIALKYLESTERN

Title (fr)
PROCEDE D'ELABORATION DE CARBONATES DE DIALKYLE

Publication
EP 1740529 A4 20080220 (EN)

Application
EP 05713192 A 20050210

Priority
• US 2005004087 W 20050210
• US 82122504 A 20040408

Abstract (en)
[origin: WO2005102986A2] A process for the production of dialkyl carbonates from the reaction of alcohol, for example C1-C3 alcohols, with urea is disclosed wherein the water and ammonium carbamates impurities in the feed are removed in a prereactor. The water is reacted with urea in the feed to produce ammonium carbamate which is decomposed along with the ammonium carbamates originally in the feed to ammonia and carbon dioxide. In addition some of the urea is reacted with the alcohol in the first reactor to produce alkyl carbamate which is a precursor to dialkyl carbonate. Dialkyl carbonates are produced in the second reaction zone. The undesired by-product N-alkyl alkyl carbamates are continuously distilled off from the second reaction zone along with ammonia, alcohol and dialkyl carbonates under the steady state reactor operation. N-alkyl alkyl carbamates can be converted to heterocyclic compounds in a third reaction zone to remove as solids from the system.

IPC 8 full level
C07C 68/00 (2006.01); **C07C 69/96** (2006.01)

CPC (source: EP KR)
C07C 68/00 (2013.01 - EP); **C07C 69/96** (2013.01 - KR)

Citation (search report)
• [A] DATABASE WPI Week 200033, Derwent World Patents Index; AN 2000-382064, XP002463949
• See references of WO 2005102986A2

Cited by
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WO 2005102986 A2 20051103; WO 2005102986 A3 20070809; AR 047904 A1 20060301; CN 101084179 A 20071205; CN 101084179 B 20120704; EG 23642 A 20070307; EP 1740529 A2 20070110; EP 1740529 A4 20080220; JP 2007534674 A 20071129; JP 4904258 B2 20120328; KR 100899058 B1 20090525; KR 20070000484 A 20070102; RU 2006139133 A 20080520; RU 2367648 C2 20090920; TW 200609212 A 20060316; TW I328003 B 20100801; ZA 200606920 B 20080528

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