

Title (en)
DEHYDROGENATION OF AN ALKYL AROMATIC COMPOUND AND CATALYST REGENERATION IN A FLUIDIZED BED REACTOR

Title (de)
DEHYDIERUNG EINER ALKYLAROMATISCHEN VERBINDUNG UND KATALYSATORREGENERIERUNG IN EINEM FLIESSBETTREAKTOR

Title (fr)
DESHYDROGENATION D'UN COMPOSE AROMATIQUE ALKYLE ET REGENERATION DE CATALYSEUR DANS UN REACTEUR A LIT FLUIDISE

Publication
EP 1242344 A1 20020925 (EN)

Application
EP 00986507 A 20001213

Priority
• US 0034305 W 20001213
• US 17227499 P 19991217

Abstract (en)
[origin: WO0144146A1] A process of preparing a vinyl aromatic compound, such as styrene. The process involves fluidizing a dehydrogenation catalyst in a single shell fluidized bed reactor containing a reaction zone and a regeneration zone; contacting an alkyl aromatic compound, such as ethylbenzene, with the dehydrogenation catalyst in the dehydrogenation zone so as to produce the vinyl aromatic compound, such as styrene; and regenerating the catalyst *in situ* by contacting steam with the deactivated catalyst in the regeneration zone. A fluidized bed reactor is described, characterized by a freeboard zone, a reaction zone, and a catalyst regeneration zone, all within a single shell.

IPC 1-7
C07C 5/333; B01J 8/28

IPC 8 full level
B01J 8/00 (2006.01); **B01J 8/18** (2006.01); **B01J 8/28** (2006.01); **C07B 61/00** (2006.01); **C07C 5/333** (2006.01); **C07C 15/44** (2006.01); **C07C 15/46** (2006.01)

CPC (source: EP)
B01J 8/0055 (2013.01); **B01J 8/1818** (2013.01); **B01J 8/1854** (2013.01); **B01J 8/28** (2013.01); **C07C 5/3332** (2013.01); **C07C 2523/745** (2013.01); **Y02P 20/582** (2015.11); **Y02P 20/584** (2015.11)

C-Set (source: EP)
C07C 5/3332 + **C07C 15/44**

Cited by
WO2009153382A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
WO 0144146 A1 20010621; AR 026963 A1 20030305; AU 2273401 A 20010625; BR 0016762 A 20020903; CA 2396486 A1 20010621; CN 1204095 C 20050601; CN 1409695 A 20030409; EG 22595 A 20030430; EP 1242344 A1 20020925; JP 2003517027 A 20030520; MX PA02005987 A 20040812; RU 2002119004 A 20040110; RU 2234491 C2 20040820; TR 200201581 T2 20021021; ZA 200204070 B 20030522

DOCDB simple family (application)
US 0034305 W 20001213; AR P000106651 A 20001214; AU 2273401 A 20001213; BR 0016762 A 20001213; CA 2396486 A 20001213; CN 00817126 A 20001213; EG 20001541 A 20001213; EP 00986507 A 20001213; JP 2001545236 A 20001213; MX PA02005987 A 20001213; RU 2002119004 A 20001213; TR 200201581 T 20001213; ZA 200204070 A 20020522