

Title (en)  
EXPANDING DEVICE FOR COMBINING A LIQUID SPECIES AND A PARTICULATE SOLID SPECIES

Title (de)  
EXPANSIONSVORRICHTUNG ZUM KOMBINIEREN EINER FLÜSSIGEN SPEZIES UND EINER TEILCHENFÖRMIGEN FESTEN SPEZIES

Title (fr)  
DISPOSITIF DE MISE EN CONTACT D'UNE ESPÈCE LIQUIDE ET D'UNE ESPÈCE SOLIDE PARTICULAIRE EN CROISSANCE

Publication  
**EP 2673076 B1 20150408 (FR)**

Application  
**EP 12708911 A 20120210**

Priority

- FR 1151139 A 20110211
- FR 2012050307 W 20120210

Abstract (en)  
[origin: WO2012107704A1] The invention relates to an expanding device for combining a liquid species and a particulate solid species, which includes a vessel 200 in which a stirrer 800 having paddles that rotate about a shaft 810 is arranged, the stirrer being optionally provided with a flow guide tube 210, wherein the vessel 200 also includes a static obstacle 830 that is generally centred around said shaft and aligned with the stirrer, characterised in that the static obstacle 830 has, in a plane passing through the shaft, an outer transverse dimension that increases as it moves away from the stirrer 800 parallel to said shaft 810, having a constant or increasing slope relative to said shaft.

IPC 8 full level  
**B01F 27/906** (2022.01); **B01F 27/91** (2022.01)

CPC (source: EP US)  
**B01F 23/53** (2022.01 - EP US); **B01F 23/59** (2022.01 - US); **B01F 27/15** (2022.01 - EP US); **B01F 27/86** (2022.01 - EP US); **B01F 27/91** (2022.01 - EP US); **B01F 2101/305** (2022.01 - EP US)

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 2012107704 A1 20120816**; AU 2012215227 A1 20130822; AU 2012215227 B2 20160929; CA 2822933 A1 20120816; CA 2822933 C 20191203; CN 103328086 A 20130925; CN 103328086 B 20160120; DK 2673076 T3 20150706; EP 2673076 A1 20131218; EP 2673076 B1 20150408; ES 2540053 T3 20150708; FR 2971436 A1 20120817; PL 2673076 T3 20150930; RU 2013141550 A 20150320; RU 2581325 C2 20160420; US 2014036618 A1 20140206

DOCDB simple family (application)  
**FR 2012050307 W 20120210**; AU 2012215227 A 20120210; CA 2822933 A 20120210; CN 201280005540 A 20120210; DK 12708911 T 20120210; EP 12708911 A 20120210; ES 12708911 T 20120210; FR 1151139 A 20110211; PL 12708911 T 20120210; RU 2013141550 A 20120210; US 201013984565 A 20100210