

Title (en)  
STATIC MIXING ELEMENT

Title (de)  
STATISCHES MISCHELEMENT

Title (fr)  
ÉLÉMENT DE MÉLANGE STATIQUE

Publication  
**EP 2158027 B2 20160427 (DE)**

Application  
**EP 08760786 A 20080610**

Priority  

- EP 2008057226 W 20080610
- EP 07110892 A 20070622
- EP 08760786 A 20080610

Abstract (en)  
[origin: WO2009000642A1] A static mixing element for installation into a hollow body (10) contains a multiplicity of ridge elements, wherein a first arrangement (21) comprising at least one first ridge element (3) is provided which is arranged crosswise with respect to a second arrangement (31) which contains at least one second ridge element (4). The first arrangement (21) and the second arrangement (31) enclose an angle not equal to 0° to the main direction of flow. The first arrangement encloses together with the second arrangement an angle greater than 0°. On projection of the first arrangement (21) and the second arrangement (31) onto a projection plane which is normal to the main flow direction, at least in part spaces are present between ridge elements which are adjacent to one another.

IPC 8 full level  
**B01F 23/47** (2022.01)

CPC (source: EP KR US)  
**B01F 23/47** (2022.01 - EP KR US); **B01F 25/40** (2022.01 - KR); **B01F 25/43161** (2022.01 - EP US); **B01F 2101/2805** (2022.01 - EP US)

Citation (opposition)  
Opponent :  

- DE 2328795 A1 19750102 - BAYER AG
- EP 0154013 A2 19850911 - SULZER AG [CH]
- EP 1123730 A2 20010816 - BAYER AG [DE]
- EP 0856353 A1 19980805 - SULZER CHEMTECH AG [CH]
- EP 0226879 A1 19870701 - SULZER AG [CH]
- US 6467949 B1 20021022 - REEDER MARK F [US], et al
- EP 0727249 A1 19960821 - SULZER CHEMTECH AG [CH]
- M. HENICHE ET AL.: "Numerical Investigation of Blade Shape in Static Mixing", AICHE JOURNAL, vol. 51, no. 1, January 2005 (2005-01-01), pages 44 - 58
- S. HIRSCHBERG ET AL.: "An improvement of the Suizer SMX static mixer significantly reducing the pressure drop", 13TH EUROPEAN CONFERENCE ON MIXING, 17 April 2009 (2009-04-17)

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EP4059979A1; WO2022195019A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2009000642 A1 20081231**; AT E532579 T1 20111115; AT E549079 T1 20120315; BR PI0813433 A2 20150818; BR PI0813433 B1 20181204; CA 2691049 A1 20081231; CA 2691049 C 20150519; CN 101743055 A 20100616; CN 101743055 B 20130327; CN 102861522 A 20130109; EP 2158027 A1 20100303; EP 2158027 B1 20111109; EP 2158027 B2 20160427; EP 2277620 A2 20110126; EP 2277620 A3 20110216; EP 2277620 B1 20120314; EP 2277620 B2 20150218; ES 2375592 T3 20120302; ES 2375592 T5 20160608; ES 2382230 T3 20120606; ES 2382230 T5 20150313; JP 2010530819 A 20100916; JP 2013212508 A 20131017; JP 5555622 B2 20140723; KR 101516331 B1 20150504; KR 20100022995 A 20100303; MX 2009013424 A 20100115; RU 2010101901 A 20110727; RU 2470702 C2 20121227; TW 200906480 A 20090216; TW I417135 B 20131201; US 2010202248 A1 20100812; US 8491180 B2 20130723

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**EP 2008057226 W 20080610**; AT 08760786 T 20080610; AT 10182884 T 20080610; BR PI0813433 A 20080610; CA 2691049 A 20080610; CN 200880021521 A 20080610; CN 201210253453 A 20080610; EP 08760786 A 20080610; EP 10182884 A 20080610; ES 08760786 T 20080610; ES 10182884 T 20080610; JP 2010512638 A 20080610; JP 2013145634 A 20130711; KR 20097026705 A 20080610; MX 2009013424 A 20080610; RU 2010101901 A 20080610; TW 97115097 A 20080424; US 45178208 A 20080610