

Title (en)  
METHOD FOR PRODUCING EMULSIONS

Title (de)  
VERFAHREN ZUM HERSTELLEN VON EMULSIONEN

Title (fr)  
PROCÉDÉ DE PRODUCTION D'ÉMULSIONS

Publication  
**EP 3408015 A1 20181205 (DE)**

Application  
**EP 17706142 A 20170125**

Priority  
• DE 102016101232 A 20160125  
• DE 2017100046 W 20170125

Abstract (en)  
[origin: WO2017129177A1] In order to provide a new method for producing emulsions, with which it is possible to achieve, with minimum energy input, oil droplets that are as homogeneous and as small as possible, it is proposed that at least two streams of immiscible liquids are pumped through separate openings of defined diameter in order to achieve flow velocities of greater than 10 m/s, and that the liquid streams meet at a collision point in a space, the resulting emulsion being discharged from the space through an outlet. By virtue of the kinetic energy, the collision of the liquid streams at high flow velocities, resulting in a disk-shaped collision plate forming at the collision point, create a homogeneous emulsion with an oil droplet size of less than 1 µm, which is accordingly also very stable. This requires no further energy input such as shear forces or high pressure.

IPC 8 full level  
**B01F 3/08** (2006.01); **B01F 3/20** (2006.01); **B01F 3/22** (2006.01); **B01F 5/02** (2006.01); **B01F 13/00** (2006.01); **B01F 23/70** (2022.01); **B01F 23/80** (2022.01)

CPC (source: EP KR US)  
**B01F 23/41** (2022.01 - EP KR US); **B01F 23/4105** (2022.01 - US); **B01F 23/413** (2022.01 - KR); **B01F 23/702** (2022.01 - EP KR US); **B01F 23/711** (2022.01 - EP KR US); **B01F 23/802** (2022.01 - EP KR US); **B01F 23/811** (2022.01 - EP KR US); **B01F 25/23** (2022.01 - EP KR US); **B01F 23/413** (2022.01 - EP US); **B01F 2215/0427** (2013.01 - EP KR US); **B01F 2215/0431** (2013.01 - EP KR US); **B01F 2215/0468** (2013.01 - EP KR US); **B01F 2215/0481** (2013.01 - EP KR US)

Citation (search report)  
See references of WO 2017129177A1

Cited by  
WO2020234448A1

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**DE 102016101232 A1 20170727**; CN 108495708 A 20180904; CN 108495708 B 20210730; DK 3408015 T3 20211101; EP 3408015 A1 20181205; EP 3408015 B1 20210811; ES 2893124 T3 20220208; JP 2019508233 A 20190328; JP 7031103 B2 20220308; KR 20180101573 A 20180912; US 2019030497 A1 20190131; WO 2017129177 A1 20170803

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**DE 102016101232 A 20160125**; CN 201780007945 A 20170125; DE 2017100046 W 20170125; DK 17706142 T 20170125; EP 17706142 A 20170125; ES 17706142 T 20170125; JP 2018538631 A 20170125; KR 20187024004 A 20170125; US 201716072208 A 20170125