

Title (en)

SOUND WAVE MIXING DEVICE BASED ON THREE-FREEDOM-DEGREE RESONANCE SYSTEM

Title (de)

SCHALLWELLENMISCHVORRICHTUNG BASIEREND AUF EINEM RESONANZSYSTEM MIT DREI FREIHEITSGRADEN

Title (fr)

DISPOSITIF DE MÉLANGE D'ONDES SONORES FAISANT APPEL À UN SYSTÈME DE RÉSONANCE À TROIS DEGRÉS DE LIBERTÉ

Publication

EP 3459619 A4 20190724 (EN)

Application

EP 17798628 A 20170428

Priority

- CN 201610320677 A 20160516
- CN 2017082590 W 20170428

Abstract (en)

[origin: EP3459619A1] A three-degree-of-freedom resonance system-based sonic mixing device includes a machine frame (1), a vibration excitation unit (2), a reaction unit (3) and a loading unit (4). The reaction unit (3) is positioned in the middle of the machine frame (1), and is connected with an upper plate (103) and lower plate (101) of the machine frame (1) through second springs (301). The vibration excitation unit (2) is positioned in the middle of the reaction unit (3), and is connected with an upper plate (302) and lower plate (304) of the reaction unit (3) through first springs (201). The loading unit (4) is positioned between the machine frame (1) and the reaction unit (3), and is connected with the machine frame (1) and the reaction unit (3) through third springs (403) and fourth springs (406), respectively. A mixing container (401) may be fixed on the loading unit (4) or on the reaction unit (3), or two mixing containers (401) are fixed on both the loading unit (4) and the reaction unit (3).

IPC 8 full level

B01F 11/00 (2006.01); **B06B 1/14** (2006.01)

CPC (source: CN EP)

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Citation (search report)

- [A] US 7188993 B1 20070313 - HOWE HAROLD W [US], et al
- [A] US 4619532 A 19861028 - SCHMIDT III JOHN W [US]
- [A] US 2012175489 A1 20120712 - TAYLOR RUSSELL B [US], et al
- [A] EP 1972296 A1 20080924 - RENFERT GMBH [DE]
- See references of WO 2017198065A1

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)

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DOCDB simple family (publication)

EP 3459619 A1 20190327; **EP 3459619 A4 20190724**; **EP 3459619 B1 20200603**; CN 106000198 A 20161012; CN 106000198 B 20180313; WO 2017198065 A1 20171123

DOCDB simple family (application)

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