

Title (en)

DEVICE FOR CLEANING A SUPPORT MEMBER COVERED WITH A LIQUID

Title (de)

VORRICHTUNG ZUM REINIGEN EINES MIT EINER FLÜSSIGKEIT BEDECKTEN TRÄGERELEMENTS

Title (fr)

DISPOSITIF POUR NETTOYER UN SUPPORT RECOUVERT D'UN LIQUIDE

Publication

**EP 4034312 A1 20220803 (FR)**

Application

**EP 20775644 A 20200924**

Priority

- FR 1910589 A 20190925
- EP 2020076758 W 20200924

Abstract (en)

[origin: WO2021058662A1] Device for cleaning a support member covered with a liquid Electroacoustic device (10) comprising: - a support member (50), - at least two wave transducers (15a-h) which are acoustically coupled to the support member and each configured to generate an ultrasonic surface wave (Wa-h) which propagates in the support member, the propagation directions (P) of the ultrasonic surface waves generated by the transducers being different; - a control unit (40), the device comprising an analysis unit (35) which is configured to estimate the orientation of the external force (OFe) which is applied to a liquid when the liquid is in contact with the support member and/or the device being configured to receive the estimate of the orientation of the external force, the control unit being configured to control at least one of the transducers, from the estimate of the orientation of the external force, so that the acoustic force which is applied to the liquid and produced by the interaction between the ultrasonic surface wave(s) and the liquid is orientated in a predetermined direction.

IPC 8 full level

**B08B 7/02** (2006.01); **B06B 1/02** (2006.01); **B06B 1/06** (2006.01); **B08B 17/02** (2006.01); **B60S 1/02** (2006.01); **B60S 1/56** (2006.01)

CPC (source: CN EP US)

**B06B 1/0622** (2013.01 - CN EP US); **B08B 7/026** (2013.01 - CN EP); **B08B 7/028** (2013.01 - CN EP US); **B08B 17/02** (2013.01 - EP US);  
**B60S 1/02** (2013.01 - CN US); **B60S 1/56** (2013.01 - CN US); **B60S 1/02** (2013.01 - EP); **B60S 1/56** (2013.01 - EP)

Citation (search report)

See references of WO 2021058662A1

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)

**FR 3100998 A1 20210326; FR 3100998 B1 20220603**; CN 114585452 A 20220603; CN 114585452 B 20231024; EP 4034312 A1 20220803;  
JP 2022550937 A 20221206; US 2022340103 A1 20221027; WO 2021058662 A1 20210401

DOCDB simple family (application)

**FR 1910589 A 20190925**; CN 202080067632 A 20200924; EP 2020076758 W 20200924; EP 20775644 A 20200924;  
JP 2022518882 A 20200924; US 202017763020 A 20200924