

Title (en)

SYSTEM AND METHOD FOR SUPPLYING GAS BUBBLES INTO FLUID

Title (de)

SYSTEM UND VERFAHREN ZUR ZUFÜHRUNG VON GASBLASEN IN FLÜSSIGKEIT

Title (fr)

SYSTÈME ET PROCÉDÉ DE FOURNITURE DE BULLES DE GAZ DANS UN FLUIDE

Publication

EP 4142483 A1 20230308 (EN)

Application

EP 21718834 A 20210409

Priority

- NO 20200509 A 20200430
- EP 2021059301 W 20210409

Abstract (en)

[origin: WO2021219345A1] The invention discloses a system (1) and a method for operating such system for supplying gas bubbles (500) into a fluid (300). The system comprises a longitudinal cylindrical fluid pipe (200) for the fluid (300) to pass therethrough, a turbulence inducing device (400) arranged within the longitudinal cylindrical fluid pipe (200) for generating a turbulent flow of the fluid (300) and a gas supplying device (100). The gas supply device comprises an outer surface (102) and an inner surface (104) enclosing a toroid shaped chamber (101), a gas inlet (106) configured to feed gas into the toroid shaped chamber (101) and a membrane (110) arranged at the inner surface (104), the membrane (110) being configured to allow gas to pass from the toroid shaped chamber (101) into the flow of fluid (300) as gas bubbles (500). The gas supplying device (100) is arranged upstream relative to the turbulence inducing device (400) such that the turbulent flow of fluid (300) passes a cross-sectional area (600) enclosed by the membrane (110) when passing the turbulence inducing device or immediately after exiting the turbulence inducing device (400).

IPC 8 full level

A01K 63/04 (2006.01)

CPC (source: EP NO)

A01K 63/04 (2013.01 - NO); **A01K 63/042** (2013.01 - EP NO); **B01F 23/20** (2022.01 - NO); **B01F 23/2131** (2022.01 - NO);
B01F 23/23 (2022.01 - NO); **B01F 23/231** (2022.01 - NO); **B01F 23/231264** (2022.01 - NO); **B01F 23/23363** (2022.01 - NO);
B01F 25/00 (2022.01 - NO); **C02F 7/00** (2013.01 - NO); **B01F 2025/916** (2022.01 - NO)

Citation (search report)

See references of WO 2021219345A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2021219345 A1 20211104; EP 4142483 A1 20230308; NO 345652 B1 20210531

DOCDB simple family (application)

EP 2021059301 W 20210409; EP 21718834 A 20210409; NO 20200509 A 20200430