

Title (en)

DEVICE AND METHOD FOR DISPERSING GASES INTO LIQUIDS

Title (de)

VORRICHTUNG UND VERFAHREN ZUM DISPERGIEREN VON GASEN IN FLÜSSIGKEITEN

Title (fr)

DISPOSITIF ET PROCÉDÉ DE DISPERSION DE GAZ DANS DES LIQUIDES

Publication

EP 4323094 A1 20240221 (DE)

Application

EP 22716355 A 20220317

Priority

- DE 102021001986 A 20210415
- EP 2022056976 W 20220317

Abstract (en)

[origin: WO202218636A1] A device according to the invention for dispersing a gas into a liquid comprises a liquid volume (2, 21, 43) and a nozzle (3, 22, 41) which is immersed in the liquid volume below a liquid level (42). The nozzle has a conical annular gap (7, 26), at the tip of which a nozzle opening (9, 28) is provided, and a liquid feed line (5, 24) opening tangentially into the conical annular gap. A gas feed line (10, 29, 49) for a gas to be dispersed into the liquid volume opens into the liquid feed line, into the annular gap or in the region of the nozzle opening. The nozzle causes a strong swirling movement in the liquid fed into the liquid volume, which allows good dispersion of the gas that has been introduced via the gas feed line.

IPC 8 full level

B01F 25/10 (2022.01); **B01F 23/232** (2022.01); **B01F 25/21** (2022.01); **B01F 25/53** (2022.01)

CPC (source: EP US)

B01F 23/23231 (2022.01 - EP US); **B01F 25/10** (2022.01 - EP); **B01F 25/21** (2022.01 - EP US); **B01F 25/53** (2022.01 - EP US)

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)

DE 102021001986 A1 20221020; BR 112023021147 A2 20231212; CN 117157137 A 20231201; EP 4323094 A1 20240221; US 2024198300 A1 20240620; WO 202218636 A1 20221020

DOCDB simple family (application)

DE 102021001986 A 20210415; BR 112023021147 A 20220317; CN 202280028777 A 20220317; EP 2022056976 W 20220317; EP 22716355 A 20220317; US 202218554561 A 20220317