

Title (en)

Flotation machine with dispenser nozzle and method for its operation

Title (de)

Flotationsmaschine mit einer Dispergierdüse, sowie Verfahren zu deren Betrieb

Title (fr)

Machine de flottaison avec une buse de dispersion et procédé de fonctionnement

Publication

EP 2572778 B1 20170308 (DE)

Application

EP 11182473 A 20110923

Priority

EP 11182473 A 20110923

Abstract (en)

[origin: EP2572778A1] The nozzle (1) has a tubular mixing arrangement (3) comprising an inlet zone for gas (7) and liquid (6) or suspension (6') and an outlet zone (1a) for a gas- or liquid mixture (8). The mixing arrangement is adjoined at a gas supply nozzle part (2), which is tapered in a direction of the mixing arrangement, and opens into the inlet zone. The mixing arrangement comprises an inlet opening (4) for the liquid in the inlet zone. A ratio of diameter of a gas outlet opening (2a) of the gas supply nozzle and internal diameter of the mixing arrangement in the inlet zone is in a range from 1:3 to 1:5. Independent claims are also included for the following: (1) a method for operating a dispersion nozzle (2) a flotation machine (3) a method for operating a floatation machine.

IPC 8 full level

B01F 5/04 (2006.01); **B03D 1/24** (2006.01)

CPC (source: EP RU US)

B01F 23/2323 (2022.01 - EP RU US); **B01F 25/31243** (2022.01 - EP RU US); **B03D 1/02** (2013.01 - RU US); **B03D 1/24** (2013.01 - RU); **B03D 1/242** (2013.01 - EP US)

Citation (examination)

- US 7597747 B1 20091006 - NAGEL CAROLE [US]
- ES 2291080 A1 20080216 - C G M VILLARCAYO S L [ES]

Cited by

CN103506227A; WO2015052056A1; WO2014188232A1

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

DOCDB simple family (publication)

EP 2572778 A1 20130327; EP 2572778 B1 20170308; BR 112014006878 A2 20170404; BR 112014006878 A8 20180403;
BR 112014006878 B1 20201006; CA 2849569 A1 20130328; CA 2849569 C 20190917; CL 2014000685 A1 20141010;
CN 103813851 A 20140521; CN 103813851 B 20160824; DK 2572778 T3 20170606; MX 2014003477 A 20140521; RU 2014116269 A 20151027;
RU 2603984 C2 20161210; US 2014209517 A1 20140731; WO 2013041343 A1 20130328

DOCDB simple family (application)

EP 11182473 A 20110923; BR 112014006878 A 20120830; CA 2849569 A 20120830; CL 2014000685 A 20140320;
CN 201280045454 A 20120830; DK 11182473 T 20110923; EP 2012066836 W 20120830; MX 2014003477 A 20120830;
RU 2014116269 A 20120830; US 201214346827 A 20120830