

Title (en)

Apparatus for enriching liquids with gas

Title (de)

Einrichtung zur Anreicherung flüssiger Medien mit Gas

Title (fr)

Appareil pour l'enrichissement des liquides avec gaz

Publication

EP 1685893 A1 20060802 (DE)

Application

EP 05077874 A 20051209

Priority

DE 102004059934 A 20041209

Abstract (en)

The assembly to enrich a fluid with gas, and especially aerate water with oxygen, has a gas supply with a pressure control and a treatment chamber (1) where the water flows through. At least one spray jet (2) is within the chamber opening in relation to the flow direction (r), and a gas feed (3). The oxygen is ripped out of the jet by the water flow, forming a mist at the jet. Fluid pressure controls are outside the chamber, to give an overpressure at the fluid inflow (5) and outflow (6), giving a higher pressure of at least 50 kPa at the inflow than at the outflow and at least 50 kPa lower than the pressure at least at one gas outflow opening (7) of the gas feed.

IPC 8 full level

B01F 3/04 (2006.01); **B01F 5/04** (2006.01); **B01F 11/02** (2006.01); **B01F 15/00** (2006.01)

CPC (source: EP US)

B01F 23/232 (2022.01 - EP US); **B01F 23/238** (2022.01 - EP); **B01F 25/313** (2022.01 - EP); **B01F 25/3132** (2022.01 - EP); **B01F 25/31322** (2022.01 - EP); **B01F 25/31334** (2022.01 - EP); **B01F 31/85** (2022.01 - EP); **B01F 35/213** (2022.01 - EP); **B01F 35/2132** (2022.01 - EP); **B01F 35/2213** (2022.01 - EP); **B01F 2215/0468** (2013.01 - EP)

Citation (search report)

- [XDAY] DE 10044697 A1 20020404 - HERRMANN FRANK [DE], et al
- [XY] EP 0226495 A1 19870624 - LIQUID AIR CANADA [CA]
- [XAY] DE 10227818 A1 20040108 - PAKDAMAN ABOLGHASSEM [DE]
- [XAY] US 6280615 B1 20010828 - PHILLIPS LAURENCE COLIN [AU], et al
- [Y] DE 3418548 A1 19851121 - SCHNEIDER NORBERT
- [Y] EP 0680779 A1 19951108 - BOC GROUP PLC [GB]
- [Y] DE 20305445 U1 20030731 - BIOLOG GMBH [DE]

Cited by

CN108249650A; CN108640219A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

DE 102004059934 A1 20060622; EP 1685893 A1 20060802

DOCDB simple family (application)

DE 102004059934 A 20041209; EP 05077874 A 20051209