

Title (en)

GAS INTRODUCING/RETAINING DEVICE, GAS INTRODUCING/RETAINING METHOD, AND GAS RELEASE HEAD

Title (de)

GASZUFUHR-/AUFNAHMEVORRICHTUNG, GASZUFUHR-/AUFNAHMEVERFAHREN UND GASFREISETZUNGSKOPF

Title (fr)

DISPOSITIF D'INTRODUCTION/RETENUE DE GAZ, PROCÉDÉ D'INTRODUCTION/RETENUE DE GAZ, ET TÊTE DE LIBÉRATION DE GAZ

Publication

**EP 3424588 A1 20190109 (EN)**

Application

**EP 16892499 A 20160301**

Priority

JP 2016056247 W 20160301

Abstract (en)

[Object] To provide a gas introducing/retaining device and a gas introducing/retaining method capable of increasing the amount of a gas dissolved in a liquid, and a gas discharge head used in the gas introducing/retaining device. [Solution] The present invention is provided with: a liquid storage tank 10 in which a liquid is stored; a gas discharge head 20 having a large number of micropores each having a pore size not larger than 2.5  $\mu\text{m}$ ; gas supply means 30 that supplies a gas to the gas discharge head 20; and oscillation application means 40 having an oscillator 41 that applies oscillation to the gas discharge head 20. The gas is discharged from the gas discharge head 20 while oscillation is continuously applied to the gas discharge head 20 immersed in the liquid. The oscillation applied to the gas discharge head 20 by the oscillator 41 is set to have a frequency not lower than 30 kHz and an amplitude not greater than 1 mm. The amount of the gas supplied to the gas discharge head 20 is adjusted so as to satisfy (the amount of the gas [ $\mu\text{m}^3/\text{min}$ ] discharged from one micropore of the gas discharge head 20)/(oscillation frequency [Hz] of the oscillator 41)  $\# \geq 300$ .

IPC 8 full level

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

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Cited by

CN113087108A; CN113182268A; CN110980915A; CN113172041A

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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