Title (en)

METHOD FOR DRIVING LIQUID DROPLET EJECTION HEAD

Title (de)

VERFAHREN ZUM ANTRIEB EINES FLÜSSIGKEITSTRÖPFCHENAUSSTOSSKOPFES

Title (fr)

PROCÉDÉ D'ENTRAÎNEMENT D'UNE TÊTE D'ÉJECTION DE GOUTTELETTES DE LIQUIDE

Publication

EP 3928988 A4 20220302 (EN)

Application

EP 19915807 A 20190222

Priority

JP 2019006839 W 20190222

Abstract (en)

[origin: EP3928988A1] Provided is a method for driving a liquid droplet ejection head including a nozzle for ejecting a liquid droplet, a pressure generation chamber capable of storing liquid therein and communicating with the nozzle, and a pressure application unit that changes an internal pressure by increasing or reducing a volume in the pressure generation chamber, the method including: a first step of increasing the volume of the pressure generation chamber by the pressure application unit for preferably preventing satellites (landing of liquid droplets separated from main droplets); a second step of reducing the volume of the pressure generation chamber by the pressure application unit and ejecting liquid in the pressure generation chamber from the nozzle after the first step; and a third step of increasing the volume of the pressure generation chamber by the pressure application unit after a lapse of 0.4 to 1.55 AL (AL is 1/2 of an acoustic resonance period of the pressure generation chamber) from the second step.

IPC 8 full level

B41J 2/045 (2006.01)

CPC (source: EP)

B41J 2/04516 (2013.01); **B41J 2/04581** (2013.01); **B41J 2/04588** (2013.01); **B41J 2/04595** (2013.01); B41J 2202/10 (2013.01)

Citation (search report)

- [XI] JP 2006188043 A 20060720 - KONICA MINOLTA HOLDINGS INC
- [X] JP 2006159817 A 20060622 - KONICA MINOLTA HOLDINGS INC

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

DOCDB simple family (publication)

EP 3928988 A1 20211229; **EP 3928988 A4 20220302**; **EP 3928988 B1 20230920**; CN 113453907 A 20210928; CN 113453907 B 20230221; JP 7188551 B2 20221213; JP WO2020170437 A1 20211216; WO 2020170437 A1 20200827

DOCDB simple family (application)

EP 19915807 A 20190222; CN 201980092223 A 20190222; JP 2019006839 W 20190222; JP 2021501266 A 20190222