

Title (en)

LIQUID DROPLET DISCHARGE HEAD AND PRINTER

Title (de)

FLÜSSIGKEITSTRÖPFCHENAUSSTOSSKOPF UND DRUCKER

Title (fr)

TÊTE D'ÉVACUATION DE GOUTTELETTES DE LIQUIDE ET IMPRIMANTE

Publication

**EP 3974187 B1 20231220 (EN)**

Application

**EP 21168426 A 20210414**

Priority

JP 2020159854 A 20200924

Abstract (en)

[origin: EP3974187A1] According to one embodiment, there is provided a liquid droplet discharge head including a pressure chamber, an actuator, and a drive circuit. The drive circuit is configured to apply a discharge pulse including an expansion pulse for expanding the volume in the pressure chamber and a contraction pulse for contracting the volume in the pressure chamber to the actuator when the liquid droplet is discharged, and to apply, to the actuator, a micro-vibration pulse that changes the volume of the pressure chamber to the extent that the liquid droplet is not discharged from the nozzle at a timing when the liquid droplet is not discharged. The micro-vibration pulse includes an expansion pulse portion and a contraction pulse portion. A central position of the expansion pulse portion in the micro-vibration pulse corresponds to a central position of the expansion pulse in the discharge pulse and a falling position of the contraction pulse portion in the micro-vibration pulse corresponds to a falling position.

IPC 8 full level

**B41J 2/045** (2006.01)

CPC (source: CN EP)

**B41J 2/045** (2013.01 - CN); **B41J 2/04581** (2013.01 - EP); **B41J 2/04588** (2013.01 - EP); **B41J 2/04595** (2013.01 - EP);  
**B41J 2/04596** (2013.01 - EP); **B41J 29/38** (2013.01 - CN); **B41J 2202/10** (2013.01 - EP)

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 3974187 A1 20220330; EP 3974187 B1 20231220;** CN 114248547 A 20220329; JP 2022053182 A 20220405; JP 7510830 B2 20240704

DOCDB simple family (application)

**EP 21168426 A 20210414;** CN 202110775037 A 20210708; JP 2020159854 A 20200924