

Title (en)

Microdroplets generator in particular for ink jet printers

Title (de)

Tropfenerzeuger für Mikrotropfen, insbesondere Düsenkopf für Tintendrucker

Title (fr)

Générateur de micro-gouttelettes en particulier pour imprimante à jet d'encre

Publication

EP 1285762 A3 20030402 (DE)

Application

EP 02010897 A 20020516

Priority

DE 10139397 A 20010810

Abstract (en)

[origin: EP1285762A2] Each opening (14) of liquid chamber (13) is surrounded by flange (15) which serves as lift limiter for bending finger of piezo bending actuator. Chamber (16) at opening connects to base plate in width of finger and in height. This provides large fluid inlet at liquid chamber and efficient fluid flow, which reduces pressure on surrounding walls and thereby prevents high pressure waves. Droplet generator has row of piezo bending actuators, below bending fingers of actuators is the liquid channel ending in liquid chamber (13). Each liquid chamber has nozzle (7). Liquid is supplied through opening, which is as large as possible, formed by space between bending finger and nozzle distances apart. Opening is surrounded by flange (15) located at area of greatest deflection of bending finger, so forming limit for finger. Chamber (16) connects to opening. Common fluid inlet is provided over the group of bending fingers. Liquid channel is connected to fluid feed, which runs orthogonal or vertical to the bending fingers. Independent claim for droplet forming device with gap cut to form fingers and gap cut of width corresponding to thickness of wall between chambers or to thickness of separating sections.

IPC 1-7

B41J 2/14

IPC 8 full level

B41J 2/045 (2006.01); **B41J 2/055** (2006.01); **B41J 2/14** (2006.01)

CPC (source: EP US)

B41J 2/14282 (2013.01 - EP US)

Citation (search report)

- [A] EP 0337429 A2 19891018 - SEIKO EPSON CORP [JP]
- [DA] EP 0713773 A2 19960529 - PELIKAN PRODUKTIONS AG [CH]
- [A] PATENT ABSTRACTS OF JAPAN vol. 014, no. 217 (M - 0970) 8 May 1990 (1990-05-08)
- [A] PATENT ABSTRACTS OF JAPAN vol. 014, no. 097 (M - 0940) 22 February 1990 (1990-02-22)

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