

Title (en)

Ink jet head for high speed printing and method for it's fabrication

Title (de)

Tintenstrahldruckkopf für das Hochgeschwindigkeitsdrucken und Verfahren zu dessen Herstellung

Title (fr)

Tête d'impression à jet d'encre pour impression à grande vitesse et procédé pour sa fabrication

Publication

EP 0713774 A2 19960529 (EN)

Application

EP 95108400 A 19950531

Priority

JP 29012394 A 19941124

Abstract (en)

The invention provides an ink jet head which exhibits a good response characteristic through heating and fast cooling enough to implement high-speed printing. A nozzle plate (10) having a nozzle orifice (11), and a substrate (7) constitute part of a peripheral wall of an ink chamber (31). A pressure generating member (20) is provided in the ink chamber (31). The pressure generating member (20) has a buckling member (1), a heater layer (3), and a diaphragm (5). The buckling member (1) is formed into a generally plate shape and its peripheral portion is attached to the substrate (7). The buckling member (1) can be switched between a no-displacement state in which it undergoes substantially no thermal stress, and a buckled state in which it is thermally expanded and buckled. The heater layer (3) is provided along a surface of the buckling member (1) on the substrate (7) side. The diaphragm (5) is composed of a generally plate-shaped flexible material and provided along a surface of the buckling member (1) on the nozzle plate (10) side in such a state that at least its peripheral portion (5c) is attached to a peripheral portion (1c) of the buckling member (1).
<IMAGE>

IPC 1-7

B41J 2/05; **B41J 29/377**; **B41J 29/16**

IPC 8 full level

B41J 2/045 (2006.01); **B41J 2/14** (2006.01); **B41J 2/16** (2006.01); **B41J 29/377** (2006.01)

CPC (source: EP)

B41J 2/14 (2013.01); **B41J 29/377** (2013.01); **B41J 2002/14346** (2013.01)

Citation (applicant)

JP H0230543 A 19900131 - SEIKO EPSON CORP

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Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0713774 A2 19960529; **EP 0713774 A3 19970402**; JP H08142323 A 19960604

DOCDB simple family (application)

EP 95108400 A 19950531; JP 29012394 A 19941124