

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 A3 19970402 (EN)

Application

EP 95108400 A 19950531

Priority

JP 29012394 A 19941124

Abstract (en)

[origin: EP0713774A2] 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

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Citation (search report)

- [E] EP 0665106 A2 19950802 - NEOPOST LTD [GB]
- [DXA] PATENT ABSTRACTS OF JAPAN vol. 014, no. 177 (M - 0960) 9 April 1990 (1990-04-09)

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