

Title (en)
THERMOELECTRIC INK JET PRINTHEAD

Publication
EP 0568163 A3 19931215 (DE)

Application
EP 93250036 A 19930128

Priority
DE 4214556 A 19920428

Abstract (en)
[origin: EP0568163A2] The invention relates to a thermoelectric ink jet print head in a layered construction, in which the dispersion direction of the thermoelectrically produced steam bubble is counter to the ink ejection direction. To improve the degree of efficiency and to reduce the mutual influencing of adjacent ink ducts, it is proposed to provide the side of the chip (11) facing the ink supply container (12) with a terminating plate (1). The terminating plate (1) has apertures (2), whose cross-sectional areas are varied depending on the design, at the intersections of the ink ducts (16) with the supply ducts (15). In a first design, glass or ceramic material bonded electrochemically onto the chip is provided for the terminating plate (1). In a second design, the terminating plate (1) consists of a plastic film which is laminated onto the chip (11) or is adhesive on both sides. In a third design, the terminating plate (1) consists of a metal foil which is bonded electrochemically onto the chip (11). <IMAGE>

IPC 1-7
B41J 2/05; **B41J 2/14**

IPC 8 full level
B41J 2/05 (2006.01); **B41J 2/14** (2006.01)

CPC (source: EP US)
B41J 2/14024 (2013.01 - EP US); **B41J 2/1433** (2013.01 - EP US); **B41J 2002/14387** (2013.01 - EP US)

Citation (search report)
• [YD] WO 9117891 A1 19911128 - MANNESMANN AG [DE]
• [X] US 4633274 A 19861230 - MATSUDA HIROTO [JP]
• [A] US 4403228 A 19830906 - MIURA MASAYOSHI [JP], et al
• [A] US 4675693 A 19870623 - YANO YASUHIRO [JP], et al
• [A] EP 0379781 A2 19900801 - CANON KK [JP]
• [Y] PATENT ABSTRACTS OF JAPAN vol. 11, no. 94 (M-574)(2541) 25. März 1987 & JP-A-61 246 064 (CANON INC) 1. November 1986
• [A] PATENT ABSTRACTS OF JAPAN vol. 10, no. 191 (M-495)(2247) 4. Juli 1986 & JP-A-61 035 956 (CANON KABUSHIKI KAISHA) 20. Februar 1986

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0568163 A2 19931103; **EP 0568163 A3 19931215**; **EP 0568163 B1 19960731**; DE 4214556 A1 19931104; DE 59303349 D1 19960905; JP H068435 A 19940118; US 5463411 A 19951031

DOCDB simple family (application)
EP 93250036 A 19930128; DE 4214556 A 19920428; DE 59303349 T 19930128; JP 12075493 A 19930423; US 5471593 A 19930428