

Publication

EP 0897802 A3 19990310

Application

EP 98120934 A 19941014

Priority

- EP 94929664 A 19941014
- JP 28037193 A 19931014
- JP 11131294 A 19940525

Abstract (en)

[origin: EP0897803A2] An ink-jet head is provided, comprising a base plate (11), a plurality of partitions (10) formed by laminating a plurality of plate-shaped piezoelectric material layers (1a - 1c) polarized in a direction of thickness with conductive material layers (2a - 2d) interposed among them, a cover (14), and a sealing member (22), wherein said plural partitions (10) are arranged with given gaps (20, 21, 29) interposed between them on said base plate (11) said gaps (20, 21, 29) being closed by said cover (14) at upper portions thereof and by said sealing member (22) at side portions thereof to form pressurizing chambers (15), and a nozzle hole (23) is formed at a portion of each of said pressurizing chambers (15), and said partitions (10) are laminated piezoelectric actuators each of which has a piezoelectric strain coefficient d_{33} and is deformed in the direction of thickness when voltage is applied thereto.

IPC 1-7

B41J 2/14; **B41J 2/16**

IPC 8 full level

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

CPC (source: EP)

B41J 2/14274 (2013.01); **B41J 2/1612** (2013.01); **B41J 2/1623** (2013.01); **B41J 2/1632** (2013.01); **B41J 2/1634** (2013.01); **B41J 2/1642** (2013.01); **B41J 2002/14387** (2013.01)

Citation (search report)

- [Y] EP 0372521 A2 19900613 - SEIKO EPSON CORP [JP]
- [Y] JP H0569544 A 19930323 - RICOH KK & US 5266965 A 19931130 - KOMAI HIROMICHI [JP], et al
- [A] EP 0402171 A2 19901212 - SHARP KK [JP]
- [A] EP 0443628 A2 19910828 - SEIKO EPSON CORP [JP]
- [A] US 4769654 A 19880906 - TANAKA YASUHIKO [JP], et al
- [Y] PATENT ABSTRACTS OF JAPAN vol. 016, no. 217 (M - 1252) 21 May 1992 (1992-05-21)
- [Y] PATENT ABSTRACTS OF JAPAN vol. 015, no. 235 (M - 1125) 17 June 1991 (1991-06-17) & US 5260723 A 19931109 - NARUSE OSAMU [JP], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 306 (M - 1276) 6 July 1992 (1992-07-06)
- [X] PATENT ABSTRACTS OF JAPAN vol. 016, no. 458 (M - 1315) 24 September 1992 (1992-09-24)
- [A] PATENT ABSTRACTS OF JAPAN vol. 015, no. 497 (M - 1192) 16 December 1991 (1991-12-16)
- [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 090 (M - 1218) 5 March 1992 (1992-03-05)
- [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 235 (M - 1257) 29 May 1992 (1992-05-29)

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

EP 0897803 A2 19990224; **EP 0897803 A3 19990310**; **EP 0897803 B1 20010725**; DE 69427837 D1 20010830; DE 69427837 T2 20020404; DE 69427926 D1 20010913; DE 69427926 T2 20011206; EP 0723866 A1 19960731; EP 0723866 A4 19970326; EP 0897802 A2 19990224; EP 0897802 A3 19990310; EP 0897802 B1 20010808; WO 9510416 A1 19950420

DOCDB simple family (application)

EP 98120935 A 19941014; DE 69427837 T 19941014; DE 69427926 T 19941014; EP 94929664 A 19941014; EP 98120934 A 19941014; JP 9401730 W 19941014