

Title (en)  
INK JET APPARATUS

Publication  
**EP 0057594 A3 19830406 (EN)**

Application  
**EP 82300479 A 19820129**

Priority  
US 22999281 A 19810130

Abstract (en)  
[origin: EP0057594A2] An elongated acoustic waveguide (20) couples a transducer (18) to an ink jet chamber (14) including an outlet orifice (16) through which droplets of ink are ejected. In one embodiment, the waveguide (20) is directly coupled to ink within the chamber (14). Arrays are formed utilizing such ink jet chambers (14) and waveguides (20). Because the transducers (18) are located separately from the ink jet chambers (14), the latter can be arranged in a very compact array.

IPC 1-7  
**B41J 3/04**

IPC 8 full level  
**B41J 2/045** (2006.01); **B41J 2/055** (2006.01); **B41J 2/14** (2006.01); **B41J 2/145** (2006.01)

CPC (source: EP)  
**B41J 2/055** (2013.01); **B41J 2/14274** (2013.01); **B41J 2/145** (2013.01)

Citation (search report)  
[X] IBM TECHNICAL DISCLOSURE BULLETIN, Vol. 18, No. 2, July 1975, New York. J.L. MITCHELL et al: "Ink on demand printing and copying employing combined ultrasonic and electrostatic control", pages 608, 609

Cited by  
US4536097A; EP0107467A3; US11553295B2; US11740018B2; US11727790B2; US11816267B2; US11704983B2; US11842517B2; US11550432B2; US11886639B2; US11550395B2; US11830351B2; US11714492B2; US12001610B2; US11531395B2; US11921928B2; US11742870B2; US11543507B2; US11624815B1; US11883847B2; US11715453B2; US11955109B2; US12002448B2; US11656686B2; US11768540B2

Designated contracting state (EPC)  
AT DE FR GB IT NL

DOCDB simple family (publication)  
**EP 0057594 A2 19820811; EP 0057594 A3 19830406; EP 0057594 B1 19850731**; AT E14543 T1 19850815; CA 1175359 A 19841002; DE 3264965 D1 19850905; JP H0221946 B2 19900516; JP S57146665 A 19820910

DOCDB simple family (application)  
**EP 82300479 A 19820129**; AT 82300479 T 19820129; CA 390482 A 19811119; DE 3264965 T 19820129; JP 1258082 A 19820130