

Title (en)

ACOUSTIC MICROSTREAMING IN AN INK JET APPARATUS

Publication

**EP 0307160 B1 19930428 (EN)**

Application

**EP 88308220 A 19880906**

Priority

US 9636387 A 19870911

Abstract (en)

[origin: EP0307160A2] An ink jet apparatus having a scanning head employing at least one ink jet with a variable volume chamber which includes an ink droplet ejecting orifice, and a transducer, having a length mode resonant frequency, adapted to expand and contract along an axis of elongation in response to an electric field substantially transverse to the axis of elongation for ejection of droplets on demand from the ink droplet ejecting orifice is acoustically microstreamed by exciting the transducers during non-printing periods to eliminate start-up problems and to maintain pigments or other particles in dispersion within the ink.

IPC 1-7

**B41J 2/17**

IPC 8 full level

**B41J 2/02** (2006.01); **B41J 2/045** (2006.01); **B41J 2/055** (2006.01); **B41J 2/165** (2006.01); **B41J 2/175** (2006.01)

CPC (source: EP)

**B41J 2/16526** (2013.01)

Cited by

US6062682A; EP0573238A3; EP0829361A3; US2016039207A1; US10611155B2; US6491378B2; US6474784B1; WO9965685A3; WO0034046A1; US10864737B2

Designated contracting state (EPC)

CH DE FR GB IT LI NL

DOCDB simple family (publication)

**EP 0307160 A2 19890315**; **EP 0307160 A3 19900110**; **EP 0307160 B1 19930428**; DE 3880598 D1 19930603; DE 3880598 T2 19931223; HK 94693 A 19930917; JP 2848613 B2 19990120; JP H01157861 A 19890621

DOCDB simple family (application)

**EP 88308220 A 19880906**; DE 3880598 T 19880906; HK 94693 A 19930909; JP 22827988 A 19880912