

Title (en)

MICROINJECTOR HAVING DRIVE CIRCUIT AND METHOD FOR MAKING THE SAME

Title (de)

MIKROINJEKTIONSVORRICHTUNG MIT STEUERSCHALTUNG UND VERFAHREN ZUR HERSTELLUNG DERSELBEN

Title (fr)

MICRO-INJECTEUR AYANT UN CIRCUIT D'ENTRAÎNEMENT ET SON PROCÉDE DE FABRICATION

Publication

EP 1375149 A1 20040102 (EN)

Application

EP 01983414 A 20010820

Priority

- CN 0101230 W 20010820
- CN 01112357 A 20010403

Abstract (en)

The present invention discloses a microinjector having drive circuit and method for making the same. The microinjector utilizes bubble as virtual valve to eject fluid medium, including manifold, multiple fluid chambers, multiple pairs of the first bubble generating member and the second bubble generating member, multiple nozzles and drive circuit, wherein, the drive circuit controls multiple pairs of the first bubble generating member and the second bubble generating member simultaneously to eject the fluid which in the corresponding fluid chamber from the corresponding nozzle, thereby attaining the effect for ejecting fluid; in addition, due to integrating the drive circuit with the bubble generating members in the same substrate, not only reduced the number of making steps, but also obtained the structure of less number of circuit unit and interconnecting lines.

<IMAGE>

IPC 1-7

B41J 2/135; B41J 2/16

IPC 8 full level

B41J 2/14 (2006.01)

CPC (source: EP)

B41J 2/14129 (2013.01); **B41J 2/1601** (2013.01); **B41J 2/1629** (2013.01); **B41J 2/1631** (2013.01); **B41J 2/1639** (2013.01); **B41J 2002/1437** (2013.01); **B41J 2202/13** (2013.01)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1375149 A1 20040102; EP 1375149 A4 20050504; EP 1375149 B1 20071003; AT E374693 T1 20071015; CN 1165428 C 20040908; CN 1377734 A 20021106; DE 60130806 D1 20071115; DE 60130806 T2 20080703; WO 02081224 A1 20021017

DOCDB simple family (application)

EP 01983414 A 20010820; AT 01983414 T 20010820; CN 0101230 W 20010820; CN 01112357 A 20010403; DE 60130806 T 20010820