

Title (en)

Method for ejecting an electrically conductive liquid and continuous ink jet printing device using this method

Title (de)

Verfahren zum Ausstossen einer elektrisch leitenden Flüssigkeit und kontinuierliche Tintenstrahldruckvorrichtung für ein solches Verfahren

Title (fr)

Procédé de projection d'un liquide électriquement conducteur et dispositif d'impression par jet d'encre continu utilisant ce procédé

Publication

**EP 0949077 B1 20030917 (FR)**

Application

**EP 99400831 A 19990406**

Priority

FR 9804561 A 19980410

Abstract (en)

[origin: EP0949077A1] The method involves spraying a continuous jet of liquid (14) at a given speed ( $V_j$ ), cause the jet to split at two distinct predetermined break points (C,L) so as to form drops (22,24) of liquid at a given emission frequency, and apply to these drops quantities of a different electrical charges, according to their break points. The same electrical field is applied onto the drops, so as to deviate only those drops (24) formed at a first (L) of the break points. The jet acted upon so that the two break points are separated by a distance  $\Delta D$  strictly less than the wavelength  $\lambda$  of the jet, defined by the relation  $\lambda = V_j / F$ . The same quantity of charge is applied on all the drops formed in a zone centered on the second break point (C) of length sensibly equal to  $\lambda / 4$ . An Independent claim is also included for an ink jet printer using the method described.

IPC 1-7

**B41J 2/105**

IPC 8 full level

**B41J 2/105** (2006.01)

CPC (source: EP US)

**B41J 2/105** (2013.01 - EP US)

Cited by

FR2938207A1; FR2851495A1; CN105015166A; EP1092542A1; FR2799688A1; US8104879B2; US7192121B2; US8955948B2; US8162450B2; WO2005070676A3; WO2010055035A1; FR2890596A1; WO2007031500A1; US7712879B2

Designated contracting state (EPC)

DE ES GB IT

DOCDB simple family (publication)

**EP 0949077 A1 19991013; EP 0949077 B1 20030917**; DE 69911289 D1 20031023; DE 69911289 T2 20040617; ES 2207918 T3 20040601; FR 2777211 A1 19991015; FR 2777211 B1 20000616; US 6273559 B1 20010814

DOCDB simple family (application)

**EP 99400831 A 19990406**; DE 69911289 T 19990406; ES 99400831 T 19990406; FR 9804561 A 19980410; US 28315399 A 19990401