

Publication

**EP 0709198 A3 19960605**

Application

**EP 95307489 A 19951020**

Priority

US 33096294 A 19941028

Abstract (en)

[origin: EP0709198A2] A continuous ink jet system includes a linear array of orifices fluidically connected to a fluid supply and pressurization means (18) to produce a linear array of jets, means for stimulating the jets for regular break-up of the jet into a plurality of uniform streams of drops (16), charging means consisting of a linear array of planar conducting elements (12) disposed along the path of motion of the jets, one for each jet, such that placing a preselected voltage on one of the plurality of conducting elements (12) causes an electrostatic charge to be induced on the corresponding jet, the electrostatic charge and the placement of the electrode being such that a charge drop receives a force impulse from the presence of the conducting elements (12), catcher means (22) disposed to catch selected drops with predetermined charge from the charging system, return fluidic means disposed so that drops intercepted by the catcher (22) can be returned through the fluidic system for eventual re-use in forming the jets, means for moving a substrate (30) beneath the catcher (22) means so that drops not intercepted by the catcher means (22) are allowed to impact the substrate (30) to cause printing. The invention provides the improvement of reversing the polarity of the charging means so as to create drops with positive charge.

IPC 1-7

**B41J 2/035**; **B41J 2/06**

IPC 8 full level

**B41J 2/06** (2006.01); **B41J 2/085** (2006.01)

CPC (source: EP)

**B41J 2/085** (2013.01)

Citation (search report)

- [A] US 4490729 A 19841225 - CLARK FREDERIC L [US], et al
- [DA] US 4255754 A 19810310 - CREAN PETER A, et al
- [DA] US 4751517 A 19880614 - CREAN PETER A [US], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 5, no. 172 (M - 095) 31 October 1981 (1981-10-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 15, no. 422 (M - 1173) 25 October 1991 (1991-10-25)

Cited by

EP0780230A3; US9016836B2; US9016837B2; EP1074387A2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 0709198 A2 19960501**; **EP 0709198 A3 19960605**; **EP 0709198 B1 19990811**; CA 2161471 A1 19960429; DE 69511355 D1 19990916; DE 69511355 T2 19991125; JP H08207288 A 19960813

DOCDB simple family (application)

**EP 95307489 A 19951020**; CA 2161471 A 19951026; DE 69511355 T 19951020; JP 28211095 A 19951030