

Title (en)

Electrostatic ink jet recording head

Title (de)

Elektrostatistischer Tintenstrahldruckkopf

Title (fr)

Tête d'impression électrostatique à jet d'encre

Publication

EP 0780229 A1 19970625 (EN)

Application

EP 96120204 A 19961216

Priority

JP 32884595 A 19951218

Abstract (en)

An electrostatic ink jet recording head has an ejection electrode (4) which enables a printing of an excellent quality and a high accuracy. The recording head has a head body (100) defining an ink chamber (1) for receiving liquid ink containing charged toner particles. A set of electrodes including an electrophoretic electrode (5a, 5B), a plurality of ejection electrodes (4) and an opposing electrode (6) are provided for ejecting the toner particles substantially without an insulating solvent. The ejection electrode (4) has a tip of a sharp edge protruding from the ejection opening (2) of the ink chamber (1). The ejection electrode (4) has a capillary slit (17) for introducing the ink toner therethrough and for forming an excellent meniscus by a capillary action. <IMAGE>

IPC 1-7

B41J 2/06

IPC 8 full level

B41J 2/06 (2006.01); **B41J 2/385** (2006.01)

CPC (source: EP)

B41J 2/06 (2013.01); **B41J 2002/061** (2013.01)

Citation (search report)

- [A] US 4396925 A 19830802 - KOHASHI TADAO [JP]
- [A] WO 9311866 A1 19930624 - AUSTRALIA RES LAB [AU]
- [A] US 4768044 A 19880830 - SHIMOSATO MASASHI [JP], et al
- [A] US 4806956 A 19890221 - NISHIKAWA HISASHI [JP], et al
- [X] PATENT ABSTRACTS OF JAPAN vol. 010, no. 218 (M - 503) 30 July 1986 (1986-07-30)

Cited by

EP1854631A3; US8469492B2; EP1854631A2; US7794054B2; KR101316751B1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0780229 A1 19970625; JP 2783230 B2 19980806; JP H09164688 A 19970624

DOCDB simple family (application)

EP 96120204 A 19961216; JP 32884595 A 19951218