

Title (en)
Electron source comprising emissive cathodes with microtips

Title (de)
Elektronenquelle mit Mikrospitzenemissionskathoden

Title (fr)
Source d'électrons à cathodes émissives à micropointes

Publication
EP 0671755 B1 19970709 (FR)

Application
EP 95400494 A 19950307

Priority
FR 9402709 A 19940309

Abstract (en)
[origin: EP0671755A1] The electron source includes a number of conductor elements (3a) inserted in network of cathode conductors (3). Each element consists of a slab placed under a resistive layer (9) and in contact with a silica layer (6). A group of microtips (19), corresponding to a cell in the network, is placed on top of this structure. The slabs are obtained during the photolithography operation which generates the cathode conductors and using the same mask and metallic layer. The use of the slabs generates the same electrical resistivity (r_3+r_4) under each microtip this resulting in a uniform emission of electrons.

IPC 1-7
H01J 1/30; **H01J 3/02**

IPC 8 full level
H01J 1/30 (2006.01); **H01J 1/304** (2006.01); **H01J 3/02** (2006.01); **H01J 31/12** (2006.01)

CPC (source: EP US)
H01J 1/3042 (2013.01 - EP US); **H01J 3/022** (2013.01 - EP US); **H01J 2201/319** (2013.01 - EP US)

Cited by
FR2739223A1; FR2828956A1; FR2764435A1; EP0713236A1; FR2763173A1

Designated contracting state (EPC)
DE GB IT

DOCDB simple family (publication)
EP 0671755 A1 19950913; **EP 0671755 B1 19970709**; DE 69500403 D1 19970814; DE 69500403 T2 19980122; FR 2717304 A1 19950915; FR 2717304 B1 19960405; JP H0831347 A 19960202; US 6043592 A 20000328

DOCDB simple family (application)
EP 95400494 A 19950307; DE 69500403 T 19950307; FR 9402709 A 19940309; JP 5000795 A 19950309; US 40113495 A 19950308