

Title (en)
Micropoint cathode electron source.

Title (de)
Elektronenquelle mit Mikropunktkathoden.

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

Publication
EP 0461990 B1 19941019 (FR)

Application
EP 91401536 A 19910611

Priority
FR 9007347 A 19900613

Abstract (en)
[origin: JPH04229922A] PURPOSE: To prevent an electric breakdown without increasing the thickness of a resistance coating material in an electron emission source which has a microdot discharge cathode. CONSTITUTION: Since a lattice-like negative electrode is used so that the negative electrode and the related resistance coating material may be arranged in almost the same surface, a breakdown resistance does not depend on the thickness of a resistance coating material 7, but depends on the distance between a cathode conductor 5 and microdots 12. Therefore, an adequate distance is kept between the cathode conductor 5 and microdots 12 to prevent the resistance breakdown, and, meanwhile, the resistance coating material 7 keeps a uniformity effect of an electron emission.

IPC 1-7
H01J 1/30

IPC 8 full level
H01J 1/30 (2006.01); H01J 1/304 (2006.01)

CPC (source: EP KR US)
H01J 1/3042 (2013.01 - EP US); H01L 29/40 (2013.01 - KR); H01J 2201/319 (2013.01 - EP US)

Cited by
EP0696042A1; FR2713394A1; EP0836214A3; US5717285A; FR2731108A1; FR2750533A1; US5894187A; FR2722913A1; EP0758485A4; EP0616356A1; FR2702869A1; EP0558393A1; FR2687839A1; US5534744A; EP0671755A1; FR2717304A1; US6043592A; EP0697710A1; FR2723799A1; US5676818A; EP0668603A1; EP0757341A1; US5847504A; EP0713236A1; EP0634769A1; FR2707795A1; US5482486A; EP0712147A1; WO9613848A1

Designated contracting state (EPC)
CH DE GB IT LI NL SE

DOCDB simple family (publication)
EP 0461990 A1 19911218; EP 0461990 B1 19941019; DE 69104653 D1 19941124; DE 69104653 T2 19950504; FI 912802 A0 19910611; FI 912802 A 19911214; FR 2663462 A1 19911220; FR 2663462 B1 19920911; JP 2657984 B2 19970930; JP H04229922 A 19920819; KR 100204327 B1 19990701; KR 920001744 A 19920130; US 5194780 A 19930316

DOCDB simple family (application)
EP 91401536 A 19910611; DE 69104653 T 19910611; FI 912802 A 19910611; FR 9007347 A 19900613; JP 13895991 A 19910611; KR 910009509 A 19910610; US 70368491 A 19910531