

Title (en)

Semiconductor device for generating an electron current.

Title (de)

Halbleiteranordnung zum Erzeugen eines Elektronenstromes.

Title (fr)

Dispositif semiconducteur pour engendrer un courant d'électrons.

Publication

**EP 0404246 A1 19901227 (EN)**

Application

**EP 90201575 A 19900618**

Priority

NL 8901590 A 19890623

Abstract (en)

The efficiency of semiconductor cathodes based on avalanche breakdown is enhanced by using " delta -doping" structures. The quantisation effects introduced thereby decrease the effective work function.

IPC 1-7

**H01J 1/30**; **H01L 29/66**

IPC 8 full level

**H01J 1/30** (2006.01); **H01J 1/308** (2006.01); **H01J 29/04** (2006.01)

CPC (source: EP)

**H01J 1/308** (2013.01)

Citation (search report)

- [A] EP 0241956 A1 19871021 - PHILIPS NV [NL]
- [A] EP 0257460 A2 19880302 - CANON KK [JP]

Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

**EP 0404246 A1 19901227**; **EP 0404246 B1 19940601**; DE 69009303 D1 19940707; DE 69009303 T2 19941208; JP H0330230 A 19910208; NL 8901590 A 19910116

DOCDB simple family (application)

**EP 90201575 A 19900618**; DE 69009303 T 19900618; JP 16002990 A 19900620; NL 8901590 A 19890623