

Title (en)

Electron emitter, drive circuit of electron emitter and method of driving electron emitter

Title (de)

Elektronen-Emitter, Ansteuerkreis für Elektronen-Emitter und Verfahren zur Ansteuerung von Elektronen-Emitter

Title (fr)

Emetteur électronique, circuit de commande pour un émetteur électronique et procédé pour commander un émetteur électronique

Publication

**EP 1376641 A3 20061025 (EN)**

Application

**EP 03253962 A 20030624**

Priority

- JP 2002183481 A 20020624
- JP 2002289127 A 20021001
- JP 2003154412 A 20030530

Abstract (en)

[origin: EP1376641A2] An electron emitter (10A) has an emitter section (14) formed on a substrate (12), a cathode electrode (16) formed on one surface of the emitter section (14), and an anode electrode (20) formed on the same one surface of the emitter section (14) and cooperating with the cathode electrode (16) in providing a slit (18). A pulse generation source (22) applies a drive voltage (Va) between the cathode electrode (16) and the anode electrode (20). The anode electrode (20) is connected to GND (ground). The slit (18) has a width (d) in the range from 0.1  $\mu\text{m}$  to 50  $\mu\text{m}$ .

IPC 8 full level

**H01J 1/30** (2006.01); **H01J 1/312** (2006.01); **G09G 3/20** (2006.01); **G09G 3/22** (2006.01); **H01J 1/304** (2006.01); **H01J 1/316** (2006.01); **H01J 29/04** (2006.01); **H01J 31/12** (2006.01)

CPC (source: EP)

**G09G 3/22** (2013.01); **H01J 1/30** (2013.01); **H01J 1/316** (2013.01); **G09G 3/2011** (2013.01); **G09G 2300/0439** (2013.01); **G09G 2310/06** (2013.01); **G09G 2320/043** (2013.01); **G09G 2330/04** (2013.01); **H01J 2201/32** (2013.01); **H01J 2329/00** (2013.01)

Citation (search report)

- [PX] EP 1265263 A1 20021211 - NGK INSULATORS LTD [JP]
- [XY] US 5453661 A 19950926 - AUCIELLO ORLANDO H [US], et al
- [X] EP 0628982 A2 19941214 - CANON KK [JP]
- [Y] FR 2789223 A1 20000804 - UNIV NANTES [FR]
- [Y] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 12 29 October 1999 (1999-10-29)
- [A] PATENT ABSTRACTS OF JAPAN vol. 2002, no. 08 5 August 2002 (2002-08-05)
- [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 348 (E - 799) 4 August 1989 (1989-08-04) & US 6479924 B1 20021112 - YOO IN-KYEONG [KR]

Cited by

CN102428650A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

Designated extension state (EPC)

AL LT LV MK

DOCDB simple family (publication)

**EP 1376641 A2 20040102**; **EP 1376641 A3 20061025**; JP 2004179143 A 20040624; JP 3829127 B2 20061004

DOCDB simple family (application)

**EP 03253962 A 20030624**; JP 2003154412 A 20030530