

Title (en)
THERMIONIC EMISSION DEVICE

Title (de)
THERMIONISCHE EMISSIONSVORRICHTUNG

Title (fr)
DISPOSITIF D'ÉMISSION THERMIONIQUE

Publication
EP 3518266 A1 20190731 (DE)

Application
EP 18154147 A 20180130

Priority
EP 18154147 A 20180130

Abstract (en)
[origin: WO2019149482A1] The invention relates to an emission device comprising - an emitter (1) which comprises a structured main emission surface (11) and which can be switched to a main potential (U1), and - a connectable field effect electron emitter (2) which comprises a structured heat emission surface (21) and which can be switched to a heat potential (U2) that differs from the main potential (U1), wherein - the heat emission surface (21) comprises a specifiable number of individually controllable field effect emitter segments (22). Such an emission device has a longer service life while maintaining a constant image quality.

Abstract (de)
Die Erfindung betrifft eine thermionische Emissionsvorrichtung, umfassend- einen Flachemitter (1) mit einer Hauptemissionsfläche (11), der an ein Hauptpotential (U) schaltbar ist, und- einen zuschaltbaren Feldeffekt-Elektronenemitter (2) mit einer Heizemissionsfläche (21), die an ein Heizpotential (U) schaltbar ist, das unterschiedlich zum Hauptpotential (U) ist. Eine derartige thermionische Emissionsvorrichtung besitzt eine längere Lebensdauer bei gleichbleibender Bildqualität.

IPC 8 full level
H01J 35/06 (2006.01); **H01J 1/20** (2006.01); **H01J 1/22** (2006.01)

CPC (source: EP)
H01J 1/20 (2013.01); **H01J 1/22** (2013.01); **H01J 35/06** (2013.01); **H01J 2235/068** (2013.01)

Citation (applicant)

- DE 102009005454 B4 20110217 - SIEMENS AG [DE]
- EP 0349387 B1 19911127
- US 8000449 B2 20110816 - HAUTTMANN STEFAN [DE], et al
- US 7903788 B2 20110308 - MOORE PAUL D [US], et al
- DE 102006018633 A1 20071025 - SIEMENS AG [DE]
- US 7795792 B2 20100914 - ARNOLD JAMES T [US], et al
- WO 2013080074 A1 20130606 - KONINKL PHILIPS ELECTRONICS NV [NL], et al
- US 6556656 B2 20030429 - HESS ROBERT [DE], et al
- US 7835501 B2 20101116 - HAUTTMANN STEFAN [DE], et al
- DE 19513290 C1 19960725 - SIEMENS AG [DE]
- US 5703924 A 19971230 - HELL ERICH [DE], et al
- DE 19727606 A1 19990107 - PHILIPS PATENTVERWALTUNG [DE]

Citation (search report)

- [X] US 2001019601 A1 20010906 - TKAHASHI SADAYUKI [JP], et al
- [X] US 4115720 A 19780919 - LEVINE JULES DAVID
- [X] US 2011116593 A1 20110519 - ZOU YUN [US], et al
- [X] JP H07161303 A 19950623 - MITSUBISHI ELECTRIC CORP
- [A] US 2015078511 A1 20150319 - TANG CHUANXIANG [CN], et al

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3518266 A1 20190731; WO 2019149482 A1 20190808

DOCDB simple family (application)
EP 18154147 A 20180130; EP 2019050387 W 20190109