

Title (en)
ELECTRON-EMITTING DEVICE

Title (de)
ELEKTRONEN-EMISSIONSVORRICHTUNG

Title (fr)
DISPOSITIF D'ÉMISSION D'ÉLECTRONS

Publication
EP 3531437 A1 20190828 (DE)

Application
EP 18158898 A 20180227

Priority
EP 18158898 A 20180227

Abstract (en)
[origin: WO2019166161A1] The invention relates to an electron-emission device, comprising at least one electron emitter (2) having at least one emission surface (3) and at least one barrier grid (5), which is spaced apart from the emission surface (3) of the electron emitter (2) and has a predefinable number of individually controllable grid segments (G1 – G7, GN). According to the invention, a respective at least one individually predefinable grid voltage can be applied at each of the grid segments (G1 – G7, GN). An electron-emission device of this type permits a simple adjustment of the image quality with minimal anode load.

Abstract (de)
Die Erfindung betrifft eine Elektronen-Emissionsvorrichtung, umfassend wenigstens einen Elektronen-Emitter (2) mit wenigstens einer Emissionsfläche (3) und wenigstens ein Sperrgitter (5), das zur Emissionsfläche (3) des Elektronen-Emitters (2) beabstandet ist und eine vorgebbare Anzahl von einzeln ansteuerbaren Gittersegmenten (G- G, G) aufweist. Eine derartige Elektronen-Emissionsvorrichtung erlaubt auf einfache Weise eine Anpassung der Bildqualität bei geringstmöglicher Anodenbelastung.

IPC 8 full level
H01J 1/46 (2006.01); **H01J 35/04** (2006.01); **H01J 35/14** (2006.01); **H01J 35/24** (2006.01); **H05G 1/08** (2006.01)

CPC (source: EP US)
H01J 1/46 (2013.01 - EP); **H01J 35/045** (2013.01 - EP US); **H01J 35/064** (2019.04 - US); **H01J 35/065** (2013.01 - US); **H01J 35/14** (2013.01 - EP US); **H01J 2235/062** (2013.01 - EP US)

Citation (applicant)
• US 8374315 B2 20130212 - FREUDENBERGER JOERG [DE]
• US 7835501 B2 20101116 - HAUTTMANN STEFAN [DE], et al
• DE 102012209089 A1 20131205 - SIEMENS AG [DE]
• US 8054944 B2 20111108 - FREUDENBERGER JOERG [DE], et al
• US 7817777 B2 20101019 - BAUMANN JOACHIM [DE], et al
• US 7751528 B2 20100706 - ZHOU OTTO Z [US], et al
• DE 19727606 A1 19990107 - PHILIPS PATENTVERWALTUNG [DE]
• V. BOGDAN NECULAES ET AL.: "Multisource inverse-geometry CT. Part II. X-ray source design and prototype", MEDICAL PHYSICS, vol. 43, no. 8, August 2016 (2016-08-01), pages 4617 - 4627, XP012209408, DOI: doi:10.1118/1.4954847

Citation (search report)
• [X] DE 4100297 A1 19920709 - PHILIPS PATENTVERWALTUNG [DE]
• [X] US 5857883 A 19990112 - KNICKERBOCKER JOHN U [US], et al
• [A] DE 102010043540 A1 20120315 - SIEMENS AG [DE]

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 3531437 A1 20190828; EP 3732702 A1 20201104; US 11373835 B2 20220628; US 2021082653 A1 20210318; WO 2019166161 A1 20190906

DOCDB simple family (application)
EP 18158898 A 20180227; EP 19704225 A 20190125; EP 2019051860 W 20190125; US 201916971018 A 20190125