

Title (en)

ANGLED FLAT EMITTER FOR HIGH POWER CATHODE WITH ELECTROSTATIC EMISSION CONTROL

Title (de)

ABGEWINKELTER FLACHER EMITTER FÜR HOCHLEISTUNGSKATHODE MIT ELEKTROSTATISCHER EMISSIONSKONTROLLE

Title (fr)

ÉMETTEUR PLAT ANGULAIRE POUR CATHODE DE GRANDE PUISSANCE AVEC COMMANDE D'ÉMISSION ÉLECTROSTATIQUE

Publication

EP 3226277 A1 20171004 (EN)

Application

EP 17162807 A 20170324

Priority

- US 201615086257 A 20160331
- US 201662425903 P 20161123

Abstract (en)

In the present invention, a computed tomography system (10), an X-ray tube (50) used therein and a cathode assembly (52) disposed in the X-ray tube (50), as well as an associated method of use, is provided that includes a gantry (12) and the X-ray tube (50) coupled to the gantry (12). The X-ray tube (50) includes the cathode assembly (52) having a pair of emission surfaces (100', 102') for generating an electron beam (164), where the pair of emission surfaces (100', 102') are disposed in the cathode assembly (52) at angles with respect to one another. The X-ray tube (50) further includes a focusing electrode (70) for focusing the electron beam (164), an extraction electrode (74) which electrostatically controls the intensity of the electron beam (164) by adjustment of a positive or negative biasing voltage applied to the extraction electrode (74), a target for generating X-rays (84) when impinged upon by the electron beam (164) and a magnetic focusing assembly (80) located between the cathode assembly (52) and the target (56) for focusing the electron beam (164) towards the target (56).

IPC 8 full level

H01J 35/06 (2006.01); **H01J 35/14** (2006.01)

CPC (source: EP)

H01J 35/06 (2013.01); **H01J 35/14** (2013.01); **H01J 2235/068** (2013.01)

Citation (applicant)

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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 3226277 A1 20171004

DOCDB simple family (application)

EP 17162807 A 20170324