

Title (en)

X-RAY TUBE WITH AN ANODE ISOLATION ELEMENT FOR LIQUID COOLING AND A RECEPTACLE FOR A HIGH-VOLTAGE PLUG

Title (de)

RÖNTGENRÖHRE MIT ANODENISOLATIONSELEMENT ZUR FLÜSSIGKEITSKÜHLUNG UND AUFNAHME EINES HOCHSPANNUNGSSTECKERS

Title (fr)

TUBE À RAYONS X COMPRENANT UN ÉLÉMENT D'ISOLATION ANODIQUE DESTINÉ À REFROIDIR DU LIQUIDE ET À PRENDRE EN CHARGE UN CONNECTEUR HAUTE TENSION

Publication

EP 2163142 A1 20100317 (DE)

Application

EP 07729972 A 20070606

Priority

EP 2007055605 W 20070606

Abstract (en)

[origin: WO2008148426A1] The present invention relates to a high-voltage x-ray tube (R) with an inner vacuum chamber (11) in which lie, oriented opposite one another, a cathode (8) held at a negative high voltage during operating conditions and an anode (2) held at a positive high voltage during operating conditions, wherein the anode (2) is affixed to an anode isolation element (3a) such that the anode isolation element (3a) has a cylindrical form or a form tapering toward the anode (2) and comprises an opening (5a) to receive a high-voltage plug (12) and has a conductor structure (6/7) via which a coolant can be supplied to the anode (2). This coolant can be, in particular, an insulating oil or another electrically nonconductive liquid. The conductor structure (6/7) can, for example, be integrated completely into the interior of the anode isolation element (3a) but can also be integrated into the surface of the high-voltage plug (12). In another possible solution, the conductor structure (6/7) is integrated into an intermediate element (13) which lies between the anode isolation element (3a) and the high-voltage plug (12).

IPC 8 full level

H05G 1/02 (2006.01); **H01J 35/12** (2006.01); **H01J 35/16** (2006.01); **H05G 1/10** (2006.01)

CPC (source: EP US)

H01J 35/13 (2019.04 - EP US); **H01J 35/165** (2013.01 - EP US)

Citation (search report)

See references of WO 2008148426A1

Designated contracting state (EPC)

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

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

WO 2008148426 A1 20081211; EP 2163142 A1 20100317; US 2010111265 A1 20100506; US 8090075 B2 20120103

DOCDB simple family (application)

EP 2007055605 W 20070606; EP 07729972 A 20070606; US 59569707 A 20070606