

Title (en)

X-RAY SOURCE, USE THEREOF AND METHOD FOR PRODUCING X-RAYS

Title (de)

RÖNTGENSTRAHLUNGSQUELLE UND DEREN VERWENDUNG UND VERFAHREN ZUM ERZEUGEN VON RÖNTGENSTRAHLUNG

Title (fr)

SOURCE DE RAYONS X, SON UTILISATION ET PROCÉDÉ POUR PRODUIRE DES RAYONS X

Publication

EP 2837016 B1 20160817 (DE)

Application

EP 12729942 A 20120615

Priority

EP 2012061479 W 20120615

Abstract (en)

[origin: WO2013185840A1] The invention relates to an x-ray source comprising a housing (11), in which according to the invention a target in the form of an ionized cloud (12) based on metal vapour is provided. Said cloud can be excited by means of an electron beam (23) for emitting monochromatic x-rays (21)- The low atom density advantageously produces only a little braking radiation (26). The robustness of the plasma with respect to the inevitable thermal energy input is also advantageous with respect to the solid target materials. The cloud (12) can be filled at any time with target material (14) which can be vaporised by means of an electric arc (15). The invention also relates to a method for producing x-rays with the above-mentioned x-ray source. The invention further relates to the use of an x-ray source for emitting monochromatic x-rays for x-raying a body.

IPC 8 full level

H01J 35/08 (2006.01)

CPC (source: CN EP KR US)

H01J 35/112 (2019.04 - KR); **H01J 35/18** (2013.01 - KR); **H05G 2/005** (2013.01 - CN EP US); **H01J 2235/082** (2013.01 - CN EP KR US); **H01J 2235/18** (2013.01 - KR US); **H05G 2/005** (2013.01 - KR)

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

DOCDB simple family (publication)

WO 2013185840 A1 20131219; CN 104364876 A 20150218; CN 104364876 B 20170517; EP 2837016 A1 20150218; EP 2837016 B1 20160817; JP 2015523686 A 20150813; JP 5976208 B2 20160823; KR 101866173 B1 20180611; KR 20150023025 A 20150304; RU 2015100936 A 20160810; US 2015170868 A1 20150618; US 9659738 B2 20170523

DOCDB simple family (application)

EP 2012061479 W 20120615; CN 201280073960 A 20120615; EP 12729942 A 20120615; JP 2015516488 A 20120615; KR 20157001103 A 20120615; RU 2015100936 A 20120615; US 201214407504 A 20120615