

Title (en)

PRODUCTION OF MOLYBDENUM-99 USING ELECTRON BEAMS

Title (de)

HERSTELLUNG VON MOLYBDÄN-99 UNTER VERWENDUNG VON ELEKTRONENSTRAHLEN

Title (fr)

PRODUCTION DE MOLYBDÈNE-99 À L'AIDE DE FAISCEAUX D'ÉLECTRONS

Publication

**EP 3000114 B1 20180502 (EN)**

Application

**EP 14801507 A 20140523**

Priority

- CA 2816453 A 20130523
- CA 2014050479 W 20140523

Abstract (en)

[origin: WO2014186898A1] An apparatus for producing <sup>99</sup>Mo from a plurality of <sup>100</sup>Mo targets through a photo-nuclear reaction on the <sup>100</sup>Mo targets. The apparatus comprises (i) an electron linear accelerator component; (ii) an energy converter component capable of receiving the electron beam and producing therefrom a shower of bremsstrahlung photons; (iii) a target irradiation component for receiving the shower of bremsstrahlung photons for irradiation of a target holder mounted and positioned therein. The target holder houses a plurality of <sup>100</sup>Mo target discs. The apparatus additionally comprises (iv) a target holder transfer and recovery component for receiving, manipulating and conveying the target holder by remote control; (v) a first cooling system sealingly engaged with the energy converter component for circulation of a coolant fluid therethrough; and (vi) a second cooling system sealingly engaged with the target irradiation component for circulation of a coolant fluid therethrough.

IPC 8 full level

**G21G 1/12** (2006.01); **C01G 39/00** (2006.01); **G21K 5/08** (2006.01); **H05H 6/00** (2006.01); **H05H 9/00** (2006.01)

CPC (source: EP RU)

**G21G 1/12** (2013.01 - EP); **G21K 1/12** (2013.01 - RU); **H05H 6/00** (2013.01 - EP); **H05H 9/00** (2013.01 - EP); **G21G 2001/0036** (2013.01 - EP); **G21K 5/08** (2013.01 - EP)

Cited by

CN112289574A; RU2716818C1; WO2023244254A3

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 2014186898 A1 20141127**; AU 2014271174 A1 20151210; AU 2014271174 B2 20180118; BR 112015029336 A2 20170725; CA 2816453 A1 20141123; CA 2816453 C 20190917; CN 105453187 A 20160330; CN 105453187 B 20190111; EP 3000114 A1 20160330; EP 3000114 A4 20170125; EP 3000114 B1 20180502; HK 1222944 A1 20170714; IL 242695 B 20190829; JP 2016520194 A 20160711; JP 6426716 B2 20181205; RU 2015155247 A 20170628; RU 2667072 C2 20180914

DOCDB simple family (application)

**CA 2014050479 W 20140523**; AU 2014271174 A 20140523; BR 112015029336 A 20140523; CA 2816453 A 20130523; CN 201480041163 A 20140523; EP 14801507 A 20140523; HK 16111158 A 20160922; IL 24269515 A 20151119; JP 2016514229 A 20140523; RU 2015155247 A 20140523