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 A4 20170125 (EN)

Application

EP 14801507 A 20140523

Priority

- CA 2816453 A 20130523
- CA 2014050479 W 20140523

Abstract (en)

[origin: WO2014186898A1] An apparatus for producing 99Mo from a plurality of 100Mo targets through a photo-nuclear reaction on the 100Mo 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 100Mo 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)

Citation (search report)

[A] US 2012281799 A1 20121108 - WELLS DOUGLAS P [US], et al

Cited by

RU2716818C1; CN112289574A; US12033768B2; 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