

Title (en)  
Production of molybdenum-99

Title (de)  
Herstellung von Molybdän-99

Title (fr)  
Production de molybdène 99

Publication  
**EP 2398023 A1 20111221 (EN)**

Application  
**EP 10166604 A 20100621**

Priority  
EP 10166604 A 20100621

Abstract (en)

A method is described for the production of molybdenum-99 comprising the steps of providing a target comprising elements fissile under charged particle bombardment; and irradiating at least a portion of the target with accelerated charged particles to induce fission of said elements, thereby producing an irradiated target portion comprising molybdenum-99.

IPC 8 full level  
**G21G 1/10** (2006.01); **G21G 1/00** (2006.01)

CPC (source: EP)  
**G21G 1/001** (2013.01); **G21G 1/10** (2013.01); **G21G 2001/0036** (2013.01)

Citation (applicant)

- US 3799883 A 19740326 - ARINO H, et al
- WO 2006028620 A2 20060316 - BATTELLE MEMORIAL INSTITUTE [US], et al
- Z.I. KOLAR; H.TH. WOLTERBEEK: "MAKING OF FISSION Mo-99 FROM LEU SILICIDE(S): A RADIOCHEMISTS' VIEW", INTERNATIONAL MEETING ON REDUCED ENRICHMENT FOR RESEARCH AND TEST REACTOR, 2004 RERTR, 2004

Citation (search report)

- [A] US 5784423 A 19980721 - LIDSKY LAWRENCE M [US], et al
- [XII] LAGUNAS-SOLAR, M.C. ; ZENG, N.X. ; MIRSHAD, I. ; CASTANEDA, C.M.: "Cyclotron production of molybdenum-99 via proton-induced uranium-238 fission", TRANSACTIONS OF THE AMERICAN NUCLEAR SOCIETY, vol. 74, 31 December 1996 (1996-12-31), pages 134 - 135, XP002597162, ISSN: 0003-018X
- [XI] YVES JONGEN: "A Cyclotron driven neutronmultiplier for the productionof Mo 99", 29 October 2009 (2009-10-29), Groningen, The Netherlands, XP002597158, Retrieved from the Internet <URL:[https://www.kvi.nl/~agorcalc/ECPM2009/Presentations/29\\_06Jongen.pdf](https://www.kvi.nl/~agorcalc/ECPM2009/Presentations/29_06Jongen.pdf)> [retrieved on 20100816]
- [XI] MANUEL C. LAGUNAS-SOLAR: "Radionuclide production with > 70-MeV proton accelerators: current and future prospects", NUCLEAR INSTRUMENTS AND METHODS IN PHYSICS RESEARCH SECTION B: BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol. 69, no. 4, 1 July 1992 (1992-07-01), pages 452 - 462, XP002597160
- [XI] W.H. JONES, A. TIMNICK, J.H. PAEHLER, T.H. HANDLEY: "Bombardment Energy and Fission Product Yield Pattern for Protons on Natural Uranium and U-235", PHYSICAL REVIEW, vol. 99, no. 1, 1 July 1955 (1955-07-01), pages 184 - 187, XP002597159
- [I] L. H. GEVAERT, R. E. JERVIS, AND H. D. SHARMA: "Cumulative yields in the 14 MeV neutron fission of 232Th and 238U in the symmetric region", CANADIAN JOURNAL OF CHEMISTRY, vol. 48, no. 4, 4 February 1970 (1970-02-04), pages 641 - 651, XP002597161, ISSN: 1480-3291, Retrieved from the Internet <URL:<http://article.pubs.nrc-cnrc.gc.ca/RPAS/rpv?hm=HInit&callyLang=eng&journal=cjc&volume=48&afpf=v70-104.pdf>> [retrieved on 20100816]

Cited by  
CN113178276A

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 SE SI SK SM TR

Designated extension state (EPC)  
BA ME RS

DOCDB simple family (publication)  
**EP 2398023 A1 20111221**

DOCDB simple family (application)  
**EP 10166604 A 20100621**