

**List of missing EXFOR data of experimental works compiled in the
CRP for “Recommended data for production of therapeutic
radioisotopes”**

(Collected by F. Tarkanyi, ATOMKI, Debrecen, requires check)

1. Deconninck, G. and Longrée, M.,
Fonctions d'excitation des réactions induites par particules alpha sur ^{209}Bi entre 40 et 100 MeV.
Annales de la Société Scientifique de Bruxelles, T88 (1974.) 341- 346.
EXFOR: no
2. Kelly, E.L., Segré, E.
Some excitation functions of bismuth:
Phys. Rev. 75, (1949) 999-1005
EXFOR: no
3. Larsen R H., Wieland B.W., Zalutsky, M.R.
Evaluation of an Internal Cyclotron Target for the Production of ^{211}At via the $^{209}\text{Bi}(\alpha,2n)^{211}\text{At}$ reaction. Appl. Rad. Isot., 47, (1996)135-143.
EXFOR: no
4. Patel, H.B., Shah, D.J., Singh, N.L.
Study of (α, xn) reactions on ^{169}Tm , ^{181}Ta and ^{209}Bi up to 70MeV.
Il Nuovo Cimento 112 (1999)1439-142
EXFOR: no
5. Rizvi, I.A., Bhardwaj, M.K., Afzal Ansari, M., Chaubey, A.K.
Non-equilibrium reaction mechanism in alpha-particle induced excitation function for ^{209}Bi up to 60 MeV.

Appl. Radiat. Isot. 41 (1990) 215-219

6. Stickler, J.D., Hofstetter, K.J.

Comparison of ^3He -, ^4He - and ^{12}C - induced nuclear reactions in heavy-mass targets at medium excitation energies. Experimental cross sections.

Phys. Rev. C. 9 (1974) 1064-1071

EXFOR: no

7. **Harper P.V., Lathrop K., Need J.L.**

The thick target yield and excitation function for the reaction $^{103}\text{Rh}(p,n)^{103}\text{Pd}$,

ORNL-LR-DWG 51564 (1961) 124

Exfor: no

8. **Hermanne A., Sonck M., Fenyvesi A., Daraban L.**

Study on production of ^{103}Pd and characterization of possible contaminants in the proton irradiation of ^{103}Rh up to 28 MeV,

Nucl. Instr. Meth. B 170(2000)281

EXFOR: D4108, O0843 Duplication

9. **Mukhammedov S., Vasidov A.**

Determination of rhodium by proton-activation technique using the (p,n) reaction at a cyclotron,

Izv. AN UzbSSR Ser. Fiz.-Mat 2(1984)329 (in Russian)

Exfor: no

10. **S. Sudár, F. Cserpák, S.M. Qaim**

Measurements and nuclear model calculations on proton induced reactions on ^{103}Rh up to 40 MeV: Evaluation of the excitation function of the $^{103}\text{Rh}(p,n)^{103}\text{Pd}$ reaction relevant to the production of the therapeutic radionuclide ^{103}Pd ,

Applied Radiation and Isotopes, 56(2002)821.

EXFOR: O1010,D4125 Duplication

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11. N. Shigeta, H. Matsuoka, A. Osa, M. Koizumi, M. Izumo, K. Kobayashi, K. Hashimoto, T. Sekine, R.M. Lambrecht:
Production Method of No-Carrier-Added ^{186}Re
Journal of Radioanalytical and Nuclear Chemistry **205**(1996) 85
Exfor: no
12. N. Shigeta Ishioka, T. Sekine, R.M. Lambrecht
Comments on the Cross Sections of ^{186}Re in the $^{186}\text{W}(p, n)$ and $^{186}\text{W}(d, 2n)$ Reactions in Connection to the Paper Given by Z.H.Zhu et al. and Correction of the Calculated Yield of ^{186}Re in the $^{186}\text{W}(p, n)$ Reaction
Journal of Radioanalytical and Nuclear Chemistry **241**(1999) 383
Exfor: no
13. X. Zhang, W. Li, K. Fang, W. He, R. Sheng, D. Ying, W. Hu
Excitation Functions for $^{\text{nat}}\text{W}(p, xn)^{181-186}\text{Re}$ Reactions and Production of No-Carrier-Added ^{186}Re via $^{186}\text{W}(p, n)^{186}\text{Re}$ Reaction
Radiochimica Acta **86** (1999) 11
Exfor: no
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14. M. U. Khandaker, M. S. Uddin, K. S. Kim, M. W. Lee, Y. S. Lee, G. N. Kim
Excitation functions of proton induced nuclear reactions on $^{\text{nat}}\text{W}$ up to 40 MeV
arXiv e-prints: nucl-ex/0703035
Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms (to be submitted)
Exfor: no
15. E. Menapace, M. L. Bonardi, F. Groppi, S. Morzenti, E. Persico, Z. B. Alfassi
Experimental and calculated nuclear reaction data relative to innovative production of medical radioisotopes

International Conference on Nuclear Data for Science and Technology, April 22-27 2007, Nice, France, AID#655

Exfor: no

16. F. Tárkányi, A. Hermanne, S. Takács, F. Ditrói, F. Kovalev, A. V. Ignatyuk
New measurement and evaluation of the excitation function of the $^{186}\text{W}(p,n)$ nuclear reaction for production of the therapeutic radioisotope ^{186}Re

Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms (in print)

Available on line 18 September 2007

17. N. S. Ishioka, S. Watanabe, A. Osa, M. Koizumi, H. Matsuoka, T. Sekine
Excitation functions of rhenium isotopes on the $^{nat}\text{W}(d,xn)$ reactions and production of no-carrier added ^{186}Re

Journal of Nuclear Science and Technology, Supplement 2 (2002) p. 1334

Exfor: no

18. Zaitseva N. G., Knotek O., Kowalew A., Mikecz P., Rurarz E.:
Excitation functions and yields for ^{111}In production using $^{113,114,\text{nat}}\text{Cd}(p,x)^{111}\text{In}$ reactions with 65 MeV protons.

Appl. Radiat. Isot. **41**, 177 (1990).

EXFOR:A0569,D4070 duplication

19. Mirzaei M., Afarideh H., Haji-Saeid S. M., Ardaneh K.:

Production of ^{111}In by irradiation of natural cadmium with deuterons and protons in NRCAM cyclotron.

Cyclotrons and their Applications 1998, Caen, 14-19 June 1998,p.65

EXFOR: no

20. Muminov A. V., Mukhamedov S., A. Vasidov A.:

Possibilities of proton activation analysis using short –lived radioisotopes.

Atomnaya Energiya **49**,(2),101, (1980)

Exfor: no

21. Dmitriev P. P., Dmitrieva Z. P., Krasnov N. N., Molin G. A., Panarin M. V.:

Yields of ^{111}In and $^{114\text{m}}\text{In}$ in nuclear reactions with protons, deuterons and alpha particles.

Atomnaya Energiya **37**, 496 (1974).

Exfor: no

22. Nassiff S. J., Usher O. H., Wasilevsky C.:

Cross sections or the formation of $^{114\text{m}}\text{In}$ and $^{116\text{m}}\text{In}$ on bombardment of cadmium by deuterons.

*Int. J. Radiat. Phys. Cem. **13**, 129 (1979).*

EXFOR;no

23. F. Tárkányi, A. Hermanne, S. Takács, K. Hilgers, S. F. Kovalev, A. V.

Ignatyuk, S. M. Qaim

Study of the $^{192}\text{Os}(d,2n)^{192}\text{Ir}$ reaction for production of the therapeutic radionuclide ^{192}Ir in no-carrier added form

Applied Radiation and Isotopes (in print)

Exfor:no

Zweit J., Bakir M. A., Ott R.T., Sharma H.L., Cox M. and Goodall R.

Excitation functions of proton induced reactions in natural Tellurium: Production of no-carrier added iodine-124 for PET applications,

Proc. of 4th International Workshop on targetry and target chemistry, PSI

Willigen, Switzerland, Sept. 9-12, (1992), Ed. R. Weinreich, p.76.

Exfor: none

24. R. J. Nickles:
A shotgun approach to the chart of the nuclides. Radiotracer production with an
11 MeV proton cyclotron
Acta Radiologica. Supplementum 376. 1991. p. 9
25. R. Weinreich, E. J. Chants:
Quality control of ^{124}I
Proceedings of Sixth Workshop on Targetry and Target Chemistry, Aug. 17-19,
1995, Vancouver, B. C., Canada, (eds. J. M. Link , T. Ruth), Triumph, Canada,
1996, p.84
26. M.Glaser, D.B.Mackay, A.S.O.Ranicar, S.L.Waters, F.Brady, S.K.Luthra
Improved targetry and production of iodine-124 for PET studies
NUCLEAR REACTIONS $^{124}\text{Te}(p, n)$, $(p, 2n)$, $E \approx 8-19$ MeV; measured thick-
target yields.
Radiochim.Acta 92, 951 (2004)
27. Firouzbakht, ML; Schlyer, DJ; Finn, RD; Laguzzi, G; Wolf,AP
I-124 production - Excitation function for the $\text{Te-124}(d,2n)\text{I-124}$ and $\text{Te-124}(d,3n)\text{I-123}$ reactions from 7 to 24 MeV
Nucl. Instr. Meth. B79 (1993) 909
EXFOR: None
28. Vaidyanathan, G., Wieland,B.W., Larsen,R.H., Zalutsky,M.R.,
High-yield production of iodine-124 using the $^{125}\text{Te}(p, 2n)^{124}\text{I}$ reaction.
Proceedings of the Sixth International Workshop on Targetry and Target
Chemistry,
Vancouver, BC, Canada, 17–19 August,1995 S116.
EXFOR: None
29. Firouzbakht, ML; Schlyer, DJ; Finn, RD; Laguzzi, G; Wolf,AP

- I-124 production - Excitation function for the $Te-124(d,2n)I-124$ and $Te-124(d,3n)I-123$ reactions from 7 to 24 MeV*
Nucl. Instr. Meth. B79 (1993) 909
EXFOR: None
30. M.L.Firouzbakht, D.J.Schlyer, A.P.Wolf
The Yield of I-124 from Different Target Materials in the $124Te(d, 2n)124I$ Reaction and an Improved Recovery Method for Te-124
J.Labelled Compd.Radiopharm. 35, 257 (1994)
EXFOR: None
31. M.L.Firouzbakht, D.J.Schlyer, R.D.Finn, G.Laguzzi, A.P.Wolf
Iodine-124 Production: Excitation function for the $124Te(d, 2n)124I$ and $124Te(d, 3n)123I$ reactions from 7 to 24 MeV
Nucl.Instrum.Methods Phys.Res. B79, 909 (1993)
EXFOR: None
32. R.G.Clem, R.M.Lambrecht
Enriched $124Te$ Targets for Production of $123I$ and $124I$
Nucl.Instrum.Methods Phys.Res. A303, 115 (1991)
EXFOR: None
33. H.L.Sharma, J.Zweit, S.Downey, A.M.Smith, A.G.Smith
Production of $124I$ for Positron Emission Tomography
J.Labelled Compd.Radiopharm. 26, 165 (1989)
EXFOR: None
34. R.M.Lambrecht, M.Sajjad, M.A.Qureshi, S.J.Al-Yanbawi
Production of Iodine-124
J.Radioanal.Nucl.Chem. 127, 143 (1988)
EXFOR: None

35. Szelecsényi F., Steyn G.F., Dolley S.G., Kovács Z., Vermeulen C., van der Walt T.N:

New cross-section data on the $^{68}\text{Zn}(p,2p)^{67}\text{Cu}$ nuclear reaction: production possibility of ^{67}Cu used for internal radiotherapy

Proc. 15th Pacific Basin Nuclear Conference, 15 - 20 October 2006, Sidney, Australia (submitted)

EXFOR: no

36. Mirzadeh S, Mausner LF, Srivastava SC

Production of no-carrier added ^{67}Cu

Appl. Radiat. Isot. 37 (1986) 29

EXFOR: None

37. M.L.Bonardi, F.Groppi, C.Birattari, L.Gini, C.Mainardi, A.Ghioni, E.Menapace, K.Abbas, U.Holzwarth, M.F.Stroosnijder

Thin-target excitation functions and optimization of simultaneous production of NCA copper-64 and gallium-66, 67 by deuteron induced nuclear reactions on a natural zinc target

.Radioanal.Nucl.Chem. 257, 229 (2003)

NUCLEAR REACTIONS $\text{Zn}(d, xnyp\alpha)^{65}\text{Zn}/^{69\text{m}}\text{Zn}/^{61}\text{Cu}/^{64}\text{Cu}/^{66}\text{Ga}/^{67}\text{Ga}$, $E=3-19$ MeV; measured E_γ , I_γ , excitation functions; deduced thick-target yields. Stacked-foil activation, comparison with model predictions.

EXFOR: None

38. D.C.WILLIAMS,J.W.IRVINE

Nuclear Excitation Functions and Thick-Target Yields: $\text{Zn}+d$ and $\text{Ar}40(d,\alpha)$

Phys. Rev. 130 (1963) 265

EXFOR: None