Table I. Input data compared with adjusted values

EXPLANATION OF TABLE

The ordering is in groups according to highest occurring relevant mass number.

Item	In mass-doublet equation: H $=^{1}$H, N $=^{14}$N, D $=^{2}$H, O $=^{16}$O, C $=^{12}$C.	In mass-triplet equation: Rb^{x}, Rb^{y}: different mixtures of isomers or contaminants.	In nuclear reaction: K^{m}, Cs^{m}, Cs^{n}: upper isomers, see NUBASE.
Input value	Mass doublet: value and its standard error in μu. Triplet: value and its standard error in keV. Reaction: value and its standard error in keV. The value is the combination of mass excesses $\Delta(M-A)$ given under 'item'. It is the author's experimental result and the author's stated uncertainty, except in a few cases for which comments are given and for some α-reactions: if the α-decay is not known to feed the ground-state, then the error is increased to 50 keV. If more than one group report such energies, an average is calculated first (mentioned in the Table) and the 50 keV is added to the averaged error in the adjustment (see Section 6.3).		
Adjusted value	Output of calculation. For secondary data ($Dg = 2$–20) the adjusted value is the same as the input value and not given; also, the adjusted value is only given once for a group of results for the same reaction or doublet. Values and errors were rounded off, but not to more than tens of keV. # Value and error derived not from purely experimental data, but at least partly from systematic trends. $*$ No mass value has been calculated for one of the masses involved.		
v_i	Normalized deviation between input and adjusted value, given as their difference divided by the input error (see Section 5.2).		
Dg	1 Primary data (see Section 3). 2–13 Secondary data of different degrees. B Well-documented data, or data from regular reviewed journals, which disagree with other well-documented values. C Data from incomplete reports, at variance with other data. o Data included in or superseded by later work of same group. D Data not checked by other ones and at variance with systematics, replaced by an estimated value (see Section 4.2). F Study of paper raises doubts about validity of data within the reported error. R Item replaced for computational reasons by an equivalent one giving same result. U Data with much less weight than that of a combination of other data.		
Sig	*Significance* ($\times$100) of primary data only (see Section 5.1); the significance of secondary data is always 100%.		
Main flux	Largest *influence* ($\times$100) and nucleus to which the data contributes the most (see Section 5.1).		

Lab — Identifies the group which measured the corresponding item. Example of Lab key: MA8 Penning Trap data of Mainz-Isolde group. The numbers refer to different experimental conditions.

F — Multiplying factor for mass spectrometric data (see Section 6.1). The standard error given in the 'Input value' column has been multiplied by this factor before being used in the least-squares adjustment.

Reference — Reference keys:
(in order to reduce the width of the Table, the two digits for the centuries are omitted; at the end of this volume however, the full reference key-number is given: 2003Ba49 and not 03Ba49)

- 03Ba49 Results derived from regular journal. These keys are copied from Nuclear Data Sheets. Where not yet available, the style 03Kr.1 has been used.
- 94Jo.A Result from abstract, preprint, private communication, conference, thesis or annual report.
- NDS03a References to energies of excited states, where of some interest, are mentioned in remarks in the Qfile. Their reference-keys refer to Nuclear Data Sheets and are indicated NDS036 in which '03' indicates the year (here 2003) and '6' the month (Oct, Nov, Dec indicated a b c) of the NDS issue taken from.
  When the information has been obtained from the electronic version of NDS, the "Evaluated Nuclear Structure Data Files" (ENSDF), the reference-keys are indicated 'Ens03' for e.g. year 2003.
  When the excited energy is derived or estimated in NUBASE2003, it is indicated with 'Nubase'.
- AHW or GAu or CTh : comment written by one of the present authors.
- ∗ A remark on the corresponding item is given below the block of data corresponding to the same (highest) *A*.
- Y recalibrations of 65Ry01 for charged particle recalibrations, and re-calculated triplets for isomeric mixtures.
- Z recalibrations of 91Ry01 for α particles, 90Wa22 for γ in (n,γ) and (p,γ) reactions and 91Wa.A for protons and γ in (p,γ) reactions (see Section 2).

Remarks. For data indicated with a star in the reference column, remarks have been added. They are collected in groups at the end of each block of data in which the highest occurring relevant mass number is the same. They give:

i) Information explaining how the values in column 'Input value' have been derived for papers not mentioning e.g. the mass differences as derived from measured ratios of voltages or frequencies - a bad practice - or the reaction energies or values for transitions to excited states in the final nuclei (for which better values of the excitation energies are now known).
ii) Reasons for changing values (e.g. recalibrations) or errors as given by the authors or for rejecting them (i.e. for labelling them B, C or F).
iii) Value suggested by systematical trends and recommended in this evaluation as best estimate (see Section 4.2).
iv) Separate values for capture ratios (see Section 6.4).

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
π^+	140081.18	0.35	140081.2	0.4	0.0	1	100	100 π^+			02PaDG	*
$\pi^+(2\beta^+)\pi^-$	1021.998	0.001	1021.9980	0.0010	0.0	1	100	100 π^-			88CoTa	
$*\pi^+$	Conventionally! This is M=139570.18(0.35) + m(e^-)										GAu	**
$H_{12}-C$	93900.391	0.012	93900.3849	0.0012	−0.5	U			WA1	1.0	95Va38	
	93900.3804	0.0084			0.5	U			MI1	1.0	95Di08	
	93900.3865	0.0017			−1.0	–			WA1	1.0	01Va33	
	93900.3860	0.0025			−0.4	–			ST2	1.0	02Be64	
ave.	93900.386	0.001			−1.0	1	78	78 ^{1}H			average	
D_6-C	84610.6616	0.0067	84610.6671	0.0021	0.8	–			WA1	1.0	95Va38	
	84610.6710	0.0054			−0.7	–			MI1	1.0	95Di08	
	84610.6656	0.0036			0.4	–			MI1	1.0	95Di08	
ave.	84610.666	0.003			0.3	1	61	61 ^{2}H			average	
H_2-D	1548.302	0.012	1548.2863	0.0004	−0.5	U			OH1	2.5	93Go37	
	1548.2836	0.0018			1.5	U			MI1	1.0	95Di08	
$^1H(n,\gamma)^2H$	2224.561	0.009	2224.5660	0.0004	0.6	U			Utr		82Va13	Z
	2224.549	0.009			1.9	U					82Vy10	Z
	2224.560	0.009			0.7	U					83Ad05	Z
	2224.5756	0.0022			−4.4	F			NBS		86Gr01	*
	2224.5727	0.0300			−0.2	U			PTB		97Ro26	*
	2224.5660	0.0004			0.0	1	100	100 1 n	NBS		99Ke05	*
	2224.58	0.05			−0.3	U			Bdn		03Fi.A	*
$*^1H(n,\gamma)^2H$	Original 2224.5890(0.0022) revised by ref.										90Wa22	**
$*^1H(n,\gamma)^2H$	Original error 0.0005 increased for calibration										GAu	**
$*^1H(n,\gamma)^2H$	More precisely, H+n−D=2388170.07(0.42) nu										99Ke05	**
*	corrected to 2388169.95(0.42) nu										99Mo39	**
$*^1H(n,\gamma)^2H$	All errors in 2003Fi.A increased 20 ppm for calibration										GAu	**
$^3H_4-C$	64197.0690	0.0062	64197.111	0.010	6.7	B			WA1	1.0	93Va04	*
	64197.1136	0.0116			−0.3	1	73	73 ^{3}H	ST2	1.0	02Be64	
$^3He_4-C$	64117.2399	0.0039	64117.277	0.010	9.4	B			WA1	1.0	93Va04	
	64117.252	0.030			0.8	–			WA1	1.0	93Va04	*
	64117.294	0.030			−0.6	–			ST2	1.0	01Fr18	
ave.	64117.273	0.021			0.2	1	24	24 ^{3}He			average	
$D_2-H\ ^3H$	4329.257	0.003	4329.2460	0.0026	−2.5	U			B08	1.5	75Sm02	
$H\ D-^3He$	5897.512	0.005	5897.4908	0.0026	−2.8	o			B08	1.5	75Sm02	
	5897.495	0.006			−0.5	1	8	8 ^{3}He	B09	1.5	81Sm02	
$^3H-^3He$	19.951	0.004	19.9585	0.0012	0.8	U				2.5	84Ni16	*
	19.967	0.002			−1.7	B				2.5	85Li02	
	19.948	0.003			1.4	U				2.5	85Ta.A	*
$^3H(\beta^-)^3He$	18.600	0.004	18.5912	0.0011	−2.2	U					87Bo07	*
	18.592	0.003			−0.3	–					91Ka41	*
	18.591	0.002			0.1	–					91Ro07	*
	18.593	0.003			−0.6	–					92Ho09	*
	18.591	0.003			0.1	–					93We03	
	18.597	0.014			−0.4	U					95Hi14	
	18.5895	0.0025			0.7	–					95St26	
ave.	18.591	0.001			0.1	1	95	68 ^{3}He			average	
$*^3H_4-C$	Item preliminarily disregarded										AHW	**
$*^3He_4-C$	Original changed after discussion with authors										AHW	**
$*^3He_4-C$	Original error 0.011 replaced										AHW	**
$*^3H-^3He$	Atom mass difference=ion mass difference 18.573 + 0.011										AHW	**
*	required correction cannot be estimated										85Au07	**
$*^3H-^3He$	Same authors as ref.										84Ni16	**
$*^3H(\beta^-)^3He$	Result 18604(6) is included in 1987Bo07										85Bo34	**
$*^3H(\beta^-)^3He$	E^-=18.5721(0.0030), SFS and recoil as in ref.										88Ka32	**
$*^3H(\beta^-)^3He$	E^-=18.5705(0.0020), SFS and recoil as in ref.										89St05	**
$*^3H(\beta^-)^3He$	E^-=18.5733(0.0002+syst), SFS and recoil as in ref.										88Ka32	**

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^4He_3-C$	7809.7493	0.0030	7809.76246	0.00019	4.4	o			WA1	1.0	95Va38	
	7809.7704	0.0039			−2.0	U			ST2	1.0	01Fr18	
	7809.7620	0.0003			1.5	o			WA1	1.0	01Va.A	
	7809.7467	0.0066			1.0	U			MZ2	2.5	01Br27	
	7809.76246	0.00019			0.0	1	100	100 ^{4}He	WA1	1.0	03Va.1	
D_2-^4He	25600.331	0.005	25600.3015	0.0007	−2.4	o			MZ1	2.5	90Ge12	*
	25600.328	0.005			−2.1	B			MZ1	2.5	92Ke06	*
$^4H(\gamma,n)^3H$	2900	500	2880	100	0.0	U					69Mi10	*
	2700	600			0.3	U					81Se11	
	2600	200			1.4	2					85Fr01	*
	3500	500			−1.2	U					86Be35	*
	2600	400			0.7	U					86Mi14	*
	3000	200			−0.6	2					87Go25	*
	3800	300			−3.1	2					90Am04	*
	3100	300			−0.7	2					91Bl05	*
	2300	300			1.9	2					95Al31	
	2670	310			0.7	2					03Me11	
$^4Li(p)^3He$	3300	300	3100	210	−0.7	2					87Br.B	
$*D_2-^4He$	Error has to be confirmed										GAu	**
$*^4H(\gamma,n)^3H$	Found in $^7Li(\pi^-,t)^4H$										69Mi10	**
$*^4H(\gamma,n)^3H$	From $^7Li(^3He,^3He\ ^3He)^4H$										85Fr01	**
$*^4H(\gamma,n)^3H$	From $^9Be(^{11}B,^{16}O)^4H$										86Be35	**
$*^4H(\gamma,n)^3H$	From $^7Li(n,\alpha)^4H$										86Mi14	**
$*^4H(\gamma,n)^3H$	Found in $^9Be(\pi^-,dt)^4H$, same data in ref.										91Go19	**
$*^4H(\gamma,n)^3H$	Found in $^7Li(\pi^-,t)^4H$										90Am04	**
$*^4H(\gamma,n)^3H$	Found in $^2D(t,n)^4H$										91Bl05	**
$^5H(\gamma,2n)^3H$	7400	700	1800	100	−8.0	F					87Go25	*
	5200	400			−8.5	F					95Al31	*
	1700	300			0.3	U					01Ko52	*
	1800	100				2					03Go11	*
$^4He(n,\gamma)^5He$	−890	50				2					66La04	*
$^4He(p,\gamma)^5Li$	−1965	50				2					65Ma32	*
$*^5H(\gamma,2n)^3H$	From $^9Be(\pi^-,pt)^5H$, same data in ref.										91Go19	**
$*^5H(\gamma,2n)^3H$	Probably higher state										01Ko52	**
$*^5H(\gamma,2n)^3H$	From $^7Li(^6Li,^8B)$										95Al31	**
$*^5H(\gamma,2n)^3H$	Probably higher state										01Ko52	**
$*^5H(\gamma,2n)^3H$	From $p(^6He,^2He)$										01Ko52	**
$*^5H(\gamma,2n)^3H$	From t(t,p)										03Go11	**
$*^4He(n,\gamma)^5He$	Average of many reactions leading to ^{5}He										AHW	**
$*^4He(p,\gamma)^5Li$	Average of many reactions leading to ^{5}Li										AHW	**
$^6Li_2-C$	30245.590	0.032	30245.59	0.03	0.0	1	100	100 ^{6}Li	1.0	1.0	01He36	
$^6H(\gamma,3n)^3H$	2700	400	2700	260	0.0	2					84Al08	*
	2600	500			0.2	2					86Be35	*
	2800	500			−0.2	2					92Al.A	*
$^6Li(p,\alpha)^3He$	4018.2	1.1	4019.633	0.015	1.3	U			MIT		81Ro02	
$^6Li(p,t)^4Li$	−18700	300	−18900	210	−0.7	R			Brk		65Ce02	
$^6Li(p,n)^6Be$	−5074	13	−5071	5	0.3	2			CIT		67Ho01	
$^6Li(^3He,t)^6Be$	−4306	6	−4307	5	−0.1	2			CIT		66Wh01	
$*^6H(\gamma,3n)^3H$	From $^7Li(^7Li,^8B)^6H$										84Al08	**
$*^6H(\gamma,3n)^3H$	From $^9Be(^{11}B,^{14}O)^6H$										86Be35	**
*	^{6}H not observed in $^6Li(\pi^-,\pi^+)$										87Se.A	**
$*^6H(\gamma,3n)^3H$	From $^7Li(^7Li,^8B)^6H$										92Al.A	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{3}He(α,γ)^{7}Be		1586.3	0.6	1586.10	0.11	−0.3	U					82Kr05	
^{7}He(γ,n)^{6}He		430	20	435	17	0.2	3					02Me07	
^{7}Li(d,^{3}He)^{6}He−^{19}F()^{18}O		−1981.09	0.42	−1981.1	0.4	0.0	1	100	100 ^{6}He	MSU		78Ro01	*
^{6}Li(n,γ)^{7}Li		7249.98	0.09	7249.97	0.08	−0.1	–			Ptn		85Ko47	Z
		7249.94	0.15			0.2	–			Bdn		03Fi.A	
	ave.	7249.97	0.08			0.0	1	100	100 ^{7}Li			average	
^{7}Li(t,^{3}He)^{7}He		−11184	30	−11174	17	0.3	R			LAl		69St02	
^{7}Li(p,n)^{7}Be		−1644.30	0.10	−1644.24	0.07	0.6	–			Mar		70Ro07	*
		−1644.18	0.10			−0.6	–			Auc		85Wh03	*
	ave.	−1644.24	0.07			0.0	1	100	100 ^{7}Be			average	
^{7}Li(π^{+},π^{-})^{7}B		−11870	100	−11940	70	−0.7	R					81Se.A	
*^{7}Li(d,^{3}He)^{6}He−^{19}F()^{18}O	Q−Q=0.98(0.41) to 1982.07(0.09) level in ^{18}O											AHW	**
*^{7}Li(p,n)^{7}Be	T=1880.64(0.09,Z); error in Q increased											AHW	**
*^{7}Li(p,n)^{7}Be	T=1880.43(0.02,Z); error in Q increased											AHW	**
^{4}He(^{64}Ni,^{60}Ni)^{8}He		−31818	15	−31800	7	1.2	–			Pri		75Ko18	
		−31796	8			−0.5	–			Tex		77Tr07	
	ave.	−31801	7			0.1	1	94	94 ^{8}He			average	
^{8}Be(α)^{4}He		91.88	0.05	91.84	0.04	−0.8	–			Zur		68Be02	*
		91.80	0.05			0.8	–					92Wu09	*
	ave.	91.84	0.04			0.0	1	100	100 ^{8}Be			average	
^{6}Li(^{3}He,n)^{8}B		−1974.8	1.0	−1974.8	1.0	0.0	1	100	100 ^{8}B	Nvl		58Du78	Y
^{7}Li(n,γ)^{8}Li		2032.78	0.15	2032.61	0.05	−1.1	–					74Ju.A	*
		2032.77	0.18			−0.9	–			ORn		91Ly01	Z
		2032.57	0.06			0.7	–			Bdn		03Fi.A	
	ave.	2032.61	0.05			0.0	1	100	100 ^{8}Li			average	
*^{8}Be(α)^{4}He	For atomic binding energy correction see ref.											67St30	**
*^{7}Li(n,γ)^{8}Li	PrvCom to ref.											74Aj01	**
^{9}Be(p,α)^{6}Li		2125.4	1.8	2124.9	0.4	−0.3	U			NDm		67Od01	
^{6}Li(α,p)^{9}Be		−2125.6	1.2	−2124.9	0.4	0.6	1	11	11 ^{9}Be	NDm		65Br28	
^{7}Li(t,p)^{9}Li		−2385.7	3.0	−2385.3	1.9	0.1	1	42	42 ^{9}Li	MSU		75Ka18	
^{7}Be(^{3}He,n)^{9}C		−6287	5	−6280.6	2.1	1.3	3			CIT		67Ba.A	Z
		−6275.2	3.5			−1.5	3			CIT		71Mo01	Z
^{9}He(γ,n)^{8}He		1270	30	1270	29	0.0	1	92	91 ^{9}He	Ber		99Bo26	
^{9}Be(γ,n)^{8}Be		−1665	1	−1665.3	0.4	−0.3	–			Wis		50Mo56	Y
^{9}Be(p,d)^{8}Be		557.5	1.	559.2	0.4	1.7	–			Wis		51Wi26	Y
		560	2			−0.4	U			Bir		53Co02	Y
		559.0	1.1			0.2	–			Zur		66Re02	
		559.6	0.6			−0.6	–			NDm		67Od01	Z
^{9}Be(γ,n)^{8}Be	ave.	−1665.4	0.4	−1665.3	0.4	0.2	1	88	88 ^{9}Be			average	
^{9}Be(π^{-},π^{+})^{9}He		−30472	100	−30614	29	−1.4	U					87Se05	
^{9}Be(^{14}C,^{14}O)^{9}He		−34580	100	−34579	29	0.0	1	9	9 ^{9}He	Ber		95Bo.B	
^{9}Be(p,n)^{9}B		−1850.4	1.0				2			Wis		50Ri59	Z
^{10}B ^{37}Cl−C ^{35}Cl		9987.21	0.56	9986.9	0.4	−0.2	U			H38	2.5	84El05	
^{10}B(^{3}He,^{6}He)^{7}B		−18550	100	−18480	70	0.7	2			Brk		67Mc14	
^{10}He(γ,2n)^{8}He		1200	300	1070	70	−0.4	U					94Ko16	
^{10}Li(γ,n)^{9}Li		150	150	25	15	−0.8	U					90Am05	*
		25	15				2					95Zi03	*
^{10}Li^{m}(γ,n)^{9}Li		240	60	220	40	−0.3	2					97Bo10	*
		210	50			0.2	2					97Zi04	*
^{9}Be(^{9}Be,^{8}B)^{10}Li^{n}		−33770	260	−33750	40	0.1	U			Brk		75Wi26	*
^{9}Be(^{13}C,^{12}N)^{10}Li^{n}		−36370	50	−36390	40	−0.5	2			Ber		93Bo03	*

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{10}Be(d,^{3}He)^{9}Li		−14142.8	2.5	−14143.1	1.9	−0.1	1	59	58 ^{9}Li	MSU		75Ka18	
^{9}Be(n,γ)^{10}Be		6812.33	0.06	6812.29	0.06	−0.6	–			MMn		86Ke14	Z
		6812.10	0.14			1.4	–			Bdn		03Fi.A	
	ave.	6812.29	0.06			0.0	1	100	99 ^{10}Be			average	
^{10}Be(^{14}C,^{14}O)^{10}He		−41190	70				2			Ber		94Os04	
^{10}B(p,n)^{10}C		−4430.17	0.09	−4430.30	0.12	−1.5	o			Auc		89Ba28	Z
		−4430.30	0.12				2			Auc		98Ba83	
^{10}B(^{14}N,^{14}B)^{10}N		−47550	400				2					02Le16	
$*^{10}$Li(γ,n)^{9}Li	From ^{11}B(π^-,p)^{10}Li											GAu	**
$*^{10}$Li(γ,n)^{9}Li	Resonance less than 50 above the one neutron threshold, but											95Zi03	**
*	could also be final state interaction; then ^{10}Li would be 200 higher											97Bo10	**
$*^{10}$Li^m(γ,n)^{9}Li	From ^{10}Be(^{12}C,^{12}N)^{10}Li^m (1^+ level)											GAu	**
$*^{10}$Li^m(γ,n)^{9}Li	Theoretical work: 1^+ level above 1- gs											02Ga12	**
$*^9$Be(^{9}Be,^{8}B)^{10}Li^n	Q=–34060(250) to 2^+ level 290(80) above 1^+ level											93Bo03	**
*	Revised with Breit−Wigner line shape. Probably 2^+ level											97Bo10	**
$*^9$Be(^{13}C,^{12}N)^{10}Li^n	Revised with Breit−Wigner line shape (probably 2^+ level)											97Bo10	**
^{11}Li−C$_{.917}$		43780	130	43798	21	0.1	U			TO2	1.5	88Wo09	
		43805	28			−0.3	1	55	55 ^{11}Li	P40	1.0	03Ba.A	
^{9}Li−^{11}Li$_{.273}$ ^{8}Li$_{.750}$		−1923	31	−1894	6	1.0	U			P13	1.0	75Th08	
^{9}Be(t,p)^{11}Be		−1164	15	−1166	6	−0.1	R			Ald		62Pu01	
^{11}B(d,α)^{9}Be		8029	4	8031.1	0.6	0.5	U			Bir		54El10	Y
		8024	7			1.0	U			MIT		64Sp12	
		8029.7	2.8			0.5	U			NDm		67Od01	
^{9}Be(^{3}He,p)^{11}B		10322.1	2.3	10322.0	0.6	−0.1	U			NDm		67Od01	
^{10}Be(d,p)^{11}Be		−1721	7	−1721	6	0.1	2			CIT		70Go11	
^{11}B(^{7}Li,^{8}B)^{10}Li		−32431	80	−32396	15	0.4	U			MSU		94Yo01	*
^{11}B(^{7}Li,^{8}B)^{10}Li^n		−32908	62	−32870	40	0.6	R			MSU		94Yo01	
^{10}B(n,γ)^{11}B		11454.1	0.2	11454.12	0.16	0.1	–			Ptn		86Ko19	Z
		11454.15	0.27			−0.1	–			Bdn		03Fi.A	
	ave.	11454.12	0.16			0.0	1	100	100 ^{11}B			average	
^{11}N(p)^{10}C		1973	180	1320	50	−3.7	U			MSU		74Be20	*
		1300	40			0.4	o			Lis		96Ax01	
		1450	400			−0.3	U			MSU		98Az01	*
		1630	50			−6.3	B			Spe		00Ol01	*
		1350	120			−0.3	3			Lis		00Ma62	*
		1310	50			0.1	3			INS		03Gu06	
^{11}B(π^-,π^+)^{11}Li		−33120	50	−33151	19	−0.6	–					91Ko.B	
^{11}B(^{14}C,^{14}O)^{11}Li		−37120	35	−37117	19	0.1	–			MSU		93Yo07	
^{11}B(π^-,π^+)^{11}Li	ave.	−33143	29	−33151	19	−0.3	1	45	45 ^{11}Li			average	
^{11}C(β^+)^{11}B		1982.8	2.6	1982.4	0.9	−0.1	–					75Be28	
^{11}B(p,n)^{11}C		−2759.7	3.	−2764.8	0.9	−1.7	U			Wis		50Ri59	Z
		−2763.2	1.4			−1.1	–			Ric		61Be13	Z
^{11}B(^{3}He,t)^{11}C		−2002.1	1.2	−2001.0	0.9	0.9	–			Str		65Go05	Z
^{11}C(β^+)^{11}B	ave.	1982.4	0.9	1982.4	0.9	0.0	1	100	100 ^{11}C			average	
$*^{11}$B(^{7}Li,^{8}B)^{10}Li	Original (>–32471) re-evaluated											GAu	**
*	Existence of this level not completely certain											94Yo01	**
$*^{11}$N(p)^{10}C	From ^{14}N(^{3}He,^{6}He)^{11}N Q=–25010(100) to 250(150) level											90Aj01	**
$*^{11}$N(p)^{10}C	From ^{9}Be(^{12}N,^{10}Be)^{11}N											98Az01	**
$*^{11}$N(p)^{10}C	From ^{10}B(^{14}N,^{13}B)^{11}N											00Ol01	**
$*^{11}$N(p)^{10}C	From scattering ^{10}C on H. precicely, 1270(+180,-50)											00Ma62	**
^{12}C(α,^{8}He)^{8}C		−64278	26	−64267	24	0.4	2			Tex		76Tr01	
^{12}C(^{3}He,^{6}He)^{9}C		−31578	8	−31574.4	2.3	0.5	U			MSU		71Tr03	
		−31575.6	3.2			0.4	R			MSU		79Ka.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{10}Be(t,p)^{12}Be		−4809	15				2			Brk		78Al29	
^{10}B(α,d)^{12}C		1340.3	0.8	1339.9	0.4	−0.5	–			Wis		56Do41	Z
^{10}B(^{3}He,p)^{12}C		19692.86	0.44	19693.0	0.4	0.3	–			Mun		83Ch08	*
^{10}B(α,d)^{12}C	ave.	1339.9	0.4	1339.9	0.4	0.0	1	100	100 ^{10}B			average	
^{12}O(2p)^{10}C		1770	20	1771	18	0.1	3					95Kr03	
^{12}C(π^+,π^-)^{12}O		−31034	48	−31026	18	0.2	R					80Bu15	
*^{10}B(^{3}He,p)^{12}C	Original Q=15305.45(0.3) revised by authors to 15253.95(31)											83Vo.A	**
*	to 4438.91(0.31) level											90Aj01	**
C H−^{13}C		4470.185	0.008	4470.1943	0.0010	0.8	U			B08	1.5	75Sm02	
C D−^{13}C H		2921.923	0.008	2921.9080	0.0009	−1.3	U			B08	1.5	75Sm02	
		2921.9086	0.0012			−0.5	1	58	58 ^{13}C	MI1	1.0	95Di08	
		2921.9074	0.0015			0.4	1	37	37 ^{13}C	MI1	1.0	95Di08	
^{13}C−C$_{1.083}$		3354.8404	0.0041	3354.8378	0.0010	−0.6	1	6	6 ^{13}C	WA1	1.0	95Va38	
^{11}B(t,p)^{13}B		−233.4	1.0				2			Str		83An15	
^{13}Be(γ,n)^{12}Be		100	70				3					01Th01	
^{12}C(n,γ)^{13}C		4946.31	0.10	4946.3058	0.0009	0.0	U			Bdn		03Fi.A	
^{12}C(p,γ)^{13}N		1943.24	0.32	1943.49	0.27	0.8	–					77Fr20	Z
		1944.1	0.5			−1.2	–					77He26	Z
	ave.	1943.49	0.27			0.0	1	100	100 ^{13}N			average	
^{13}C(^{14}C,^{14}O)^{13}Be^q		−37020	50				2			Ber		92Os04	
^{14}Be−C$_{1.167}$		42660	150	42890	140	1.0	2			TO2	1.5	88Wo09	
C D$_2$−^{14}C H$_2$		9311.498	0.006	9311.503	0.004	0.5	1	20	20 ^{14}C	B08	1.5	75Sm02	
C H$_2$−N		12576.0598	0.0008	12576.0594	0.0006	−0.5	1	59	56 ^{14}N	MI1	1.0	95Di08	
^{14}N−C$_{1.167}$		3074.0056	0.0018	3074.0048	0.0006	−0.5	1	12	12 ^{14}N	WA1	1.0	95Va38	
^{14}C H$_2$−N D		1716.269	0.003	1716.270	0.004	0.3	1	80	80 ^{14}C	B08	1.5	75Sm02	
^{14}N(^{3}He,^{9}Li)^{8}C		−42214	50	−42254	23	−0.8	R			MSU		76Ro04	
^{14}C(d,α)^{12}B		361.8	1.4				2			Wis		56Do41	Z
^{14}N(p,t)^{12}N		−22135.5	1.0	−22135.5	1.0	0.0	1	100	100 ^{12}N	MSU		75No.A	
^{14}C(^{11}B,^{12}N)^{13}Be^p		−39600	90				2			Dbn		98Be28	
^{13}C(n,γ)^{14}C		8176.61	0.24	8176.435	0.004	−0.7	U			Bdn		03Fi.A	
^{14}C(π^-,π^+)^{14}Be		−38100	170	−37960	130	0.8	R					84Gi09	*
^{14}C(^{14}C,^{14}O)^{14}Be^p		−43440	60				2			Ber		95Bo10	
^{14}C(^{7}Li,^{7}Be)^{14}B		−21499	30	−21506	21	−0.2	–			ChR		73Ba34	
^{14}C(^{14}C,^{14}N)^{14}B		−20494	30	−20487	21	0.2	–			Ors		81Na.A	
^{14}C(^{7}Li,^{7}Be)^{14}B	ave.	−21506	21	−21506	21	0.0	1	100	100 ^{14}B			average	
^{14}C(β^-)^{14}N		155.74	0.08	156.476	0.004	9.2	B					91Su09	*
		155.95	0.22			2.4	U					95Wi20	
^{14}N(p,n)^{14}O		−5925.41	0.08	−5926.29	0.11	−10.9	F			Auc		81Wh03	
		−5925.41	0.11			−8.0	F			Auc		98Ba83	*
		−5926.68	0.14			2.3	1	42	42 ^{14}O	Auc		03To03	
*^{14}C(π^-,π^+)^{14}Be	Original error 160 increased with 60 calibration uncertainty											GAu	**
*^{14}C(β^-)^{14}N	B: find 17 keV neutrino. See also ref.											91No07	**
*^{14}N(p,n)^{14}O	Withdrawn by authors											03To03	**
C D H−^{15}N		21817.9119	0.0008	21817.9117	0.0007	−0.3	1	70	67 ^{15}N	MI1	1.0	95Di08	
C H$_3$−^{15}N		23366.1979	0.0017	23366.1980	0.0007	0.1	1	19	18 ^{15}N	MI1	1.0	95Di08	
^{15}F−C$_{1.25}$		17477	86	18010	140	6.2	C			1.0	1.0	01Ze.A	
^{14}N D−^{15}N H		9241.780	0.008	9241.8523	0.0009	6.0	F			B08	1.5	75Sm02	
^{14}C(d,p)^{15}C		−1006.5	0.8				2			Wis		56Do41	Y
^{14}N(n,γ)^{15}N		10833.314	0.012	10833.2961	0.0009	−1.5	U					97Ju02	
		10833.2339	0.0300			2.1	U			PTB		97Ro26	*
		10833.32	0.22			−0.1	U			Bdn		03Fi.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{14}N(p,γ)^{15}O		7297.1	0.9	7296.8	0.5	−0.4	R			CIT		72Ne05	
^{15}N(p,n)^{15}O		−3535.1	1.0	−3536.5	0.5	−1.4	–			CIT		72Je02	Z
		−3537.6	0.8			1.4	–					72Sh08	Z
	ave.	−3536.5	0.5			0.0	1	100	100 ^{15}O			average	
∗^{14}N(n,γ)^{15}N	Original error 0.0005 increased for calibration											GAu	∗∗
C_4-O_3		15256.121	0.009	15256.1413	0.0005	2.3	U			WA1	1.0	95Va38	
		15256.1425	0.0008			−1.5	o			WA1	1.0	01Va33	
		15256.1415	0.0005			−0.4	1	97	97 ^{16}O	WA1	1.0	03Va.A	
C H_4−O		36385.5062	0.0013	36385.5087	0.0004	1.9	–			MI1	1.0	95Di08	
		36385.5073	0.0019			0.8	–			MI1	1.0	95Di08	
		36385.5060	0.0022			1.2	–			MI1	1.0	95Di08	
	ave.	36385.506	0.001			2.4	1	20	18 ^{1}H			average	
^{14}C H_2−O		23977.413	0.014	23977.433	0.004	1.0	U			B08	1.5	75Sm02	
N_2-C O		11233.3909	0.0022	11233.3900	0.0012	−0.4	1	32	32 ^{14}N	MI1	1.0	95Di08	
^{16}O(α,^{8}He)^{12}O		−66020	120	−65958	20	0.5	U			Brk		78Ke06	
^{16}O(^{3}He,^{6}He)^{13}O		−30516	14	−30513	10	0.2	2			Brk		70Me11	∗
		−30511	13			−0.2	2			MSU		71Tr03	∗
^{14}C(^{14}C,^{12}N)^{16}B		−48380	60				2			Ber		95Bo10	
^{14}C(t,p)^{16}C		−3015	8	−3013	4	0.2	2			MSU		77Fo09	
		−3013	4			−0.1	2			LAl		78Se04	
^{14}C(^{3}He,p)^{16}N		4983	4	4978.5	2.6	−1.1	R			BNL		66Ga08	
^{14}N(^{3}He,n)^{16}F		−970	15	−957	8	0.9	R			Har		68Ad03	
^{15}N(d,p)^{16}N		286	12	264.5	2.6	−1.8	U			CIT		55Pa50	Y
		269	10			−0.4	U			Pit		57Wa01	Y
		267	8			−0.3	U			MIT		64Sp12	
		270	10			−0.5	U			Pen		66He10	
^{16}O(^{3}He,t)^{16}F		−15430	10	−15436	8	−0.6	2			KVI		80Ja.A	
^{16}O(π^+,π^-)^{16}Ne		−27763	45	−27711	20	1.1	2					80Bu15	
∗^{16}O(^{3}He,^{6}He)^{13}O	M increased by 7 for more recent calibrator M(^{9}C)=21913(2)											AHW	∗∗
∗^{16}O(^{3}He,^{6}He)^{13}O	Recalibrated using their ^{12}C(^{3}He,^{6}He) result											AHW	∗∗
^{17}B−$C_{1.417}$		46830	180	46990	180	0.6	2			TO2	1.5	88Wo09	
		47127	250			−0.5	2			GA3	1.0	91Or01	
^{17}O(n,α)^{14}C		1817.2	3.5	1817.70	0.11	0.1	U					01Wa50	
^{16}O(n,γ)^{17}O		4143.24	0.23	4143.13	0.11	−0.5	–					77Mc05	Z
		4143.06	0.13			0.5	–			Bdn		03Fi.A	
^{16}O(d,p)^{17}O		1918.74	0.5	1918.56	0.11	−0.4	–			Rez		90Pi05	∗
^{16}O(n,γ)^{17}O	ave.	4143.11	0.11	4143.13	0.11	0.1	1	100	100 ^{17}O			average	
^{16}O(p,γ)^{17}F		600.35	0.28	600.27	0.25	−0.3	–			CIT		75Ro05	
^{16}O(d,n)^{17}F		−1625.0	0.5	−1624.30	0.25	0.6	–			Nvl		60Bo21	Z
^{16}O(p,γ)^{17}F	ave.	600.27	0.25	600.27	0.25	0.0	1	100	100 ^{17}F			average	
∗^{16}O(d,p)^{17}O	Estimated systematical error 0.5 added to statistical error 0.062											AHW	∗∗
^{18}Na−$C_{1.5}$		25969	54				2			1.0	1.0	01Ze.A	
^{18}Ne−^{22}Ne$_{818}$		12755.19	0.30				2			MA8	1.0	03Bl.A	
^{18}O(^{48}Ca,^{51}V)^{15}B		−21760	50	−21767	23	−0.1	2			Hei		78Bh02	
		−21768	25			0.1	2			Can		83Ho08	
^{18}O(d,α)^{16}N		4235	7	4245.6	2.7	1.5	R			CIT		55Pa50	Z
		4244	4			0.4	R			MIT		67Sp09	Z
^{16}O(^{3}He,n)^{18}Ne		−3205	13	−3194.27	0.28	0.8	U			Nvl		61Du02	Y
		−3198	6			0.6	U			Ald		61To03	Y
		−3194.0	1.5			−0.2	U					94Ma14	
^{18}O(^{48}Ca,^{49}Ti)^{17}C		−17465	35	−17476	18	−0.3	2			Hei		77No08	
		−17479	20			0.2	2			Can		82Fi10	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{18}O(t,α)^{17}N		3872	15				2			LAl		60Ja13	
^{17}O(n,γ)^{18}O		8043.5	1.0	8044.0	0.6	0.5	1	38	38 ^{18}O	Bdn		03Fi.A	
^{17}O(p,γ)^{18}F		5606.2	0.6	5606.5	0.5	0.4	1	76	76 ^{18}F	CIT		75Ro05	Z
^{18}O(^{48}Ca,^{48}Ti)^{18}C		−21434	30				2			Can		82Fi10	
^{18}O(^{7}Li,^{7}Be)^{18}N		−14761	20	−14758	19	0.2	2			Can		83Pu01	
^{18}O(^{14}C,^{14}N)^{18}N		−13720	50	−13740	19	−0.4	2			Ors		80Na14	
^{18}F(β^+)^{18}O		1657	2	1655.2	0.6	−0.9	–					64Ho28	
^{18}O(p,n)^{18}F		−2436.97	0.73	−2437.6	0.6	−0.8	–			Nvl		64Bo13	Z
^{18}F(β^+)^{18}O	ave.	1654.9	0.7	1655.2	0.6	0.5	1	69	45 ^{18}O			average	
^{18}Ne(β^+)^{18}F		4438	9	4443.5	0.6	0.6	U					63Fr10	
^{19}C−C$_{1.583}$		35180	130	34810	110	−1.9	B			TO2	1.5	88Wo09	
		35506	253			−2.8	B			GA3	1.0	91Or01	
C D$_4$−H ^{19}F		50178.88	0.05	50178.85	0.07	−0.3	1	99	99 ^{19}F	B08	1.5	75Sm02	
^{19}Mg−C$_{1.583}$		35470	270				2			1.0	1.0	01Ze.A	
^{19}Ne−^{22}Ne$_{.864}$		9323.95	0.36	9323.5	0.3	−1.2	1	73	73 ^{19}Ne	MA8	1.0	03Bl.A	
^{17}O(t,p)^{19}O		3524	7	3517.2	2.8	−1.0	R			Man		65Mo19	
^{18}C(n,γ)^{19}C		530	120	580	90	0.4	3					99Na27	*
		650	150			−0.5	3					01Ma08	*
^{18}O(^{18}O,^{17}F)^{19}N		−19374	50	−19377	16	−0.1	2			Ors		81Na.A	
		−19334	35			−1.2	2			Can		89Ca25	
^{18}O(^{48}Ca,^{47}Sc)^{19}N		−16540	20	−16526	17	0.7	2			Can		83Ho08	
^{18}O(d,p)^{19}O		1727	8	1730.4	2.8	0.4	2			Nob		54Mi89	Y
		1732	8			−0.2	2			CIT		54Th30	
		1731	5			−0.1	2			Nob		57Ah19	Y
		1727	5			0.7	2			MIT		64Sp12	Z
		1734	10			−0.4	U			Man		65Mo16	
^{19}O(β^-)^{19}F		4800	12	4822.3	2.8	1.9	U					59Al06	
^{19}F(p,n)^{19}Ne		−4019.6	1.4	−4021.17	0.29	−1.1	U			Ric		61Be13	Z
		−4021.1	1.0			−0.1	–			Zur		61Ry04	Z
		−4019.6	0.7			−2.3	–					69Ov01	Z
	ave.	−4020.1	0.5			−2.0	1	28	27 ^{19}Ne			average	
*^{18}C(n,γ)^{19}C	From Coulomb dissociation cross sections and angular distribution											99Na27	**
*^{18}C(n,γ)^{19}C	From momentum distr. following 1-n removal											01Ma08	**
^{20}C−C$_{1.667}$		40360	240	40320	260	−0.1	2			TO2	1.5	88Wo09	
		40165	491			0.3	2			GA3	1.0	91Or01	
		40420	550			−0.2	2			GA5	1.0	99Sa.A	
^{20}N−C$_{1.667}$		23210	150	23370	60	1.0	2			GA1	1.0	87Gi05	
		23380	130			−0.1	2			TO2	1.5	88Wo09	
		23397	69			−0.5	2			GA3	1.0	91Or01	
C D$_4$−^{20}Ne		63966.9329	0.0026	63966.9360	0.0017	1.2	1	44	34 ^{20}Ne	MI1	1.0	95Di08	
^{20}Ne−C$_{1.667}$		−7559.814	0.014	−7559.8246	0.0019	−0.8	U			ST2	1.0	02Bf02	
O D$_2$−^{20}Ne		30677.497	0.067	30677.9998	0.0017	3.0	B			OH1	2.5	93Go38	
^{20}Ne−^{22}Ne$_{.909}$		270.94	0.33	271.107	0.017	0.5	U			MA8	1.0	03Bl.A	
^{20}Ne(^{3}He,^{8}Li)^{15}F		−29960	200	−29830	130	0.6	2			MSU		78Be26	
		−29730	180			−0.6	2			Brk		78Ke06	
^{20}Ne(α,^{8}He)^{16}Ne		−60150	80	−60212	22	−0.8	U			Brk		78Ke06	
		−60197	23			−0.6	R			Tex		83Wo01	
^{20}Ne(^{3}He,^{6}He)^{17}Ne		−26188	50	−26167	27	0.4	2			Brk		70Me11	*
		−26158	32			−0.3	2					98Gu10	
^{18}O(^{48}Ca,^{46}Sc)^{20}N		−25873	60	−25000	60	14.5	B			Can		89Or03	*
^{18}O(t,p)^{20}O		3082.4	1.9	3081.9	0.9	−0.3	2			Str		82An12	
		3081.7	1.0			0.2	2			Str		85An17	
^{18}O(^{3}He,p)^{20}F		6875.2	1.5	6878.1	0.6	2.0	1	17	17 ^{18}O	NDm		70Ro06	
^{19}F(n,γ)^{20}F		6601.29	0.14	6601.335	0.030	0.3	–			ILn		83Hu12	Z
		6601.32	0.05			0.3	–			MMn		87Ke09	Z
		6601.35	0.04			−0.4	–			ORn		96Ra04	
		6601.34	0.13			0.0	–			Bdn		03Fi.A	
	ave.	6601.336	0.030			0.0	1	100	100 ^{20}F			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{20}Ne(p,n)^{20}Na	−14672.1	7.				2					71Wi07	Z
∗^{20}Ne(^{3}He,^{6}He)^{17}Ne	Orig. M=16479(50) but revised calibrator M(^{9}C)=28910.2(2.1)										AHW	∗∗
∗^{18}O(^{48}Ca,^{46}Sc)^{20}N	Probably to excited levels in ^{20}N and ^{46}Sc										GAu	∗∗
^{21}N−C$_{1.75}$	27060	190	27110	100	0.3	2			GA1	1.0	87Gi05	
	26930	210			0.6	2			TO2	1.5	88Wo09	
	27162	131			−0.4	2			GA3	1.0	91Or01	
^{21}Ne−^{22}Ne$_{.955}$	2073.85	0.39	2073.90	0.05	0.1	U			MA8	1.0	03Bl.A	
^{18}O(^{18}O,^{15}O)^{21}O	−12499	20	−12482	12	0.9	2			Can		89Ca25	
^{18}O(^{64}Ni,^{61}Ni)^{21}O	−11713	15	−11723	12	−0.7	2			Dar		85Wo01	
^{19}F(t,p)^{21}F	6221.0	1.8				2			Str		84An17	
^{20}Ne(n,γ)^{21}Ne	6761.16	0.04	6761.16	0.04	0.1	2			MMn		86Pr05	Z
	6761.19	0.14			−0.2	2			Bdn		03Fi.A	
^{20}Ne(p,γ)^{21}Na	2431.2	0.7				2					69Bl03	Z
^{22}N−C$_{1.833}$	34340	250	34390	210	0.1	2			TO2	1.5	88Wo09	
	34683	389			−0.7	2			GA3	1.0	91Or01	
	34240	320			0.5	2			GA5	1.0	99Sa.A	
^{22}O−C$_{1.833}$	9842	81	9970	60	1.5	R			GA3	1.0	91Or01	
^{22}Ne−C$_{1.833}$	−8614.885	0.019	−8614.886	0.019	−0.1	1	100	100 ^{22}Ne	ST2	1.0	02Bf02	
^{22}Ne−^{20}Ne	−1056.415	0.290	−1055.061	0.019	1.9	U			OH1	2.5	93Go38	
^{18}O(^{18}O,^{14}O)^{22}O	−19060	100	−18850	60	2.1	2			Can		76Hi10	
^{18}O(^{208}Pb,^{204}Pb)^{22}O	−6710	180	−6700	60	0.0	2			ChR		79Ba31	
^{21}Ne(n,γ)^{22}Ne	10364.4	0.3	10364.26	0.04	−0.5	U			MMn		86Pr05	Z
	10363.9	0.5			0.7	U			Bdn		03Fi.A	
^{21}Ne(p,γ)^{22}Na	6738.3	1.1	6739.6	0.4	1.2	R					70An06	∗
^{22}Ne(t,^{3}He)^{22}F	−10788	33	−10800	12	−0.3	2					69St07	∗
	−10794	18			−0.3	2			Dar		88Cl04	∗
^{22}Ne(^{7}Li,^{7}Be)^{22}F	−11691	20	−11680	12	0.6	2			Can		89Or04	∗
^{22}Na(β^+)^{22}Ne	2842.2	0.5	2842.3	0.4	0.2	2					68Be35	
	2840.4	1.5			1.3	U					68We02	
	2841.5	1.0			0.8	2					72Gi17	
∗^{21}Ne(p,γ)^{22}Na	T=701.8(0.5) to 7407.9(1.0) level										70An06	∗∗
∗^{21}Ne(p,γ)^{22}Na	Reanalysis using E(exc) for lower levels of ref.										90Endt	∗∗
∗^{22}Ne(t,^{3}He)^{22}F	Original value –10834(30) re-calculated										GAu	∗∗
∗	from Q to 709.0, 1627.0 and 2571.6 levels										90Endt	∗∗
∗^{22}Ne(t,^{3}He)^{22}F	Original value –10836(12) re-calculated										GAu	∗∗
∗^{22}Ne(^{7}Li,^{7}Be)^{22}F	Q=–12400(20) to 709.0 level										GAu	∗∗
^{23}N−C$_{1.917}$	37110	2000	41220#	320#	2.1	D			GA5	1.0	99Sa.A	∗
^{23}O−C$_{1.917}$	15860	320	15690	130	−0.5	2			GA1	1.0	87Gi05	
	15700	150			−0.1	2			TO2	1.5	88Wo09	
	15621	186			0.4	2			GA3	1.0	91Or01	
^{23}Na−C$_{1.917}$	−10230.721	0.0037	−10230.7191	0.0029	0.5	–			MI2	1.0	99Br47	
	−10230.716	0.0048			−0.7	–			MI2	1.0	99Br47	
	−10229	9			−0.2	U			P40	1.0	03Ga.A	
ave.	−10230.719	0.003			0.0	1	100	100 ^{23}Na			average	
^{23}Ne−^{22}Ne$_{1.045}$	3469.58	0.37	3469.46	0.11	−0.3	U			MA8	1.0	03Bl.A	
^{22}Ne(^{18}O,^{17}F)^{23}F	−14080	90	−14090	80	−0.1	2			Can		89Or04	
^{22}Ne(n,γ)^{23}Ne	5200.65	0.12	5200.65	0.10	0.0	2			MMn		86Pr05	Z
	5200.64	0.20			0.0	2			Bdn		03Fi.A	
^{22}Ne(p,γ)^{23}Na	8794.26	0.17	8794.109	0.018	−0.9	U					89Ba42	Z
^{23}F(β^-)^{23}Ne	8510	170	8480	80	−0.2	R					74Go17	
^{23}Na(p,n)^{23}Mg	−4836.5	6.	−4838.4	1.3	−0.3	U			Ric		58Bi41	Y
	−4848.0	7.			1.4	U			ChR		58Go77	Y
	−4835.8	2.5			−1.1	1	26	26 ^{23}Mg	Har		62Fr09	Z
	−4843.2	5.1			0.9	U			Tkm		63Ok01	Z
∗^{23}N−C$_{1.917}$	Systematical trends suggest ^{23}N 3800 less bound										CTh	∗∗

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference
$^{24}O-C_2$		20000	500	20470	250	0.6	2			TO2	1.5	88Wo09
		20659	442			−0.4	2			GA3	1.0	91Or01
		20460	340			0.0	2			GA5	1.0	99Sa.A
$^{24}F-C_2$		8135	86	8120	80	−0.2	2			GA3	1.0	91Or01
		8030	120			0.5	2			TO4	1.5	91Zh24
$^{24}Mg-C_2$		−14958.310	0.014	−14958.300	0.014	0.7	1	96	96 ^{24}Mg	ST2	1.0	03Be02
		−14962	8			0.5	U			P40	1.0	03Ga.A
$^{24}Ne-{}^{22}Ne_{1.091}$		3009.62	0.42				2			MA8	1.0	03Bl.A
$^{24}Mg(^3He,^8Li)^{19}Na$		−32876	12				2			MSU		75Be38
$^{24}Mg(\alpha,^8He)^{20}Mg$		−60677	27				2			Tex		76Tr03
$^{24}Mg(^3He,^6He)^{21}Mg$		−27488	40	−27508	16	−0.5	2			Brk		70Me11
		−27512	18			0.2	2			MSU		71Tr03
$^{22}Ne(t,p)^{24}Ne$		5587	10	5587.6	0.4	0.1	U			LAl		61Si03 Z
$^{24}Mg(p,t)^{22}Mg$		−21194	3	−21197.4	1.3	−1.1	2			MSU		74Ha02
		−21198.3	1.5			0.6	2			MSU		74No07
$^{23}Na(n,\gamma)^{24}Na$		6959.50	0.12	6959.58	0.08	0.6	2			BNn		74Gr37 Z
		6959.67	0.14			−0.7	2			ILn		83Hu11 Z
		6959.38	0.08			2.5	B			Ptn		83Ti02
		6959.59	0.14			−0.1	2			Bdn		03Fi.A
$^{23}Na(p,\gamma)^{24}Mg$		11692.95	0.17	11692.684	0.013	−1.6	U			Wis		67Mo17Z
		11692.43	0.31			0.8	U					85Uh01 Z
$^{24}Mg(p,d)^{23}Mg$		−14307.5	1.5	−14306.6	1.3	0.6	1	74	74 ^{23}Mg	MSU		74No07
$^{24}Mg(^7Li,^8He)^{23}Al$		−37397	27	−37393	20	0.1	R					01Ca37
$^{24}Na(\beta^-)^{24}Mg$		5511.5	1.0	5515.45	0.08	4.0	B					69Bo48
$^{24}Mg(p,n)^{24}Al$		−14660.0	2.9				2			Yal		69Ov01 Z
$^{24}Mg(\pi^+,\pi^-)^{24}Si$		−23588	52	−23666	19	−1.5	2					80Bu15
$^{25}F-C_{2.083}$		12210	150	12100	110	−0.5	2			TO2	1.5	88Wo09
		12120	151			−0.1	2			GA3	1.0	91Or01
		11990	130			0.6	2			TO4	1.5	91Zh24
$^{25}Ne-C_{2.083}$		−2293	32	−2263	28	0.9	2			P40	1.0	01Lu20
$^{25}Mg-C_{2.083}$		−14165	10	−14163.08	0.03	0.2	U			P40	1.0	03Ga.A
$^{23}Na(t,p)^{25}Na$		7488.8	1.2				2			Str		84An17
$^{24}Mg(n,\gamma)^{25}Mg$		7330.64	0.08	7330.58	0.03	−0.8	–			MMn		90Pr02 Z
		7330.69	0.05			−2.3	–			ORn		92Wa06
		7330.53	0.15			0.3	–			Bdn		03Fi.A
	ave.	7330.67	0.04			−2.2	1	60	56 ^{25}Mg			average
$^{24}Mg(p,\gamma)^{25}Al$		2271.6	1.1	2271.6	0.5	0.0	2					71Ev01 Z
		2271.7	0.7			−0.2	2					72Pi07 Z
		2271.4	0.8			0.2	2					85Uh01 Z
$^{26}F-C_{2.167}$		19820	210	19620	180	−0.6	2			TO2	1.5	88Wo09
		19544	300			0.2	2			GA3	1.0	91Or01
		19490	210			0.4	2			TO4	1.5	91Zh24
$^{26}Ne-C_{2.167}$		448	90	461	29	0.1	2			GA3	1.0	91Or01
		461	33			0.0	2			P40	1.0	01Lu20
$^{26}Na-C_{2.167}$		−7367	7	−7367	6	0.0	2			P40	1.0	01Lu17
		−7367	14			0.0	2			P40	1.0	03Ga.A
$^{26}Mg-C_{2.167}$		−17407.014	0.034	−17407.071	0.030	−1.7	1	75	75 ^{26}Mg	ST2	1.0	03Be02
		−17400	8			−0.9	U			P40	1.0	03Ga.A
$^{25}Na-{}^{26}Na_{.721}\ {}^{22}Na_{.284}$		−2881	33	*			U			P13	1.0	75Th08
		−2921	22	*			U			P13	1.0	75Th08
$^{26}Al(n,\alpha)^{23}Na$		2966.5	2.5	2965.95	0.06	−0.2	U					01Wa50
$^{26}Mg(^7Li,^8B)^{25}Ne$		−22050	100	−22120	26	−0.7	U			Brk		73Wi06
$^{26}Mg(^{13}C,^{14}O)^{25}Ne$		−19067	50	−18989	26	1.6	R			Can		85Wo04
$^{25}Mg(n,\gamma)^{26}Mg$		11093.10	0.06	11093.07	0.03	−0.4	–			MMn		90Pr02 Z
		11093.23	0.05			−3.1	–			ORn		92Wa06 Z
		11093.16	0.22			−0.4	U			Bdn		03Fi.A
	ave.	11093.18	0.04			−2.7	1	61	40 ^{25}Mg			average
$^{25}Mg(p,\gamma)^{26}Al$		6306.39	0.11	6306.45	0.05	0.6	–					85Be17 Z
		6306.38	0.08			0.9	–			Utr		91Ki04 Z

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{25}Mg(p,γ)^{26}Al	ave.	6306.38	0.06	6306.45	0.05	1.1	1	71	67 ^{26}Al			average	
^{26}Mg(π^-,π^+)^{26}Ne		−17676	72	−17666	27	0.1	R					80Na12	
^{26}Mg(t,^{3}He)^{26}Na		−9292	20	−9334	6	−2.1	U			LAl		74Fl01	
^{26}Mg(^{7}Li,^{7}Be)^{26}Na		−10182	40	−10214	6	−0.8	U			ChR		72Ba35	*
^{26}Mg(p,n)^{26}Al		−4786.25	0.12	−4786.62	0.06	−3.1	1	23	22 ^{26}Al	Auc		94Br11	*
^{26}Mg(^{3}He,t)^{26}Al−^{14}N()^{14}O		1139.43	0.13	1139.67	0.11	1.8	1	65	58 ^{14}O	ChR		87Ko34	*
*^{26}Mg(^{7}Li,^{7}Be)^{26}Na	Q=–10222(30) corrected for contribution of unresolved 82.5 level											Ens90	**
*^{26}Mg(p,n)^{26}Al	T=5209.46(0.12) to ^{26}Al^m at 228.305											AHW	**
*^{26}Mg(^{3}He,t)^{26}Al−^{14}N()1	Q(to 1057.740(0.023) level)–^{14}N()^{14}O=81.69(0.13)											82Al19	**
^{27}F−$C_{2.25}$		27500	700	26760	400	−0.7	2			TO2	1.5	88Wo09	
		26005	770			1.0	2			GA3	1.0	91Or01	
		27100	900			−0.3	2			TO4	1.5	91Zh24	
		26900	580			−0.2	2			GA5	1.0	99Sa.A	
^{27}Ne−$C_{2.25}$		7470	300	7590	120	0.4	2			GA1	1.0	87Gi05	
		7567	172			0.1	2			GA3	1.0	91Or01	
		7670	130			−0.4	2			TO4	1.5	91Zh24	
^{27}Na−$C_{2.25}$		−5922	11	−5923	4	−0.1	1	12	12 ^{27}Na	P40	1.0	01Lu17	
^{27}Na−^{27}Al		12538	4	12538	4	0.0	1	88	88 ^{27}Na	P40	1.0	01Lu17	
^{26}Na−^{27}$Na_{.770}$ ^{22}$Na_{.236}$		−1437	86	−1391	6	0.5	U			P13	1.0	75Th08	
^{27}Al(p,α)^{24}Mg		1601.3	0.5	1600.96	0.12	−0.7	U			Zur		67St30	Z
		1600.06	0.21			4.3	B			Utr		78Ma23	Z
^{26}Mg(^{18}O,^{17}F)^{27}Na		−13295	55	−13430	4	−2.5	F			Mun		78Pa12	*
		−13433	60			0.0	U			Can		85Fi08	
^{26}Mg(n,γ)^{27}Mg		6443.26	0.08	6443.39	0.04	1.6	2			MMn		90Pr02	Z
		6443.44	0.05			−1.1	2			ORn		92Wa06	Z
		6443.35	0.13			0.3	2			Bdn		03Fi.A	
^{26}Mg(p,γ)^{27}Al		8270.8	0.5	8271.05	0.12	0.5	–			Utr		59An33	*
		8271.2	0.5			−0.3	–					63Va24	Z
		8271.3	0.5			−0.5	–			Utr		78Ma24	*
	ave.	8271.10	0.29			−0.2	1	17	16 ^{27}Al			average	
^{27}Al(p,n)^{27}Si		−5593.8	0.26	−5594.70	0.10	−3.5	F			Auc		77Na24	*
		−5594.27	0.11			−3.9	F			Auc		85Wh03	*
		−5594.72	0.10				2			Auc		94Br37	Z
*^{26}Mg(^{18}O,^{17}F)^{27}Na	Shape of peak raises doubt on centroid determination											GAu	**
*^{26}Mg(p,γ)^{27}Al	E(p)=338.65(0.12) to 8596.8(0.5) level											78Ma24	**
*^{26}Mg(p,γ)^{27}Al	E(p)=338.21(0.30) to 8596.8(0.5) level											78Ma24	**
*^{26}Mg(p,γ)^{27}Al	E(p)=809.90(0.05,Z) to 9050.7(0.5,Z) level											78Ma24	**
*^{27}Al(p,n)^{27}Si	F: Measurement contains error											94Br37	**
^{28}Ne−$C_{2.333}$		11958	238	12070	160	0.5	2			GA3	1.0	91Or01	
		12160	140			−0.4	2			TO4	1.5	91Zh24	
^{28}Na−$C_{2.333}$		−1097	96	−1062	14	0.4	U			GA3	1.0	91Or01	
		−1062	14			0.0	1	100	100 ^{28}Na	P40	1.0	01Lu17	
^{28}Mg−$C_{2.333}$		−16134	15	−16123.2	2.2	0.7	U			P40	1.0	03Ga.A	
^{28}Si−$C_{2.333}$		−23073.43	0.30	−23073.4675	0.0019	−0.1	U			ST1	1.0	93Je06	
		−23073.00	0.27			−0.7	U			OH1	2.5	94Go.A	
		−23073.466	0.008			−0.2	U			ST2	1.0	02Be64	
C_2 D_2−^{28}Si		51277.0224	0.0024	51277.0232	0.0018	0.3	1	58	57 ^{28}Si	MI1	1.0	95Di08	
$^{15}N_2$−^{28}Si H_2		7641.2007	0.0024	7641.1998	0.0018	−0.4	1	58	43 ^{28}Si	MI1	1.0	95Di08	
$^{28}Si_2$ ^{16}O−^{35}Cl ^{37}Cl		14013.07	0.70	14012.41	0.07	−0.6	U			H46	1.5	93Nx02	
^{26}Na−^{28}$Na_{.619}$ ^{22}$Na_{.394}$		−4203	87	−4208	10	−0.1	U			P13	1.0	75Th08	
^{28}Si(^{3}He,^{8}Li)^{23}Al		−34274	25	−34278	19	−0.2	2			MSU		75Be38	
^{28}Si(α,^{8}He)^{24}Si		−61433	21	−61421	21	0.6	R			Tex		80Tr04	
^{28}Si(^{3}He,^{6}He)^{25}Si		−27981	10				2			MSU		72Be12	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{28}Si(p,t)^{26}Si		−22009	3				2			MSU		74Ha02	
^{27}Al(n,γ)^{28}Al		7725.02	0.20	7725.10	0.06	0.4	U			BNn		78St25	Z
		7725.02	0.10			0.8	2					81Su.A	Z
		7725.14	0.09			−0.4	2			ILn		82Sc14	Z
		7725.17	0.15			−0.5	2			Bdn		03Fi.A	
^{27}Al(p,γ)^{28}Si		11584.89	0.30	11585.11	0.12	0.7	–			Utr		78Ma23	Z
	ave.	11585.12	0.13			−0.1	1	84	84 ^{27}Al			average	
^{27}Al(p,γ)^{28}Si^{r}		−956.15	0.03	−956.139	0.025	0.3	2			Utr		78Ma23	Z
		−956.025	0.020			−5.7	B			Auc		94Br37	Z
		−956.13	0.05			−0.4	2					98Wa.A	Z
^{28}Si(^{7}Li,^{8}He)^{27}P		−37513	40	−37466	27	1.2	R					01Ca37	
^{28}Mg(β^-)^{28}Al		1831.8	2.0				3					54Ol03	
^{28}Si^{r}(IT)^{28}Si		12541.23	0.14	12541.25	0.12	0.1	R			Utr		90En02	Z
^{28}Si(p,n)^{28}P		−15118.3	4.1	−15116	3	0.5	2			Yal		69Ov01	Z
		−15112.3	6.			−0.7	2			BNL		71Go18	Z
^{28}Si(π^+,π^-)^{28}S		−24544	160				2					82Mo12	*
*^{28}Si(π^+,π^-)^{28}S	Original –24603(160) recalibrated to ^{16}O(π^+,π^-)^{16}Ne Q=–27704(20)											GAu	**
^{29}Ne−C$_{2.417}$		19433	551	19390	290	−0.1	2			GA3	1.0	91Or01	
		19300	400			0.1	2			TO4	1.5	91Zh24	
		19400	410			0.0	2			GA5	1.0	00Sa21	
^{29}Na−C$_{2.417}$		2838	143	2861	14	0.2	U			GA3	1.0	91Or01	
		2861	14			0.0	1	100	100 ^{29}Na	P40	1.0	01Lu17	
^{29}Mg−C$_{2.417}$		−11400	15				2			P40	1.0	03Ga.A	
^{26}Na−^{29}Na$_{.512}$ ^{22}Na$_{.506}$		−5763	91	−5604	9	1.2	U			P10	1.5	75Th08	
		−5576	66			−0.4	U			P13	1.0	75Th08	
^{18}O(^{13}C,2p)^{29}Mg		−1456	50	−1615	14	−3.2	B					81Pa17	
^{26}Mg(^{11}B,^{8}B)^{29}Mg		−19720	50	−19849	14	−2.6	U			Brk		74Sc26	
^{26}Mg(^{18}O,^{15}O)^{29}Mg		−9207	55	−9233	14	−0.5	U			Mun		78Pa12	
		−9250	45			0.4	U			Can		85Fi08	
^{27}Al(t,p)^{29}Al		8679.5	1.2				2			Str		84An17	
^{28}Si(n,γ)^{29}Si		8473.6	0.3	8473.566	0.021	−0.1	o			MMn		80Is02	Z
		8473.61	0.04			−1.1	2			MMn		90Is02	Z
		8473.55	0.04			0.4	2			ORn		92Ra19	Z
		8473.5509	0.0300			0.5	2			PTB		97Ro26	*
		8473.54	0.17			0.2	U			Bdn		03Fi.A	
^{28}Si(p,γ)^{29}P		2747.1	1.7	2748.8	0.6	1.0	U					73Ba35	Z
		2748.8	0.6				2					74By01	Z
*^{28}Si(n,γ)^{29}Si	Original error 0.0005 increased for calibration											GAu	**
^{30}Ne−C$_{2.5}$		23872	884	24800	610	1.1	2			GA3	1.0	91Or01	
		25660	850			−1.0	2			GA5	1.0	00Sa21	
^{30}Na−C$_{2.5}$		9126	218	8976	27	−0.7	U			GA3	1.0	91Or01	
		9330	130			−1.8	U			TO4	1.5	91Zh24	
		8976	27				2			P40	1.0	01Lu17	
^{30}Mg−C$_{2.5}$		−9700	230	−9566	9	0.4	o			TO1	1.5	86Vi09	
		−9597	98			0.3	U			GA3	1.0	91Or01	
		−9490	110			−0.5	U			TO4	1.5	91Zh24	
		−9566	9				2			P40	1.0	03Ga.A	
^{26}Na−^{30}Na$_{.433}$ ^{22}Na$_{.591}$		−7515	117	*			U			P13	1.0	75Th08	
^{26}Mg(^{18}O,^{14}O)^{30}Mg		−16234	55	−16093	8	2.6	B			Mun		78Pa12	*
^{29}Si(n,γ)^{30}Si		10609.6	0.3	10609.199	0.022	−1.3	o			MMn		80Is02	Z
		10609.21	0.04			−0.3	3			MMn		90Is02	Z
		10609.24	0.05			−0.8	3			ORn		92Ra19	Z
		10609.1776	0.0300			0.7	3			PTB		97Ro26	*
		10609.23	0.21			−0.1	U			Bdn		03Fi.A	
^{29}Si(p,γ)^{30}P		5594.5	0.4	5594.5	0.3	0.0	3					85Re02	
		5594.5	0.5			0.0	3					96Wa33	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{30}Na(β^-)^{30}Mg	17167	330	17272	27	0.3	U					83De04	*
^{30}Si(t,^{3}He)^{30}Al	−8520	40	−8542	14	−0.5	4					69Aj03	
	−8545	15			0.2	4					87Pe06	
*^{26}Mg(^{18}O,^{14}O)^{30}Mg	Tentative, say authors; four counts only										AHW	**
*^{29}Si(n,γ)^{30}Si	Original error 0.0005 increased for calibration										GAu	**
*^{30}Na(β^-)^{30}Mg	Calculated from 3 values used as calibrators										GAu	**
^{31}Na−C$_{2.583}$	13559	327	13590	230	0.1	2			GA3	1.0	91Or01	
	13610	210			−0.1	2			TO4	1.5	91Zh24	
^{31}Mg−C$_{2.583}$	−3830	220	−3454	13	1.1	o			TO1	1.5	86Vi09	
	−3520	180			0.4	o			GA1	1.0	87Gi05	
	−3458	149			0.0	U			GA3	1.0	91Or01	
	−3370	120			−0.5	U			TO4	1.5	91Zh24	
	−3454	13				2			P40	1.0	03Ga.A	
^{31}P(p,α)^{28}Si	1915.8	0.2	1915.97	0.18	0.8	1	84	84 ^{31}P	Zur		67St30	
^{30}Si(^{18}O,^{17}F)^{31}Al	−12200	25	−12213	20	−0.5	4					88Wo02	
	−12237	35			0.7	4			Ber		89Bo.A	
^{30}Si(n,γ)^{31}Si	6587.32	0.20	6587.395	0.026	0.4	U			MMn		90Is02	Z
	6587.39	0.05			0.1	4			ORn		92Ra19	Z
	6587.3970	0.0300			−0.1	4			PTB		97Ro26	*
	6587.39	0.14			0.0	U			Bdn		03Fi.A	
*^{30}Si(n,γ)^{31}Si	Original error 0.0005 increased for calibration										GAu	**
^{32}Na−C$_{2.667}$	19720	636	20470	380	1.2	2			GA3	1.0	91Or01	
	19900	1100			0.3	2			TO4	1.5	91Zh24	
	20980	500			−1.0	2			GA5	1.0	00Sa21	
^{32}Mg−C$_{2.667}$	−800	260	−1025	19	−0.6	o			TO1	1.5	86Vi09	
	−890	270			−0.5	U			GA1	1.0	87Gi05	
	−924	214			−0.5	U			GA3	1.0	91Or01	
	−820	130			−1.1	U			TO4	1.5	91Zh24	
	−1142	113			1.0	o			P40	1.0	01Lu20	
	−1025	19				2			P40	1.0	03Ga.A	
^{32}Al−C$_{2.667}$	−11870	200	−11880	90	0.0	2			GA1	1.0	87Gi05	
	−11877	104			0.0	2			GA3	1.0	91Or01	
^{32}Ar−^{39}K$_{.821}$	27434.8	1.9				2			MA8	1.0	03Bl.1	
^{32}S(^{3}He,^{8}Li)^{27}P	−31277	35	−31314	26	−1.1	2			MSU		77Be13	
^{32}S(^{3}He,^{6}He)^{29}S	−25520	50				2			MSU		73Be09	
^{30}Si(t,p)^{32}Si	7307	1	7308.81	0.04	1.8	U			Str		80An.A	
^{32}S(p,t)^{30}S	−19614	3				2			MSU		74Ha02	
^{31}Si(n,γ)^{32}Si	9203.2180	0.0300				5			PTB		97Ro26	*
^{31}P(n,γ)^{32}P	7935.73	0.16	7935.65	0.04	−0.5	U			MMn		85Ke11	Z
	7935.65	0.04				2			ILn		89Mi16	Z
	7935.60	0.16			0.3	U			Bdn		03Fi.A	
^{31}P(p,γ)^{32}S	8864.9	0.9	8863.78	0.21	−1.2	–					72Co13	
	8865.6	1.0			−1.8	–					73Ve08	Z
	8865.1	0.9			−1.5	–					74Vi02	
ave.	8864.5	0.4			−1.8	1	25	16 ^{31}P			average	
^{32}S(p,d)^{31}S	−12817.8	1.5				2			MSU		73Mo23	
^{32}Na(β^-)^{32}Mg	18300	1400	20020	360	1.2	U					83De04	
^{32}Si(β^-)^{32}P	221.4	1.2	224.31	0.19	2.4	U					84Po09	
^{32}P(β^-)^{32}S	1710.1	0.7	1710.48	0.22	0.5	R					68Fi04	
^{32}S(p,n)^{32}Cl	−13470	14	−13468	7	0.1	2			Yal		69Ov01	Z
	−13470	9			0.2	2			BNL		71Go18	Z
^{32}S(^{3}He,t)^{32}Cl	−12699	15	−12705	7	−0.4	2					89Je07	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{32}S(\pi^+,\pi^-)^{32}Ar$		−22815	50	−22793.5	1.8	0.4	U					80Bu15	
$*^{31}Si(n,\gamma)^{32}Si$	Original error 0.0005 increased for calibration											GAu	**
$^{33}Na-C_{2.75}$		27386	1601	26720	940	−0.4	2			GA3	1.0	91Or01	
		26370	1160			0.3	2			GA5	1.0	00Sa21	
$^{33}Mg-C_{2.75}$		5460	900	5254	21	−0.2	o			GA1	1.0	87Gi05	
		5203	318			0.2	U			GA3	1.0	91Or01	
		5710	180			−1.7	U			TO4	1.5	91Zh24	
		5254	21				2			P40	1.0	03Ga.A	
$^{33}Al-C_{2.75}$		−9250	160	−9160	80	0.6	2			GA1	1.0	87Gi05	
		−9167	142			0.1	2			GA3	1.0	91Or01	
		−9020	120			−0.8	2			TO4	1.5	91Zh24	
$^{33}Ar-^{36}Ar_{.917}$		19689.2	4.5	19686.8	0.5	−0.5	U			MA6	1.0	01He29	
$^{33}Ar-^{39}K_{.846}$		20629.86	0.43				2			MA8	1.0	03Bl.1	
$^{33}S(n,\alpha)^{30}Si$		3496.9	5.0	3493.33	0.14	−0.7	U					01Wa50	
$^{32}S(n,\gamma)^{33}S$		8641.5	0.3	8641.615	0.029	0.4	o			MMn		80Is02	Z
		8641.82	0.10			−2.1	–			ORn		83Ra04	Z
		8641.60	0.03			0.5	–			MMn		85Ke08	Z
		8641.81	0.17			−1.1	U			Bdn		03Fi.A	
	ave.	8641.618	0.029			−0.1	1	100	91 ^{32}S			average	
$^{32}S(p,\gamma)^{33}Cl$		2276.4	0.9	2276.7	0.4	0.3	2					59Ku79	
		2276.8	0.5			−0.2	2					76Al01	
$^{33}Si(\beta^-)^{33}P$		5768	50	5845	16	1.5	R					73Go33	
$^{33}P(\beta^-)^{33}S$		249	2	248.5	1.1	−0.2	2					54Ni06	
		248.3	1.3			0.2	2					84Po09	
$^{34}Mg-C_{2.833}$		8855	476	9460	250	1.3	2			GA3	1.0	91Or01	
		9190	350			0.5	2			TO4	1.5	91Zh24	
		9900	350			−1.3	2			GA5	1.0	00Sa21	
$^{34}Al-C_{2.833}$		−3400	250	−3150	120	1.0	2			GA1	1.0	87Gi05	
		−3262	218			0.5	2			GA3	1.0	91Or01	
		−2940	120			−1.2	2			TO4	1.5	91Zh24	
$^{34}Ar-^{36}Ar_{.944}$		10907.4	3.8	10908.7	0.4	0.3	U			MA6	1.0	01He29	
$^{34}Ar-^{39}K_{.872}$		11919.02	0.36				2			MA8	1.0	02He23	
$^{33}S(n,\gamma)^{34}S$		11417.12	0.10	11417.11	0.09	−0.1	–			ORn		83Ra04	Z
		11417.22	0.23			−0.5	–			Bdn		03Fi.A	
	ave.	11417.14	0.09			−0.3	1	92	87 ^{33}S			average	
$^{33}S(p,\gamma)^{34}Cl$		5142.42	0.20	5142.75	0.12	1.7	–			Oak		83Ra04	*
		5142.4	0.3			1.2	–			Utr		83Wa27	Z
		5143.29	0.20			−2.7	–			Auc		94Li20	
	ave.	5142.77	0.13			−0.2	1	91	87 ^{34}Cl			average	
$^{34}S(p,n)^{34}Cl$		−6273.11	0.25	−6274.36	0.15	−5.0	F			Auc		92Ba.A	*
$^{34}S(^3He,t)^{34}Cl$		−5510.8	0.4	−5510.60	0.15	0.5	1	13	13 ^{34}Cl	Mun		77Vo02	
$*^{33}S(p,\gamma)^{34}Cl$	E(p)=974.76(0.15,Z) to 6088.20(0.10,Z) level											83Ra04	**
$*^{34}S(p,n)^{34}Cl$	F: disturbed by resonance; at least 0.5 uncertain											94Li20	**
$^{35}Mg-C_{2.917}$		18669	1721	17340#	430#	−0.8	D			GA3	1.0	91Or01	*
		18830	1070			−1.4	D			GA5	1.0	00Sa21	*
$^{35}Al-C_{2.917}$		−340	460	−140	190	0.4	2			GA1	1.0	87Gi05	
		−296	298			0.5	2			GA3	1.0	91Or01	
		80	190			−0.8	2			TO4	1.5	91Zh24	
$C_3-^{35}Cl\ H$		23322.239	0.034	23322.29	0.04	0.9	1	62	62 ^{35}Cl	B07	1.5	71Sm01	
$C_5\ H_{10}-^{35}Cl_2$		140545.01	0.13	140544.96	0.08	−0.3	1	17	17 ^{35}Cl	B07	1.5	71Sm01	
$^{34}S(n,\gamma)^{35}S$		6986.00	0.10	6985.88	0.04	−1.2	–			ORn		83Ra04	Z
		6985.84	0.05			0.9	–			MMn		85Ke08	Z
		6986.09	0.14			−1.5	–			Bdn		03Fi.A	
	ave.	6985.89	0.04			−0.2	1	99	95 ^{34}S			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{34}S(p,γ)^{35}Cl	6370.7	0.4	6370.72	0.10	0.1	U					76Sp08	Z
	6370.70	0.20			0.1	U			Oak		83Ra04	*
^{35}S(β^-)^{35}Cl	167.4	0.2	167.18	0.09	−1.1	B					57Co62	*
	166.80	0.15			2.6	B					85Al11	*
	167.288	0.030			−3.5	B					85Ap01	*
	166.93	0.2			1.3	o					85Ma59	
	167.4	0.1			−2.2	B					85Oh06	*
	166.7	0.2			2.4	B					89Si04	*
	167.56	0.03			−12.5	B					92Ch27	*
	167.35	0.10			−1.7	B					93Ab11	*
	167.23	0.10			−0.5	B					93Be21	*
	167.27	0.10			−0.9	B					93Mo01	*
	167.222	0.095			−0.4	1	96	95 ^{35}S			Averag	*
^{35}Cl(p,n)^{35}Ar	−6747.2	1.6	−6748.5	0.7	−0.8	2			Har		75Fr.A	Z
	−6747.9	1.0			−0.6	2			Auc		77Wh03	Z
	−6751.9	1.8			1.9	2			Mtr		78Az01	Z
*^{35}Mg−C$_{2.917}$	Average GA3+GA5 18790(910)										GAu	**
*^{35}Mg−C$_{2.917}$	Systematical trends suggest ^{35}Mg 1350 more bound										CTh	**
*^{34}S(p,γ)^{35}Cl	E(p)=1264.97(0.13,Z) to 7598.91(0.15,Z) level										83Ra04	**
*^{35}S(β^-)^{35}Cl	Adopted: simple average and dispersion of 9 data										GAu	**
^{36}Mg−C$_3$	24930	1610	23000#	540#	−1.2	D			GA5	1.0	00Sa21	*
^{36}Al−C$_3$	6187	421	6210	230	0.0	2			GA3	1.0	91Or01	
	6500	400			−0.5	2			TO4	1.5	91Zh24	
	6140	310			0.2	2			GA5	1.0	00Sa21	
^{36}Si−C$_3$	−13490	320	−13400	130	0.3	2			GA1	1.0	87Gi05	
	−13578	191			0.9	2			GA3	1.0	91Or01	
	−13110	150			−1.3	2			TO4	1.5	91Zh24	
^{36}Ar−C$_3$	−32454.895	0.029	−32454.894	0.029	0.0	1	99	99 ^{36}Ar	ST2	1.0	03Fr08	
^{36}Ar(^{3}He,^{8}Li)^{31}Cl	−29180	50				2			MSU		77Be13	
^{36}S(^{48}Ca,^{51}V)^{33}Al	−14150	140	−14150	70	0.0	R			Dar		86Wo07	
^{36}S(^{14}C,^{17}O)^{33}Si	−6380	20	−6343	16	1.9	2			Mun		84Ma49	
^{36}S(^{11}B,^{14}N)^{33}Si	−4311	30	−4367	16	−1.9	2			Can		85Fi03	
^{36}Ar(^{3}He,^{6}He)^{33}Ar	−23512	30	−23511.3	0.9	0.0	U			MSU		74Na07	
^{36}S(^{11}B,^{13}N)^{34}Si	−7327	25	−7385	14	−2.3	2			Can		85Fi03	
^{36}S(^{14}C,^{16}O)^{34}Si	−2989	20	−2950	14	1.9	2			Mun		84Ma49	
^{36}S(^{64}Ni,^{66}Zn)^{34}Si	−8903	33	−8907	14	−0.1	2			Dar		86Sm05	*
^{36}S(d,α)^{34}P	4604.4	5.				2					82So.A	*
^{36}Ar(p,t)^{34}Ar	−19513	3	−19515.2	0.4	−0.7	U			MSU		74Ha02	
^{36}S(^{14}C,^{15}O)^{35}Si	−16184	50	−16140	40	0.9	2			Mun		84Ma49	
^{36}S(^{13}C,^{14}O)^{35}Si	−21122	60	−21190	40	−1.1	2			Can		86Fi06	
^{36}S(^{64}Ni,^{65}Zn)^{35}Si	−17250	100	−17490	40	−2.4	B			Dar		86Sm05	*
^{36}S(d,^{3}He)^{35}P	−7607	5	−7601.8	1.9	1.0	2			BNL		84Th08	
	−7601	2			−0.4	2			Hei		85Kh04	
^{35}Cl(n,γ)^{36}Cl	8579.73	0.20	8579.63	0.06	−0.5	U			BNn		78St25	Z
	8579.7	0.3			−0.2	o			MMn		80Is02	Z
	8579.81	0.20			−0.9	U			MMn		81Ke02	Z
	8579.66	0.10			−0.3	–					81Su.A	Z
	8579.61	0.09			0.3	–			ILn		82Kr12	Z
	8579.67	0.17			−0.2	–			Bdn		03Fi.A	
ave.	8579.64	0.06			0.0	1	98	97 ^{36}Cl			average	
^{35}Cl(p,γ)^{36}Ar	8506.1	0.5	8506.97	0.05	1.7	U					72Ho40	Z
^{36}S(^{7}Li,^{7}Be)^{36}P	−11277	27	−11275	13	0.1	2			Can		85Dr06	
^{36}S(^{14}C,^{14}N)^{36}P	−10256	15	−10257	13	0.0	2			Mun		84Ma49	
^{36}S(p,n)^{36}Cl	−1924.64	0.31	−1924.56	0.19	0.2	1	39	35 ^{36}S			01Wa50	
^{36}Cl(β^-)^{36}Ar	708.7	0.6	709.68	0.08	1.6	U					67Sp06	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{36}Ar(p,n)^{36}K	−13588.3	8.				2			BNL		71Go18	Z
*^{36}Mg−C_3	Systematical trends suggest ^{36}Mg 1800 more bound										GAu	**
*^{36}S(^{64}Ni,^{66}Zn)^{34}Si	Calibrated with ^{36}S(^{64}Ni,^{62}Ni)M=–26862(12) now−26861(7)										AHW	**
*^{36}S(d,α)^{34}P	Original error 1.2 judged too small										GAu	**
*^{36}S(^{64}Ni,^{65}Zn)^{35}Si	M−A=–14482(59) for average of ground-state and 54, 114, 207 levels										86Sm05	**
^{37}Al−$C_{3.083}$	10310	579	10680	360	0.6	2			GA3	1.0	91Or01	
	10900	450			−0.5	2			GA5	1.0	00Sa21	
^{37}Si−$C_{3.083}$	−7310	305	−7060	180	0.8	2			GA3	1.0	91Or01	
	−6930	150			−0.6	2			TO4	1.5	91Zh24	
C_2 D_8−^{37}Cl H_3	123436.51	0.12	123436.54	0.05	0.1	1	8	8 ^{37}Cl	B07	1.5	71Sm01	
C_3 H_6 O_2−^{37}Cl_2	104974.24	0.08	104974.25	0.10	0.1	1	71	71 ^{37}Cl	B07	1.5	71Sm01	
D_2 ^{35}Cl−H_2 ^{37}Cl	15503.80	0.09	15503.58	0.06	−1.0	1	8	5 ^{37}Cl	H31	2.5	77So02	
C_5 H_{12}−^{35}Cl ^{37}Cl	159145.17	0.12	159145.11	0.07	−0.3	1	13	8 ^{37}Cl	B07	1.5	71Sm01	
^{36}S(^{18}O,^{17}F)^{37}P	−14410	40	−14400	40	0.2	2			Can		88Or.A	*
^{36}S(^{48}Ca,^{47}Sc)^{37}P	−11490	120	−11550	40	−0.5	2			Dar		88Fi04	*
^{36}S(n,γ)^{37}S	4303.52	0.12	4303.60	0.06	0.7	2			ORn		84Ra09	Z
	4303.61	0.09			−0.1	2			Bdn		03Fi.A	
^{36}S(d,p)^{37}S	2079.12	0.13	2079.04	0.06	−0.6	2					84Pi03	
^{36}S(p,γ)^{37}Cl	8386.47	0.23	8386.43	0.19	−0.2	1	66	65 ^{36}S	Utr		84No05	Z
^{36}Ar(n,γ)^{37}Ar	8791.1	1.0	8787.44	0.21	−3.7	B					68Wi25	Z
	8788.8	1.2			−1.1	U					70Ha56	Z
	8789.9	0.9			−2.7	U			Bdn		03Fi.A	
^{36}Ar(p,γ)^{37}K	1857.63	0.09				2			Utr		88De03	Z
^{37}Cl(p,n)^{37}Ar	−1595.4	1.0	−1596.22	0.20	−0.8	U			MIT		52Sc09	Z
	−1596.8	1.0			0.6	U			Duk		66Pa18	Z
	−1596.22	0.20				2			PTB		98Bo30	
	−1596.3	1.0			0.1	U					01Wa50	
*^{36}S(^{18}O,^{17}F)^{37}P	And Q=–13650(40), M=–19750(40) if other peak is ground-state one										88Or.A	**
*^{36}S(^{48}Ca,^{47}Sc)^{37}P	And Q=–11569(80),M=–18980(80) if other peak due to ^{47}Sc 807.89 level										88Fi04	**
^{38}Al−$C_{3.167}$	15240	1500	17230	780	1.3	2			GA4	1.0	00Sa21	
	17980	920			−0.8	2			GA5	1.0	00Sa21	
^{38}Si−$C_{3.167}$	−4510	180	−4370	150	0.8	2			GA4	1.0	00Sa21	
	−4020	290			−0.8	2			TO4	1.5	91Zh24	
	−4100	320			−0.8	2			GA5	1.0	00Sa21	
^{38}P−$C_{3.167}$	−15910	140	−15840	110	0.5	2			GA4	1.0	00Sa21	
	−15530	150			−1.4	2			TO4	1.5	91Zh24	
	−16110	310			0.9	2			GA5	1.0	00Sa21	
^{38}Ar−^{39}K_{974}	−1917.88	0.37	−1917.9	0.3	−0.1	1	71	69 ^{38}Ar	MA8	1.0	02He23	
^{35}Cl(α,n)^{38}K	−5862.1	1.5	−5859.3	0.4	1.9	U			Mun		76Sh24	Z
	−5858.7	2.9			−0.2	U			Har		75Sq01	*
^{36}S(^{14}C,^{12}C)^{38}S	−781	10	−783	7	−0.2	R			Mun		84Ma49	
^{37}Cl(n,γ)^{38}Cl	6107.84	0.30	6107.88	0.08	0.1	U					73Sp06	Z
	6107.95	0.10			−0.7	2			MMn		81Ke02	Z
	6107.73	0.15			1.0	2			Bdn		03Fi.A	
^{37}Cl(p,γ)^{38}Ar	10243.0	1.0	10242.0	0.3	−1.0	1	12	11 ^{38}Ar			68En01	Z
^{38}S(β$^-$)^{38}Cl	2947	20	2937	7	−0.5	3					71En01	
	2936	12			0.1	3					72Vi11	
^{38}Ar(p,n)^{38}K	−6695.65	0.70	−6696.21	0.29	−0.8	1	17	17 ^{38}K			78Ja06	Z
^{38}Ar(p,n)^{38}K^m	−6826.73	0.12	−6826.71	0.12	0.1	1	98	98 ^{38}K^m	Auc		98Ha36	Z
^{38}K^m(IT)^{38}K	130.4	0.3	130.50	0.28	0.3	1	85	83 ^{38}K			90Endt	
*^{35}Cl(α,n)^{38}K	Q=–5989.1(2.9,Z) to ^{38}K^m at 130.4(0.3)										90Endt	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{39}Al−C$_{3.25}$		22970	1580				2			GA5	1.0	00Sa21	
^{39}Si−C$_{3.25}$		1900	540	2070	360	0.3	2			GA4	1.0	00Sa21	
		2210	490			−0.3	2			GA5	1.0	00Sa21	
^{39}P−C$_{3.25}$		−13890	140	−13820	110	0.5	2			GA4	1.0	00Sa21	
		−13580	160			−1.0	2			TO4	1.5	91Zh24	
		−13870	280			0.2	2			GA5	1.0	00Sa21	
^{39}K−^{36}Ar$_{1.083}$		−1144.65	0.44	−1144.67	0.20	−0.1	–			MA8	1.0	02He23	
		−1144.83	0.40			0.4	–			MA8	1.0	03Bl.1	
	ave.	−1144.75	0.30			0.3	1	48	47 ^{39}K			average	
^{37}Cl(t,p)^{39}Cl		5701.9	2.5	5699.5	1.7	−1.0	2			Str		84An03	
^{38}Ar(p,γ)^{39}K		6380.9	1.1	6381.43	0.29	0.5	–					70Ma31	Z
		6382.2	0.8			−1.0	–					84Ha27	Z
	ave.	6381.8	0.6			−0.5	1	20	19 ^{38}Ar			average	
^{39}K(p,d)^{38}K		−10851	2	−10853.1	0.4	−1.0	U			MSU		74Wi17	
^{39}Ar(β^-)^{39}K		565	5				2					50Br66	
^{39}K(p,n)^{39}Ca		−7302.5	6.	−7315.0	1.9	−2.1	U			Tal		70Ke08	
		−7314.9	1.8				2					78Ra15	Z
^{40}Si−C$_{3.333}$		5290	1010	5870	600	0.6	2			GA4	1.0	00Sa21	
		6180	740			−0.4	2			GA5	1.0	00Sa21	
^{40}P−C$_{3.333}$		−8800	200	−8700	150	0.5	2			GA4	1.0	00Sa21	
		−8950	210			0.8	2			TO4	1.5	91Zh24	
		−8200	320			−1.6	2			GA5	1.0	00Sa21	
^{40}S−C$_{3.333}$		−24440	190	−24550	150	−0.6	2			GA4	1.0	00Sa21	
		−24530	250			0.0	2			TO4	1.5	91Zh24	
		−24910	340			1.1	2			GA5	1.0	00Sa21	
C_3 H_4−^{40}Ar		68917.0053	0.0035	68917.0058	0.0028	0.1	1	66	66 ^{40}Ar	MI1	1.0	95Di08	
C_2 D_8−^{40}Ar		150431.1045	0.0040	150431.1003	0.0028	−1.1	1	49	24 ^{40}Ar	MI1	1.0	95Di08	
^{20}Ne$_2$−^{40}Ar		22497.2245	0.0042	22497.228	0.003	0.9	1	51	44 ^{20}Ne	MI1	1.0	95Di08	
		22497.2280	0.0060			0.1	1	25	22 ^{20}Ne	MI1	1.0	95Di08	
^{40}Ar−C$_{3.333}$		−37616.878	0.040	−37616.8775	0.0029	0.0	U			ST2	1.0	02Bf02	
^{40}Ca(^{3}He,^{8}Li)^{35}K		−29693	20				2			MSU		76Be08	
^{40}Ca(α,^{8}He)^{36}Ca		−57580	40				2			Tex		77Tr03	
^{40}Ca(^{3}He,^{6}He)^{37}Ca		−24270	50	−24348	22	−1.6	2			Brk		68Bu02	
		−24368	25			0.8	2			MSU		73Be23	*
^{40}Ca(p,t)^{38}Ca		−20428	11	−20448	5	−1.8	2			MSU		72Pa02	
		−20452	5			0.8	2			MSU		74Se05	
^{40}Ar(^{13}C,^{14}O)^{39}S		−16760	50				2			Can		89Dr03	
^{40}Ar(d,^{3}He)^{39}Cl−^{36}Ar()^{35}Cl		−4024.13	2.42	−4021.7	1.7	1.0	R			Hei		93Ma50	
^{39}K(n,γ)^{40}K		7799.50	0.08	7799.51	0.07	0.1	–			ILn		84Vo01	Z
		7799.56	0.16			−0.3	–			Bdn		03Fi.A	
	ave.	7799.51	0.07			0.0	1	91	51 ^{40}K			average	
^{39}K(p,γ)^{40}Ca		8328.24	0.09	8328.23	0.09	−0.1	1	97	94 ^{40}Ca	Utr		90Ki07	Z
^{40}Ca(^{7}Li,^{8}He)^{39}Sc		−37400	40	−37368	25	0.8	2			MSU		88Mo18	
^{40}Ca(^{14}N,^{15}C)^{39}Sc		−27670	30	−27688	24	−0.6	2			Can		88Wo07	
^{40}Cl(β^-)^{40}Ar		7320	80	7480	30	2.0	2					89Mi03	
^{40}Ar(^{7}Li,^{7}Be)^{40}Cl		−8375	35	−8340	30	0.9	2					84Fi02	
^{40}K(n,p)^{40}Ar		2286.7	1.0	2287.04	0.19	0.3	–			ILL		81We12	
^{40}Ar(p,n)^{40}K		−2286.3	1.0	−2287.04	0.19	−0.7	–			Duk		66Pa18	Z
		−2286.3	1.0			−0.7	–					01Wa50	
^{40}K(n,p)^{40}Ar	ave.	2286.4	0.6	2287.04	0.19	1.0	1	11	11 ^{40}K			average	
^{40}Ca(p,n)^{40}Sc		−15105.4	2.9				2			Yal		69Ov01	Z
^{40}Ca(π^+,π^-)^{40}Ti		−24974	160				2					82Mo12	*
*^{40}Ca(^{3}He,^{6}He)^{37}Ca	Average of 2 values with small calibration correction											AHW	**
*^{40}Ca(π^+,π^-)^{40}Ti	Recalibrated to ^{16}O(π^+,π^-) Q=–27704(20)											GAu	**

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{41}Si−C$_{3.417}$	14560	1980				2			GA5	1.0	00Sa21	
^{41}P−C$_{3.417}$	−5930	300	−5660	230	0.9	2			GA4	1.0	00Sa21	
	−5200	500			−0.6	2			TO4	1.5	91Zh24	
	−5290	420			−0.9	2			GA5	1.0	00Sa21	
^{41}S−C$_{3.417}$	−20500	150	−20420	130	0.5	2			GA4	1.0	00Sa21	
	−19970	230			−1.3	2			TO4	1.5	91Zh24	
	−20430	330			0.0	2			GA5	1.0	00Sa21	
^{41}Cl−C$_{3.417}$	−29620	190	−29320	70	1.1	2			TO3	1.5	90Tu01	
	−29500	270			0.5	2			TO4	1.5	91Zh24	
^{41}Ti−C$_{3.417}$	−16200	390	−16860#	110#	−1.7	D			1.0	1.0	02St.A	*
^{41}K−^{39}K$_{1.051}$	−30.05	0.32	−29.96	0.11	0.3	1	12	7 ^{39}K	MA8	1.0	02He23	
^{40}Ar(^{18}O,^{17}F)^{41}Cl	−10530	83	−10470	70	0.8	R			Can		84Ho.B	
^{40}Ar(n,γ)^{41}Ar	6098.4	0.7	6098.9	0.3	0.7	–					70Ha56	Z
	6099.1	0.4			−0.5	–			Bdn		03Fi.A	
ave.	6098.9	0.3			−0.1	1	91	91 ^{41}Ar			average	
^{40}Ar(p,γ)^{41}K	7807.8	0.3	7808.15	0.19	1.2	1	42	42 ^{41}K			89Sm06	Z
^{40}K(n,γ)^{41}K	10095.19	0.10	10095.19	0.08	0.0	–			ILn		84Kr05	Z
	10095.25	0.20			−0.3	–			Bdn		03Fi.A	
ave.	10095.20	0.09			−0.2	1	86	48 ^{41}K			average	
^{40}Ca(n,γ)^{41}Ca	8363.0	0.5	8362.80	0.13	−0.4	–					69Ar.A	Z
	8362.5	0.5			0.6	–					70Cr04	Z
	8362.72	0.3			0.3	–			MMn		80Is02	Z
	8362.86	0.17			−0.3	–			Bdn		03Fi.A	
ave.	8362.81	0.14			−0.1	1	93	87 ^{41}Ca			average	
^{40}Ca(p,γ)^{41}Sc	1085.09	0.09	1085.09	0.08	0.0	1	88	88 ^{41}Sc	Utr		87Zi02	*
^{41}Cl(β^-)^{41}Ar	5670	150	5760	70	0.6	R					74Gu10	
^{41}Ar(β^-)^{41}K	2492.0	1.1	2491.6	0.4	−0.4	1	12	9 ^{41}Ar			64Pa03	
^{41}K(p,n)^{41}Ca	−1203.8	0.5	−1203.66	0.18	0.3	1	13	11 ^{41}Ca	Can		70Kn03	Z
^{41}Sc^r(IT)^{41}Sc	2882.39	0.10	2882.30	0.05	−0.9	–			Utr		87Zi02	Z
	2882.26	0.06			0.6	–			Utr		89Ki11	Z
ave.	2882.29	0.05			0.0	1	96	84 ^{41}Sc^r			average	
*^{41}Ti−C$_{3.417}$	Systematical trends suggest ^{41}Ti 610 more bound										GAu	**
*^{40}Ca(p,γ)^{41}Sc	E(p)=647.25(0.05,Z) to 1716.43(0.08,Z) level										87Zi02	**
^{42}Si−C$_{3.5}$	20860	3990	19790#	540#	−0.3	D			GA5	1.0	99Sa.A	*
^{42}P−C$_{3.5}$	260	740	1010	480	1.0	2			GA4	1.0	00Sa21	
	1550	630			−0.9	2			GA5	1.0	00Sa21	
^{42}S−C$_{3.5}$	−18940	150	−18980	130	−0.3	2			GA4	1.0	00Sa21	
	−18510	350			−0.9	2			TO4	1.5	91Zh24	
	−19390	350			1.2	2			GA5	1.0	00Sa21	
^{42}Cl−C$_{3.5}$	−27000	190	−26750	150	0.9	2			TO3	1.5	90Tu01	
	−26870	190			0.4	2			TO4	1.5	91Zh24	
^{42}Ar−^{36}Ar$_{1.167}$	920.6	6.2				2			MA6	1.0	01He29	
^{28}Si(^{16}O,2n)^{42}Ti	−17250	13	−17251	5	−0.1	R					72Zi02	
^{40}Ar(t,p)^{42}Ar	7043	40	7044	6	0.0	U			LAl		61Ja07	
^{40}Ca(^{3}He,n)^{42}Ti	−2865	6	−2865	5	0.0	2			CIT		67Mi02	
^{41}K(n,γ)^{42}K	7533.78	0.15	7533.80	0.11	0.1	2			ILn		85Kr06	Z
	7533.82	0.15			−0.1	2			Bdn		03Fi.A	
^{41}Ca(n,γ)^{42}Ca	11480.63	0.06	11480.63	0.06	0.0	1	95	93 ^{42}Ca	ORn		89Ki11	Z
^{41}Ca(p,γ)^{42}Sc^r−^{40}Ca()^{41}Sc^r	−6.67	0.05	−6.67	0.05	0.0	1	96	80 ^{42}Sc^r	Utr		89Ki11	*
^{42}Cl(β^-)^{42}Ar	9760	220	9510	140	−1.1	R					89Mi03	
^{42}Ca(^{3}He,t)^{42}Sc−^{26}Mg()^{26}Al	−2421.83	0.23	−2421.56	0.13	1.2	1	32	23 ^{42}Sc	ChR		87Ko34	*
^{42}Sc^r(IT)^{42}Sc	6076.33	0.08	6076.33	0.08	0.0	1	91	71 ^{42}Sc	Utr		89Ki11	Z
*^{42}Si−C$_{3.5}$	Systematical trends suggest ^{42}Si 1000 more bound										CTh	**
*^{41}Ca(p,γ)^{42}Sc^r−^{40}Ca()	Calculated from resonance energy difference = 5.73(0.05)										GAu	**
*^{42}Ca(^{3}He,t)^{42}Sc−^{26}Mg()	Q=–2193.52(0.23) to ^{26}Al^m at 228.305										90Endt	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{43}P−C$_{3.583}$		4220	1620	6190	1040	1.2	U			GA4	1.0	00Sa21	
		6190	1040				2			GA5	1.0	00Sa21	
^{43}S−C$_{3.583}$		−12810	250	−12850	220	−0.1	2			GA4	1.0	00Sa21	
		−13400	900			0.4	2			TO4	1.5	91Zh24	
		−12900	460			0.1	2			GA5	1.0	00Sa21	
^{43}Cl−C$_{3.583}$		−26090	300	−25950	170	0.5	2			GA4	1.0	00Sa21	
		−25740	200			−0.7	2			TO3	1.5	90Tu01	
		−25970	350			0.0	2			TO4	1.5	91Zh24	
		−26010	330			0.2	2			GA5	1.0	00Sa21	
^{43}Ar−^{36}Ar$_{1.194}$		4387.2	5.7				2			MA6	1.0	01He29	
^{40}Ca(α,n)^{43}Ti		−11169.9	10.	−11172	7	−0.2	2			Tal		67Al08	
^{42}Ca(n,γ)^{43}Ca		7933.1	0.5	7932.88	0.17	−0.4	–					69Ar.A	Z
		7933.1	0.5			−0.4	–			Ptn		69Gr08	Z
		7933.1	0.4			−0.5	–					71Bi.A	
		7932.73	0.23			0.7	–			Bdn		03Fi.A	
	ave.	7932.89	0.17			0.0	1	99	97 ^{43}Ca			average	
^{42}Ca(p,γ)^{43}Sc		4935	5	4929.8	1.9	−1.0	2					65Br31	
		4929	2			0.4	2					69Wa19	
^{43}K(β^-)^{43}Ca		1817	20	1815	9	−0.1	2					54Li24	
		1815	10			0.0	2					59Be72	
^{44}S−C$_{3.667}$		−10510	580	−9790	420	1.2	2			GA4	1.0	00Sa21	
		−8960	620			−1.3	2			GA5	1.0	00Sa21	
^{44}Cl−C$_{3.667}$		−21700	130	−21720	120	−0.1	2			GA4	1.0	00Sa21	
		−21500	500			−0.3	2			TO3	1.5	90Tu01	
		−21450	270			−0.7	2			TO4	1.5	91Zh24	
		−22150	370			1.2	2			GA5	1.0	00Sa21	
^{44}Ar−^{39}K$_{1.128}$		5862.9	1.7				2			MA8	1.0	03Bl.1	
^{44}Sc−C$_{3.667}$		−40480	410	−40597.2	1.9	−0.2	U			TO6	1.5	98Ba.A	*
^{44}V−C$_{3.667}$		−25890	130				2			1.0	1.0	02St.A	*
^{40}Ca(α,γ)^{44}Ti		5127.1	0.7				2					82Di05	
^{43}Ca(n,γ)^{44}Ca		11130.6	0.5	11131.16	0.23	1.1	–					69Ar.A	Z
		11130.1	0.7			1.5	–					72Wh02	Z
		11131.54	0.29			−1.3	–			Bdn		03Fi.A	
	ave.	11131.17	0.24			0.0	1	98	95 ^{44}Ca			average	
^{43}Ca(p,γ)^{44}Sc		6694	2	6696.4	1.7	1.2	2					71Po.A	
^{44}K(β^-)^{44}Ca		5580	80	5660	40	1.0	2					70Le05	
^{44}Ca(t,^{3}He)^{44}K		−5660	40	−5640	40	0.5	2			LAl		70Aj01	
^{44}Sc(β^+)^{44}Ca		3642	5	3652.4	1.8	2.1	R					50Br52	
		3650	5			0.5	R					55Bl23	
*^{44}Sc−C$_{3.667}$	M−A=–37570(370) keV for mixture gs+m at 270.95 keV											Ens99	**
*^{44}V−C$_{3.667}$	M−A=–23980(80) keV for mixture gs+m at 270#100 keV											Nubase	**
^{45}S−C$_{3.75}$		−3610	2460	−3490	1870	0.0	2			GA4	1.0	00Sa21	
		−3330	2880			−0.1	2			GA5	1.0	00Sa21	
^{45}Cl−C$_{3.75}$		−19690	140	−19710	130	−0.2	2			GA4	1.0	00Sa21	
		−20300	700			0.6	2			TO3	1.5	90Tu01	
		−19850	460			0.3	2			GA5	1.0	00Sa21	
^{45}Ar−^{39}K$_{1.154}$		9922.45	0.55				2			MA8	1.0	03Bl.1	
^{45}Cr−C$_{3.75}$		−20360	540				2			1.0	1.0	02St.A	*
^{45}Fe(2p)^{43}Cr		1140	40	1130	40	−0.1	3					02Gi09	
		1100	100			0.3	3					02Pf02	
^{44}Ca(n,γ)^{45}Ca		7414.8	1.0	7414.79	0.17	0.0	U					69Ar.A	Z
		7414.83	0.3			−0.1	–			MMn		80Is02	Z
		7414.79	0.21			0.0	–			Bdn		03Fi.A	
	ave.	7414.80	0.17			−0.1	1	99	98 ^{45}Ca			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{44}Ca(p,γ)^{45}Sc		6887.8	1.2	6888.3	0.8	0.4	1	46	43 ^{45}Sc			74Sc02	Z
^{45}Ca(β^-)^{45}Sc		258	2	255.8	0.8	−1.1	1	17	15 ^{45}Sc			65Fr12	
^{45}Ti(β^+)^{45}Sc		2066	5	2062.1	0.5	−0.8	U					66Po04	
^{45}Sc(p,n)^{45}Ti		−2844.4	0.5				2			PTB		85Sc16	Z
*^{45}Cr−$C_{3.75}$	M−A=–18940(500) keV for mixture gs+m at 50#100 keV											Nubase	**
^{46}Cl−$C_{3.833}$		−16000	860	−15790	770	0.2	2			GA4	1.0	00Sa21	
		−14940	1730			−0.5	2			GA5	1.0	00Sa21	
^{46}Sc−$C_{3.833}$		−44650	230	−44828.1	0.9	−0.5	U			TO6	1.5	98Ba.A	*
^{32}S(^{16}O,2n)^{46}Cr		−17422	20				2					72Zi02	
^{46}Ti(^{3}He,^{6}He)^{43}Ti		−17470	12	−17466	7	0.3	R			MSU		77Mu03	*
^{46}Ca(t,α)^{45}K		5998	10				2			Ald		68Sa09	
^{46}Ca(d,t)^{45}Ca		−4144	10	−4137.2	2.3	0.7	–			Ald		67Bj05	
^{46}Ca(^{3}He,α)^{45}Ca		10194	10	10183.2	2.3	−1.1	–			MIT		71Ra35	
^{46}Ca(d,t)^{45}Ca	ave.	−4135	7	−4137.2	2.3	−0.3	1	10	10 ^{46}Ca			average	
^{45}Sc(n,γ)^{46}Sc		8760.61	0.3	8760.64	0.10	0.1	2			BNn		80Li07	Z
		8760.58	0.14			0.4	2			Utr		82Ti02	Z
		8760.75	0.18			−0.6	2			Bdn		03Fi.A	
^{45}Sc(p,γ)^{46}Ti		10344.7	0.7	10344.6	0.6	−0.1	1	83	42 ^{45}Sc			71Gu.A	
^{46}Ti(^{3}He,t)^{46}V		−7069.0	0.6				2			Mun		77Vo02	
*^{46}Sc−$C_{3.833}$	M−A=–41520(210) keV for mixture gs+m at 142.528 keV											Ens00	**
*^{46}Ti(^{3}He,^{6}He)^{43}Ti	Average with ref. Q reduced by 3 for recalibration ^{27}Al(^{3}He,^{6}He)											75Mu09	**
^{47}Ar−$C_{3.917}$		−25400	600	−27810	110	−2.7	B			TO3	1.5	90Tu01	
		−26570	1360			−0.9	U			GA5	1.0	00Sa21	
^{47}Sc−$C_{3.917}$		−47630	230	−47592.5	2.2	0.1	U			TO6	1.5	98Ba.A	*
C ^{35}Cl−^{47}Ti		17085.94	0.82	17089.6	0.9	1.8	1	19	18 ^{47}Ti	H32	2.5	79Ko10	
^{46}Ti ^{13}C−^{47}Ti C		4218.03	0.94	4223.3	0.3	2.2	1	2	1 ^{46}Ti	H32	2.5	79Ko10	
^{46}Ca(n,γ)^{47}Ca		7277.4	0.6	7276.36	0.27	−1.7	–					70Cr04	Z
		7276.1	0.3			0.9	–			Bdn		03Fi.A	
	ave.	7276.36	0.27			0.0	1	100	90 ^{46}Ca			average	
^{46}Ti(n,γ)^{47}Ti		8875.1	3.0	8880.29	0.29	1.7	U					69Te01	Z
		8880.5	0.3			−0.7	1	93	57 ^{46}Ti	Bdn		03Fi.A	
^{46}Ti(d,p)^{47}Ti		6654.3	1.7	6655.72	0.29	0.8	U			NDm		76Jo01	
^{46}Ti(p,γ)^{47}V		5167.60	0.07				2			Utr		86De13	*
^{47}Ca(β^-)^{47}Sc		1991.9	1.2	1992.0	1.2	0.1	1	96	83 ^{47}Ca			87Ju04	
^{47}Sc(β^-)^{47}Ti		600	2	600.3	1.9	0.1	1	88	87 ^{47}Sc			56Gr12	
*^{47}Sc−$C_{3.917}$	M−A=–44320(210) keV for mixture gs+m at 766.83 keV and											Ens95	**
*	assuming ratio R=0.07(3), from half-life=272 ns and TOF=1 μs											GAu	**
*^{46}Ti(p,γ)^{47}V	E(p)=985.94(0.05,Z) to 6132.39(0.04,Z) level											NDS95	**
^{13}C ^{35}Cl−^{48}Ti		24261.73	0.75	24261.2	0.9	−0.3	1	22	22 ^{48}Ti	H32	2.5	79Ko10	
^{48}Mn−C_4		−31480	120				2			1.0	1.0	02St.A	
^{46}Ti ^{37}Cl−^{48}Ti ^{35}Cl		1730.29	0.87	1735.2	0.3	2.2	1	2	1 ^{46}Ti	H32	2.5	79Ko10	
^{48}Ca(α,^{9}Be)^{43}Ar		−21160	70	−21127	7	0.5	U			Brk		74Je01	
^{48}Ca(^{3}He,^{7}Be)^{44}Ar		−12362	20	−12380	4	−0.9	U			MSU		76Cr03	*
^{48}Ca(α,^{7}Be)^{45}Ar		−27840	60	−27789	4	0.9	U			Brk		74Je01	
^{48}Ca(^{6}Li,^{8}B)^{46}Ar		−23325	70	−23330	40	−0.1	2			Brk		74Je01	
^{48}Ca(^{14}C,^{16}O)^{46}Ar		−6739	50	−6740	40	0.0	2			Mun		80Ma40	
^{48}Ca(d,α)^{46}K		1915	15				2			ANL		65Ma07	
^{46}Ti(^{3}He,n)^{48}Cr		5550	18	5556	7	0.3	R			CIT		67Mi02	
^{48}Ca(^{14}C,^{15}O)^{47}Ar		−18142	100				2			MSU		85Be50	
^{48}Ca(d,^{3}He)^{47}K		−10304	12	−10313	7	−0.8	2			ANL		66Ne01	
^{48}Ca(t,α)^{47}K		4006	15	4007	7	0.1	2			LAl		66Wi11	
		4001	10			0.6	2			Ald		68Sa09	
^{48}Ca(d,t)^{47}Ca		−3699	10	−3688	4	1.1	–			ANL		66Er02	
^{48}Ca(^{3}He,α)^{47}Ca		10630	12	10632	4	0.2	–			ANL		66Er02	
		10642	10			−1.0	–			MIT		71Ra35	
^{48}Ca(d,t)^{47}Ca	ave.	−3689	6	−3688	4	0.2	1	45	38 ^{48}Ca			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{47}Ti(n,γ)^{48}Ti		11626.65	0.04	11626.65	0.04	0.0	1	100	56 ^{48}Ti	Ptn		84Ru06	Z
		11626.66	0.23			0.0	U			Bdn		03Fi.A	
^{48}Ca(^{7}Li,^{7}Be)^{48}K		−12959	27	−12952	24	0.3	2			Can		78We14	
^{48}Ca(^{14}C,^{14}N)^{48}K		−11910	50	−11934	24	−0.5	2			Mun		80Ma40	
^{48}Ca(p,n)^{48}Sc		−534	15	−500	5	2.2	B					67Mc07	Z
		−506	7			0.8	1	58	42 ^{48}Sc			68Mc10	
^{48}Sc(β^-)^{48}Ti		3986	7	3992	5	0.8	1	58	58 ^{48}Sc			57Va08	
^{48}V(β^+)^{48}Ti		4008	5	4012.3	2.4	0.9	2					53Ma64	
		4013.6	3.			−0.4	2					67Ko01	
		4014	7			−0.2	2					74Me15	
$*^{48}$Ca(^{3}He,^{7}Be)^{44}Ar	M=–32270(20) Q=–12791(20) for ^{7}Be 429 keV level											GAu	**
^{48}Ca(n,γ)^{49}Ca		5146.6	0.7	5146.45	0.18	−0.2	2					69Ar.A	Z
		5146.38	0.30			0.2	2					70Cr04	Z
		5146.48	0.23			−0.1	2			Bdn		03Fi.A	
^{48}Ca(p,γ)^{49}Sc		9628.7	3.6	9627.2	2.9	−0.4	–					68Vi01	Z
^{48}Ca(d,n)^{49}Sc		7404	7	7402.6	2.9	−0.2	–					68Gr09	
^{48}Ca(p,γ)^{49}Sc	ave.	9629	3	9627.2	2.9	−0.5	1	84	45 ^{48}Ca			average	
^{48}Ti(n,γ)^{49}Ti		8142.39	0.03	8142.389	0.029	0.0	–			Ptn		83Ru08	Z
		8142.35	0.16			0.2	–			Bdn		03Fi.A	
	ave.	8142.389	0.029			0.0	1	100	79 ^{49}Ti			average	
^{48}Ti(p,γ)^{49}V		6756.8	1.5	6758.2	0.8	0.9	R					72Ki06	
^{49}K(β^-)^{49}Ca		10970	70				3					86Mi08	
^{49}Sc(β^-)^{49}Ti		2010	5	2006	4	−0.7	1	61	61 ^{49}Sc			61Re06	
^{49}Ti(p,n)^{49}V		−1383.6	1.0	−1384.2	0.8	−0.6	2			Oak		64Jo11	Z
^{50}K−C$_{4.167}$		−26100	800	−27220	300	−0.9	R			TO3	1.5	90Tu01	
^{50}Sc−C$_{4.167}$		−47940	250	−47812	17	0.3	U			TO6	1.5	98Ba.A	*
^{50}Cr(p,^{6}He)^{45}V		−28686	17				2			MSU		75Mu09	*
^{50}Cr(^{3}He,^{6}He)^{47}Cr		−18365	14				2			MSU		77Mu03	*
^{48}Ca(t,p)^{50}Ca		3012	15	3018	8	0.4	2			Ald		66Hi01	
		3020	10			−0.2	2			LAl		66Wi11	
^{48}Ca(^{3}He,p)^{50}Sc		7965	15				2			ANL		69Oh01	
^{50}Cr(p,t)^{48}Cr		−15100	8	−15101	7	−0.1	2			Oak		71Do18	
^{49}Ti(n,γ)^{50}Ti		10939.19	0.04	10939.19	0.04	0.0	1	100	84 ^{50}Ti	Ptn		84Ru06	Z
		10939.20	0.22			0.0	U			Bdn		03Fi.A	
^{50}Cr(d,t)^{49}Cr		−6743.1	2.2				2			NDm		76Jo01	
^{50}K(β^-)^{50}Ca		14050	300	14220	280	0.6	3					86Mi08	
^{50}V(n,p)^{50}Ti		2984	10	2987.5	1.0	0.3	U			ILL		94Wa17	
^{50}Cr(^{3}He,t)^{50}Mn		−7650.5	0.4	−7651.28	0.23	−1.9	1	33	32 ^{50}Mn	Mun		77Vo02	
^{50}Cr(^{3}He,t)^{50}Mn−^{54}Fe()^{54}Co		610.09	0.17	610.23	0.16	0.8	1	88	68 ^{50}Mn	ChR		87Ko34	*
$*^{50}$Sc−C$_{4.167}$	M−A=–44530(220) keV for mixture gs+m at 256.895 keV											Ens95	**
$*^{50}$Cr(p,^{6}He)^{45}V	Original Q increase by 1 for recalibration											AHW	**
$*^{50}$Cr(^{3}He,^{6}He)^{47}Cr	Original Q reduced by 3, see ^{46}Ti(^{3}He,^{6}He)											AHW	**
$*^{50}$Cr(^{3}He,t)^{50}Mn−^{54}Fe()	Q−Q=40.90(0.16) to 650.99(0.06) level in ^{50}Mn											92Ha.B	**
^{51}Ca−C$_{4.25}$		−38800	350	−38500	100	0.6	U			TO3	1.5	90Tu01	
		−38900	400			0.7	U			TO5	1.5	94Se12	
^{49}Ti ^{37}Cl−^{51}V ^{35}Cl		956.7	0.7	960.4	1.1	1.3	1	14	9 ^{51}V	H18	4.0	64Ba03	
^{48}Ca(^{14}C,^{11}C)^{51}Ca		−15900	150	−15980	90	−0.5	2			Mun		80Ma40	*
		−16886	100			9.0	B			MSU		85Be50	
^{48}Ca(^{18}O,^{15}O)^{51}Ca		−12040	120	−11990	90	0.4	2			Hei		85Br03	*
		−13900	40			47.8	B			Can		88Ca21	
^{48}Ca(α,p)^{51}Sc		−5860	20				2			ANL		66Er02	
^{50}Ti(n,γ)^{51}Ti		6372.3	1.2	6372.5	0.5	0.2	2					71Ar39	Z
		6372.6	0.6			−0.2	2			Bdn		03Fi.A	
^{50}Ti(d,p)^{51}Ti		4147.7	1.2	4147.9	0.5	0.2	2			NDm		76Jo01	
^{50}Ti(p,γ)^{51}V		8063.3	2.0	8063.7	1.0	0.2	–					70Kl05	Z
		8063.6	2.0			0.0	–					70Ma36	Z
	ave.	8063.5	1.4			0.2	1	48	32 ^{51}V			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{50}V(n,γ)^{51}V	11051.18	0.10	11051.15	0.08	−0.3	2			MMn		78Ro03	Z
	11051.05	0.17			0.6	2			ILn		91Mi08	Z
	11051.14	0.22			0.0	2			Bdn		03Fi.A	
^{50}Cr(n,γ)^{51}Cr	9261.71	0.30	9260.62	0.20	−3.6	B			MMn		80Is02	Z
	9260.63	0.20			0.0	1	99	51 ^{51}Cr	Bdn		03Fi.A	
^{50}Cr(p,γ)^{51}Mn	5270.8	0.3	5270.81	0.30	0.0	1	97	52 ^{50}Cr			72Fo25	Z
^{51}V(p,n)^{51}Cr	−1534.93	0.24	−1534.92	0.24	0.0	1	98	49 ^{51}V	PTB		89Sc24	Z
$*^{48}$Ca(^{14}C,^{11}C)^{51}Ca	May be a ^{40}Ca contamination. There is a –16900(150) peak										85Be50	**
$*^{48}$Ca(^{18}O,^{15}O)^{51}Ca	Proposed 970(90) level reinterpretated as ground-state by ref.										85Be50	**
$*^{48}$Ca(^{18}O,^{15}O)^{51}Ca	Weak M−A=–36120(120) level disregarded										AHW	**
^{52}Ca−$C_{4.333}$	−34900	500				2			TO3	1.5	90Tu01	
^{52}Sc−$C_{4.333}$	−43500	230	−43320	210	0.5	2			TO3	1.5	90Tu01	
	−43350	250			0.1	2			TO5	1.5	94Se12	
	−43110	240			−0.6	2			TO6	1.5	98Ba.A	
^{50}Ti(t,p)^{52}Ti	5698	10	5699	7	0.1	2			LAl		66Wi11	
	5700	10			−0.1	2			LAl		71Ca19	
^{51}V(n,γ)^{52}V	7311.2	0.5	7311.24	0.13	0.1	2					84De15	
	7311.18	0.26			0.2	2			ILn		91Mi08	Z
	7311.27	0.15			−0.2	2			Bdn		03Fi.A	
^{51}V(p,γ)^{52}Cr	10500.7	2.8	10504.5	1.0	1.4	1	13	9 ^{51}V			74Ro44	Z
^{52}Ca(β^-)^{52}Sc	5700	200	7850	720	10.7	B					85Hu03	
^{52}Sc(β^-)^{52}Ti	8020	250	9110	190	4.4	B					85Hu03	
^{52}Mn(β^+)^{52}Cr	4710.9	4.	4711.5	1.9	0.1	R					58Ko57	
	4707.9	6.			0.6	R					60Ka20	
^{52}Fe(β^+)^{52}Mn	2372	10	2374	6	0.2	3					56Ar33	
	2510	100			−1.4	U					95Ir01	
^{52}Fe^m(β^+)^{52}Mn	9187	130				3					79Ge02	
^{53}Sc−$C_{4.417}$	−41440	260	−40390#	320#	2.7	D			TO3	1.5	90Tu01	*
	−41830	280			3.4	D			TO5	1.5	94Se12	*
	−41100	400			1.2	D			TO6	1.5	98Ba.A	*
^{52}Cr(n,γ)^{53}Cr	7939.52	0.3	7939.12	0.14	−1.3	–			MMn		80Is02	Z
	7939.01	0.2			0.6	–			BNn		80Ko01	Z
	7939.10	0.28			0.1	–			Bdn		03Fi.A	
ave.	7939.15	0.14			−0.2	1	98	76 ^{52}Cr			average	
^{52}Cr(p,γ)^{53}Mn	6559.1	1.1	6559.9	0.3	0.8	U					70Ma25	Z
	6559.72	0.36			0.6	1	87	67 ^{53}Mn			79Sw01	Z
^{53}Co^m(p)^{52}Fe	1600.5	30.	1595	21	−0.2	4					70Ce04	
	1590	30			0.2	4					76Vi02	
^{53}Ti(β^-)^{53}V	5020	100				3			ANB		77Pa01	
^{53}Cr(p,n)^{53}Mn	−1381.1	1.6	−1379.2	0.4	1.2	U			Oak		64Jo11	Z
$*^{53}$Sc−$C_{4.417}$	Average TO3+TO5+TO6 –41520(190)										GAu	**
$*^{53}$Sc−$C_{4.417}$	Systematical trends suggest ^{53}Sc 1060 less bound										CTh	**
^{54}Sc−$C_{4.5}$	−36060	500	−36740	400	−0.9	2			TO3	1.5	90Tu01	*
	−37060	500			0.4	2			TO5	1.5	94Se12	*
	−36960	400			0.4	2			TO6	1.5	98Ba.A	*
^{54}Ti−$C_{4.5}$	−48820	230	−48950	130	−0.4	2			TO3	1.5	90Tu01	
	−49130	250			0.5	2			TO5	1.5	94Se12	
	−48820	280			−0.3	2			TO6	1.5	98Ba.A	
^{13}C ^{37}Cl_3−^{54}Fe ^{35}Cl_2	23744.46	1.26	23746.7	0.8	0.7	1	6	6 ^{54}Fe	H39	2.5	84Ha20	
^{54}Fe(p,^{6}He)^{49}Mn	−28943	24				2			MSU		75Mu09	*
^{54}Fe(α,^{8}He)^{50}Fe	−50950	60				2			Tex		77Tr05	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{54}Fe(p,α)^{51}Mn		−3146.9	1.1	−3147.1	0.9	−0.1	1	66	55 ^{51}Mn	NDm		74Jo14	
^{54}Fe(^{3}He,^{6}He)^{51}Fe		−18694	15				2			MSU		77Mu03	*
^{54}Fe(d,α)^{52}Mn		5163.3	2.2	5163.8	1.8	0.2	2			NDm		76Jo01	
^{54}Fe(p,t)^{52}Fe		−15584	8	−15582	7	0.3	R					78Ko27	*
^{54}Cr(d,^{3}He)^{53}V		−6879.2	3.1				2			NDm		79Br.B	
^{53}Cr(n,γ)^{54}Cr		9719.30	0.16	9719.12	0.12	−1.1	–					68Wh03	Z
		9718.3	0.4			2.1	–					72Lo26	Z
		9718.91	0.27			0.8	–			MMn		80Is02	Z
		9719.7	0.5			−1.2	–			SAn		89Ho15	Z
		9720.00	0.20			−4.4	B			Bdn		03Fi.A	
	ave.	9719.14	0.13			−0.2	1	98	78 ^{53}Cr			average	
^{53}Cr(p,γ)^{54}Mn		7559.6	1.0				2					75We10	Z
^{54}Fe(d,t)^{53}Fe		−7121.5	2.1	−7121.2	1.6	0.1	2			NDm		74Jo14	
^{54}Fe(^{3}He,α)^{53}Fe		7199.6	2.6	7199.2	1.6	−0.2	2			NDm		74Jo14	
^{54}Ti(β^-)^{54}V		4280	160	4300	130	0.1	R					96Do23	
^{54}Cr(t,^{3}He)^{54}V		−7023	15				2			LAl		77Fl03	
^{54}Fe(^{3}He,t)^{54}Co−^{42}Ca()^{42}Sc		−1817.24	0.18	−1817.08	0.17	0.9	1	86	80 ^{54}Co	ChR		87Ko34	
*^{54}Sc−C$_{4.5}$	Original –36000(500) or M=–33500(470) keV											GAu	**
*^{54}Sc−C$_{4.5}$	Original –37000(500) or M=–34470(470) keV											GAu	**
*^{54}Sc−C$_{4.5}$	M−A=–34370(370) keV for mixture gs+m at 110(3) keV											Nubase	**
*^{54}Fe(p,^{6}He)^{49}Mn	Q increased 1 for recalibration											AHW	**
*^{54}Fe(^{3}He,^{6}He)^{51}Fe	Average with ref. See ^{46}Ti(^{3}He,^{6}He)											75Mu09	**
*^{54}Fe(p,t)^{52}Fe	Q=–21239(8) to 5655.4 level											Ens00	**
^{55}Sc−C$_{4.583}$		−30600	1100	−31760	790	−0.7	2			TO3	1.5	90Tu01	
		−32100	600			0.4	2			TO6	1.5	98Ba.A	
^{55}Ti−C$_{4.583}$		−44650	280	−44730	160	−0.2	2			TO3	1.5	90Tu01	
		−44880	260			0.4	2			TO5	1.5	94Se12	
		−44360	350			−0.7	2			TO6	1.5	98Ba.A	
^{54}Cr(n,γ)^{55}Cr		6246.2	0.4	6246.26	0.19	0.2	2					72Wh05	Z
		6246.28	0.21			−0.1	2			Bdn		03Fi.A	
^{54}Cr(p,γ)^{55}Mn		8067.2	0.4	8067.0	0.4	−0.5	1	83	80 ^{54}Cr			78We12	
^{54}Fe(n,γ)^{55}Fe		9297.91	0.3	9298.23	0.20	1.1	–			MMn		80Is02	Z
		9298.53	0.27			−1.1	–			Bdn		03Fi.A	
	ave.	9298.25	0.20			−0.1	1	96	56 ^{54}Fe			average	
^{54}Fe(p,γ)^{55}Co		5064.0	0.7	5064.1	0.3	0.1	–					77Er02	Z
		5063.9	0.4			0.4	–					80Ha36	Z
	ave.	5063.9	0.3			0.4	1	91	69 ^{55}Co			average	
^{55}Ti(β^-)^{55}V		7440	200	7480	180	0.2	R					96Do23	
^{55}V(β^-)^{55}Cr		5956	100				3			ANB		77Na17	
^{55}Fe(ε)^{55}Mn		231.4	0.4	231.21	0.18	−0.5	–					89Zl.A	
		231.0	1.0			0.2	U					93Wi05	*
		231.37	0.30			−0.5	–					95Da14	*
		231.0	0.3			0.7	–					95Sy01	*
^{55}Mn(p,n)^{55}Fe		−1015.7	2.	−1013.56	0.18	1.1	U			Nvl		59Go68	Z
		−1014.6	0.8			1.3	U			Oak		64Jo11	Z
^{55}Fe(ε)^{55}Mn	ave.	231.23	0.19	231.21	0.18	−0.1	1	97	60 ^{55}Fe			average	
*^{55}Fe(ε)^{55}Mn	Error estimate by evaluator											AHW	**
*^{55}Fe(ε)^{55}Mn	Original error 0.10 increased by evaluator											GAu	**
*^{55}Fe(ε)^{55}Mn	Original statistical error 0.10 increased by evaluator											GAu	**
^{56}Ti−C$_{4.667}$		−41300	350	−41800	210	−1.0	2			TO3	1.5	90Tu01	
		−42010	300			0.5	2			TO5	1.5	94Se12	
		−41770	270			−0.1	2			TO6	1.5	98Ba.A	
^{56}V−C$_{4.667}$		−49470	250	−49470	220	0.0	2			TO3	1.5	90Tu01	
		−49640	260			0.4	2			TO5	1.5	94Se12	
		−49310	250			−0.4	2			TO6	1.5	98Ba.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{56}Cr−^{85}Rb$_{.659}$		−1216.3	2.0				2			MA8	1.0	03Gu.A	
^{56}Mn−^{85}Rb$_{.659}$		−2965.1	1.5	−2964.5	0.7	0.4	1	24	24 ^{56}Mn	MA8	1.0	03Gu.A	
^{56}Fe(p,α)^{53}Mn		−1052.3	0.8	−1053.4	0.5	−1.4	1	35	33 ^{53}Mn	NDm		74Jo14	
^{54}Cr(t,p)^{56}Cr		5995	30	6009.5	2.0	0.5	U			Ald		68Ch20	
		6024	10			−1.4	U			LAl		71Ca19	
^{54}Fe(^{3}He,n)^{56}Ni		4513	14	4511	11	−0.1	2			CIT		67Mi02	
^{55}Mn(n,γ)^{56}Mn		7270.53	0.3	7270.45	0.13	−0.3	–			MMn		80Is02	Z
		7270.42	0.15			0.2	–			Bdn		03Fi.A	
	ave.	7270.44	0.13			0.0	1	99	76 ^{56}Mn			average	
^{55}Mn(p,γ)^{56}Fe		10183.80	0.17	10183.74	0.17	−0.3	1	95	61 ^{56}Fe	Utr		92Gu03	Z
^{56}Ti(β^-)^{56}V		7030	330	7140	280	0.3	R					96Do23	
^{56}Co(β^+)^{56}Fe		4566.0	2.0				2					65Pe18	
^{57}Ti−C$_{4.75}$		−35700	1000	−36010	490	−0.2	2			TO3	1.5	90Tu01	
		−36200	400			0.3	2			TO6	1.5	98Ba.A	
^{57}V−C$_{4.75}$		−47300	400	−47440	250	−0.2	2			TO3	1.5	90Tu01	
		−47640	270			0.5	2			TO5	1.5	94Se12	
		−47320	250			−0.3	2			TO6	1.5	98Ba.A	
^{57}Cr−C$_{4.75}$		−56240	250	−56387.0	2.0	−0.4	U			TO3	1.5	90Tu01	
		−56300	260			−0.2	U			TO5	1.5	94Se12	
		−56170	270			−0.5	U			TO6	1.5	98Ba.A	
^{57}Cr−^{85}Rb$_{.671}$		2802.1	2.0				2			MA8	1.0	03Gu.A	
^{57}Mn−^{85}Rb$_{.671}$		−2525.1	2.3	−2525.5	2.0	−0.2	1	75	75 ^{57}Mn	MA8	1.0	03Gu.A	
^{57}Ni−^{85}Rb$_{.671}$		−1019.8	2.7	−1017.4	1.9	0.9	1	52	52 ^{57}Ni	MA8	1.0	03Gu.A	
^{54}Cr(α,p)^{57}Mn		−4308	8	−4309.8	1.9	−0.2	U			NDm		76Ma03	
		−4302	8			−1.0	U			Can		78An10	
^{54}Fe(α,p)^{57}Co		−1770.3	1.8	−1772.3	0.6	−1.1	U			NDm		74Jo14	
^{55}Mn(t,p)^{57}Mn		7438.2	3.6	7437.1	1.9	−0.3	1	28	25 ^{57}Mn	NDm		77Ma12	
^{56}Fe(n,γ)^{57}Fe		7646.10	0.17	7646.096	0.029	0.0	o			BNn		76Al16	Z
		7645.96	0.20			0.7	U			BNn		78St25	Z
		7646.13	0.21			−0.2	U			MMn		80Is02	Z
		7645.93	0.15			1.1	U			Ptn		80Ve05	Z
		7646.0956	0.0300			0.0	–			PTB		97Ro26	*
		7646.10	0.15			0.0	–			Bdn		03Fi.A	
	ave.	7646.096	0.029			0.0	1	100	80 ^{57}Fe			average	
^{56}Fe(p,γ)^{57}Co		6027.7	1.0	6027.8	0.5	0.1	–					70Ob02	Z
		6029.3	1.5			−1.0	–					71Le21	Z
	ave.	6028.2	0.8			−0.4	1	43	24 ^{57}Co			average	
^{57}Ti(β^-)^{57}V		11020	950	10640	510	−0.4	R					96Do23	
^{57}Cr(β^-)^{57}Mn		5100	100	4962.7	2.6	−1.4	U			ANB		78Da04	
^{57}Fe(p,n)^{57}Co		−1619.4	2.0	−1618.3	0.5	0.5	–			Oak		64Jo11	Z
		−1618.2	2.0			0.0	–			Can		70Kn03	
	ave.	−1618.8	1.4			0.4	1	15	9 ^{57}Co			average	
*^{56}Fe(n,γ)^{57}Fe	Original error 0.0005 increased for calibration											GAu	**
^{58}V−C$_{4.833}$		−43210	280	−43170	270	0.1	2			TO3	1.5	90Tu01	
		−43350	280			0.4	2			TO5	1.5	94Se12	
		−42700	400			−0.8	2			TO6	1.5	98Ba.A	
^{58}Cr−C$_{4.833}$		−55680	230	−55650	220	0.1	2			TO3	1.5	90Tu01	
		−55750	260			0.3	2			TO5	1.5	94Se12	
		−55490	270			−0.4	2			TO6	1.5	98Ba.A	
^{58}Ni(p,^{6}He)^{53}Co		−27889	18				2			MSU		75Mu09	*
^{58}Ni(α,^{8}He)^{54}Ni		−50190	50				2			Tex		77Tr05	
^{58}Ni(p,α)^{55}Co		−1335.1	0.9	−1336.1	0.6	−1.1	1	42	31 ^{55}Co	NDm		74Jo14	
^{58}Ni(^{3}He,^{6}He)^{55}Ni		−17556	11				2			MSU		77Mu03	*

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{58}Ni(p,t)^{56}Ni	−13987	18	−13985	11	0.1	R			Bld		65Ho07	
^{57}Fe(n,γ)^{58}Fe	10044.60	0.3	10044.60	0.18	0.0	–			MMn		80Is02	Z
	10044.65	0.24			−0.2	–			Bdn		03Fi.A	
ave.	10044.63	0.19			−0.1	1	96	84 ^{58}Fe			average	
^{57}Fe(p,γ)^{58}Co	6952	3	6954.7	1.2	0.9	1	16	14 ^{58}Co			70Er03	
^{58}Ni(^{3}He,α)^{57}Ni	8360.3	4.	8360.6	1.8	0.1	1	21	19 ^{57}Ni	MSU		76Na23	
^{58}Ni(^{7}Li,^{8}He)^{57}Cu	−29613	17	−29608	17	0.3	2			Tex		86Ga19	
^{58}Ni(^{14}N,^{15}C)^{57}Cu	−19900	40	−19928	16	−0.7	2			Ber		87St04	
^{58}Fe(t,^{3}He)^{58}Mn	−6228	30				2			LAl		77Fl03	*
^{58}Co(β^+)^{58}Fe	2305	6	2307.5	1.2	0.4	U					52Ch31	
	2307	4			0.1	U					63Rh02	
^{58}Ni(p,n)^{58}Cu	−9351	5	−9348.0	1.4	0.6	2			Mar		64Ma.A	
	−9352.6	3.4			1.3	2			Ric		66Bo20	Z
	−9346.6	1.7			−0.8	2			Yal		69Ov01	Z
^{58}Ni(π^+,π^-)^{58}Zn	−16908	50				2					86Se04	
*^{58}Ni(p,^{6}He)^{53}Co	Q increased 1 for recalibration										AHW	**
*^{58}Ni(^{3}He,^{6}He)^{55}Ni	Average with ref. See ^{46}Ti(^{3}He,^{6}He)										75Mu09	**
*^{58}Fe(t,^{3}He)^{58}Mn	Q=–6300(30) to ^{58}Mn^{m} at 71.78(0.05)										92Sc.A	**
^{59}V−C$_{4.917}$	−38500	400	−39790	330	−2.2	2			TO3	1.5	90Tu01	
	−40700	350			1.7	2			TO5	1.5	94Se12	
	−39900	400			0.2	2			TO6	1.5	98Ba.A	
^{59}Cr−C$_{4.917}$	−51490	290	−51410	260	0.2	2			TO3	1.5	90Tu01	*
	−51640	310			0.5	2			TO5	1.5	94Se12	*
	−51100	310			−0.7	2			TO6	1.5	98Ba.A	*
^{59}Co(p,α)^{56}Fe	3240.4	1.4	3241.0	0.5	0.4	1	15	10 ^{56}Fe	NDm		74Jo14	
^{59}Ni(p,t)^{57}Ni	−12738.2	3.3	−12734.5	1.8	1.1	1	30	29 ^{57}Ni	MSU		76Na23	
^{58}Fe(n,γ)^{59}Fe	6581.15	0.30	6581.01	0.11	−0.5	2			Ptn		73Sp06	Z
	6580.94	0.20			0.4	2			Ptn		80Ve05	Z
	6581.02	0.14			0.0	2			Bdn		03Fi.A	
^{58}Fe(p,γ)^{59}Co−^{56}Fe()^{57}Co	1336.5	0.7	1336.1	0.5	−0.5	1	44	31 ^{57}Co			75Br29	
^{59}Co(d,t)^{58}Co	−4196.0	1.4	−4196.6	1.1	−0.4	1	62	61 ^{58}Co	NDm		74Jo14	
^{58}Ni(n,γ)^{59}Ni	8999.37	0.30	8999.27	0.05	−0.3	U					75Wi06	Z
	8999.38	0.20			−0.5	U			MMn		77Is01	Z
	8999.10	0.23			0.8	U			ILn		93Ha05	Z
	8999.28	0.05			−0.1	–			ORn		02Ra.A	
	8999.15	0.18			0.7	–			Bdn		03Fi.A	
ave.	8999.27	0.05			0.1	1	100	88 ^{58}Ni			average	
^{58}Ni(p,γ)^{59}Cu	3418.5	0.5				2					63Bo07	Z
	3419	2	3418.5	0.5	−0.3	U					70Fo09	
	3416.7	2.0			0.9	U					75Kl06	Z
^{58}Ni(p,π^-)^{59}Zn	−144735	40	−144740	40	−0.1	R					83Sh31	
^{59}Mn(β^-)^{59}Fe	5200	100	5180	30	−0.2	U			ANB		77Pa18	
^{59}Ni(ε)^{59}Co	1074.5	1.3	1072.76	0.19	−1.3	U					76Be02	*
^{59}Co(p,n)^{59}Ni	−1855.8	2.0	−1855.11	0.19	0.3	U			MIT		51Mc48	Z
	−1854.3	4.0			−0.2	U					57Bu37	Z
	−1855.8	1.6			0.4	U			Oak		64Jo11	Z
	−1855.33	0.20			1.1	1	89	70 ^{59}Co	PTB		98Bo30	
^{59}Zn(β^+)^{59}Cu	9120	100	9100	40	−0.2	3					81Ar13	
*^{59}Cr−C$_{4.917}$	Original –51220(240) or M=–47710(230) keV										GAu	**
*^{59}Cr−C$_{4.917}$	Original –51370(270) or M=–47850(250) keV										GAu	**
*^{59}Cr−C$_{4.917}$	M−A=–47350(250) keV for mixture gs+m at 503.0(1.7) keV										Nubase	**
*^{59}Ni(ε)^{59}Co	Authors add B(K)=8.3 of Ni, changed in 7.7 of Co										AHW	**
^{60}V−C$_{5}$	−33860	700	−34970	510	−1.1	2			TO3	1.5	90Tu01	*
	−35560	600			0.7	2			TO5	1.5	94Se12	*
	−35140	510			0.2	2			TO6	1.5	98Ba.A	*
^{60}Cr−C$_{5}$	−49680	240	−49920	230	−0.7	2			TO3	1.5	90Tu01	
	−50270	280			0.8	2			TO5	1.5	94Se12	
	−49910	280			0.0	2			TO6	1.5	98Ba.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{60}Mn−C$_5$		−56550	240	−57090	90	−1.5	U			TO3	1.5	90Tu01	*
		−56810	290			−0.6	U			TO5	1.5	94Se12	*
		−56530	280			−1.3	U			TO6	1.5	98Ba.A	*
^{60}Co−C$_5$		−66380	280	−66182.9	0.7	0.5	U			TO6	1.5	98Ba.A	*
^{60}Ni−^{85}Rb$_{706}$		−6937.8	1.6	−6937.2	0.7	0.4	1	17	17 ^{60}Ni	MA8	1.0	03Gu.A	
^{60}Ni(p,α)^{57}Co		−263.6	0.7	−263.8	0.5	−0.3	1	43	36 ^{57}Co	NDm		74Jo14	
^{58}Fe(t,p)^{60}Fe		6907	15	6919	3	0.8	2			LAl		71Ca19	
		6947	10			−2.8	2			MSU		76St11	
		6913	4			1.6	2			LAl		78No05	
^{60}Ni(d,α)^{58}Co		6084.5	2.2	6084.6	1.1	0.0	1	25	25 ^{58}Co	NDm		74Jo14	
^{58}Ni(^{3}He,n)^{60}Zn		818	18	820	11	0.1	2			CIT		67Mi02	
		821	13			−0.1	2			Oak		72Gr39	
^{59}Co(n,γ)^{60}Co		7491.88	0.08	7491.92	0.07	0.5	2			BNn		84Ko29	Z
		7492.05	0.15			−0.9	2			Bdn		03Fi.A	
^{59}Ni(n,γ)^{60}Ni		11387.6	0.4	11387.75	0.05	0.4	U					75Wi06	Z
		11387.73	0.05			0.3	1	99	67 ^{59}Ni	ORn		02Ra.A	
^{60}Ni(d,t)^{59}Ni		−5130.2	2.1	−5130.51	0.05	−0.1	U			NDm		74Jo14	
^{60}Mn(β^-)^{60}Fe		8234	86				3			ANB		78No03	*
^{60}Co(β^-)^{60}Ni		2823.6	1.0	2823.07	0.21	−0.5	U					68Wo02	
^{60}Ni(p,n)^{60}Cu		−6910.3	1.6				2			Yal		69Ov01	Z
*^{60}V−C$_5$	Original –33800(700) or M=–31500(650) keV											GAu	**
*^{60}V−C$_5$	Original –35500(600) or M=–33070(560) keV											GAu	**
*^{60}V−C$_5$	M−A=–32700(470) keV for mixture gs+m+n at 0#150 and 101(1) keV											Nubase	**
*^{60}Mn−C$_5$	M−A=–52540(230) keV for mixture gs+m at 271.90 keV											Nubase	**
*^{60}Mn−C$_5$	M−A=–52780(260) keV for mixture gs+m at 271.90 keV											Nubase	**
*^{60}Mn−C$_5$	M−A=–52520(250) keV for mixture gs+m at 271.90 keV											Nubase	**
*^{60}Co−C$_5$	M−A=–61800(260) keV for mixture gs+m at 58.59 keV											Ens00	**
*^{60}Mn(β^-)^{60}Fe	E$^-$=5714(86) from ^{60}Mn^m at 271.9(0.1) to 2792.4 level											NDS935	**
^{61}Cr−C$_{5.083}$		−44500	400	−45280	270	−1.3	2			TO3	1.5	90Tu01	
		−45910	300			1.4	2			TO5	1.5	94Se12	
		−45120	280			−0.4	2			TO6	1.5	98Ba.A	
^{61}Mn−C$_{5.083}$		−55160	300	−55350	240	−0.4	2			TO3	1.5	90Tu01	
		−55540	280			0.5	2			TO5	1.5	94Se12	
		−55320	270			−0.1	2			TO6	1.5	98Ba.A	
^{58}Ni(^{6}Li,t)^{61}Zn		−4736	23	−4745	16	−0.4	R			LAl		78Wo01	
^{60}Ni(n,γ)^{61}Ni		7820.22	0.40	7820.13	0.05	−0.2	U					75Wi06	Z
		7819.96	0.20			0.8	U			MMn		77Is01	Z
		7820.02	0.20			0.5	U			ILn		93Ha05	Z
		7820.12	0.05			0.2	–			ORn		02Ra.A	
		7820.06	0.16			0.4	–			Bdn		03Fi.A	
	ave.	7820.11	0.05			0.3	1	100	55 ^{61}Ni			average	
^{61}Ga(β^+)^{61}Zn		9255	50				3					02We07	
^{62}Cr−C$_{5.167}$		−42400	600	−43390	360	−1.1	2			TO3	1.5	90Tu01	
		−44200	400			1.4	2			TO5	1.5	94Se12	
		−43100	350			−0.5	2			TO6	1.5	98Ba.A	
^{62}Mn−C$_{5.167}$		−51510	270	−51570	240	−0.2	2			TO3	1.5	90Tu01	
		−52030	280			1.1	2			TO5	1.5	94Se12	
		−51180	280			−0.9	2			TO6	1.5	98Ba.A	
^{62}Ni(p,α)^{59}Co		343.3	0.7	346.4	0.3	4.4	1	22	14 ^{59}Co	NDm		74Jo14	
^{59}Co(α,p)^{62}Ni		−346.5	2.3	−346.4	0.3	0.1	U			NDm		74Jo14	
^{61}Ni(n,γ)^{62}Ni		10596.2	1.5	10596.52	0.29	0.2	–					70Fa06	
		10595.8	0.7			1.0	–					75Wi06	Z
		10595.6	0.4			2.3	–			Bdn		03Fi.A	
^{62}Ni(d,t)^{61}Ni		−4340.6	1.3	−4339.29	0.29	1.0	–			NDm		74Jo14	
^{61}Ni(n,γ)^{62}Ni	ave.	10595.8	0.3	10596.52	0.29	2.2	1	78	45 ^{61}Ni			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{62}Ni(t,^{3}He)^{62}Co	−5296	20				2			LAl		76Aj03	
^{62}Cu(β^+)^{62}Ni	3932	10	3948	4	1.6	2					54Nu27	
	3942	10			0.6	2					64Sa32	
	3956	7			−1.1	2					67An01	
^{62}Ni(p,n)^{62}Cu	−4733	10	−4731	4	0.2	2			Bar		61Ri02	
	−4734.8	10.			0.4	2			Ric		66Ri09	
^{62}Zn(β^+)^{62}Cu	1682	10	1626	11	−5.6	B					50Ha65	
	1697	10			−7.1	B					54Nu27	
^{62}Ga(β^+)^{62}Zn	9171	26				3			ANB		79Da04	
^{63}Mn−$C_{5.25}$	−49300	400	−49760	280	−0.8	2			TO3	1.5	90Tu01	
	−50190	300			1.0	2			TO5	1.5	94Se12	
	−49600	290			−0.4	2			TO6	1.5	98Ba.A	
^{63}Fe−$C_{5.25}$	−59190	240	−59630	180	−1.2	2			TO3	1.5	90Tu01	
	−59570	290			−0.1	2			TO5	1.5	94Se12	
	−58990	300			−1.4	2			TO6	1.5	98Ba.A	
^{63}Ga−^{85}Rb$_{.741}$	4658.0	1.4				2			MA8	1.0	03Gu.A	
^{63}Cu(p,α)^{60}Ni	3754.9	1.5	3756.60	0.30	1.1	U			NDm		76Jo01	
^{62}Ni(n,γ)^{63}Ni	6838.04	0.20	6837.78	0.06	−1.3	–			MMn		77Is01	Z
	6837.88	0.18			−0.6	–			ILn		92Ha21	Z
	6837.89	0.14			−0.8	–			Bdn		03Fi.A	
ave.	6837.92	0.10			−1.5	1	41	21 ^{62}Ni			average	
^{62}Ni(p,γ)^{63}Cu	6122.30	0.08	6122.41	0.06	1.3	1	60	31 ^{62}Ni	Utr		86De14	Z
^{63}Ni(β^-)^{63}Cu	66.9459	0.0054	66.975	0.015	5.3	F					93Oh02	*
	66.980	0.015			−0.4	1	98	61 ^{63}Ni			99Ho09	
^{63}Cu(p,n)^{63}Zn	−4146.5	4.	−4148.9	1.6	−0.6	–			Ric		55Br16	
	−4139.5	8.			−1.2	U			Oak		55Ki28	Z
	−4150.1	4.4			0.3	–			Tkm		63Ok01	
ave.	−4148.1	2.9			−0.2	1	28	27 ^{63}Zn			average	
^{63}Ga(β^+)^{63}Zn	5520	100	5665.9	2.1	1.5	U					72Fi.A	
*^{63}Ni(β^-)^{63}Cu	F: excitation of atomic electron not taken into account										99Ho09	**
^{64}Mn−$C_{5.333}$	−45340	350	−45750	290	−0.8	2			TO3	1.5	90Tu01	*
	−46340	350			1.1	2			TO5	1.5	94Se12	*
	−45620	300			−0.3	2			TO6	1.5	98Ba.A	*
^{64}Fe−$C_{5.333}$	−58600	400	−58800	300	−0.3	2			TO3	1.5	90Tu01	
	−59130	300			0.7	2			TO5	1.5	94Se12	
	−58500	350			−0.6	2			TO6	1.5	98Ba.A	
^{64}Ni−^{85}Rb$_{.753}$	−5609.2	1.4	−5611.7	0.7	−1.8	1	22	22 ^{64}Ni	MA8	1.0	03Gu.A	
^{64}Ga−^{85}Rb$_{.753}$	3261.3	2.5	3261.1	2.2	−0.1	1	75	75 ^{64}Ga	MA8	1.0	03Gu.A	
^{64}Ge−$C_{5.333}$	−57090	690	−58350	30	−1.8	U			GA6	1.0	02Li24	
	−58347	34				2			CP1	1.0	03Sh.A	
^{64}Ni(^{3}He,^{8}B)^{59}Mn	−19610	30				2			MSU		76Ka24	
^{64}Ni(^{3}He,^{7}Be)^{60}Fe	−6511	10	−6526	3	−1.5	R			MSU		76St11	
^{64}Ni(α,^{7}Be)^{61}Fe	−21523	20				2			Tex		77Co08	
^{64}Ni(p,α)^{61}Co	663.2	0.7				2			NDm		74Jo14	
^{64}Zn(p,α)^{61}Cu	844.1	0.7				2			NDm		76Jo01	
^{64}Zn(^{3}He,^{6}He)^{61}Zn	−12331	23	−12322	16	0.4	2			MSU		79We02	
^{64}Ni(^{14}C,^{16}O)^{62}Fe	−501	40	−442	14	1.5	2			Ors		81Be40	
^{64}Ni(^{18}O,^{20}Ne)^{62}Fe	−1915	50	−1938	14	−0.5	2			Can		76Hi14	
	−1920	21			−0.9	2			Hei		77Bh03	*
	−1947	26			0.3	2			Hei		84Ha31	
^{64}Zn(d,α)^{62}Cu	7508	15	7505	4	−0.2	U			MIT		67Sp09	
^{64}Zn(p,t)^{62}Zn	−12493	10				2			Bld		72Fa08	
^{64}Ni(^{34}S,^{35}Ar)^{63}Fe	−17931	260	−18440	170	−1.9	R			Hei		83Wi.B	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{64}Ni(t,α)^{63}Co		7266	20				2			LAl		66Bl15	
^{63}Ni(n,γ)^{64}Ni		9657.58	0.24	9658.04	0.19	1.9	1	63	45 ^{64}Ni	ILn		92Ha21	
^{63}Cu(n,γ)^{64}Cu		7916.07	0.12	7916.03	0.09	−0.3	–			BNn		83De28	Z
		7916.14	0.16			−0.7	–			Bdn		03Fi.A	
	ave.	7916.10	0.10			−0.7	1	94	68 ^{64}Cu			average	
^{64}Zn(d,t)^{63}Zn		−5604.9	1.7	−5604.7	1.5	0.1	1	76	73 ^{63}Zn	NDm		76Jo01	
^{64}Ni(t,^{3}He)^{64}Co		−7288	20				2			LAl		72Fl17	
^{64}Cu(β^+)^{64}Ni		1673.4	1.0	1675.03	0.20	1.6	U					83Ch47	
^{64}Ni(p,n)^{64}Cu		−2458.22	0.31	−2457.38	0.20	2.7	1	40	26 ^{64}Ni	PTB		92Bo02	Z
^{64}Cu(β^-)^{64}Zn		577.8	1.0	579.4	0.7	1.6	1	47	29 ^{64}Zn			83Ch47	
^{64}Zn(p,n)^{64}Ga		−7951	4	−7951.6	2.1	−0.2	1	27	25 ^{64}Ga	Tex		72Da.A	
^{64}Zn(^{3}He,t)^{64}Ga		−7168	8	−7187.9	2.1	−2.5	U			MSU		74Ro16	
^{64}Ge(β^+)^{64}Ga		4410	250	4480	30	0.3	U					73Da01	
*^{64}Mn−C$_{5.333}$	Original –45270(350) or M=–42170(330) keV											GAu	**
*^{64}Mn−C$_{5.333}$	Original –46270(350) or M=–43100(330) keV											GAu	**
*^{64}Mn−C$_{5.333}$	M−A=–42430(280) keV for mixture gs+m at 135(3) keV											Nubase	**
*^{64}Ni(^{18}O,^{20}Ne)^{62}Fe	Q−Q(^{62}Ni(^{18}O,^{20}Ne))=–2843(20),Q(62)=923(4)											AHW	**
^{65}Mn−C$_{5.417}$		−43900	600	−43660	580	0.3	2			TO5	1.5	94Se12	
		−43500	500			−0.2	2			TO6	1.5	98Ba.A	
^{65}Fe−C$_{5.417}$		−54520	270	−54620	260	−0.2	2			TO3	1.5	90Tu01	*
		−55110	300			1.1	2			TO5	1.5	94Se12	*
		−54120	350			−1.0	2			TO6	1.5	98Ba.A	*
^{65}Ni−^{85}Rb$_{.765}$		−2438.0	2.4	−2434.8	0.7	1.3	1	8	8 ^{65}Ni	MA8	1.0	03Gu.A	
^{65}Cu−^{85}Rb$_{.765}$		−4730.6	1.2	−4729.7	0.7	0.8	1	37	37 ^{65}Cu	MA8	1.0	03Gu.A	
^{65}Ga−^{85}Rb$_{.765}$		215.4	1.5	215.6	0.9	0.1	1	36	36 ^{65}Ga	MA8	1.0	03Gu.A	
^{65}Ge−C$_{5.417}$		−60080	270	−60560	110	−1.8	U			GA6	1.0	02Li24	
^{65}Cu(p,α)^{62}Ni		4344.6	1.8	4346.5	0.7	1.0	1	15	9 ^{65}Cu	NDm		76Jo01	
^{64}Ni(n,γ)^{65}Ni		6097.86	0.20	6098.09	0.14	1.2	–			MMn		77Is01	Z
		6098.28	0.19			−1.0	–			Bdn		03Fi.A	
	ave.	6098.08	0.14			0.1	1	100	92 ^{65}Ni			average	
^{64}Zn(n,γ)^{65}Zn		7979.3	0.8	7979.32	0.17	0.0	U					71Ot01	Z
		7979.2	0.5			0.2	U					75De.A	Z
		7979.28	0.17			0.2	1	98	51 ^{65}Zn	Bdn		03Fi.A	
^{64}Zn(p,γ)^{65}Ga		3942.0	1.0	3942.5	0.6	0.5	–					75We24	Z
		3943.0	1.0			−0.5	–					87Vi01	
	ave.	3942.5	0.7			0.1	1	83	64 ^{65}Ga			average	
^{65}Ge(εp)^{64}Zn		2300	100				2					81Ha44	
^{65}Cu(p,n)^{65}Zn		−2134.6	0.8	−2134.4	0.3	0.2	–			Yal		69Ov01	Z
		−2133.55	0.43			−2.0	–			PTB		89Sc24	
	ave.	−2133.8	0.4			−1.7	1	79	43 ^{65}Zn			average	
*^{65}Fe−C$_{5.417}$	M−A=–50740(250) keV for mixture gs+m at 364(3) keV											Nubase	**
*^{65}Fe−C$_{5.417}$	M−A=–51290(280) keV for mixture gs+m at 364(3) keV											Nubase	**
*^{65}Fe−C$_{5.417}$	M−A=–50370(330) keV for mixture gs+m at 364(3) keV and											Nubase	**
*	assuming ratio R=0.13(6), from half-life=430 ns and TOF=1 μs											GAu	**
^{66}Fe−C$_{5.5}$		−52300	700	−53220	320	−0.9	2			TO3	1.5	90Tu01	
		−54020	350			1.5	2			TO5	1.5	94Se12	
		−52800	300			−0.9	2			TO6	1.5	98Ba.A	
^{66}Co−C$_{5.5}$		−60470	300	−60240	270	0.5	2			TO5	1.5	94Se12	*
		−59870	290			−0.8	2			TO6	1.5	98Ba.A	*
^{66}Ni−^{85}Rb$_{.776}$		−2409.5	1.5				2			MA8	1.0	03Gu.A	
^{66}Cu−^{85}Rb$_{.776}$		−2680.6	2.2	−2680.0	0.7	0.3	1	11	11 ^{66}Cu	MA8	1.0	03Gu.A	
^{66}As−C$_{5.5}$		−55290	730				2			GA6	1.0	02Li24	
^{66}Zn(p,α)^{63}Cu		1544.3	0.8	1544.2	0.8	−0.2	1	89	83 ^{66}Zn	NDm		76Jo01	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{64}Ni(t,p)^{66}Ni		6559	25	6567.8	1.5	0.4	U			Ald		71Da16	
^{65}Cu(n,γ)^{66}Cu		7065.80	0.12	7065.93	0.09	1.1	–			BNn		83De29	Z
		7066.13	0.15			−1.3	–			Bdn		03Fi.A	
	ave.	7065.93	0.09			0.0	1	100	89 ^{66}Cu			average	
^{66}Co(β^-)^{66}Ni		9700	500	9890	250	0.4	R					88Bo06	
^{66}Ni(β^-)^{66}Cu		200	30	252.0	1.6	1.7	B					56Jo20	
^{66}Ga(β^+)^{66}Zn		5175.0	3.0				2					63Ca03	
^{66}Ge(β^+)^{66}Ga		2100	30				3					70De39	
^{66}As(β^+)^{66}Ge		9550	50	10120	680	11.4	C			ANB		79Da.A	
*^{66}Co−C$_{5.5}$	Original –60160(300) or M=–56040(280) keV											GAu	**
*^{66}Co−C$_{5.5}$	M−A=–55480(270) keV for mixture gs+m+n at 175(3) and 642(5) keV											Nubase	**
*	and assuming for first isomer a ratio R=0.5(0.2) to ground-state,											GAu	**
*	from half-life=1.21 μs and TOF=1 μs											GAu	**
^{67}Fe−C$_{5.583}$		−50190	500	−49050	450	1.5	2			TO5	1.5	94Se12	*
		−48430	370			−1.1	2			TO6	1.5	98Ba.A	*
^{67}Co−C$_{5.583}$		−59390	300	−59110	340	0.6	2			TO5	1.5	94Se12	
		−58730	350			−0.7	2			TO6	1.5	98Ba.A	
^{67}Ni−C$_{5.583}$		−68370	430	−68431	3	−0.1	U			TO5	1.5	94Se12	*
		−68090	470			−0.5	U			TO6	1.5	98Ba.A	*
^{67}Ni−^{85}Rb$_{.788}$		1079.1	3.1				2			MA8	1.0	03Gu.A	
^{67}Cu−^{85}Rb$_{.788}$		−2760.0	1.3				2			MA8	1.0	03Gu.A	
^{67}As−C$_{5.583}$		−60500	260	−60810	110	−1.2	U			GA6	1.0	02Li24	
^{67}Zn N−^{66}Zn ^{15}N		4060.21	0.25	4059.03	0.23	−1.9	1	14	12 ^{67}Zn	H30	2.5	77Ba10	
^{64}Zn(α,n)^{67}Ge		−8987.5	12.	−8992	5	−0.4	2			ANL		78Mu05	
		−8993	5			0.2	2					79Al04	
^{66}Zn(n,γ)^{67}Zn		7052.5	0.6	7052.33	0.22	−0.3	–					71Ot01	Z
		7052.5	0.5			−0.3	–					75De.A	Z
		7052.5	0.3			−0.6	–			Bdn		03Fi.A	
	ave.	7052.50	0.24			−0.7	1	85	70 ^{67}Zn			average	
^{67}Cu(β^-)^{67}Zn		577	8	561.7	1.5	−1.9	U					53Ea11	
^{67}Zn(p,n)^{67}Ga		−1783.3	1.4	−1783.1	1.2	0.2	1	71	55 ^{67}Ga	Oak		64Jo11	Z
^{67}As(β^+)^{67}Ge		6010	100				3			ANB		80Mu12	
*^{67}Fe−C$_{5.583}$	Original –50000(500) or -46570(470) keV											GAu	**
*^{67}Fe−C$_{5.583}$	M−A=–44930(330) keV for mixture gs+m at 367(3) keV											Nubase	**
*^{67}Ni−C$_{5.583}$	Original –67840(300) or M=–63190(280) keV											GAu	**
*^{67}Ni−C$_{5.583}$	M−A=–62930(330) keV for mixture gs+m at 1007(3) keV											Nubase	**
^{68}Fe−C$_{5.667}$		−46300	500				2			TO6	1.5	98Ba.A	
^{68}Co−C$_{5.667}$		−55640	350	−55130	340	1.0	2			TO5	1.5	94Se12	
		−54750	300			−0.8	2			TO6	1.5	98Ba.A	
^{68}Ni−C$_{5.667}$		−68030	930	−68131	3	−0.1	U			TO5	1.5	94Se12	*
		−67530	930			−0.4	U			TO6	1.5	98Ba.A	*
^{68}Ni−^{85}Rb$_{.800}$		2437.0	3.2				2			MA8	1.0	03Gu.A	
^{68}Cu−C$_{5.667}$		−70570	440	−70389.1	1.7	0.3	U			TO6	1.5	98Ba.A	*
^{68}Cu−^{85}Rb$_{.800}$		179.1	1.7				2			MA8	1.0	03Gu.A	*
^{68}Ga−^{85}Rb$_{.800}$		−1484	37	−1451.7	1.6	0.9	U			MA8	1.0	03Gu.A	
^{68}As−C$_{5.667}$		−63221	107	−63230	50	−0.1	R			GT1	1.0	01Ha66	
^{68}Se−C$_{5.667}$		−56197	86	−58200	40	−9.3	F				2.5	01La31	*
		−57560	1070			−0.6	U			GA6	1.0	02Li24	
		−58202	35				2			CP1	1.0	03Sh.A	
^{66}Ni(t,p)^{68}Ni−^{68}Zn()^{70}Zn		−2110	21	−2100	4	0.5	U			Hei		77Bh03	
^{67}Zn(n,γ)^{68}Zn		10198.2	0.4	10198.10	0.19	−0.3	–					71Ot01	Z
		10198.06	0.22			0.2	–			Bdn		03Fi.A	
	ave.	10198.09	0.19			0.0	1	100	98 ^{68}Zn			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference
^{68}Cu(β^-)^{68}Zn	4580	60	4440.2	1.8	−2.3	B					64Ba13
	4590	50			−3.0	B					72Sw01
^{68}Zn(t,^{3}He)^{68}Cu	−4410	20	−4421.6	1.8	−0.6	U			LAl		77Sh08
^{68}Ga(β^+)^{68}Zn	2921.1	1.2				2					72Sl03
^{68}As(β^+)^{68}Ge	8100	100	8080	40	−0.2	2			ANB		77Pa13
	8073	54			0.1	2					02Cl.A *
*^{68}Ni−$C_{5.667}$	M−A=–61950(280) keV for mixture gs+n at 2849.1 keV										Ens02 **
*^{68}Ni−$C_{5.667}$	M−A=–61480(280) keV for mixture gs+n at 2849.1 keV										Ens02 **
*^{68}Cu−$C_{5.667}$	M−A=–65380(350) keV for mixture gs+m at 721.6 keV										Ens02 **
*^{68}Cu−^{85}Rb$_{.800}$	Also 948.6(1.6) uu for ^{68}Cu^m−^{85}Rb$_{.800}$, yielding Exc.= 716.7(2.2) keV										03Gu.A **
*^{68}Se−$C_{5.667}$	F: other results of same work not trusted, see ^{80}Y										GAu **
*^{68}As(β^+)^{68}Ge	From mass difference 8667(64) μu										02Cl.A **
^{69}Co−$C_{5.75}$	−54800	400	−53680	360	1.9	2			TO5	1.5	94Se12
	−53050	300			−1.4	2			TO6	1.5	98Ba.A
^{69}Ni−$C_{5.75}$	−64600	400	−64390	4	0.4	U			TO5	1.5	94Se12 *
	−64250	450			−0.2	U			TO6	1.5	98Ba.A *
^{69}Ni−^{85}Rb$_{.812}$	7237.0	4.0				2			MA8	1.0	03Gu.A
^{69}Cu−^{85}Rb$_{.812}$	1056.0	1.5				2			MA8	1.0	03Gu.A
^{69}Zn−$C_{5.75}$	−73580	400	−73449.7	1.0	0.2	U			TO6	1.5	98Ba.A *
C_5H_9−^{69}Ga	144852.7	2.4	144851.7	1.3	−0.2	B			M15	2.5	63Ri07
^{69}Ga−^{85}Rb$_{.812}$	−2799.8	1.6	−2799.7	1.3	0.1	1	65	65 ^{69}Ga	MA8	1.0	03Gu.A
^{68}Zn(n,γ)^{69}Zn	6482.3	0.8	6482.07	0.16	−0.3	U					71Ot01 Z
	6481.8	0.5			0.5	U					75De.A Z
	6482.07	0.16				2			Bdn		03Fi.A
^{69}Se(εp)^{68}Ge	3390	50	3390	30	0.0	–					76Ha29
	3370	70			0.3	–					77Ma24
ave.	3380	40			0.1	1	71	70 ^{69}Se			average
^{69}Zn(β^-)^{69}Ga	897	5	909.8	1.5	2.6	B					53Du03
^{69}Ga(p,n)^{69}Ge	−3009.50	0.55	−3009.5	0.5	0.0	1	100	100 ^{69}Ge	PTB		92Bo.B Z
^{69}As(β^+)^{69}Ge	3970	50	4010	30	0.9	–					70Bo19
	4067	50			−1.1	–					77Ma24
ave.	4020	40			−0.1	1	78	78 ^{69}As			average
^{69}Se(β^+)^{69}As	6795	52	6790	40	−0.2	1	52	30 ^{69}Se			77Ma24
*^{69}Ni−$C_{5.75}$	M−A=–59940(330) keV for mixture gs+m+n at 321(2) and 2701(10) keV										Nubase **
*^{69}Ni−$C_{5.75}$	M−A=–59620(380) keV for mixture gs+m+n at 321(2) and 2701(10) keV										Nubase **
*	and assuming for second isomer a ratio R=0.13(0.06) to gs,										GAu **
*	from half-life=439 ns and TOF=1 μs										GAu **
*^{69}Zn−$C_{5.75}$	M−A=–68320(350) keV for mixture gs+m at 438.636 keV										Ens00 **
^{70}Co−$C_{5.833}$	−49000	600				2			TO6	1.5	98Ba.A
^{70}Ni−$C_{5.833}$	−63980	350	−63500	370	0.9	2			TO5	1.5	94Se12 *
	−63020	350			−0.9	2			TO6	1.5	98Ba.A *
^{70}Cu−^{85}Rb$_{.824}$	5077.6	1.7				2			MA8	1.0	03Gu.A
^{70}Cu^m−^{85}Rb$_{.824}$	5185.7	2.2				2			MA8	1.0	03Gu.A
^{70}Cu^n−^{85}Rb$_{.824}$	5337.4	2.3				2			MA8	1.0	03Gu.A
^{70}Ga−^{85}Rb$_{.824}$	−1293.0	2.3	−1292.8	1.3	0.1	1	32	32 ^{70}Ga	MA8	1.0	03Gu.A
C_5H_{10}−^{70}Ge	154001.3	2.2	154002.9	1.1	0.3	1	4	4 ^{70}Ge	M15	2.5	63Ri07
C_4H_6O−^{70}Ge	117616.1	1.8	117617.4	1.1	0.3	1	6	6 ^{70}Ge	M15	2.5	63Ri07
^{70}Se−$C_{5.833}$	−66890	490	−66610	70	0.6	U			GA6	1.0	98Ch20
	−66635	75			0.3	2			GT1	1.0	01Ha66
	−66520	140			−0.6	2			GA6	1.0	02Li24
^{70}Zn ^{35}Cl−^{68}Zn ^{37}Cl	3429.5	1.7	3425.2	2.3	−0.6	1	11	9 ^{70}Zn	H18	4.0	64Ba03
^{70}Zn(^{3}He,^{8}B)^{65}Co	−18385	13				2			Pri		78Ko24
^{70}Zn(α,^{7}Be)^{67}Ni	−19155	36	−19167	3	−0.3	U			Tex		78Co.A
	−19164	22			−0.1	U			Pri		78Ko28

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{70}Ge(p,α)^{67}Ga		1180.9	1.5	1180.6	1.2	−0.2	1	65	45 ^{67}Ga	NDm		76Jo01	
^{70}Zn(^{14}C,^{16}O)^{68}Ni		1727	30	1656	4	−2.4	U			Ors		88Gi04	
^{70}Zn(^{18}O,^{20}Ne)^{68}Ni		172	26	160	4	−0.5	U			Hei		84Ha31	
^{70}Ge(p,t)^{68}Ge		−11251	13	−11244	6	0.5	–			ChR		72Hs01	
		−11242	7			−0.3	–			Ors		77Gu02	
	ave.	−11244	6			0.0	1	99	99 ^{68}Ge			average	
^{70}Zn(^{14}C,^{15}O)^{69}Ni		−8936	150	−9422	4	−3.2	B			Ors		84De33	
^{70}Zn(d,^{3}He)^{69}Cu		−5605	10	−5623.9	2.4	−1.9	U			ANL		78Ze04	
		−5622	13			−0.1	U			Hei		84Ha31	
^{70}Zn(t,α)^{69}Cu		8682	20	8696.5	2.4	0.7	U			LAl		81Aj02	
^{69}Ga(n,γ)^{70}Ga		7654.0	1.0	7653.65	0.17	−0.4	U					71Ar12	Z
		7653.65	0.17			0.0	1	100	65 ^{70}Ga	Bdn		03Fi.A	
^{70}Ge(d,^{3}He)^{69}Ga		−3030	7	−3030.8	1.6	−0.1	U			Ors		78Ro14	
^{70}Cu(β^-)^{70}Zn		6310	110	6588.5	2.5	2.5	U					75Re09	*
		5928	110			6.0	U					75Re09	*
^{70}Zn(t,^{3}He)^{70}Cu		−6559	20	−6569.9	2.5	−0.5	U			LAl		77Sh08	
		−6602	20			1.6	U			LAl		87Aj.A	
^{70}Zn(p,n)^{70}Ga		−1436.1	2.0	−1436.9	1.6	−0.3	–			Nvl		59Go68	Z
		−1439.1	3.0			0.8	–			Oak		64Jo11	Z
	ave.	−1437.2	1.6			0.2	1	94	91 ^{70}Zn			average	
^{70}Ga(β^-)^{70}Ge		1650	10	1653.0	1.6	0.3	U					57Bu41	
^{70}As(β^+)^{70}Ge		6220	50				2					63Bo14	
^{70}Se(β^+)^{70}As		2736	85	2300	80	−5.2	B					01To06	
^{70}Br(β^+)^{70}Se		9970	170	10620#	300#	3.8	D			ANB		79Da.A	*
*^{70}Ni−C$_{5.833}$	Original –63860(350) or M=–59490(330) keV											GAu	**
*^{70}Ni−C$_{5.833}$	M−A=–58590(330) keV for mixture gs+m at 2860(2) keV and											Nubase	**
*	assuming ratio R=0.04(2), from half-life=210ns and TOF=1 μs											GAu	**
*^{70}Cu(β^-)^{70}Zn	E=4550(120), 3370(170) to 1786.5, 3038.2 level											NDS931	**
*^{70}Cu(β^-)^{70}Zn	E$^-$=6170(110) from 1+ 242 level											02We03	**
*^{70}Br(β^+)^{70}Se	Systematical trends suggest ^{70}Br 650 less bound											CTh	**
^{71}Co−C$_{5.917}$		−47100	600				2			TO6	1.5	98Ba.A	
^{71}Ni−C$_{5.917}$		−60000	400	−59260	400	1.2	2			TO5	1.5	94Se12	
		−58700	350			−1.1	2			TO6	1.5	98Ba.A	
^{71}Cu−^{85}Rb$_{.835}$		6332.4	1.6				2			MA8	1.0	03Gu.A	
^{71}Zn−C$_{5.917}$		−72080	380	−72278	11	−0.3	U			TO6	1.5	98Ba.A	*
C$_5$ H$_{11}$−^{71}Ga		161370.2	3.2	161374.0	1.1	0.5	U			M15	2.5	63Ri07	
^{71}Ga−^{85}Rb$_{.835}$		−1641.6	3.0	−1643.1	1.1	−0.5	1	13	13 ^{71}Ga	MA8	1.0	03Gu.A	
^{71}Se−C$_{5.917}$		−68160	340	−67760	30	1.2	U			GA6	1.0	98Ch20	
		−67687	75			−0.9	R			GT1	1.0	01Ha66	
		−67830	120			0.6	U			GA6	1.0	02Li24	
^{71}Br−C$_{5.917}$		−61260	610				2			GA6	1.0	02Li24	
^{70}Zn(^{18}O,^{17}F)^{71}Cu		−9529	35	−9586.7	2.5	−1.6	U			Ber		89Bo.A	
^{70}Zn(d,p)^{71}Zn		3609	10				2			ANL		67Vo05	
^{70}Ge(n,γ)^{71}Ge		7415.95	0.15	7415.94	0.11	0.0	–			MMn		91Is01	Z
		7415.93	0.15			0.1	–			Bdn		03Fi.A	
	ave.	7415.94	0.11			0.0	1	100	64 ^{70}Ge			average	
^{70}Ge(p,γ)^{71}As		4619	5	4620	4	0.2	R					75Li14	
^{71}Ge(ε)^{71}Ga		233.0	0.5	232.51	0.22	−1.0	–			Hei		84Ha.A	
		229.3	1.0			3.2	F					91Zl01	*
		232.1	0.5			0.8	–					93Di03	*
		232.71	0.29			−0.7	–					95Le19	
	ave.	232.65	0.22			−0.6	1	94	61 ^{71}Ge			average	
^{71}Ga(^{3}He,t)^{71}Ge−^{65}Cu()^{65}Zn		1122.0	0.9	1119.6	0.4	−2.7	1	18	7 ^{65}Zn	Pri		84Ko10	
^{71}As(β^+)^{71}Ge		1997	20	2013	4	0.8	U					53St31	
		2010	10			0.3	2					54Th36	
		2012	10			0.1	2					55Gr08	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{71}Se(β^+)^{71}As	4428	125	4780	30	2.8	B					73Sc17	
	4762	35			0.5	3					01To06	
^{71}Kr(ε)^{71}Br	10140	320				3					97Oi01	
$*^{71}$Zn−$C_{5.917}$	M−A=–67060(350) keV for mixture gs+m at 157.7 keV										Ens93	**
$*^{71}$Ge(ε)^{71}Ga	F: sees 17 keV neutrino										AHW	**
$*^{71}$Ge(ε)^{71}Ga	Original error 0.1 increased for calibration uncertainty										GAu	**
^{72}Ni−C_6	−58700	500	−57910	470	1.1	2			TO5	1.5	94Se12	
	−57400	400			−0.8	2			TO6	1.5	98Ba.A	
^{72}Cu−C_6	−64250	510	−64179.7	1.5	0.1	U			TO6	1.5	98Ba.A	*
^{72}Cu−^{85}Rb$_{.847}$	10534.4	1.5				2			MA8	1.0	03Gu.A	
^{72}Ga−^{85}Rb$_{.847}$	1079.5	1.5	1080.4	1.1	0.6	1	53	53 ^{72}Ga	MA8	1.0	03Gu.A	
C_4 H_8 O−^{72}Ge	135438.4	2.1	135439.1	1.8	0.1	1	11	11 ^{72}Ge	M15	2.5	63Ri07	
^{72}Kr−^{85}Rb$_{.847}$	16806.5	8.6	16806	9	0.0	1	100	100 ^{72}Kr	MA8	1.0	02Ro.A	
^{70}Ge H_2 −^{72}Ge	17821.3	1.7	17821.6	2.0	0.1	1	22	16 ^{72}Ge	M15	2.5	63Ri07	
^{70}Zn(t,p)^{72}Zn	6231	20	6228	6	−0.2	U			Ald		72Hu06	
^{71}Ga(n,γ)^{72}Ga	6521.1	1.0	6520.45	0.19	−0.6	U					70Li04	Z
	6520.44	0.19			0.1	1	99	52 ^{71}Ga	Bdn		03Fi.A	
^{72}Ge(d,^{3}He)^{71}Ga	−4241	7	−4241.2	1.8	0.0	U			Ors		78Ro14	
^{72}Zn(β^-)^{72}Ga	458	6				2					63Th03	
^{72}As(β^+)^{72}Ge	4361	10	4356	4	−0.5	2					50Me55	
	4345	10			1.1	2					68Vi05	
^{72}Ge(p,n)^{72}As	−5140	5	−5138	4	0.3	2			Kyu		76Ki12	
^{72}Br(β^+)^{72}Se	8869	95	8880	60	0.1	1	40	39 ^{72}Br			01To06	
^{72}Kr(β^+)^{72}Br	5040	80	5070	60	0.4	1	55	55 ^{72}Br			73Sc17	
$*^{72}$Cu−C_6	M−A=–59710(470) keV for mixture gs+m at 270(3) keV										Nubase	**
^{73}Ni−$C_{6.083}$	−52500	500	−53530#	320#	−1.4	D			TO6	1.5	98Ba.A	*
^{73}Cu−$C_{6.083}$	−62740	350	−63325	4	−1.1	U			TO6	1.5	98Ba.A	
^{73}Cu−^{85}Rb$_{.859}$	12447.9	4.2				2			MA8	1.0	03Gu.A	
^{73}Zn−$C_{6.083}$	−70100	380	−70220	40	−0.2	U			TO6	1.5	98Ba.A	*
^{73}Ga−^{85}Rb$_{.859}$	947.3	1.8				2			MA8	1.0	03Gu.A	
C_4 H_9 O−^{73}Ge	141878.4	2.1	141881.0	1.8	0.5	1	11	11 ^{73}Ge	M15	2.5	63Ri07	
^{73}Br−$C_{6.083}$	−68428	97	−68310	50	1.2	1	32	32 ^{73}Br	GT1	1.0	01Ha66	
^{73}Kr−^{85}Rb$_{.859}$	15062.8	9.7	15062	7	−0.1	2			MA8	1.0	02He23	
	15060.7	10.3			0.1	2			MA8	1.0	02Ro.A	
^{73}Br−^{72}Br	−4610	330	−4950	80	−0.4	U			CR1	2.5	89Sh10	*
	−4709	166			−1.0	1	11	6 ^{72}Br	CR2	1.5	91Sh19	*
^{72}Ge(n,γ)^{73}Ge	6782.94	0.05	6782.94	0.05	0.0	1	98	72 ^{72}Ge	MMn		91Is01	Z
	6783.12	0.15			−1.2	U			Bdn		03Fi.A	
^{72}Ge(^{3}He,d)^{73}As	160	4	166	4	1.6	1	80	80 ^{73}As	Hei		76Sc13	
^{73}Kr(εp)^{72}Se	3700	150	4054	14	2.4	B					81Ha44	
^{73}Se(β^+)^{73}As	2740	10	2739	10	−0.1	1	99	99 ^{73}Se			56Ha10	
^{73}Br(β^+)^{73}Se	4648	400	4590	50	−0.1	U					74Ro11	*
	4688	140			−0.7	–					87He21	*
	4610	70			−0.3	–					01To06	
ave.	4630	60			−0.6	1	65	64 ^{73}Br			average	
^{73}Kr(β^+)^{73}Br	6790	350	7080	50	0.8	U					73Sc17	
	6860	220			1.0	U					97Oi01	
$*^{73}$Ni−$C_{6.083}$	Systematical trends suggest ^{73}Ni 960 more bound										GAu	**
$*^{73}$Zn−$C_{6.083}$	M−A=–65200(350) keV for mixture gs+m at 195.5 keV										Ens93	**
$*^{73}$Br−^{72}Br	D_M=–4660(330) uu corrected for ^{72}Br gs+m mixture at 100.92 keV										Ens95	**
$*^{73}$Br−^{72}Br	From ^{72}Br/^{73}Br=0.98635312(227)										AHW	**
$*^{73}$Br(β^+)^{73}Se	E^+ =3600(400) to ^{73}Se^m at 25.71										NDS938	**
$*^{73}$Br(β^+)^{73}Se	E^+ =3640(140) to ^{73}Se^m at 25.71										NDS938	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{74}Cu−C$_{6.167}$		−59400	400	−60125	7	−1.2	U			TO6	1.5	98Ba.A	
^{74}Cu−^{85}Rb$_{.871}$		16706.0	6.6				2			MA8	1.0	03Gu.A	
^{74}Ga−^{85}Rb$_{.871}$		3777.1	22.6	3777	4	0.0	U			MA8	1.0	02Ke.A	*
		3776.9	4.0				2			MA8	1.0	03Gu.A	
C ^{32}S$_2$−^{74}Ge H$_2$		7314.0	1.4	7314.2	1.8	0.0	1	25	25 ^{74}Ge	M15	2.5	63Ri07	
C$_6$ H$_2$−^{74}Se		93173.8	3.8	93173.6	1.8	0.0	U			M15	2.5	63Ri07	
^{74}Kr−^{85}Rb$_{.871}$		9916.8	2.6	9915.5	2.2	−0.5	–			MA8	1.0	02He23	
		9909.7	4.4			1.3	–			MA8	1.0	02Ro.A	
	ave.	9915.0	2.2			0.2	1	96	96 ^{74}Kr			average	
^{74}Rb−^{85}Rb$_{.871}$		21109	19	21096	4	−0.7	o			MA8	1.0	02He23	
		21097.9	4.3			−0.5	1	84	84 ^{74}Rb	MA8	1.0	03Ke.A	
^{74}Rb−C$_{6.167}$		−55770	107	−55735	4	0.3	U			P40	1.0	02Vi.A	
^{74}Ge ^{35}Cl−^{72}Ge ^{37}Cl		2052.01	0.26	2052.04	0.10	0.1	1	7	3 ^{74}Ge	H44	1.5	91Hy01	
^{74}Se(p,t)^{72}Se		−11979	12	−11979	12	0.0	1	99	99 ^{72}Se	Win		74De31	
^{74}Ge(d,^{3}He)^{73}Ga		−5515	7	−5518.6	2.3	−0.5	U			Ors		78Ro14	
		−5509	13			−0.7	U			Hei		84Ha31	
^{73}Ge(n,γ)^{74}Ge		10195.90	0.15	10196.22	0.06	2.1	–			ILn		85Ho.A	Z
		10196.31	0.07			−1.3	–			MMn		91Is01	Z
		10196.06	0.20			0.8	–			Bdn		03Fi.A	
	ave.	10196.22	0.06			0.0	1	97	62 ^{73}Ge			average	
^{74}Se(d,^{3}He)^{73}As		−3027	8	−3052	4	−3.1	1	20	20 ^{73}As	Ors		83Ro08	*
^{74}Zn(β^-)^{74}Ga		2350	100	2340	50	−0.1	U					72Er05	
^{74}Ga(β^-)^{74}Ge		5400	100	5373	4	−0.3	U					62Ei02	
^{74}As(β^+)^{74}Ge		2558	4	2562.5	1.7	1.1	–					71Bo01	*
^{74}Ge(p,n)^{74}As		−3343.5	5.6	−3344.8	1.7	−0.2	–			Tkm		63Ok01	
		−3348.3	5.			0.7	–			Oak		64Jo11	Z
		−3346	5			0.2	–					70Fi03	Z
		−3347	3			0.7	–			Kyu		73Ki11	
^{74}As(β^+)^{74}Ge	ave.	2562.9	1.9	2562.5	1.7	−0.2	1	82	82 ^{74}As			average	
^{74}As(β^-)^{74}Se		1351	4	1352.8	1.8	0.4	1	19	18 ^{74}As			71Bo01	*
^{74}Br(β^+)^{74}Se		6857	100	6907	15	0.5	U					69La15	*
^{74}Se(p,n)^{74}Br		−7689	15				2					75Lu02	*
^{74}Kr(β^+)^{74}Br		3000	200	2975	15	−0.1	U					74Ro11	
		3327	125			−2.8	U					75Sc07	
^{74}Rb(β^+)^{74}Kr		10405	9	10414	4	1.1	1	20	16 ^{74}Rb			03Pi08	*
*^{74}Ga−^{85}Rb$_{.871}$	D_M=3780.1(22.5) uu corrected –2.8(1.6) keV for gs+m mixture R<0.1											02Ke.A	**
*^{74}Se(d,^{3}He)^{73}As	Q=–3033(8) for Q(^{76}Se(d,^{3}He))=–4020.7(2.0), now 4014.5											AHW	**
*^{74}As(β^+)^{74}Ge	Original error increased: E(0)−E(2)=593.1(1.5) but											AHW	**
*	E(2)=595.88(0.04), see also ^{84}Rb(β^+)											AHW	**
*^{74}As(β^-)^{74}Se	Original value 1350.1(0.7), error increased, see ^{84}Rb(β^+)											AHW	**
*^{74}Br(β^+)^{74}Se	E$^+$ =5200(100), 4500(100) to 634.76, 1363.21 levels											69La15	**
*	from ^{74}Br^m at 13.8(0.5)											93Do05	**
*^{74}Se(p,n)^{74}Br	T=7868(15) to 72.65 (not 63) level											AHW	**
*^{74}Rb(β^+)^{74}Kr	Deduced from measured half-life and branching ratio											GAu	**
^{75}Cu−C$_{6.25}$		−58100	700				2			TO6	1.5	98Ba.A	
^{75}Ga−^{85}Rb$_{.882}$		4301.7	2.6				2			MA8	1.0	03Gu.A	
C$_3$ H$_7$ O$_2$−^{75}As		123009.8	2.6	123008.0	2.0	−0.3	1	9	9 ^{75}As	M15	2.5	63Ri07	
^{75}As−^{85}Rb$_{.882}$		−601.3	7.6	−602.1	2.0	−0.1	U			MA8	1.0	02Ke.A	
^{75}Kr−^{85}Rb$_{.882}$		8747.2	8.7				2			MA8	1.0	02He23	
^{75}Rb−C$_{6.25}$		−61430	8				2			MA2	1.0	94Ot01	
^{74}Ge(n,γ)^{75}Ge		6505.26	0.08	6505.31	0.07	0.6	2			MMn		91Is01	Z
		6505.45	0.14			−1.0	2			Bdn		03Fi.A	
^{74}Ge(p,γ)^{75}As		6901.6	5.	6898.9	1.0	−0.5	U					74Wa08	
^{74}Ge(^{3}He,d)^{75}As		1414	4	1405.5	1.0	−2.1	U			Hei		76Sc13	
^{74}Se(n,γ)^{75}Se		8027.60	0.08	8027.60	0.07	0.0	–			ILn		84To11	Z
		8027.59	0.16			0.1	–			Bdn		03Fi.A	
	ave.	8027.60	0.07			0.0	1	100	99 ^{74}Se			average	
^{75}Zn(β^-)^{75}Ga		6060	80	6000	70	−0.8	3			Stu		86Ek01	
^{75}As(p,n)^{75}Se		−1647.2	2.0	−1645.7	0.8	0.7	–			Nvl		59Go68	Z
		−1647.3	1.1			1.5	–			Oak		64Jo11	Z
	ave.	−1647.3	1.0			1.6	1	71	63 ^{75}As			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{75}Br(β^+)^{75}Se	3010	20	3030	14	1.0	2					52Fu04	
	3030	50			0.0	U					61Ba43	
	3050	20			−1.0	2					69Ra24	
^{75}Sr(ε)^{75}Rb	10600	220				3					03Hu01	
^{76}Cu−^{85}Rb$_{.894}$	24135.0	7.2				2			MA8	1.0	03Gu.A	
^{76}Ga−^{85}Rb$_{.894}$	7687.6	2.1				2			MA8	1.0	03Gu.A	
C ^{32}S$_2$−^{76}Ge	22741.6	1.5	22739.4	1.8	−0.6	U			M15	2.5	63Ri07	
^{76}Ge−C$_{6.333}$	−78597.242	0.096	−78597.4	1.8	−2.1	U			ST2	1.0	01Do08	
^{76}Kr−^{85}Rb$_{.894}$	4774.3	4.7	4770	4	−0.9	1	85	85 ^{76}Kr	MA8	1.0	02He23	
^{76}Rb−C$_{6.333}$	−64929	8	−64927.8	2.0	0.2	U			MA2	1.0	94Ot01	
^{76}Rb−^{85}Rb$_{.894}$	13932.2	2.0				2			MA8	1.0	02He23	
^{76}Sr−C$_{6.333}$	−58813	107	−58230	40	2.2	F				2.5	01La31	*
^{76}Sr ^{19}F−C$_{7.917}$	−59830	40				2			MA8	1.0	01Si.A	
^{76}Ge ^{35}Cl−^{74}Ge ^{37}Cl	3174.61	0.41	3174.9	0.5	0.4	1	69	43 ^{76}Ge	H44	1.5	91Hy01	
^{76}Se ^{35}Cl−^{74}Ge ^{37}Cl	986.30	0.65	985.9	0.5	−0.4	1	28	17 ^{76}Se	H44	1.5	91Hy01	
^{76}Ge−^{76}Se	2188.60	0.42	2188.96	0.05	0.6	U			H44	1.5	91Hy01	
	2188.963	0.054			0.0	1	100	53 ^{76}Ge	ST2	1.0	01Do08	
^{75}Rb−^{76}Rb$_{.493}$ ^{74}Rb$_{.507}$	−1140	170	−1083	8	0.1	U			P20	2.5	82Au01	
^{76}Ge(^{14}C,^{17}O)^{73}Zn	−3974	40				2			Ors		84Be10	
^{76}Ge(^{14}C,^{16}O)^{74}Zn	163	40	250	50	2.2	2			Ors		84Be10	
^{76}Ge(^{18}O,^{20}Ne)^{74}Zn	−1219	21	−1240	50	−1.2	2			Hei		84Ha31	
^{76}Ge(^{14}C,^{15}O)^{75}Zn	−10354	150	−10580	70	−1.5	R			Ors		84De33	
^{76}Ge(d,^{3}He)^{75}Ga	−6545	7	−6544.0	2.9	0.1	U			Ors		78Ro14	
	−6536	22			−0.4	U			Hei		84Ha31	
^{75}As(n,γ)^{76}As	7328.421	0.075	7328.41	0.07	−0.1	1	100	84 ^{76}As	ILn		90Ho10	Z
	7328.81	0.15			−2.7	B			Bdn		03Fi.A	
^{75}Se(n,γ)^{76}Se	11154.15	0.30	11154.35	0.29	0.7	1	97	91 ^{75}Se	ILn		83To20	Z
^{76}Zn(β^-)^{76}Ga	4160	80				3			Stu		86Ek01	
^{76}Ga(β^-)^{76}Ge	7010	90	6916.4	2.6	−1.0	U			Stu		86Ek01	
^{76}As(β^-)^{76}Se	2970	2	2962.5	0.8	−3.7	1	17	16 ^{76}As			69Na11	
^{76}Br(β^+)^{76}Se	5002	20	4963	9	−2.0	2					71Dz08	
^{76}Br(n,p)^{76}Se	5730	15	5745	9	1.0	2			ILL		78An14	
^{76}Se(p,n)^{76}Br	−5738.6	15.	−5745	9	−0.4	2					75Lu02	
*^{76}Sr−C$_{6.333}$	F: other results of same work not trusted, see ^{80}Y										GAu	**
^{77}Zn−C$_{6.417}$	−62790	780	−63040	130	−0.2	U			TO6	1.5	98Ba.A	*
^{77}Ga−^{85}Rb$_{.906}$	9072.8	2.6				2			MA8	1.0	03Gu.A	
^{77}Kr−^{85}Rb$_{.906}$	4588.5	2.1				2			MA8	1.0	02He23	
^{77}Rb−C$_{6.417}$	−69592	8				2			MA2	1.0	94Ot01	
^{77}Sr ^{19}F−C$_8$	−63652	10				2			MA8	1.0	01Si.A	
^{75}Rb−^{77}Rb$_{.325}$ ^{74}Rb$_{.676}$	−1340	380	−1058	11	0.3	U			P20	2.5	82Au01	
^{76}Ge(n,γ)^{77}Ge	6072.5	1.0	6072.3	0.4	−0.2	U					72Gr34	Z
	6071.7	1.2			0.5	U					72Ha74	Z
	6072.3	0.4				2			Bdn		03Fi.A	
^{76}Ge(^{3}He,d)^{77}As	2497	3	2499.0	1.8	0.7	1	34	31 ^{77}As	Hei		76Sc13	
^{76}Se(n,γ)^{77}Se	7418.87	0.20	7418.86	0.06	0.0	–			BNn		81En07	
	7418.85	0.07			0.1	–			ILn		85To10	Z
	7418.85	0.15			0.1	–			Bdn		03Fi.A	
ave.	7418.85	0.06			0.1	1	99	72 ^{77}Se			average	
^{77}Sr(εp)^{76}Kr	3850	200	3921	10	0.4	U					76Ha29	
^{77}Zn(β^-)^{77}Ga	7270	120				3			Stu		86Ek01	
^{77}Ga(β^-)^{77}Ge	5340	60	5221.7	3.0	−2.0	U			Stu		77Al17	
^{77}As(β^-)^{77}Se	679	4	683.0	1.8	1.0	1	19	18 ^{77}As			51Je01	
^{77}Se(p,n)^{77}Br	−2147	4	−2147.0	2.8	0.0	2			Oak		58Jo01	
	−2147.0	4.			0.0	2			Tkm		63Ok01	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{77}Kr(β^+)^{77}Br		3012	30	3065	4	1.8	U					55Th01	
^{77}Rb(β^+)^{77}Kr		5272	26	5345	8	2.8	B					82Mo10	
		5113	69			3.4	B			BNL		83Li11	
^{77}Sr(β^+)^{77}Rb		6986	227	7020	12	0.2	U			BNL		83Li11	
$*^{77}$Zn−C$_{6.417}$	M−A=–58100(700) keV for mixture gs+m at 772.39 keV											Ens97	**
^{78}Ga−^{85}Rb$_{.918}$		12585.2	2.6				2			MA8	1.0	03Gu.A	
C$_6$ H$_6$−^{78}Se		129642.6	2.2	129641.1	1.8	−0.3	1	10	10 ^{78}Se	M15	2.5	63Ri07	
C$_6$ H$_6$−^{78}Kr		126548.3	3.6	126585.4	1.2	4.1	B			M15	2.5	63Ri07	
^{78}Kr−^{85}Rb$_{.918}$		1342.3	1.4	1341.8	1.2	−0.4	–			MA8	1.0	02He23	
		1338.9	2.2			1.3	–			MA8	1.0	02Ro.A	
	ave.	1341.3	1.2			0.4	1	95	95 ^{78}Kr			average	
^{78}Rb−C$_{6.5}$		−71859	8				2			MA2	1.0	94Ot01	
^{78}Sr−C$_{6.5}$		−67820	8				2			MA2	1.0	94Ot01	
^{78}Se ^{35}Cl−^{76}Ge ^{37}Cl		−1143.57	0.72	−1143.38	0.20	0.2	1	3	2 ^{78}Se	H44	1.5	91Hy01	
^{78}Se ^{35}Cl−^{76}Se ^{37}Cl		1044.58	0.45	1045.59	0.19	1.5	1	8	5 ^{78}Se	H44	1.5	91Hy01	
^{77}Rb−^{78}Rb$^x_{.494}$ ^{76}Rb$_{.507}$		−1192	19	*			U			P20	2.5	82Au01	
^{78}Kr(α,^{8}He)^{74}Kr		−41080	75	−41021	7	0.8	U			Tex		82Mo23	*
^{78}Se(p,α)^{75}As		870.9	2.3	870.4	0.8	−0.2	1	13	12 ^{75}As	NDm		82Zu04	
^{78}Kr(^{3}He,^{6}He)^{75}Kr		−12581	14	−12520	8	4.4	B					87Mo06	
^{76}Ge(t,p)^{78}Ge		6310	5	6310	4	0.0	2			LAl		78Ar12	
		6310	5			0.0	2			Phi		81St18	
^{78}Kr(α,^{6}He)^{76}Kr		−20351	10	−20336	4	1.5	R			Tex		82Mo23	*
^{78}Kr(p,t)^{76}Kr		−12840	15	−12826	4	0.9	U			Tky		81Ma30	
^{78}Se(d,^{3}He)^{77}As		−4904	4	−4905.0	1.8	−0.3	1	19	18 ^{77}As	Ors		83Ro08	*
^{77}Se(n,γ)^{78}Se		10497.7	0.3	10497.81	0.16	0.4	–			BNn		81En07	Z
		10497.75	0.21			0.3	–			Bdn		03Fi.A	
	ave.	10497.73	0.17			0.4	1	90	64 ^{78}Se			average	
^{78}Kr(d,t)^{77}Kr		−5804	7	−5824.4	2.2	−2.9	B					87Mo06	
^{78}Zn(β^-)^{78}Ga		6440	140	6360	90	−0.5	o			Stu		86Ek01	
		6364	90				3			Stu		00Me.A	
^{78}Ga(β^-)^{78}Ge		8200	80	8156	5	−0.6	o			Stu		86Ek01	
		8054	43			2.4	B			Stu		00Me.A	
^{78}Ge(β^-)^{78}As		967	30	955	10	−0.4	R					65Fr04	
		987	20			−1.6	R					65Kv01	
^{78}Se(p,n)^{78}Br		−4344	10	−4356	4	−1.2	2			Bar		61Ri02	
		−4370	10			1.4	2			LAl		61Sc11	
		−4355.5	7.4			−0.1	2			Tkm		63Ok01	Z
		−4356	5			0.0	2					70Fi03	Z
^{78}Rb^x(IT)^{78}Rb		74	12				3					82Au01	*
$*^{78}$Kr(α,^{8}He)^{74}Kr	Original –41120(75) for 4 events included 1 background event											GAu	**
$*^{78}$Kr(α,^{6}He)^{76}Kr	Replaced by calibration free ^{80}Kr(α,^{6}He)^{78}Kr−^{78}Kr()^{76}Kr											GAu	**
$*^{78}$Se(d,^{3}He)^{77}As	Original value –4910(4) corrected, see ^{74}Se(d,^{3}He)											AHW	**
$*^{78}$Rb^x(IT)^{78}Rb	Corrected; using ^{78}Rb^m(IT)=111.2											GAu	**
C$_6$ H$_7$−^{79}Br		136444.3	2.4	136438.1	2.2	−1.0	U			M15	2.5	63Ri07	
^{79}Kr−C$_{6.583}$		−79981	52	−79918	4	1.2	U			GS2	1.0	03Li.A	*
^{79}Rb−C$_{6.583}$		−76013	8	−76011	6	0.3	1	65	65 ^{79}Rb	MA2	1.0	94Ot01	
^{79}Sr−C$_{6.583}$		−70292	9				2			MA2	1.0	94Ot01	
^{78}Se(n,γ)^{79}Se		6962.6	0.3	6962.83	0.13	0.8	2					79Br.A	Z
		6962.2	0.3			2.1	2			BNn		81En07	Z
		6963.11	0.17			−1.6	2			Bdn		03Fi.A	
^{78}Kr(^{3}He,d)^{79}Rb		−1585	10	−1581	6	0.4	1	36	35 ^{79}Rb	Phi		87St11	
^{79}Zn(β^-)^{79}Ga		8550	240	9090#	240#	2.2	D			Stu		86Ek01	*
^{79}Ga(β^-)^{79}Ge		7000	80	6980	40	−0.3	o			Stu		86Ek01	
		6979	40				4			Stu		00Me.A	
^{79}Ge(β^-)^{79}As		4300	200	4150	90	−0.8	3					70Ka04	
		4110	100			0.4	3			Stu		81Al20	
^{79}Kr(β^+)^{79}Br		1612	10	1626	3	1.4	4					52Be55	
		1620	5			1.2	4					54Th39	
		1635	5			−1.8	4					64Bo25	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{79}Y(β^+)^{79}Sr	7120	450				3					92Mu12	
$*^{79}$Kr−$C_{6.583}$	M−A=–74437(30) keV for mixture gs+m at 129.77 keV										NDS025	**
$*^{79}$Zn(β^-)^{79}Ga	Systematical trends suggest ^{79}Zn 540 less bound										GAu	**
C_6 H_8−^{80}Se	146068.5	2.9	146079.0	2.1	1.4	U			M15	2.5	63Ri07	
C_6 H_8−^{80}Kr	146225.7	4.6	146221.3	1.6	−0.4	U			M15	2.5	63Ri07	
^{80}Kr−^{85}Rb$_{.941}$	−614.5	1.7	−615.2	1.6	−0.4	1	86	86 ^{80}Kr	MA8	1.0	02He23	
^{80}Rb−$C_{6.667}$	−77478	8	−77481	7	−0.3	1	88	88 ^{80}Rb	MA2	1.0	94Ot01	
^{80}Sr−$C_{6.667}$	−75475	8	−75479	7	−0.5	2			MA2	1.0	94Ot01	
	−75493	15			0.9	2			MA8	1.0	01Si.A	
^{80}Y−$C_{6.667}$	−65720	190				2			1.0	1.0	98Is06	
	−66664	86	−65720	190	4.4	F				2.5	01La31	*
^{80}Zr−$C_{6.667}$	−59600	1600				2			1.0	1.0	98Is06	
	−59740	161	−59600	1600	0.3	F				2.5	01La31	*
^{80}Se(p,α)^{77}As	1020.0	2.8	1020.7	2.0	0.2	1	49	33 ^{77}As	NDm		82Zu04	
^{80}Kr(^{3}He,^{6}He)^{77}Kr	−10398	24	−10386.9	2.6	0.5	U					87Mo06	
^{80}Se(d,α)^{78}As	5755	12	5768	10	1.1	2			Phi		77Mo13	
^{80}Se(p,t)^{78}Se	−8395.1	3.0	−8394.7	1.6	0.1	–			NDm		82Zu04	
ave.	−8394.1	2.1			−0.3	1	58	43 ^{80}Se			average	
^{80}Kr(α,^{6}He)^{78}Kr−^{78}Kr()^{76}Kr	1432	10	1453	5	2.1	R					78Kr-2	
	1432	10			2.1	1	21	15 ^{76}Kr			82Mo23	
^{80}Se(d,^{3}He)^{79}As	−5921	7	−5919	5	0.3	2			Ors		83Ro08	*
	−5921	13			0.2	2			Hei		83Wi14	
^{80}Se(t,α)^{79}As	8407	10	8401	5	−0.6	2			Phi		83Mo09	
^{80}Se(p,d)^{79}Se	−7687.6	3.0	−7689.1	1.6	−0.5	R			NDm		82Zu04	
^{79}Br(n,γ)^{80}Br	7892.11	0.20	7892.28	0.13	0.8	3			ILn		78Do06	Z
	7892.41	0.18			−0.7	3			Bdn		03Fi.A	
^{80}Zn(β^-)^{80}Ga	7540	200	7290	120	−1.2	3			Stu		86Ek01	
	7150	150			0.9	3			Trs		86Gi07	
^{80}Ga(β^-)^{80}Ge	10380	120				2			Stu		86Ek01	
^{80}Ge(β^-)^{80}As	2630	20	2644	19	0.7	1	91	78 ^{80}Ge	Trs		86Gi07	
^{80}Se(t,^{3}He)^{80}As	−5560	25	−5582	23	−0.9	1	86	86 ^{80}As	LAl		79Aj02	
^{80}Se(p,n)^{80}Br	−2652.81	0.31				2			PTB		92Bo02	Z
^{80}Br(β^-)^{80}Kr	1970	30	2003.0	2.4	1.1	U					52Fu04	
	2040	20			−1.8	U					54Li19	
	1997	10			0.6	U					69Ka06	
^{80}Kr(p,n)^{80}Rb	−6484.0	20.	−6502	7	−0.9	1	13	12 ^{80}Rb			72Ja.A	
^{80}Y(β^+)^{80}Sr	6952	152	9090	180	14.1	D			BNL		81Li12	*
	6934	242			8.9	D					82De36	*
$*^{80}$Y−$C_{6.667}$	F: above lower limit M=–65890(90) uu –61376(83) keV determined by ref										03Ba18	**
$*^{80}$Zr−$C_{6.667}$	F: other results of same work not trusted, see ^{80}Y and ^{68}Se										GAu	**
$*^{80}$Se(d,^{3}He)^{79}As	Originally –5927(7), see ^{74}Se(d,^{3}He)										AHW	**
$*^{80}$Y(β^+)^{80}Sr	Systematical trends suggest ^{80}Y 2200 less bound										GAu	**
C_6 H_9−^{81}Br	154135.3	3.8	154134.7	2.1	−0.1	U			M15	2.5	63Ri07	
^{81}Rb−$C_{6.75}$	−81001	8	−81004	6	−0.4	1	65	65 ^{81}Rb	MA2	1.0	94Ot01	
	−80958	41			−1.1	U			GS2	1.0	03Li.A	*
^{81}Sr−$C_{6.75}$	−76786	8	−76788	7	−0.3	2			MA2	1.0	94Ot01	
	−76793	12			0.4	2			MA8	1.0	01Si.A	
^{79}Rb−^{81}Rb$_{.325}$ ^{78}Rb$^x_{.675}$	−1130	30	−1149	15	−0.2	U			P20	2.5	82Au01	Y
^{80}Rb−^{81}Rb$_{.494}$ ^{79}Rb$_{.506}$	927	29	928	8	0.0	U			P20	2.5	82Au01	Y
^{80}Se(n,γ)^{81}Se	6700.9	0.5	6700.9	0.4	0.0	2			BNn		81En07	Z
	6700.9	0.5			0.0	2			Bdn		03Fi.A	
^{80}Kr(d,p)^{81}Kr	5646	4	5648.3	2.3	0.6	1	32	21 ^{81}Kr	Oak		86Bu18	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{80}Kr(^{3}He,d)^{81}Rb		−637	10	−642	6	−0.5	1	37	35 ^{81}Rb	Phi		87St11	
^{81}Zr(εp)^{80}Sr		4700	200	4530	170	−0.8	3					99Hu05	
^{81}Ga(β^-)^{81}Ge		8320	150				4			Stu		81Al20	
^{81}Ge(β^-)^{81}As		6230	120				3			Stu		81Al20	*
^{81}Kr(ε)^{81}Br		280.7	0.5	280.8	0.5	0.2	1	94	74 ^{81}Kr			88Ax01	*
^{81}Y(β^+)^{81}Sr		5408	86	5510	60	1.2	3			BNL		81Li12	
		5620	89			−1.2	3					82De36	
^{81}Zr(β^+)^{81}Y		7160	290	7530	180	1.3	R					82De36	
*^{81}Rb−$C_{6.75}$	M−A=–75369(29) keV for mixture gs+m at 86.31 keV											NDS96b	**
*^{81}Ge(β^-)^{81}As	Q^-=6230(120); and 6930(280) from ^{81}Ge^m at 679.13											NDS936	**
*^{81}Kr(ε)^{81}Br	Q(ε)=4.7(0.5) to 275.99 level											AHW	**
C_6 H_{10}−^{82}Se		161545.0	4.6	161550.9	2.2	0.5	U			M15	2.5	63Ri07	
C_6 H_{10}−^{82}Kr		164769.8	3.4	164766.7	1.9	−0.4	U			M15	2.5	63Ri07	
^{82}Kr−^{85}Rb$_{.965}$		−1394.9	2.6	−1393.5	1.9	0.5	1	54	54 ^{82}Kr	MA8	1.0	02He23	
^{82}Rb−$C_{6.833}$		−81790	9	−81791.4	3.0	−0.2	1	11	11 ^{82}Rb	MA2	1.0	94Ot01	*
		−81775	39			−0.4	U			GS2	1.0	03Li.A	*
^{82}Rb^m−^{85}Rb$_{.965}$		3406.0	2.8	3405.7	2.6	−0.1	1	88	88 ^{82}Rb^m	MA8	1.0	03Gu.A	
^{82}Sr−$C_{6.833}$		−81606	8	−81598	6	1.0	1	56	56 ^{82}Sr	MA2	1.0	94Ot01	
		−81604	63			0.1	U			GS2	1.0	03Li.A	
^{82}Se ^{35}Cl−^{80}Se ^{37}Cl		3128.92	0.63	3128.2	1.2	−0.4	1	61	33 ^{82}Se	H40	2.5	85El01	
^{82}Se−^{82}Kr		3216.1	1.6	3215.8	2.0	−0.1	1	70	44 ^{82}Se	H45	1.5	93Nx01	
^{79}Rb−^{82}Rb$_{.241}$ ^{78}Rb$^x_{.760}$		−1536	29	−1627	15	−1.3	U			P20	2.5	82Au01	Y
^{81}Rb−^{82}Rb$_{.741}$ ^{78}Rb$^x_{.260}$		−1680	40	−1615	15	0.6	U			P20	2.5	82Au01	Y
^{80}Rb−^{82}Rb$_{.325}$ ^{79}Rb$_{.675}$		440	40	381	8	−0.6	U			P20	2.5	82Au01	Y
^{82}Se(^{14}C,^{16}O)^{80}Ge		−449	60	−322	28	2.1	1	22	22 ^{80}Ge	Ors		83Be.C	
^{82}Se(^{18}O,^{20}Ne)^{80}Ge		−2020	40	−1818	28	5.0	B			Hei		83Wi14	*
^{82}Se(p,t)^{80}Se		−7496.1	3.0	−7494.9	1.1	0.4	–			NDm		82Zu04	
	ave.	−7495.8	2.1			0.4	1	30	17 ^{82}Se			average	
^{82}Se(d,^{3}He)^{81}As		−6864	10	−6856	5	0.8	2			Ors		83Ro08	*
^{82}Se(t,α)^{81}As		7467	6	7464	5	−0.5	2			Phi		82Mo04	
^{82}Se(p,d)^{81}Se		−7051.8	2.8	−7051.2	1.2	0.2	R			NDm		82Zu04	
^{81}Br(n,γ)^{82}Br		7592.80	0.20	7592.94	0.12	0.7	–			ILn		78Do06	Z
		7593.02	0.15			−0.5	–			Bdn		03Fi.A	
	ave.	7592.94	0.12			0.0	1	100	80 ^{81}Br			average	
^{82}Ge(β^-)^{82}As		4700	140				3			Stu		81Al20	
^{82}As(β^-)^{82}Se		7270	200				2					70Va31	
		7740	30	7270	200	−15.7	B			Stu		00Me.A	
^{82}As^m(β^-)^{82}Se		6600	200	7519	25	4.6	F					70Ka04	
		7625	22			−4.8	B			Stu		00Me.A	
^{82}Se(t,^{3}He)^{82}As^m		−7500	25				2			LAl		79Aj02	
^{82}Br(β^-)^{82}Kr		3092.9	1.0	3093.0	1.0	0.1	1	96	80 ^{82}Br			56Wa24	
^{82}Rb(β^+)^{82}Kr		4400	15	4401	3	0.1	–					69Be74	*
^{82}Kr(p,n)^{82}Rb		−5161	20	−5184	3	−1.1	–					72Ja.A	
^{82}Rb(β^+)^{82}Kr	ave.	4392	12	4401	3	0.7	1	7	5 ^{82}Rb			average	
^{82}Rb^m(IT)^{82}Rb		69.0	1.5	69.1	1.5	0.1	1	96	84 ^{82}Rb			Ens03	
^{82}Y(β^+)^{82}Sr		7868	185	7820	100	−0.3	2			BNL		81Li12	
		7793	123			0.2	2					82De36	
^{82}Zr(β^+)^{82}Y		4000	500	4000#	200#	0.0	F					82De36	*
*^{82}Rb−$C_{6.833}$	M=–81716(9) μu for ^{82}Rb^m at 68.9(1.5) keV											NDS95c	**
*^{82}Rb−$C_{6.833}$	M−A=–76138(30) keV for mixture gs+m at 69.1(1.5) keV											Ens95	**
*^{82}Se(^{18}O,^{20}Ne)^{80}Ge	Recalibrated to ^{64}Ni()^{62}Fe=–1938(15)											AHW	**
*^{82}Se(d,^{3}He)^{81}As	Originally –6870(10), see ^{74}Se(d,^{3}He)											AHW	**
*^{82}Rb(β^+)^{82}Kr	E^+ =3350(60); and 800(15) of ^{82}Rb^m at 68.9(1.5) to 2648.36 level											NDS95c	**
*^{82}Zr(β^+)^{82}Y	For 2.5(0.1) m activity, but Ensdf$_{2003}$ adopts 32(5) s											Nubase	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$C_6\ H_{11}-{}^{83}Kr$		171946.8	3.4	171939	3	−0.9	1	13	13 ^{83}Kr	M15	2.5	63Ri07	
$^{83}Rb-C_{6.917}$		−84886	8	−84890	6	−0.5	1	65	65 ^{83}Rb	MA2	1.0	94Ot01	
$^{83}Sr-{}^{83}Rb$		2447	9				2			MA2	1.0	94Ot01	
$^{83}Kr-{}^{82}Kr$		648	12	652	3	0.1	U			M15	2.5	63Ri07	
$^{81}Rb-{}^{83}Rb_{.488}\ {}^{79}Rb_{.513}$		−529	26	−544	7	−0.2	U			P20	2.5	82Au01	Y
$^{81}Rb-{}^{83}Rb_{.325}\ {}^{80}Rb_{.675}$		−1054	27	−1039	8	0.2	U			P20	2.5	82Au01	Y
$^{82}Rb-{}^{83}Rb_{.659}\ {}^{80}Rb_{.342}$		627	24	605	5	−0.4	U			P20	2.5	82Au01	Y
$^{82}Rb-{}^{83}Rb_{.494}\ {}^{81}Rb_{.506}$		1098	23	1055	5	−0.7	U			P21	2.5	82Au01	Y
$^{82}Se(d,p)^{83}Se$		3593.4	3.0				2			NDm		78Mo12	
$^{82}Se(^3He,d)^{83}Br$		3207.4	5.6	3210	4	0.5	1	56	50 ^{83}Br	NDm		83Zu01	
$^{82}Kr(^3He,d)^{83}Rb$		288	10	281	6	−0.7	1	37	35 ^{83}Rb	Phi		87St11	
$^{83}Zr(\varepsilon p)^{82}Sr$		2750	100	2260	100	−4.9	B					83Ha06	
$^{83}As(\beta^-)^{83}Se$		5460	220				3			Stu		77Al17	
$^{83}Br(\beta^-)^{83}Kr$		982	10	973	4	−0.9	–					51Du03	
		967	15			0.4	U					63Pa09	
		966	6			1.1	–					69Ph03	
	ave.	970	5			0.5	1	63	50 ^{83}Br			average	
$^{83}Sr(\beta^+)^{83}Rb$		2264	10				2					68Et01	
$^{83}Y(\beta^+)^{83}Sr$		4509	85	4470	40	−0.5	3			BNL		81Li12	*
		4455	50			0.3	3					82De36	*
$^{83}Zr(\beta^+)^{83}Y$		5868	85				4					82De36	*
$^{83}Nb(\beta^+)^{83}Zr$		7500	300				5					88Ku14	
$*^{83}Y(\beta^+)^{83}Sr$	E^+ =2868(85) from $^{83}Y^m$ at 62.0 to 681.11 level											NDS926	**
$*^{83}Y(\beta^+)^{83}Sr$	E^+ =3353(50) to 35.47 level											NDS926	**
*	and E^+ =2941(84) from $^{83}Y^m$ at 62.0 to 681.11 level											NDS926	**
$*^{83}Zr(\beta^+)^{83}Y$	Q^+ =5806(85) to $^{83}Y^m$ at 62.0											NDS926	**
$*^{83}Zr(\beta^+)^{83}Y$	Recalculated value 5802(50) of ref. not accepted											87Ra06	**
$C_6\ H_{12}-{}^{84}Kr$		182399.4	2.5	182394	3	−0.9	1	23	23 ^{84}Kr	M15	2.5	63Ri07	
$^{84}Rb-C_7$		−85616	8	−85615	3	0.1	1	14	14 ^{84}Rb	MA2	1.0	94Ot01	
$C_6\ H_{12}-{}^{84}Sr$		180470.8	2.6	180475	3	0.7	1	28	28 ^{84}Sr	M15	2.5	63Ri07	
$^{82}Se(t,p)^{84}Se$		6016	15	6019	14	0.2	1	92	92 ^{84}Se	LAl		74Kn02	
$^{84}Sr(p,t)^{82}Sr$		−12310	10	−12296	6	1.4	–			Oak		73Ba56	
		−12295	12			−0.1	–			Win		74De31	
	ave.	−12304	8			1.0	1	53	44 ^{82}Sr			average	
$^{83}Kr(n,\gamma)^{84}Kr$		10519.5	1.8	10520.60	0.30	0.6	U					72Ma42	Z
		10520.6	0.3			0.0	1	100	75 ^{83}Kr	Bdn		03Fi.A	
$^{84}Sr(d,t)^{83}Sr$		−5720	30	−5662	11	1.9	B					70Be24	*
$^{84}As(\beta^-)^{84}Se$		7195	200	9870#	300#	13.4	F			Trs		94Gi07	*
$^{84}Se(\beta^-)^{84}Br$		1818	50	1848	20	0.6	1	16	8 ^{84}Br			68Re12	
		1808	100			0.4	U					70Ei02	
$^{84}Br(\beta^-)^{84}Kr$		4629	15	4632	14	0.2	1	92	92 ^{84}Br			70Ha21	*
$^{84}Br^m(\beta^-)^{84}Kr$		4970	100				2					70Ha21	*
$^{84}Rb(\beta^+)^{84}Kr$		2679	3	2681.0	2.3	0.7	–					64La03	
		2682	5			−0.2	–					71Bo01	*
	ave.	2679.8	2.6			0.5	1	80	40 ^{84}Rb			average	
$^{84}Rb(\beta^-)^{84}Sr$		892	4	894	3	0.5	1	63	39 ^{84}Sr			71Bo01	*
$^{84}Y(\beta^+)^{84}Sr$		6499	135	6490	90	−0.1	2			BNL		81Li12	
		6475	124			0.1	2					82De36	
$^{84}Y^m(\beta^+)^{84}Sr$		6409	170				2			BNL		81Li12	
$*^{84}Sr(d,t)^{83}Sr$	Q=–5755(30) to 35.47 level											NDS	**
$*^{84}As(\beta^-)^{84}Se$	Observed (β^-n) decay implies $Q\beta > 8681(15)$											93Ru01	**
$*^{84}Br(\beta^-)^{84}Kr$	E^-=4626(15),3810(50),2700(50) to ground-state, 881.615, 1897.784											NDS976	**
$*^{84}Br^m(\beta^-)^{84}Kr$	E^-=2200(100) to 2770.95 5^- level											NDS976	**
$*^{84}Rb(\beta^+)^{84}Kr$	Original error increased: $E_0-E(2^+)$=877.2(1.5) but											AHW	**
*	$E(2^+)$=881.56(0.08), see also $^{74}As(\beta^+)$											NDS	**
$*^{84}Rb(\beta^-)^{84}Sr$	Originally 891.8(2.0), error increased see $^{84}Rb(\beta^+)$											AHW	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$C_6\,H_{13}-{}^{85}Rb$		189927.6	3.9	189935.679	0.012	0.8	U			M15	2.5	63Ri07	
${}^{85}Y-C_{7.083}$		−83559	31	−83567	20	−0.3	2			GS2	1.0	03Li.A	*
$C_6\,H_{14}-{}^{85}Rb$		197760.706	0.014	197760.711	0.012	0.4	–			MI2	1.0	99Br47	
${}^{85}Rb-C_6\,H_{12}$		−182110.662	0.024	−182110.647	0.012	0.6	–			MI2	1.0	99Br47	
$C_6\,H_{14}-{}^{85}Rb$	ave.	197760.711	0.012	197760.711	0.012	0.0	1	100	100 ${}^{85}Rb$			average	
${}^{83}Rb-{}^{85}Rb_{.488}\,{}^{81}Rb_{.512}$		−351	22	−344	7	0.1	U			P21	2.5	82Au01	Y
${}^{84}Kr(d,p){}^{85}Kr$		4895	8	4896	3	0.1	1	17	12 ${}^{84}Kr$	MIT		63Ho.A	
${}^{85}Rb(p,d){}^{84}Rb$		−8275	6	−8264.1	2.8	1.8	1	22	22 ${}^{84}Rb$	Bld		78Sh11	
${}^{84}Sr(d,p){}^{85}Sr$		6303	8	6305	4	0.3	1	25	14 ${}^{84}Sr$			71Mo02	
${}^{85}Mo(\varepsilon p){}^{84}Zr$		5100	200				3					99Hu05	
${}^{85}Se(\beta^-){}^{85}Br$		6182	23				3			Bwg		92Gr.A	
${}^{85}Br(\beta^-){}^{85}Kr$		2870	19				2			Stu		79Al05	
${}^{85}Kr(\beta^-){}^{85}Rb$		687	2	687.1	1.9	0.0	1	95	95 ${}^{85}Kr$			70Wo08	
${}^{85}Rb({}^3He,t){}^{85}Sr$		−1083	3	−1083.3	2.8	−0.1	1	89	89 ${}^{85}Sr$	Pri		82Ko06	
${}^{85}Y(\beta^+){}^{85}Sr$		3255	25	3260	19	0.2	R					63Do07	*
${}^{85}Zr(\beta^+){}^{85}Y$		4693	99				3					82De36	
${}^{85}Nb(\beta^+){}^{85}Zr$		6000	200				4					88Ku14	
$*{}^{85}Y-C_{7.083}$	M−A=–77824(28) keV for mixture gs+m at 19.8 keV											Ens94	**
$*{}^{85}Y(\beta^+){}^{85}Sr$	E^+ =1540(20) to 743.13 level											NDS912	**
*	and E^+ =2240(10) from ${}^{85}Y^m$ at 19.8 (discrepant − > outer error used)											NDS912	**
$C_6\,H_{14}-{}^{86}Kr$		198936.7	2.7	198939.72	0.11	0.4	U			M15	2.5	63Ri07	
${}^{86}Kr-C_{7.167}$		−89389.271	0.110				2			ST2	1.0	02Bf02	
$C_6\,H_{14}-{}^{86}Sr$		200264.9	3.6	200290.2	1.2	2.8	B			M15	2.5	63Ri07	
${}^{86}Sr\,{}^{19}F-C_{8.75}$		−92332	12	−92336.6	1.2	−0.4	U			MA8	1.0	01Si.A	
${}^{86}Y-C_{7.167}$		−85019	75	−85114	15	−1.3	U			GS2	1.0	03Li.A	*
${}^{86}Kr-{}^{85}Rb_{1.012}$		−120.3	3.6	−120.49	0.11	−0.1	U			MA8	1.0	02Ro.A	
${}^{86}Sr(p,t){}^{84}Sr$		−11535	10	−11541	3	−0.6	1	11	10 ${}^{84}Sr$	Oak		73Ba56	
${}^{85}Rb(n,\gamma){}^{86}Rb$		8651.1	1.0	8651.00	0.20	−0.1	U					69Da15	Z
		8651.3	1.5			−0.2	U					70Or.A	
		8650.98	0.20			0.1	1	99	99 ${}^{86}Rb$	Bdn		03Fi.A	
${}^{86}Se(\beta^-){}^{86}Br$		5099	11				4			Bwg		92Gr.A	
${}^{86}Br(\beta^-){}^{86}Kr$		7626	11				3			Bwg		92Gr.A	
${}^{86}Rb(\beta^-){}^{86}Sr$		1774	5	1776.6	1.1	0.5	–					64Da16	
		1770	3			2.2	–					66An10	
		1779.2	2.5			−1.1	–					75Be21	
		1775	3			0.5	–					75Ra09	
	ave.	1775.2	1.5			0.9	1	49	48 ${}^{86}Sr$			average	
${}^{86}Y(\beta^+){}^{86}Sr$		5220	20	5240	14	1.0	2					62Ya01	
		5260	20			−1.0	2					65Va02	
${}^{86}Nb(\beta^+){}^{86}Zr$		7978	80				3					82De43	
${}^{86}Mo(\beta^+){}^{86}Nb$		5270	430				4					94Sh07	*
$*{}^{86}Y-C_{7.167}$	M−A=–79086(29) keV for mixture gs+m at 218.30 keV											NDS018	**
$*{}^{86}Mo(\beta^+){}^{86}Nb$	E^+ =4000(400) to (0^+,1^+,2^+) level at estimated 250(160)											94Sh07	**
${}^{87}Kr-C_{7.25}$		−86622	30	−86645.14	0.29	−0.8	U			GS2	1.0	03Li.A	
$C_4\,H_7\,O_2-{}^{87}Rb$		135417.8	2.7	135423.937	0.013	0.9	U			M15	2.5	63Ri07	
${}^{87}Rb-C_{7.25}$		−90817	9	−90819.473	0.013	−0.3	U			MA2	1.0	94Ot01	
$C_4\,H_7\,O_2-{}^{87}Sr$		135722.2	3.5	135727.3	1.2	0.6	U			M15	2.5	63Ri07	
${}^{87}Y-C_{7.25}$		−89153	30	−89124.3	1.7	1.0	U			GS2	1.0	03Li.A	*
${}^{87}Zr-C_{7.25}$		−85222	30	−85184	9	1.3	U			GS2	1.0	03Li.A	
$C_6\,H_{16}-{}^{87}Rb$		216019.966	0.023	216019.986	0.013	0.9	–			MI2	1.0	99Br47	
${}^{87}Rb-C_6\,H_{14}$		−200369.931	0.015	−200369.922	0.013	0.6	–			MI2	1.0	99Br47	
$C_6\,H_{16}-{}^{87}Rb$	ave.	216019.986	0.013	216019.986	0.013	0.0	1	100	100 ${}^{87}Rb$			average	
${}^{84}Rb-{}^{87}Rb_{.241}\,{}^{83}Rb_{.759}$		850	72	656	5	−1.1	U			P21	2.5	82Au01	*

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{87}Sr(p,t)^{85}Sr		−11440	10	−11439	3	0.1	U			Oak		73Ba56	
^{87}Br(β^-n)^{86}Kr		1335	25	1337	18	0.1	R					84Kr.B	
^{86}Kr(n,γ)^{87}Kr		5515.04	0.6	5515.17	0.25	0.2	3					77Je03	Z
		5515.20	0.27			−0.1	3			Bdn		03Fi.A	
^{86}Sr(n,γ)^{87}Sr		8428.12	0.17	8428.15	0.12	0.2	–			ILn		86Wi16	Z
		8428.17	0.17			−0.1	–			Bdn		03Fi.A	
	ave.	8428.15	0.12			0.1	1	100	51 ^{86}Sr			average	
^{86}Sr(p,γ)^{87}Y		5785.4	3.3	5784.1	1.1	−0.4	R					71Um03	
^{87}Mo(εp)^{86}Zr		3700	300	2820	230	−2.9	B					83Ha06	
^{87}Se(β^-)^{87}Br		7275	35				5			Bwg		92Gr.A	
^{87}Br(β^-)^{87}Kr		6855	25	6852	18	−0.1	4			Bwg		92Gr.A	
^{87}Kr(β^-)^{87}Rb		3888	7	3888.37	0.27	0.1	U					73Wo01	
^{87}Rb(β^-)^{87}Sr		272	3	282.6	1.1	3.5	B					59Fl40	
		274	3			2.9	B					61Be41	
^{87}Rb(^{3}He,t)^{87}Sr−^{81}Br()^{81}Kr		564.0	1.5	563.4	1.1	−0.4	1	51	46 ^{87}Sr	Pri		82Ko06	
^{87}Sr(p,n)^{87}Y		−2644.2	1.2	−2644.0	1.1	0.1	2					71Um03	Z
^{87}Nb(β^+)^{87}Zr		5165	60				3					82De43	*
^{87}Mo(β^+)^{87}Nb		6382	308	6490	210	0.3	4					82De43	*
		6589	300			−0.3	4					91Mi15	*
*^{87}Y−$C_{7.25}$	M−A=–82665(28) keV for ^{87}Y^m at Eexc=380.82 keV											NDS023	**
*^{84}Rb−^{87}Rb$_{.241}$ ^{83}Rb$_{.759}$	D_M=1080(40) keV corrected –230(60) for mixture gs+m at 464.62 keV											GAu	**
*^{87}Nb(β^+)^{87}Zr	Q^+ =5169(60) from ^{87}Nb^m at 3.9(0.1)											91Ju05	**
*^{87}Mo(β^+)^{87}Nb	Q^+ =6378(308)) to ^{87}Nb^m at 3.9(0.1)											91Ju05	**
*^{87}Mo(β^+)^{87}Nb	E^+ =5300(300) to level 262.7 above ^{87}Nb^m at 3.9(0.1)											91Ju05	**
C_4 H_8 O_2−^{88}Sr		146789.1	4.7	146817.4	1.2	2.4	B			M15	2.5	63Ri07	
^{88}Sr−$C_{7.333}$		−94386	11	−94387.9	1.2	−0.2	U			MA8	1.0	01Si.A	
^{88}Y−$C_{7.333}$		−90500	31	−90498.9	2.0	0.0	U			GS2	1.0	03Li.A	
^{88}Rb−^{85}Rb$_{1.035}$		2615	9	2613.21	0.17	−0.2	U			MA4	1.0	02Ra23	
^{88}Sr−^{85}Rb$_{1.035}$		−3108	20	−3090.3	1.2	0.9	U			MA8	1.0	02Ke.A	
^{86}Kr(t,p)^{88}Kr		4091	15	4087	13	−0.2	3			LAl		76Fl02	
^{87}Rb(n,γ)^{88}Rb		6082.52	0.16				2			Bdn		03Fi.A	
^{87}Sr(n,γ)^{88}Sr		11112.63	0.22	11112.64	0.16	0.1	–			ILn		87Wi15	Z
		11112.64	0.22			0.0	–			Bdn		03Fi.A	
	ave.	11112.64	0.16			0.1	1	100	95 ^{88}Sr			average	
^{88}Se(β^-)^{88}Br		6854	31				5			Bwg		92Gr.A	
^{88}Br(β^-)^{88}Kr		8960	36				4			Bwg		92Gr.A	
^{88}Kr(β^-)^{88}Rb		2930	30	2917	13	−0.4	R			Trs		78Wo15	
^{88}Rb(β^-)^{88}Sr		5318	9	5312.7	1.1	−0.6	U			Gsn		80De02	*
		5313	5			−0.1	U			Trs		82Br23	
^{88}Y(β^+)^{88}Sr		3622.6	1.5				2					79An36	
^{88}Nb(β^+)^{88}Zr		7550	100				3					84Ox01	
^{88}Nb^m(β^+)^{88}Zr		7590	100				3					84Ox01	
^{88}Tc(β^+)^{88}Mo		8600	1300	9990#	200#	1.1	D					96Od01	*
		7800	600			3.6	D					96Sh27	*
*^{88}Rb(β^-)^{88}Sr	Original error 4 corrected by ref											94Ha.A	**
*^{88}Tc(β^+)^{88}Mo	Systematical trends suggest ^{88}Tc 2050 less bound											CTh	**
C_7 H_5−^{89}Y		133247.0	3.4	133276.9	2.7	3.5	B			M15	2.5	63Ri07	
^{89}Nb−$C_{7.417}$		−86588	34	−86582	29	0.2	2			GS2	1.0	03Li.A	*
^{89}Rb−^{85}Rb$_{1.047}$		4628	9	4634	6	0.7	1	42	42 ^{89}Rb	MA4	1.0	02Ra23	
^{88}Sr(n,γ)^{89}Sr		6358.70	0.13	6358.72	0.09	0.1	–			ILn		89Wi05	Z
		6358.73	0.13			−0.1	–			Bdn		03Fi.A	
	ave.	6358.71	0.09			0.0	1	100	95 ^{89}Sr			average	
^{88}Sr(p,γ)^{89}Y		7078	4	7069.0	2.6	−2.3	B					75Be.B	Z

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{89}Br(β^-)^{89}Kr		8155	30				3			Bwg		92Gr.A	
^{89}Kr(β^-)^{89}Rb		4970	60	4990	50	0.3	2			Trs		78Wo15	
		5030	100			−0.4	2			Stu		81Ho17	
^{89}Rb(β^-)^{89}Sr		4486	12	4497	5	0.9	–					66Ki06	
		4510	9			−1.5	–			Gsn		80De02	*
	ave.	4501	7			−0.7	1	57	56 ^{89}Rb			average	
^{89}Sr(β^-)^{89}Y		1488	4	1492.6	2.6	1.2	1	42	38 ^{89}Y			70Wo05	
^{89}Zr(β^+)^{89}Y		2841	10	2832.9	2.8	−0.8	U					51Hy24	
		2832	10			0.1	U					53Sh48	
		2828	7			0.7	–					60Ha26	
^{89}Y(p,n)^{89}Zr		−3612.8	4.	−3615.2	2.8	−0.6	–			Tkm		63Ok01	Z
		−3619.4	6.			0.7	–			Oak		64Jo11	Z
^{89}Zr(β^+)^{89}Y	ave.	2832	3	2832.9	2.8	0.4	1	86	82 ^{89}Zr			average	
^{89}Nb(β^+)^{89}Zr		4340	50	4218	27	−2.4	B					74Vo08	
^{89}Tc(β^+)^{89}Mo		7510	210	7160#	200#	−1.7	D					91He04	*
*^{89}Nb−$C_{7.417}$	M−A=–80656(28) keV for mixture gs+m at 0#30 keV											Nubase	**
*^{89}Rb(β^-)^{89}Sr	Original error 8 corrected by ref											94Ha.A	**
*^{89}Tc(β^+)^{89}Mo	E^+ =6370(210) to 118.8 level; no Fermi−Kurie plot											91He04	**
*^{89}Tc(β^+)^{89}Mo	Systematical trends suggest ^{89}Tc 350 more bound											GAu	**
$C_4\ H_{10}\ O_2$−^{90}Zr		163377	6	163375.1	2.5	−0.1	U			M15	2.5	63Ri07	
^{90}Nb−$C_{7.5}$		−88872	50	−88735	5	2.7	U			GS2	1.0	03Li.A	*
^{90}Rb−$^{85}Rb_{1.059}$		8211	9	8216	7	0.6	1	61	61 ^{90}Rb	MA4	1.0	02Ra23	*
^{89}Rb−$^{90}Rb^{x}_{791}$ $^{85}Rb_{.209}$		−1826	24	−1821	14	0.1	U			P21	2.5	82Au01	
^{90}Zr(α,^{8}He)^{86}Zr		−40136	30				2			INS		90Ka01	
^{90}Zr(^{3}He,^{6}He)^{87}Zr		−12083	8				2			MSU		78Pa11	
^{90}Zr(p,t)^{88}Zr		−12805	10				2			Oak		71Ba43	
^{89}Y(n,γ)^{90}Y		6857.26	0.30	6857.03	0.10	−0.8	–					83De17	
		6856.98	0.17			0.3	–			ILn		93Mi04	Z
		6857.01	0.14			0.1	–			Bdn		03Fi.A	
	ave.	6857.03	0.10			0.0	1	100	52 ^{90}Y			average	
^{89}Y(p,γ)^{90}Zr		8351	4	8354.5	1.7	0.9	1	17	12 ^{89}Y			75Be.B	
^{90}Zr(p,d)^{89}Zr		−9728	10	−9745	3	−1.7	U			Oak		71Ba43	
^{90}Zr(d,t)^{89}Zr		−5719.2	7.1	−5712	3	0.9	1	19	18 ^{89}Zr	SPa		79Bo37	
^{90}Br(β^-)^{90}Kr		9800	400	10350	80	1.4	B			Stu		81Ho17	
		10350	75				3			Bwg		92Gr.A	
^{90}Kr(β^-)^{90}Rb		4410	30	4392	17	−0.6	2					70Ma11	
		4390	40			0.0	2			Trs		78Wo15	
		4380	25			0.5	2			Bwg		87Gr.A	
^{90}Rb^x(IT)^{90}Rb		71	12				2					82Au01	
^{90}Rb(β^-)^{90}Sr		6587	10	6580	7	−0.7	1	44	39 ^{90}Rb	Gsn		92Pr03	
^{90}Sr(β^-)^{90}Y		546	2	545.9	1.4	−0.1	–					64Da16	
		546	2			−0.1	–					83Ha35	
	ave.	546.0	1.4			−0.1	1	99	95 ^{90}Sr			average	
^{90}Y(β^-)^{90}Zr		2271	2	2279.8	1.7	4.4	B					61Ni02	
		2284	5			−0.8	–					64Da16	
		2273	5			1.4	–					64La13	
		2280	5			0.0	–					66Ri01	
		2279.5	2.9			0.1	–					83Ha35	
	ave.	2279.2	2.0			0.3	1	66	44 ^{90}Y			average	
^{90}Nb(β^+)^{90}Zr		6111	4				2					68Pe01	
^{90}Mo(β^+)^{90}Nb		2489	4				3					66Pe10	
^{90}Tc(β^+)^{90}Mo		9130	410	8960	240	−0.4	4					74Ia01	*
		8870	300			0.3	4					81Ox01	
^{90}Tc^m(β^+)^{90}Mo		9270	300				4					81Ox01	
*^{90}Nb−$C_{7.5}$	M−A=–82721(29) keV for mixture gs+n at 124.67 keV											NDS97b	**
*^{90}Rb−$^{85}Rb_{1.059}$	D_M=8326(9) uu for ^{90}Rb^m at Eexc=106.90 keV; M−A=–79260(9) keV											Ens98	**
*^{90}Tc(β^+)^{90}Mo	E^+ =7900(400) to ground-state (22%) and 948.11 (77%) level											NDS92c	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{91}Rb−$C_{7.583}$		−83532	21	−83463	9	1.3	U			Pb1	2.5	89Al33	
C_7 H_7−^{91}Zr		149143.1	4.4	149129.5	2.5	−1.2	U			M15	2.5	63Ri07	
^{91}Nb−$C_{7.583}$		−93064	46	−93004	4	1.3	U			GS2	1.0	03Li.A	*
^{91}Rb−^{85}$Rb_{1.071}$		11003	10	11010	9	0.7	1	75	75 ^{91}Rb	MA4	1.0	02Ra23	
^{91}Sr−^{85}$Rb_{1.071}$		4702	9	4676	5	−2.9	1	29	29 ^{91}Sr	MA4	1.0	02Ra23	
^{90}Rb^x−^{91}$Rb_{.824}$ ^{85}$Rb_{.176}$		−686	24	−767	15	−1.4	U			P21	2.5	82Au01	
^{90}Zr(n,γ)^{91}Zr		7194.4	0.5	7194.5	0.5	0.1	1	99	70 ^{90}Zr			81Lo.A	Z
		7192.7	0.8			2.2	B			Bdn		03Fi.A	
^{90}Zr(p,γ)^{91}Nb		5167	5	5154.1	3.0	−2.6	o					71Ra08	
		5167	4			−3.2	B					75Be.B	Z
^{91}Ru^m(εp)^{90}Mo		4300	500				4					83Ha06	
^{91}Br(β^-)^{91}Kr		9790	100	9800	40	0.1	3			Bwg		89Gr03	
		9805	50			−0.1	3			Bwg		92Gr.A	
^{91}Kr(β^-)^{91}Rb		6420	80	6440	60	0.2	2			Trs		78Wo15	
		6450	80			−0.2	2			Bwg		89Gr03	
^{91}Rb(β^-)^{91}Sr^x		5850	20	5853	8	0.2	–			McG		83Ia02	
		5860	10			−0.7	–			Gsn		92Pr03	
	ave.	5858	9			−0.5	1	86	73 ^{91}Sr^x			average	
^{91}Sr^x(IT)^{91}Sr		70	20	47	11	−1.2	1	31	27 ^{91}Sr^x			AHW	*
^{91}Sr(β^-)^{91}Y		2669	10	2700	4	3.1	–					53Am08	
		2684	10			1.6	–					73Ha11	*
		2704	8			−0.5	–			Gsn		80De02	*
		2709	15			−0.6	–			McG		83Ia02	
	ave.	2691	5			1.8	1	71	60 ^{91}Sr			average	
^{91}Y(β^-)^{91}Zr		1545	5	1545.4	1.8	0.1	–					64La13	
		1544	2			0.7	–					75Ra08	
	ave.	1544.1	1.9			0.7	1	96	89 ^{91}Y			average	
^{91}Zr(p,n)^{91}Nb		−2045	6	−2040.3	3.0	0.8	2			Oak		70Ki01	
		−2038.8	3.4			−0.4	2			Kyu		71Ma47	
^{91}Mo(β^+)^{91}Nb		4460	30	4428	12	−1.1	R					56Sm96	
		4435	23			−0.3	R					93Os06	
^{91}Tc(β^+)^{91}Mo		6220	200				3					74Ia01	
*^{91}Nb−$C_{7.583}$	M−A=–86636(30) keV for mixture gs+m at 104.60 keV											NDS991	**
*^{91}Sr^x(IT)^{91}Sr	β feeding in ^{91}Sr: <8% of ground-state and 25% of 93.628 level											NDS908	**
*^{91}Sr(β^-)^{91}Y	Original error 4 increased: discr. with other results											AHW	**
*^{91}Sr(β^-)^{91}Y	Original error 3 corrected by ref											94Ha.A	**
^{92}Rb−$C_{7.667}$		−80323	32	−80271	7	0.6	U			Pb1	2.5	89Al33	
C_7 H_8−^{92}Zr		157569.4	3.8	157559.4	2.5	−1.1	U			M15	2.5	63Ri07	
^{92}Nb−$C_{7.667}$		−92851	56	−92806	3	0.8	U			GS2	1.0	03Li.A	*
C_7 H_8−^{92}Mo		155790.0	3.2	155789	4	−0.1	1	26	26 ^{92}Mo	M15	2.5	63Ri07	
^{92}Rb−^{85}$Rb_{1.082}$		15176	9	15172	7	−0.4	1	53	53 ^{92}Rb	MA4	1.0	02Ra23	
^{92}Sr−^{85}$Rb_{1.082}$		6482	9	6481	4	−0.1	–			MA4	1.0	02Ra23	
		6484.0	4.3			−0.6	–			MA8	1.0	03Gu.A	
	ave.	6484	4			−0.6	1	89	89 ^{92}Sr			average	
^{89}Rb−^{92}$Rb_{.553}$ ^{85}$Rb_{.449}$		−3457	24	−3470	6	−0.2	U			P21	2.5	82Au01	
^{91}Rb−^{92}$Rb_{.848}$ ^{85}$Rb_{.153}$		−1703	25	−1767	10	−1.0	U			P21	2.5	82Au01	
^{90}Rb^x−^{92}$Rb_{.699}$ ^{85}$Rb_{.303}$		−2059	24	−2128	14	−1.2	U			P21	2.5	82Au01	
^{90}Rb^x−^{92}$Rb_{.326}$ ^{89}$Rb_{.674}$		209	24	159	14	−0.8	U			P21	2.5	82Au01	
^{92}Mo(α,^{8}He)^{88}Mo		−43278	20				2			INS		90Ka01	
^{92}Mo(p,α)^{89}Nb		−1306	50	−1291	27	0.3	R			ANL		75Se.A	
^{92}Mo(^{3}He,^{6}He)^{89}Mo		−14465	15				2			MSU		80Pa02	
^{92}Rb(β^-n)^{91}Sr		785	15	802	7	1.1	1	23	15 ^{92}Rb			84Kr.B	
^{91}Zr(n,γ)^{92}Zr		8634.91	0.20	8634.80	0.11	−0.6	–			ILn		79Br25	Z
		8634.64	0.15			1.0	–					81Su.A	Z
		8635.00	0.24			−0.8	–			Bdn		03Fi.A	
	ave.	8634.79	0.11			0.1	1	100	64 ^{91}Zr			average	
^{92}Mo(p,d)^{91}Mo		−10446	15	−10448	11	−0.1	2			Tex		73Ko03	
		−10432	25			−0.6	2			Grn		73Mo03	
^{92}Br(β^-)^{92}Kr		12155	100	12200	50	0.5	3			Bwg		89Gr03	
		12220	55			−0.3	3			Bwg		92Gr.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{92}Kr(β^-)^{92}Rb		5987	10				2			Bwg		92Gr.A	
^{92}Rb(β^-)^{92}Sr		8080	30	8096	6	0.5	–			McG		83Ia02	
		8096	16			0.0	–			Bwg		92Gr.A	
		8107	15			−0.8	–			Gsn		92Pr03	
	ave.	8099	10			−0.4	1	39	31 ^{92}Rb			average	
^{92}Sr(β^-)^{92}Y		1929	50	1946	9	0.3	U					57He39	
		1930	30			0.5	–			Trs		78Wo15	
		1920	20			1.3	–			McG		83Ia02	
	ave.	1923	17			1.4	1	33	30 ^{92}Y			average	
^{92}Y(β^-)^{92}Zr		3640	20	3641	9	0.0	–					62Bu16	
		3630	15			0.7	–			McG		83Ia02	
	ave.	3634	12			0.6	1	58	57 ^{92}Y			average	
^{92}Zr(p,n)^{92}Nb		−2790.7	2.3	−2787.9	1.8	1.2	–			Kyu		74Ku01	
		−2792	5			0.8	–					75Ke12	
	ave.	−2790.9	2.1			1.5	1	74	65 ^{92}Nb			average	
^{92}Mo(p,n)^{92}Tc		−8672	50	−8653	26	0.4	2			Tal		66Mo06	*
^{92}Mo(^{3}He,t)^{92}Tc		−7882	30	−7889	26	−0.2	2			ChR		73Ha02	
*^{92}Nb−C$_{7.667}$	M−A=–86422(34) keV for mixture gs+m at 135.5 keV											NDS00b	**
*^{92}Mo(p,n)^{92}Tc	T=9040(50) to 270.15 level											NDS	**
^{93}Rb−C$_{7.75}$		−78036	21	−77958	8	1.5	U			Pb1	2.5	89Al33	
C$_7$ H$_9$−^{93}Nb		164046.9	3.5	164047.2	2.6	0.0	U			M15	2.5	63Ri07	
^{93}Mo−C$_{7.75}$		−93194	30	−93187	4	0.2	U			GS2	1.0	03Li.A	*
^{93}Tc−C$_{7.75}$		−89729	31	−89751	4	−0.7	U			GS2	1.0	03Li.A	
^{93}Rb−^{85}Rb$_{1.094}$		18549	10	18544	8	−0.5	1	66	66 ^{93}Rb	MA4	1.0	02Ra23	
^{93}Sr−^{85}Rb$_{1.094}$		10526	10	10528	8	0.2	1	65	65 ^{93}Sr	MA4	1.0	02Ra23	
^{91}Rb−^{93}Rb$_{.489}$ ^{89}Rb$_{.511}$		−471	9	−480	9	−0.4	1	16	12 ^{91}Rb	P31	2.5	86Au02	
^{91}Rb−^{93}Rb$_{.326}$ ^{90}Rb$_{.674}$		−656	23	−630	15	0.5	U			P21	2.5	82Au01	
^{92}Rb−^{93}Rb$_{.495}$ ^{91}Rb$_{.505}$		465	23	435	8	−0.5	U			P21	2.5	82Au01	
^{93}Rb(β^-n)^{92}Sr		2220	30	2179	8	−1.4	1	8	6 ^{93}Rb			84Kr.B	
^{92}Zr(n,γ)^{93}Zr		6733.7	1.1	6734.5	0.4	0.7	–					72Gr23	Z
		6734.0	0.7			0.7	–					79Ke.D	Z
		6735.3	0.7			−1.2	–			Bdn		03Fi.A	
	ave.	6734.5	0.5			0.0	1	98	55 ^{92}Zr			average	
^{93}Nb(γ,n)^{92}Nb		−8825	3	−8831.3	2.0	−2.1	1	46	35 ^{92}Nb	McM		79Ba06	
^{92}Mo(n,γ)^{93}Mo		8069.81	0.09	8069.81	0.09	0.0	1	100	52 ^{92}Mo	MMn		91Is02	Z
		8070.0	0.3			−0.6	U			Bdn		03Fi.A	
^{92}Mo(p,γ)^{93}Tc		4086.5	1.0				2					83Ay01	
^{93}Kr(β^-)^{93}Rb		8600	100				2			Bwg		87Gr.A	
^{93}Rb(β^-)^{93}Sr		7440	30	7467	9	0.9	–			McG		83Ia02	
		7455	35			0.3	–			Bwg		87Gr.A	
		7456	15			0.7	–			Gsn		92Pr03	
	ave.	7453	13			1.1	1	49	25 ^{93}Rb			average	
^{93}Sr(β^-)^{93}Y		4110	20	4139	12	1.4	1	35	24 ^{93}Y	McG		83Ia02	
^{93}Y(β^-)^{93}Zr		2890	20	2894	10	0.2	–					59Kn38	
		2880	15			0.9	–			McG		83Ia02	
	ave.	2884	12			0.9	1	76	76 ^{93}Y			average	
^{93}Zr(β^-)^{93}Nb		93.8	2.	91.2	1.6	−1.3	1	63	37 ^{93}Nb			53Gl.A	
^{93}Nb(p,n)^{93}Mo		−1188	10	−1187	4	0.1	–					68Fi01	
		−1190	5			0.6	–					75Ch05	
	ave.	−1190	4			0.6	1	62	52 ^{93}Mo			average	
^{93}Ru(β^+)^{93}Tc		6337	85				3					83Ay01	
*^{93}Mo−C$_{7.75}$	M−A=–84385(28) keV for ^{93}Mo^m at Eexc=2424.89 keV											Ens97	**
^{94}Rb−^{85}Rb$_{1.106}$		23958	10	23965	9	0.7	1	80	80 ^{94}Rb	MA4	1.0	02Ra23	
^{94}Sr−^{85}Rb$_{1.106}$		12924	10	12922	8	−0.2	1	59	59 ^{94}Sr	MA4	1.0	02Ra23	
C$_7$ H$_{10}$−^{94}Zr		171929.4	3.9	171935.1	2.6	0.6	1	7	7 ^{94}Zr	M15	2.5	63Ri07	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$C_7\ H_{10}-{}^{94}Mo$		173159.6	3.2	173162.1	2.1	0.3	1	7	7 ^{94}Mo	M15	2.5	63Ri07	
$^{94}Tc-C_{7.833}$		−90362	39	−90343	5	0.5	U			GS2	1.0	03Li.A	*
$^{94}Mo\ ^{35}Cl-{}^{92}Mo\ ^{37}Cl$		1234.0	2.	1227	4	−0.8	1	24	22 ^{92}Mo	H11	4.0	63Bi12	
$^{92}Rb-{}^{94}Rb_{.587}\ {}^{89}Rb_{.413}$		−764	24	−784	8	−0.3	U			P21	2.5	82Au01	Y
$^{92}Rb-{}^{94}Rb_{.489}\ {}^{90}Rb^{x}_{.511}$		−717	23	−732	14	−0.3	U			P21	2.5	82Au01	Y
$^{93}Rb-{}^{94}Rb_{.742}\ {}^{90}Rb^{x}_{.258}$		−1296	25	−1294	16	0.0	U			P21	2.5	82Au01	Y
$^{94}Zr(d,\alpha)^{92}Y$		8278	25	8257	9	−0.8	1	14	13 ^{92}Y	Grn		74Gi09	
$^{94}Zr(d,t)^{93}Zr$		−1960.2	2.4	−1963.9	1.9	−1.5	1	66	36 ^{94}Zr	SPa		79Bo37	
$^{93}Nb(n,\gamma)^{94}Nb$		7227.51	0.09	7227.54	0.08	0.3	–			MMn		88Ke09	Z
		7227.63	0.15			−0.6	–			Bdn		03Fi.A	
	ave.	7227.54	0.08			0.0	1	100	57 ^{94}Nb			average	
$^{94}Rb(\beta^-)^{94}Sr$		10335	45	10287	10	−1.1	U			Bwg		82Pa24	*
		10312	20			−1.2	1	26	15 ^{94}Rb	Gsn		92Pr03	
$^{94}Sr(\beta^-)^{94}Y$		3512	10	3508	8	−0.4	1	59	30 ^{94}Sr	Gsn		80De02	*
$^{94}Y(\beta^-)^{94}Zr$		4920	9	4918	7	−0.2	1	61	58 ^{94}Y	Gsn		80De02	*
$^{94}Nb(\beta^-)^{94}Mo$		2043.3	6.	2045.2	2.0	0.3	–					66Sn02	
		2046.3	3.			−0.4	–					68Ho10	
	ave.	2045.7	2.7			−0.2	1	55	43 ^{94}Nb			average	
$^{94}Tc(\beta^+)^{94}Mo$		4261	5	4256	4	−1.1	2					64Ha29	
$^{94}Mo(p,n)^{94}Tc$		−5027.8	7.	−5038	4	−1.5	2					73Mc04	*
$^{94}Rh^{m}(\beta^+)^{94}Ru$		9930	400				3					80Ox01	
$*^{94}Tc-C_{7.833}$	M−A=–84133(29) keV for mixture gs+m at 75.5(1.9) keV											NDS925	**
$*^{94}Rb(\beta^-)^{94}Sr$	As corrected by ref.											87Gr.A	**
$*^{94}Sr(\beta^-)^{94}Y$	Original error 6 corrected by ref											94Ha.A	**
$*^{94}Y(\beta^-)^{94}Zr$	Original error 5 corrected by ref											94Ha.A	**
$*^{94}Mo(p,n)^{94}Tc$	T=5158(7) to $^{94}Tc^{m}$ at 75.5(1.9)											NDS852	**
$^{95}Sr-{}^{85}Rb_{1.118}$		17987	10	17978	8	−0.9	1	64	64 ^{95}Sr	MA4	1.0	02Ra23	
$C_7\ H_{11}-{}^{95}Mo$		180236.5	3.5	180233.2	2.1	−0.4	U			M15	2.5	63Ri07	
$^{95}Tc-C_{7.917}$		−92417	32	−92343	6	2.3	U			GS2	1.0	03Li.A	*
$^{93}Rb-{}^{95}Rb_{.653}\ {}^{89}Rb_{.348}$		−1323	25	−1179	16	2.3	U			P21	2.5	82Au01	
$^{93}Rb-{}^{95}Rb_{.587}\ {}^{90}Rb^{x}_{.413}$		−1376	24	−1214	19	2.7	U			P21	2.5	82Au01	
$^{94}Rb-{}^{95}Rb_{.792}\ {}^{90}Rb^{x}_{.209}$		−16	28	175	22	2.7	U			P21	2.5	82Au01	Y
$^{92}Rb-{}^{95}Rb_{.242}\ {}^{91}Rb_{.758}$		80	23	96	10	0.3	U			P21	2.5	82Au01	
$^{93}Rb-{}^{95}Rb_{.489}\ {}^{91}Rb_{.511}$		−654	12	−687	13	−1.1	B			P31	2.5	86Au02	*
$^{94}Rb-{}^{95}Rb_{.660}\ {}^{92}Rb_{.341}$		433	15	408	16	−0.7	1	18	13 ^{95}Rb	P31	2.5	86Au02	
		462	28			−0.8	U			P31	2.5	86Au02	
$^{94}Zr(n,\gamma)^{95}Zr$		6461.6	1.0	6462.2	0.9	0.6	–					79Ke.D	Z
		6357.8	0.3			348.2	F			Bdn		03Fi.A	
$^{94}Zr(d,p)^{95}Zr$		4237.4	2.0	4237.7	0.9	0.1	–			SPa		79Bo37	
$^{94}Zr(n,\gamma)^{95}Zr$	ave.	6461.7	0.9	6462.2	0.9	0.6	1	95	54 ^{94}Zr			average	
$^{94}Mo(n,\gamma)^{95}Mo$		7369.10	0.10	7369.10	0.10	0.0	1	100	79 ^{94}Mo	MMn		91Is02	Z
		7368.4	0.5			1.4	U			Bdn		03Fi.A	
$^{95}Pd^{m}(\varepsilon p)^{94}Ru$		6991	300				3					82Ku15	*
$^{95}Rb(\beta^-)^{95}Sr$		9280	45	9263	21	−0.4	–			Bwg		87Gr.A	
		9272	35			−0.3	–			Gsn		92Pr03	
	ave.	9275	28			−0.4	1	57	54 ^{95}Rb			average	
$^{95}Sr(\beta^-)^{95}Y$		6082	10	6090	8	0.8	1	61	32 ^{95}Sr	Gsn		84Bl.A	
		6052	25			1.5	U					90Ma03	
$^{95}Y(\beta^-)^{95}Zr$		4445	9	4451	7	0.6	1	61	59 ^{95}Y	Gsn		80De02	*
$^{95}Zr(\beta^-)^{95}Nb$		1125	8	1124.1	1.8	−0.1	U					54Za05	
		1119	5			1.0	–					55Dr43	
		1122.7	3.			0.5	–					74An22	
	ave.	1121.7	2.6			0.9	1	51	40 ^{95}Zr			average	
$^{95}Nb(\beta^-)^{95}Mo$		925.5	0.5	925.6	0.5	0.2	1	98	89 ^{95}Nb			63La06	
$^{95}Tc(\beta^+)^{95}Mo$		1683	10	1691	5	0.8	–					65Cr04	*
		1693	6			−0.4	–					74An05	*
	ave.	1690	5			0.1	1	98	97 ^{95}Tc			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{95}Ru(β^+)^{95}Tc	2558	30	2567	13	0.3	1	18	15 ^{95}Ru			68Pi03	
^{95}Rh(β^+)^{95}Ru	5110	150				2					75We03	
*^{95}Tc−C$_{7.917}$	M−A=–86066(28) keV for mixture gs+m at 38.89 keV										Ens95	**
*^{93}Rb−^{95}Rb$_{.489}$ ^{91}Rb$_{.511}$	Rejected by authors										86Au02	**
*^{95}Pd^m(εp)^{94}Ru	E(p)=4300(300) to ^{94}Ru^m at 2644.55										NDS933	**
*	Same E(p); both from figures										82No06	**
*^{95}Y(β^-)^{95}Zr	Original error 5 corrected by ref										94Ha.A	**
*	Q$^-$=4417(10) given by same group, not used										84Bl.A	**
*^{95}Tc(β^+)^{95}Mo	E$^+$ =700(10) from ^{95}Tc^m at 38.89										NDS933	**
*^{95}Tc(β^+)^{95}Mo	E$^+$ =710(6) from ^{95}Tc^m at 38.89										NDS933	**
C_7 H_{12}−^{96}Zr	185628	6	185627.0	3.0	−0.1	U			M15	2.5	63Ri07	
C_7 H_{12}−^{96}Mo	189226.9	3.0	189220.9	2.1	−0.8	1	8	8 ^{96}Mo	M15	2.5	63Ri07	
^{96}Tc−C$_8$	−92192	32	−92129	6	2.0	U			GS2	1.0	03Li.A	*
C_7 H_{12}−^{96}Ru	186304.6	3.8	186303	8	−0.2	1	79	79 ^{96}Ru	M16	2.5	63Da10	
^{93}Rb−^{96}Rb$_{.554}$ ^{89}Rb$_{.448}$	−2210	27	−2092	18	1.8	U			P21	2.5	82Au01	
^{95}Rb−^{96}Rb$_{.848}$ ^{89}Rb$_{.152}$	−1590	30	−1515	26	1.0	U			P21	2.5	82Au01	
^{94}Rb−^{96}Rb$_{.699}$ ^{89}Rb$_{.302}$	−1250	30	−1080	22	2.3	U			P21	2.5	82Au01	Y
^{94}Rb−^{96}Rb$_{.588}$ ^{91}Rb$_{.413}$	−380	25	−444	19	−1.0	U			P21	2.5	82Au01	
^{95}Rb−^{96}Rb$_{.742}$ ^{92}Rb$_{.258}$	−1116	27	−1134	24	−0.3	1	13	7 ^{96}Rb	P21	2.5	82Au01	
	−1143	16			0.2	1	36	19 ^{96}Rb	P31	2.5	86Au02	
^{96}Zr(d,α)^{94}Y	7609	20	7617	7	0.4	1	13	12 ^{94}Y	Grn		74Gi09	
^{96}Ru(p,t)^{94}Ru	−11165	10				2			Oak		71Ba01	
^{96}Zr(t,α)^{95}Y	8294	20	8289	7	−0.2	1	13	12 ^{95}Y	LAl		83Fl06	
^{96}Zr(d,t)^{95}Zr	−1595.8	2.8	−1599.1	2.2	−1.2	1	60	43 ^{96}Zr	SPa		79Bo37	
^{95}Mo(n,γ)^{96}Mo	9154.32	0.05	9154.32	0.05	0.0	1	100	70 ^{95}Mo	MMn		91Is02	Z
	9153.90	0.20			2.1	B			Bdn		03Fi.A	
^{96}Ru(p,d)^{95}Ru	−8470	10	−8469	10	0.1	1	91	85 ^{95}Ru	Oak		71Ba01	
^{96}Rb(β^-)^{96}Sr	11590	80	11714	29	1.6	–			Bwg		87Gr.A	
	11709	40			0.1	–			Gsn		92Pr03	
ave.	11690	40			0.8	1	65	37 ^{96}Rb			average	
^{96}Sr(β^-)^{96}Y	5332	30	5408	18	2.5	F			79Pe17			*
	5413	22			−0.2	–			Gsn		80De02	*
	5345	50			1.3	U			Bwg		87Gr.A	
	5354	40			1.3	–					90Ma03	
ave.	5399	19			0.4	1	90	72 ^{96}Sr			average	
^{96}Y(β^-)^{96}Zr	7120	50	7096	23	−0.5	–			Gsn		80De02	*
	7030	70			0.9	U			Bwg		87Gr.A	
	7067	30			1.0	–					90Ma03	
ave.	7081	26			0.6	1	82	82 ^{96}Y			average	
^{96}Y^m(β^-)^{96}Zr	8237	21				2			Bwg		92Gr.A	
^{96}Nb(β^-)^{96}Mo	3186.8	3.2				2					68An03	
^{96}Mo(p,n)^{96}Tc	−3760	10	−3756	5	0.4	2					74Do09	
	−3754	6			−0.3	2					78Ke10	
^{96}Ru(p,n)^{96}Rh	−7175	10				2					70As08	Z
^{96}Pd(β^+)^{96}Rh	3450	150				3					85Ry02	
*^{96}Tc−C$_8$	M−A=–85860(28) keV for mixture gs+m at 34.28 keV										NDS931	**
*^{96}Sr(β^-)^{96}Y	E$^-$=4400(30) to 931.7 level and other E$^-$										NDS	**
*^{96}Sr(β^-)^{96}Y	F: all other ^{79}Pe$_{17}$ results are strongly discrepant										GAu	**
*^{96}Sr(β^-)^{96}Y	Original error 20 corrected by ref										94Ha.A	**
*	Q$^-$=5362(10) given by same group, not used										84Bl.A	**
*^{96}Y(β^-)^{96}Zr	Q$^-$=7079(15) given by same group, not used										84Bl.A	**
^{97}Rb−C$_{8.083}$	−62512	64	−62650	30	−0.9	U			Pb1	2.5	89Al33	
C_5 H_5 O_2−^{97}Mo	122937.6	2.3	122932.9	2.1	−0.8	1	13	13 ^{97}Mo	M15	2.5	63Ri07	
^{97}Ru−C$_{8.083}$	−92471	30	−92445	9	0.9	U			GS2	1.0	03Li.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{94}Rb−^{97}Rb$_{.485}$ ^{91}Rb$_{.516}$		−21	25	−134	17	−1.8	U			P21	2.5	82Au01	Y
^{96}Rb−^{97}Rb$_{.792}$ ^{92}Rb$_{.209}$		650	30	621	30	−0.4	1	16	10 ^{96}Rb	P21	2.5	82Au01	
^{95}Rb−^{97}Rb$_{.490}$ ^{93}Rb$_{.511}$		−165	25	−152	23	0.2	1	13	9 ^{95}Rb	P21	2.5	82Au01	
^{96}Rb−^{97}Rb$_{.742}$ ^{93}Rb$_{.258}$		848	19	811	29	−0.8	1	38	27 ^{96}Rb	P31	2.5	86Au02	
^{96}Zr(n,γ)^{97}Zr		5574	5	5575.2	0.4	0.2	U					77Ba33	
		5575.1	0.4			0.2	1	99	55 ^{96}Zr	Bdn		03Fi.A	
^{96}Mo(n,γ)^{97}Mo		6821.15	0.25	6821.26	0.21	0.5	–			MMn		91Is02	Z
		6821.5	0.4			−0.6	–			Bdn		03Fi.A	
	ave.	6821.25	0.21			0.1	1	99	62 ^{96}Mo			average	
^{96}Mo(^{3}He,d)^{97}Tc		229	8	225	4	−0.5	–			ANL		74Co27	
		220	8			0.6	–			Pit		74Co27	
	ave.	225	6			0.1	1	53	53 ^{97}Tc			average	
^{96}Ru(d,p)^{97}Ru		5886	3	5886.9	2.8	0.3	2			Can		77Ho02	
		5892	7			−0.7	2			ANL		77Me04	
^{97}Rb(β^-)^{97}Sr		10440	60	10432	28	−0.1	–			Bwg		87Gr.A	
		10462	40			−0.8	–			Gsn		92Pr03	
	ave.	10460	30			−0.7	1	72	61 ^{97}Rb			average	
^{97}Sr(β^-)^{97}Y		7452	40	7470	16	0.4	–			Gsn		84Bl.A	
		7480	18			−0.6	–			Bwg		92Gr.A	
	ave.	7475	16			−0.3	1	93	90 ^{97}Sr			average	
^{97}Y(β^-)^{97}Zr		6702	25	6689	11	−0.5	–			Gsn		84Bl.A	
		6689	13			0.0	–			Bwg		92Gr.A	*
	ave.	6692	12			−0.2	1	97	97 ^{97}Y			average	
^{97}Zr(β^-)^{97}Nb		2657.3	2.	2659.0	1.8	0.8	1	80	56 ^{97}Zr			74Ra.A	
^{97}Nb(β^-)^{97}Mo		1933.1	2.	1934.8	1.8	0.8	1	80	76 ^{97}Nb			74Ra.A	
^{97}Mo(p,n)^{97}Tc		−1102	6	−1103	4	−0.1	1	47	47 ^{97}Tc	ANL		74Co27	
^{97}Rh(β^+)^{97}Ru		3533	50	3520	40	−0.2	3					62Ba28	
		3513	50			0.2	3					62Ch21	
^{97}Pd(β^+)^{97}Rh		4790	300				4					80Go11	
^{97}Ag(β^+)^{97}Pd		6980	110				5					99Hu10	
*^{97}Y(β^-)^{97}Zr	E$^-$=6688(13); and 7361(26) from ^{97}Y^m at 667.51											NDS939	**
C_5 H_6 O_2−^{98}Mo		131375.4	2.8	131371.3	2.1	−0.6	1	9	9 ^{98}Mo	M15	2.5	63Ri07	
C_7 H_{14}−^{98}Ru		204263.5	2.9	204263	7	0.0	1	86	86 ^{98}Ru	M16	2.5	63Da10	
^{98}Rh−$C_{8.167}$		−89302	46	−89292	13	0.2	U			GS2	1.0	03Li.A	*
^{94}Rb−^{98}Rb$_{.411}$ ^{91}Rb$_{.590}$		−290	40	−399	23	−1.1	U			P21	2.5	82Au01	Y
^{97}Rb−^{98}Rb$_{.792}$ ^{93}Rb$_{.209}$		−250	60	−240	40	0.1	U			P21	2.5	82Au01	
^{96}Rb−^{98}Rb$_{.490}$ ^{94}Rb$_{.511}$		330	30	370	40	0.6	U			P21	2.5	82Au01	Y
^{97}Rb−^{98}Rb$_{.660}$ ^{95}Rb$_{.340}$		−300	50	−180	40	1.0	U			P21	2.5	82Au01	
		−232	27			0.8	1	34	20 ^{98}Rb	P31	2.5	86Au02	
^{96}Zr(t,p)^{98}Zr		3508	20	3505	20	−0.2	1	97	98 ^{98}Zr	LAl		69Bl01	
^{96}Zr(^{3}He,p)^{98}Nb		5728	5				2			Phi		75Me13	
^{96}Ru(^{16}O,^{14}C)^{98}Pd		−12529	20				2			BNL		82Th01	
^{97}Mo(n,γ)^{98}Mo		8642.60	0.07	8642.60	0.07	0.0	–			MMn		91Is02	Z
		8642.57	0.18			0.2	–			Bdn		03Fi.A	
	ave.	8642.60	0.07			0.0	1	100	55 ^{98}Mo			average	
^{97}Mo(^{3}He,d)^{98}Tc		680	8	683	3	0.4	–			ANL		74Co27	
		686	10			−0.3	–			McM		76Ma16	
	ave.	682	6			0.1	1	29	29 ^{98}Tc			average	
^{98}Rb(β^-)^{98}Sr		11200	110	12420	50	11.1	B					79Pe17	
		12270	30			5.1	C			McG		84Ia.A	
		12440	75			−0.2	–			Bwg		87Gr.A	
		12380	65			0.7	–			Gsn		92Pr03	
	ave.	12410	50			0.4	1	85	80 ^{98}Rb			average	
^{98}Rb^m(β^-)^{98}Sr		12710	120				2			Bwg		87Gr.A	
^{98}Sr(β^-)^{98}Y		5821	10	5822	10	0.1	1	99	96 ^{98}Sr	Gsn		84Bl.A	
		5815	40			0.2	U			Bwg		87Gr.A	
^{98}Y(β^-)^{98}Zr		8780	30	8820	15	1.3	–			Gsn		84Bl.A	
		8963	41			−3.5	C					88Ma.A	
		8830	17			−0.6	–			Bwg		92Gr.A	
	ave.	8818	15			0.1	1	99	96 ^{98}Y			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{98}Y^m(\beta^-)^{98}Zr$		9233	27				2			Bwg		92Gr.A	
$^{98}Mo(p,n)^{98}Tc$		−2458	10	−2466	3	−0.8	1	11	11 ^{98}Tc	ANL		74Co27	
$^{98}Tc(\beta^-)^{98}Ru$		1795	22	1797	7	0.1	1	11	8 ^{98}Ru			73Ok.A	
$^{98}Rh(\beta^+)^{98}Ru$		5151	50	5050	10	−2.0	U					94Ba06	
$^{98}Ru(p,n)^{98}Rh$		−5832	10				2					70As08	Z
$^{98}Ag(\beta^+)^{98}Pd$		8420	150	8240	60	−1.2	3					79Ve.A	*
		8200	70			0.6	3					00Hu17	
$^{98}Cd(\varepsilon)^{98}Ag$		5430	40				4					01St.A	
*$^{98}Rh-C_{8.167}$	M−A=–83154(30) keV for mixture gs+m at 60#50 keV											Nubase	**
*$^{98}Ag(\beta^+)^{98}Pd$	Q^+ =6880(150) to 1541.6 level											NDS987	**
$C_7\ H_{15}-^{99}Ru$		211442.8	3.0	211436.2	2.2	−0.9	1	8	8 ^{99}Ru	M16	2.5	63Da10	
$^{99}Ru-^{98}Ru$		652	11	652	7	0.0	1	6	6 ^{98}Ru	M16	2.5	63Da10	
$^{97}Rb-^{99}Rb_{.653}\ ^{93}Rb_{.348}$		100	100	140	80	0.2	1	11	10 ^{99}Rb	P21	2.5	82Au01	
$^{98}Rb-^{99}Rb_{.742}\ ^{95}Rb_{.258}$		690	180	520	100	−0.4	U			P21	2.5	82Au01	
$^{97}Rb-^{99}Rb_{.490}\ ^{95}Rb_{.511}$		350	60	230	70	−0.8	1	19	16 ^{99}Rb	P31	2.5	86Au02	
$^{99}Ru(n,\alpha)^{96}Mo$		6822	5	6819.9	1.6	−0.4	U					01Wa50	
$^{96}Ru(^{16}O,^{13}C)^{99}Pd$		−11723	20	−11746	15	−1.2	1	57	49 ^{99}Pd	BNL		82Th01	
$^{98}Mo(n,\gamma)^{99}Mo$		5925.42	0.15	5925.43	0.15	0.1	1	100	66 ^{99}Mo	MMn		91Is02	Z
		5927.7	0.5			−4.5	U			Bdn		03Fi.A	
$^{99}Tc(p,d)^{98}Tc$		−6740	5	−6742	3	−0.4	–					76Sl06	
		−6755	9			1.4	–			Bld		77Em02	
	ave.	−6744	4			0.3	1	59	57 ^{98}Tc			average	
$^{99}Rb(\beta^-)^{99}Sr$		11340	120	11310	110	−0.3	1	82	74 ^{99}Rb	McG		84Ia.A	
		10960	130			2.7	C			Bwg		87Gr.A	
$^{99}Sr(\beta^-)^{99}Y$		8030	80	8020	80	−0.2	1	92	91 ^{99}Sr	McG		84Ia.A	
		8360	75			−4.6	C			Bwg		87Gr.A	
$^{99}Y(\beta^-)^{99}Zr$		7568	14	7568	14	0.0	1	100	99 ^{99}Y	Bwg		92Gr.A	
$^{99}Zr(\beta^-)^{99}Nb$		4559	15	4558	15	0.0	1	100	100 ^{99}Zr	Bwg		92Gr.A	
$^{99}Mo(\beta^-)^{99}Tc$		1356.7	1.0	1357.3	1.0	0.6	1	92	58 ^{99}Tc			71Na01	
$^{99}Tc(\beta^-)^{99}Ru$		292	3	293.8	1.4	0.6	–					51Ta05	
		290	4			1.0	–					52Fe16	
		293.5	2.0			0.2	–					80Al02	*
	ave.	292.6	1.5			0.8	1	85	45 ^{99}Ru			average	
$^{99}Rh(\beta^+)^{99}Ru$		2038	10	2043	7	0.5	–					52Sc11	*
		2053	10			−1.0	–					59To.A	
		2110	40			−1.7	U					74An23	
	ave.	2046	7			−0.4	1	95	94 ^{99}Rh			average	
$^{99}Pd(\beta^+)^{99}Rh$		3410	20	3387	15	−1.2	1	57	51 ^{99}Pd			69Ph01	*
$^{99}Ag(\beta^+)^{99}Pd$		5430	150				2					81Hu03	
*$^{99}Tc(\beta^-)^{99}Ru$	E^+ =434.8(2.6), 346.7(2.0) from $^{99}Tc^m$ at 142.6833 to gs, 89.68 level											NDS949	**
*$^{99}Rh(\beta^+)^{99}Ru$	E^+ =740(10) from $^{99}Rh^m$ at 64.3 to 340.73 level											NDS949	**
*$^{99}Pd(\beta^+)^{99}Rh$	E^+ =2180(20), 1930(20), 1510(20)											69Ph01	**
*	to 200.4, 464.0, 874.1 levels above $1/2^-$ level (now ground-state)											NDS949	**
$C_7\ H_{16}-^{100}Mo$		217730.3	4.2	217723	6	−0.7	1	36	36 ^{100}Mo	M15	2.5	63Ri07	
$C_7\ H_{16}-^{100}Ru$		220983.8	3.7	220981.0	2.2	−0.3	1	5	5 ^{100}Ru	M16	2.5	63Da10	
$^{100}Rh-C_{8.333}$		−91855	46	−91878	20	−0.5	1	18	18 ^{100}Rh	GS2	1.0	03Li.A	*
$^{100}Cd-C_{8.333}$		−79636	214	−79710	100	−0.3	1	23	23 ^{100}Cd	CS1	1.0	96Ch32	
$^{100}In-C_{8.333}$		−69405	322	−68890	270	1.6	B			CS1	1.0	96Ch32	
$^{100}Sn-C_{8.333}$		−62020	1020	−60960	760	1.0	B			CS1	1.0	96Ch32	
$^{100}Mo\ ^{35}Cl-^{98}Mo\ ^{37}Cl$		5019	2	5019	6	0.0	1	60	58 ^{100}Mo	H11	4.0	63Bi12	
$^{96}Ru(^{16}O,^{12}C)^{100}Pd$		−5599	26	−5583	13	0.6	1	24	17 ^{100}Pd	BNL		82Th01	
$^{100}Mo(d,^3He)^{99}Nb$		−5639	15	−5653	12	−0.9	–			Tex		74Bi08	
$^{100}Mo(t,\alpha)^{99}Nb$		8642	20	8668	12	1.3	–			LAl		83Fl06	
$^{100}Mo(d,^3He)^{99}Nb$	ave.	−5653	12	−5653	12	0.0	1	100	100 ^{99}Nb			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{99}Tc(n,γ)^{100}Tc		6764.4	1.				2					79Pi08	
^{99}Ru(n,γ)^{100}Ru		9672.65	0.06	9673.324	0.026	11.2	o			ILn		88Co18	Z
		9673.39	0.05			−1.3	–			MMn		91Is02	Z
		9673.30	0.03			0.8	–			ILn		00Ge01	
		9673.41	0.19			−0.5	U			Bdn		03Fi.A	
	ave.	9673.324	0.026			0.0	1	100	55 ^{100}Ru			average	
^{100}Sr(β^-)^{100}Y		7520	140	7080	100	−3.2	C			McG		84Ia.A	
		7075	100				5			Bwg		87Gr.A	
^{100}Y(β^-)^{100}Zr		7920	100	9310	70	13.9	C			McG		84Ia.A	*
		9310	70				4			Bwg		87Gr.A	
^{100}Zr(β^-)^{100}Nb		3335	25				3			Bwg		87Gr.A	
^{100}Nb(β^-)^{100}Mo		6245	25				2			Bwg		87Gr.A	
^{100}Nb^m(β^-)^{100}Mo		6745	75	6714	28	−0.4	2			Bwg		87Gr.A	
^{100}Mo(t,^{3}He)^{100}Nb^m		−6690	30	−6695	28	−0.2	2			LAl		79Aj03	
^{100}Rh(β^+)^{100}Ru		3630	20	3635	18	0.2	1	82	82 ^{100}Rh			53Ma64	
^{100}Ag(β^+)^{100}Pd		7075	90	7080	80	0.0	–					79Ve.A	*
		7022	200			0.3	–					80Ha20	*
	ave.	7070	80			0.1	1	87	87 ^{100}Ag			average	
^{100}Cd(β^+)^{100}Ag		3890	70	3900	70	0.1	1	90	77 ^{100}Cd			89Ry02	
^{100}In(β^+)^{100}Cd		10900	930	10080	230	−0.9	U			Lvp		95Sz01	*
		10080	230				2					02Pl03	
^{100}Sn(β^+)^{100}In		7390	660				3					97Su06	*
*^{100}Rh−C$_{8.333}$	M−A=–85508(29) keV for mixture gs+m at 107.6 keV											NDS975	**
*^{100}Y(β^-)^{100}Zr	Not unambiguously ground-state transition											GAu	**
*^{100}Ag(β^+)^{100}Pd	From 5$^+$ ground-state to 2920.4 high spin level											79Ve.A	**
*^{100}Ag(β^+)^{100}Pd	E$^+$ =5350(200) from ^{100}Ag^m at 15.52 to 665.57 2$^+$ level											NDS905	**
*^{100}In(β^+)^{100}Cd	From lower and upper limits 9300−12500											GAu	**
*^{100}Sn(β^+)^{100}In	Q$^+$ =7200(+800−500)											97Su06	**
C_8 H_5−^{101}Ru		133549.5	2.2	133543.1	2.2	−1.2	1	15	15 ^{101}Ru	M16	2.5	63Da10	
^{101}Rh−C$_{8.417}$		−93821	58	−93836	18	−0.3	U			GS2	1.0	03Li.A	*
^{101}Pd−C$_{8.417}$		−91816	30	−91711	19	3.5	U			GS2	1.0	03Li.A	
^{100}Mo(n,γ)^{101}Mo		5398.23	0.08	5398.24	0.07	0.1	2			ILn		90Se17	Z
		5398.27	0.13			−0.2	2			Bdn		03Fi.A	
^{100}Ru(n,γ)^{101}Ru		6802.0	0.7	6802.05	0.24	0.1	–					82Ba69	
		6802.04	0.25			0.1	–			Bdn		03Fi.A	
	ave.	6802.04	0.24			0.1	1	100	60 ^{101}Ru			average	
^{101}Rb(β^-)^{101}Sr		11810	110				7			Bwg		92Ba28	
^{101}Sr(β^-)^{101}Y		9505	80				6			Bwg		92Ba28	
^{101}Y(β^-)^{101}Zr		8545	90				5			Bwg		92Ba28	
^{101}Zr(β^-)^{101}Nb		5485	25				4			Bwg		92Gr.A	
^{101}Nb(β^-)^{101}Mo		4569	18				3			Bwg		92Gr.A	
^{101}Mo(β^-)^{101}Tc		2836	40	2825	25	−0.3	R					57Ok.A	
^{101}Tc(β^-)^{101}Ru		1620	30	1614	24	−0.2	2					71Ar23	
^{101}Pd(β^+)^{101}Rh		1980	4				3					71Ib01	
^{101}Ag(β^+)^{101}Pd		4100	200	4200	100	0.5	4					72We.A	
		4350	200			−0.7	4					78Ha11	
		4180	150			0.2	4					79Ve.A	
^{101}Cd(β^+)^{101}Ag		5530	130	5480	110	−0.4	5					70Be.A	*
		5350	200			0.6	5					72We.A	
*^{101}Rh−C$_{8.417}$	M−A=–87315(29) keV for mixture gs+m at 157.32 keV											NDS981	**
*^{101}Cd(β^+)^{101}Ag	Measured E+ may go to excited state											70Be.A	**
C_8 H_6−^{102}Ru		142604.8	3.2	142600.9	2.2	−0.5	1	7	7 ^{102}Ru	M16	2.5	63Da10	
^{102}Ag−C$_{8.5}$		−88315	30				2			GS2	1.0	03Li.A	*
^{100}Mo(t,p)^{102}Mo		5034	20				2			LAl		72Ca10	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{100}Mo(^{3}He,p)^{102}Tc		6054	20	6024	10	−1.5	1	27	20 ^{102}Tc	Pri		82De03	
^{102}Pd(p,t)^{100}Pd		−10356	12	−10360	11	−0.3	1	84	83 ^{100}Pd	Win		74De31	
^{101}Ru(n,γ)^{102}Ru		9219.64	0.05	9219.64	0.05	0.0	1	100	75 ^{102}Ru	MMn		91Is02	Z
		9219.63	0.19			0.1	U			Bdn		03Fi.A	
^{102}In(εp)^{101}Ag		3420	310	3230	150	−0.6	o			Lvp		91Re.A	*
^{102}Sr(β^-)^{102}Y		8815	70				6			Bwg		92Ba28	
^{102}Y(β^-)^{102}Zr		9850	70				5			Bwg		92Ba28	
^{102}Zr(β^-)^{102}Nb		4605	30				4			Bwg		87Gr18	
^{102}Nb(β^-)^{102}Mo		7210	35				3			Bwg		87Gr18	
^{102}Nb^m(β^-)^{102}Mo		7335	40				3			Bwg		87Gr18	
^{102}Rh(β^+)^{102}Ru		2317	10	2323	5	0.6	–					61Hi06	
		2325	10			−0.2	–					63Bo17	
^{102}Ru(p,n)^{102}Rh		−3115	15	−3105	5	0.6	–					83Do11	
^{102}Rh(β^+)^{102}Ru	ave.	2323	6	2323	5	0.0	1	51	50 ^{102}Rh			average	
^{102}Rh(β^-)^{102}Pd		1150	6	1150	5	0.0	1	57	50 ^{102}Rh			61Hi06	
^{102}Ag(β^+)^{102}Pd		5800	200	5660	28	−0.7	F					67Ch05	*
		5500	100			1.6	U					67Ch05	*
		4910	140			5.4	C					70Be.A	*
		5350	200			1.6	U					72We.A	
		5880	110			−2.0	U					79Ve.A	
^{102}Cd(β^+)^{102}Ag		2587	8				3			GSI		91Ke08	
^{102}In(β^+)^{102}Cd		9250	380	8970	110	−0.7	4			Lvp		95Sz01	*
		8970	150			0.0	4			GSI		98Ka.A	
		8910	170			0.3	4			GSI		03Gi06	*
^{102}Sn(β^+)^{102}In		5780	70				5					01St.A	
*^{102}Ag−C$_{8.5}$	M−A=–82260(28) keV for mixture gs+m at 9.3 keV											NDS983	**
*^{102}In(εp)^{101}Ag	Estimated from proton spectrum from 1450 to 3200 keV											GAu	**
*^{102}Ag(β^+)^{102}Pd	F: E$^+$ =2260(40) does not fit with later decay scheme											NDSAHW	**
*^{102}Ag(β^+)^{102}Pd	From combination with decay scheme in ref.											NDS983	**
*^{102}Ag(β^+)^{102}Pd	Q$^+$ =4920(100) from ^{102}Ag^m at 9.3(0.4)											NDS983	**
*^{102}In(β^+)^{102}Cd	From determined upper 9900 and lower 8600 limits											GAu	**
*^{102}In(β^+)^{102}Cd	Good agreement with authors earlier measurement, average=8950(120)											03Gi06	**
C$_8$ H$_7$−^{103}Rh		149263.5	3.3	149271	3	0.9	1	13	13 ^{103}Rh	M16	2.5	63Da10	
^{103}Ag−C$_{8.583}$		−91091	52	−91027	18	1.2	U			GS2	1.0	03Li.A	*
^{103}Cd−^{102}Cd		−1534	154	−1040	40	2.1	U			CR2	1.5	92Sh.A	*
^{103}Rh(p,t)^{101}Rh		−8275	17				2			Pri		64Th05	
^{102}Ru(n,γ)^{103}Ru		6232.2	0.3	6232.05	0.15	−0.5	–					82Ba69	Z
		6232.00	0.17			0.3	–			Bdn		03Fi.A	
	ave.	6232.05	0.15			0.0	1	100	83 ^{103}Ru			average	
^{102}Pd(n,γ)^{103}Pd		7624.6	1.5	7625.4	0.8	0.5	–					70Bo29	
		7625.6	0.9			−0.3	–			Bdn		03Fi.A	
	ave.	7625.3	0.8			0.0	1	99	92 ^{102}Pd			average	
^{103}Zr(β^-)^{103}Nb		6945	85				5			Bwg		87Gr18	
^{103}Nb(β^-)^{103}Mo		5530	30				4			Bwg		87Gr18	
^{103}Mo(β^-)^{103}Tc		3750	60				3			Bwg		87Gr18	
^{103}Ru(β^-)^{103}Rh		764	4	763.4	2.1	−0.1	–					58Ro09	
		760	6			0.6	–					65Mu09	
		762	5			0.3	–					70Pe04	
		769	4			−1.4	–					82Oh04	
	ave.	764.6	2.3			−0.5	1	86	80 ^{103}Rh			average	
^{103}Pd(ε)^{103}Rh		543.0	0.8	543.1	0.8	0.1	1	99	92 ^{103}Pd			86Be53	
^{103}Ag(β^+)^{103}Pd		2622	27	2688	17	2.4	1	38	38 ^{103}Ag	Dlf		88Bo28	
^{103}Cd(β^+)^{103}Ag		4131	11	4142	10	1.0	1	90	62 ^{103}Ag	Dlf		88Bo28	
^{103}In(β^+)^{103}Cd		5380	200	6050	20	3.4	B			Brk		83Wo04	
		6050	20				2			Dlf		88Bo28	
		6040	60			0.2	U					98Ka42	
*^{103}Ag−C$_{8.583}$	M−A=–84784(29) keV for mixture gs+m at 134.45 keV											NDS017	**
*^{103}Cd−^{102}Cd	From ^{102}Cd/^{103}Cd=0.99029800(150)											AHW	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$C_8\ H_8-{}^{104}Ru$		157171.5	3.4	157168	3	−0.5	1	16	16 ^{104}Ru	M16	2.5	63Da10	
$C_8\ H_8-{}^{104}Pd$		158612	10	158564	4	−1.9	U			M16	2.5	63Da10	
$^{104}Pd-C_{8.667}$		−95938	30	−95964	4	−0.9	U			GS2	1.0	03Li.A	
$^{104}Ag-C_{8.667}$		−91410	30	−91371	6	1.3	U			GS2	1.0	03Li.A	*
$^{104}Cd-C_{8.667}$		−90147	30	−90151	10	−0.1	U			GS2	1.0	03Li.A	
$^{104}In-{}^{103}In$		−1241	231	−1620	90	−1.1	U			CR2	1.5	91Sh19	*
$^{104}Ru(d,\alpha)^{102}Tc$		7180	10	7188	9	0.8	1	82	80 ^{102}Tc	Pri		82De03	
$^{104}Ru(d,{}^3He)^{103}Tc$		−5289	10	−5287	9	0.2	2			VUn		83De20	
$^{104}Ru(t,\alpha)^{103}Tc$		9048	30	9033	9	−0.5	2			LAl		81Fl02	
$^{104}Ru(d,t)^{103}Ru-{}^{148}Gd()^{147}Gd$		85	3	82.7	2.7	−0.8	1	79	65 ^{104}Ru	Jul		86Ru04	*
$^{103}Rh(n,\gamma)^{104}Rh$		6998.96	0.10	6998.96	0.08	0.0	2			MMn		81Ke03	Z
		6998.95	0.14			0.0	2			Bdn		03Fi.A	
$^{104}Nb(\beta^-)^{104}Mo$		8105	90				4			Bwg		87Gr18	
$^{104}Nb^m(\beta^-)^{104}Mo$		8320	80				4			Bwg		87Gr18	
$^{104}Mo(\beta^-)^{104}Tc$		2155	40	2157	28	0.1	3			Bwg		87Gr18	
		2160	40			−0.1	3			Jyv		94Jo.A	
$^{104}Tc(\beta^-)^{104}Ru$		5620	70	5600	50	−0.2	2					78Su03	
		5590	60			0.2	2			Bwg		87Gr18	
$^{104}Pd(p,n)^{104}Ag$		−5061	4				3					79De44	
$^{104}In(\beta^+)^{104}Cd$		7100	200	7870	80	3.8	B					78Hu06	
		7260	250			2.4	B			Brk		83Wo04	
		7800	250			0.3	–			Dlf		88Bo28	
		7880	100			−0.1	–			GSI		98Ka.A	
	ave.	7870	90			0.0	1	83	82 ^{104}In			average	
$^{104}Sn(\beta^+)^{104}In$		4515	60				2			GSI		91Ke11	
$*{}^{104}Ag-C_{8.667}$	M−A=–85144(28) keV for mixture gs+m at 6.9 keV											Ens00	**
$*{}^{104}In-{}^{103}In$	From ^{103}In/^{104}In=0.99038900(222)											AHW	**
$*{}^{104}Ru(d,t)^{103}Ru-{}^{148}Gd()$	Q=82(3) to 2.81 level (AHW)											NDS932	**

$^{105}Rh-C_{8.75}$		−94378	53	−94306	4	1.4	U			GS2	1.0	03Li.A	*
$^{105}Ag-C_{8.75}$		−93534	31	−93471	12	2.0	U			GS2	1.0	03Li.A	*
$^{105}In-{}^{104}In$		−3618	144	−3620	90	0.0	1	18	18 ^{104}In	CR2	1.5	91Sh19	*
$^{104}Ru(n,\gamma)^{105}Ru$		5909.9	0.5	5910.10	0.11	0.4	–					74Hr01	
		5910.1	0.2			0.0	–					78Gu14	
		5910.11	0.14			−0.1	–			Bdn		03Fi.A	
	ave.	5910.10	0.11			0.0	1	100	82 ^{105}Ru			average	
$^{104}Pd(n,\gamma)^{105}Pd$		7094.1	0.7				2					70Bo29	
$^{105}Sb(p)^{104}Sn$		482.6	15.				3					94Ti03	
$^{105}Nb(\beta^-)^{105}Mo$		6485	70				4			Bwg		87Gr18	
$^{105}Mo(\beta^-)^{105}Tc$		4950	45				3			Bwg		87Gr18	
$^{105}Tc(\beta^-)^{105}Ru$		3640	55				2			Bwg		87Gr18	
$^{105}Ru(\beta^-)^{105}Rh$		1916	4	1918	3	0.5	1	76	58 ^{105}Rh			67Sc01	
$^{105}Rh(\beta^-)^{105}Pd$		570	5	567.2	2.5	−0.6	–					51Du03	
		560	5			1.4	–					56La24	
		568	4			−0.2	–					64Ka23	
	ave.	566.3	2.6			0.3	1	89	47 ^{105}Pd			average	
$^{105}Ag(\varepsilon)^{105}Pd$		1347	25	1345	11	−0.1	–					67Pi03	
		1310	25			1.4	–					67Sc26	
	ave.	1329	18			0.9	1	36	35 ^{105}Ag			average	
$^{105}Cd(\beta^+)^{105}Ag$		2738	5	2738	4	0.0	–					53Jo20	*
		2742	11			−0.4	–					86Bo28	*
	ave.	2739	5			−0.2	1	97	80 ^{105}Cd			average	
$^{105}In(\beta^+)^{105}Cd$		5140	200	4849	13	−1.5	B			Brk		83Wo04	
		4849	13			0.0	1	100	99 ^{105}In			86Bo28	
$*{}^{105}Rh-C_{8.75}$	M−A=–87847(32) keV for mixture gs+m at 129.781 keV											NDS934	**
$*{}^{105}Ag-C_{8.75}$	M−A=–87113(28) keV for mixture gs+m at 25.465 keV											Ens93	**
$*{}^{105}In-{}^{104}In$	From ^{104}In/^{105}In=0.99050293(139)											AHW	**
$*{}^{105}Cd(\beta^+)^{105}Ag$	E^+ =1691(5) to $^{105}Ag^m$ at 25.465											NDS934	**
$*{}^{105}Cd(\beta^+)^{105}Ag$	E^+ =1695(11) to $^{105}Ag^m$ at 25.465											NDS934	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$C_8\ H_{10}-{}^{106}Pd$		174764.0	4.3	174765	4	0.1	1	17	17 ^{106}Pd	M16	2.5	63Da10	
$^{106}Pd-C_{8.833}$		−96495	30	−96514	4	−0.6	U			GS2	1.0	03Li.A	
$^{106}Ag-C_{8.833}$		−93318	44	−93331	5	−0.3	U			GS2	1.0	03Li.A	*
$C_8\ H_{10}-{}^{106}Cd$		171789.3	2.7	171791	6	0.2	1	89	89 ^{106}Cd	M16	2.5	63Da10	
$^{106}In-C_{8.833}$		−86516	32	−86535	13	−0.6	1	17	17 ^{106}In	GS2	1.0	03Li.A	*
$^{106}Te(\alpha)^{102}Sn$		4323.5	30.	4290	9	−1.1	U					81Sc17	
		4290.2	9.				6					94Pa11	
		4323.5	30.			−1.1	U					02Ma19	
$^{106}Cd(^3He,^6He)^{103}Cd$		−9173	17	−9147	15	1.5	1	76	72 ^{103}Cd	MSU		78Pa11	
$^{104}Ru(t,p)^{106}Ru$		5892	20	5894	7	0.1	R			LAl		72Ca10	
$^{106}Cd(p,t)^{104}Cd$		−10802	15	−10819	7	−1.1	–			MSU		82Cr01	
		−10829	12			0.9	–			Pri		83De03	
		−10819	12			0.0	–			Ors		84Ro.A	
	ave.	−10819	7			0.0	1	100	100 ^{104}Cd			average	
$^{105}Pd(n,\gamma)^{106}Pd$		9560.5	0.4	9560.97	0.28	1.2	–			BNn		87Fo20	*
		9561.4	0.4			−1.1	–			Bdn		03Fi.A	
	ave.	9560.95	0.28			0.1	1	100	51 ^{105}Pd			average	
$^{105}Pd(^3He,d)^{106}Ag$		322	8	320.0	2.8	−0.2	1	13	12 ^{106}Ag	Bld		75An07	
$^{106}Cd(d,t)^{105}Cd$		−4661	50	−4616	12	0.9	U					73De16	
$^{106}Cd(^3He,\alpha)^{105}Cd$		9728	25	9704	12	−1.0	1	25	20 ^{105}Cd	Man		75Ch21	
$^{106}Mo(\beta^-)^{106}Tc$		3520	17	3520	12	0.0	5			Bwg		92Gr.A	
		3520	17			0.0	5			Jyv		94Jo.A	
$^{106}Tc(\beta^-)^{106}Ru$		6547	11				4			Bwg		92Gr.A	
$^{106}Ru(\beta^-)^{106}Rh$		39.2	0.3	39.40	0.21	0.7	3					50Ag01	
		39.6	0.3			−0.7	3					58Gr07	
$^{106}Rh(\beta^-)^{106}Pd$		3530	10	3541	6	1.1	2					52Al06	
		3550	10			−0.9	2					58Gr07	
		3550	20			−0.5	2					60Se05	
$^{106}Rh^m(\beta^-)^{106}Pd$		3677	10				2					66De11	
$^{106}Ag(\varepsilon)^{106}Pd$		2961	4	2965.1	2.8	1.0	–					78Ge01	*
$^{106}Pd(p,n)^{106}Ag$		−3756	5	−3747.5	2.8	1.7	–					79De44	
$^{106}Ag(\varepsilon)^{106}Pd$	ave.	2966	3	2965.1	2.8	−0.3	1	81	79 ^{106}Ag			average	
$^{106}In(\beta^+)^{106}Cd$		6516	30	6526	11	0.3	–					66Ca09	*
		6507	29			0.7	–					86Bo28	*
$^{106}Cd(p,n)^{106}In$		−7312.9	15.	−7308	11	0.3	–			ANL		84Fi05	*
$^{106}In(\beta^+)^{106}Cd$	ave.	6524	12	6526	11	0.2	1	86	82 ^{106}In			average	
$^{106}Sn(\beta^+)^{106}In$		3195	60	3180	50	−0.2	–			GSI		79Pl06	
		3200	100			−0.2	–					88Ba10	
	ave.	3200	50			−0.3	1	91	90 ^{106}Sn			average	
$*^{106}Ag-C_{8.833}$	M−A=–86880(32) keV for mixture gs+m at 89.66 keV											NDS934	**
$*^{106}In-C_{8.833}$	M−A=–80575(29) keV for mixture gs+m at 28.6 keV											NDS934	**
$*^{105}Pd(n,\gamma)^{106}Pd$	Calculated from 13 γ energies in 2 keV n-capture											AHW	**
*	to levels in ^{106}Pd; corr. for recoil											NDS945	**
$*^{106}Ag(\varepsilon)^{106}Pd$	L/K=0.203(0.003) gives Q^+ =99(4), recalculated Q											AHW	**
*	from $^{106}Ag^m$ at 89.66 to 2951.78 level											NDS945	**
$*^{106}In(\beta^+)^{106}Cd$	E^+ =4890(30) from $^{106}In^m$ at 28.6 to 632.64 level											NDS945	**
$*^{106}In(\beta^+)^{106}Cd$	E^+ =2965(30) to 2491.66 level and 4908(29)											NDS945	**
*	from $^{106}In^m$ at 28.6 to 632.64 level											NDS945	**
$*^{106}Cd(p,n)^{106}In$	T=7535(15) to 151.1 level											NDS	**
$^{107}Pd-C_{8.917}$		−95013	95	−94867	4	1.5	U			GS2	1.0	03Li.A	*
$C_8\ H_{11}-{}^{107}Ag$		180986.4	3.1	180979	5	−1.0	1	35	35 ^{107}Ag	M16	2.5	63Da10	
$^{107}Cd-C_{8.917}$		−93410	30	−93382	6	0.9	U			GS2	1.0	03Li.A	
$^{107}In-C_{8.917}$		−89710	30	−89705	12	0.2	1	17	17 ^{107}In	GS2	1.0	03Li.A	
$^{107}Sn-{}^{106}Sn$		−1148	86	−1240	90	−0.7	1	50	40 ^{107}Sn	CR2	1.5	92Sh.A	*
$^{107}Te(\alpha)^{103}Sn$		3982.2	15.	4008	5	1.7	3					79Sc22	
		4011.3	5.			−0.6	3					91He21	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{107}Ag(p,t)^{105}Ag		−9015	15	−8995	11	1.4	1	50	48 ^{105}Ag	Min		75Ku14	*
^{106}Pd(n,γ)^{107}Pd		6536.4	0.5	6536.4	0.5	0.1	1	99	67 ^{107}Pd	Bdn		03Fi.A	
^{107}Ag(p,d)^{106}Ag		−7305	11	−7311	4	−0.6	1	12	8 ^{106}Ag	Bld		75An07	
^{107}Mo(β^-)^{107}Tc		6160	60				4			Bwg		89Gr23	
^{107}Tc(β^-)^{107}Ru		4820	85				3			Bwg		89Gr23	
^{107}Ru(β^-)^{107}Rh		3140	300	2940	120	−0.7	2					62Pi02	
		2900	135			0.3	2			Bwg		89Gr23	
^{107}Rh(β^-)^{107}Pd		1510	40	1504	12	−0.1	1	10	9 ^{107}Rh			62Pi02	
^{107}Pd(β^-)^{107}Ag		33	3	34.1	2.7	0.4	1	82	50 ^{107}Ag			49Pa.B	
^{107}Cd(β^+)^{107}Ag		1417	4	1417	4	0.0	1	98	96 ^{107}Cd			62La10	*
^{107}In(β^+)^{107}Cd		3426	11	3425	10	−0.1	1	87	83 ^{107}In			86Bo28	
*^{107}Pd−C$_{8.917}$	M−A=–88397(62) keV for mixture gs+m at 214.6 keV											NDS002	**
*^{107}Sn−^{106}Sn	From ^{107}Sn/^{106}Sn=1.00943053(81)											AHW	**
*^{107}Ag(p,t)^{105}Ag	Recalibrated with (p,t) results on ^{104}Pd, ^{105}Pd, ^{106}Pd and ^{108}Pd											AHW	**
*^{107}Cd(β^+)^{107}Ag	E$^+$ =302(4) to ^{107}Ag^m at 93.13											NDS914	**
C$_8$ H$_{12}$−^{108}Pd		190014	6	190009	4	−0.4	1	6	6 ^{108}Pd	M16	2.5	63Da10	
^{108}Ag−C$_9$		−93973	50	−94044	5	−1.4	U			GS2	1.0	03Li.A	*
C$_8$ H$_{12}$−^{108}Cd		189715.6	2.9	189717	6	0.2	1	68	68 ^{108}Cd	M16	2.5	63Da10	
^{108}In−C$_9$		−90277	31	−90302	10	−0.8	1	11	11 ^{108}In	GS2	1.0	03Li.A	*
^{108}Sn−C$_9$		−88102	32	−88075	21	0.9	1	44	44 ^{108}Sn	GS2	1.0	03Li.A	
^{108}Sn−^{107}Sn		−3650	76	−3720	90	−0.6	1	61	60 ^{107}Sn	CR2	1.5	92Sh.A	*
^{108}Te(α)^{104}Sn		3444.9	4.				3					91He21	
^{108}I(α)^{104}Sb		4099.1	5.				5					94Pa12	
^{108}Pd(d,^{3}He)^{107}Rh		−4456	12	−4457	12	0.0	1	92	91 ^{107}Rh	Grn		86Ka43	
^{107}Ag(n,γ)^{108}Ag		7269.6	0.6	7271.41	0.17	3.0	U			ILn		85Ma54	Z
		7271.41	0.17				2			Bdn		03Fi.A	
^{108}Mo(β^-)^{108}Tc		5135	60	4650#	150#	−8.1	D			Bwg		92Gr.A	*
		5120	40			−11.8	o					94Jo.A	*
		5100	60			−7.5	D					95Jo02	*
^{108}Tc(β^-)^{108}Ru		7720	50				4			Bwg		89Gr23	
^{108}Ru(β^-)^{108}Rh		1315	100	1350	50	0.3	3					62Pi02	
		1420	185			−0.4	3			Bwg		89Gr23	
		1380	80			−0.4	o			Jyv		92Jo05	
		1350	60			−0.1	3			Jyv		94Jo.A	
^{108}Rh(β^-)^{108}Pd		4505	105				2			Bwg		89Gr23	
^{108}Rh^m(β^-)^{108}Pd		4434	50	4450	40	0.3	2					69Pi08	
		4510	100			−0.6	2					84Bh02	
^{108}In(β^+)^{108}Cd		5124	50	5137	9	0.3	U					62Ka23	*
		5125	14			0.8	–					86Bo28	*
^{108}Cd(p,n)^{108}In		−5927	12	−5919	9	0.7	–			ANL		84Fi05	*
^{108}In(β^+)^{108}Cd	ave.	5136	9	5137	9	0.0	1	87	82 ^{108}In			average	
^{108}Sn(β^+)^{108}In		2089	25	2075	19	−0.6	1	61	54 ^{108}Sn	GSI		79Pl06	
*^{108}Ag−C$_9$	M−A=–87480(34) keV for mixture gs+m at 109.440 keV											Ens00	**
*^{108}In−C$_9$	M−A=–84078(28) keV for mixture gs+m at 29.75 keV											Ens00	**
*^{108}Sn−^{107}Sn	From ^{107}Sn/^{108}Sn=0.99076701(70)											AHW	**
*^{108}Mo(β^-)^{108}Tc	Systematical trends suggest ^{108}Mo 470 more bound											CTh	**
*^{108}In(β^+)^{108}Cd	E$^+$ =1290(80) to 2807.91 level and E$^+$ =3500(50)											62Ka23	**
*	from ^{108}In^m at 29.75 to 632.986 level											NDS978	**
*^{108}In(β^+)^{108}Cd	E$^+$ =1887(28) to 2239.26 level; and 3494(14)											86Bo28	**
*	from ^{108}In^m at 29.75 to 632.96 level											NDS914	**
*^{108}Cd(p,n)^{108}In	T=–6191(8),-6244(9),errors statistical only,											AHW	**
*	to 198.38, 266.06 levels.											NDS978	**
C$_8$ H$_{13}$−^{109}Ag		196972.1	3.8	196973	3	0.1	1	11	11 ^{109}Ag	M16	2.5	63Da10	
^{109}Sn−C$_{9.083}$		−88747	30	−88717	11	1.0	U			GS2	1.0	03Li.A	
^{109}Te(α)^{105}Sn		3225.6	4.				3					91He21	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{109}Ag(p,t)^{107}Ag		−7995	15	−7982	5	0.9	1	11	8 ^{107}Ag	Min		75Ku14	*
^{108}Pd(n,γ)^{109}Pd		6153.8	0.3	6153.60	0.15	−0.7	–			ILn		80Ca02	Z
		6153.54	0.17			0.4	–			Bdn		03Fi.A	
	ave.	6153.60	0.15			0.0	1	100	91 ^{108}Pd			average	
^{108}Cd(^{3}He,d)^{109}In−^{110}Cd()^{111}In		−806.5	2.6	−806.3	2.5	0.1	1	96	47 ^{109}In			80Ta07	
^{109}Te(εp)^{108}Sn		7140	60				2					73Bo20	
^{109}I(p)^{108}Te		819	5	819.5	1.9	0.1	4					84Fa04	
		819.6	2.0			0.0	4					92He.A	
^{109}Tc(β^-)^{109}Ru		6315	70				4			Bwg		89Gr23	
^{109}Ru(β^-)^{109}Rh		4160	65				3			Bwg		89Gr23	
^{109}Pd(β^-)^{109}Ag		1116	2	1116.1	2.0	0.0	1	97	91 ^{109}Pd			62Br15	*
^{109}Cd(ε)^{109}Ag		182	3	214.2	2.9	10.7	C					68Go.A	*
		214	3			0.1	1	94	85 ^{109}Cd			Averag	*
^{109}In(β^+)^{109}Cd		2015	8	2020	6	0.6	–					62No06	
		2030	15			−0.7	–					71Ba08	
	ave.	2018	7			0.2	1	68	53 ^{109}In			average	
^{109}Sb(β^+)^{109}Sn		6380	16				3					82Jo03	
*^{109}Ag(p,t)^{107}Ag	Recalibrated with (p,t) results on ^{104}Pd, ^{105}Pd, ^{106}Pd and ^{108}Pd											AHW	**
*^{109}Pd(β^-)^{109}Ag	E$^-$=1028(2) to ^{109}Ag^m at 88.0341											NDS91c	**
*^{109}Cd(ε)^{109}Ag	IBE=68(3) gives 94(3) to ^{109}Ag^m at 88.0341											NDS91c	**
*^{109}Cd(ε)^{109}Ag	From aver. LM/K=0.2265(0.0026) − > Q$^+$ =126(3); recalc. Q											AHW	**
*	to ^{109}Ag^m at 88.0341											NDS91c	**
*	LMN/K=0.228(0.003)											65Le06	**
*	L/K=0.195(0.005) − > LMN/K=0.258(0.006) − > Q$^+$ =109(5) not used											65Le06	**
*	LMN/K=0.226(0.003)											70Go39	**
^{110}Ru−C$_{9.167}$		−85899	77	−85860	60	0.5	1	55	55 ^{110}Ru	JY1	1.0	03Ko.A	
^{110}Rh−C$_{9.167}$		−88708	84	−88860	50	−1.9	1	42	42 ^{110}Rh	JY1	1.0	03Ko.A	*
C$_8$ H$_{14}$−^{110}Pd		204389	9	204397	12	0.4	1	27	27 ^{110}Pd	M16	2.5	63Da10	
C$_8$ H$_{14}$−^{110}Cd		206548.4	4.6	206548.4	2.9	0.0	1	6	6 ^{110}Cd	M16	2.5	63Da10	
^{110}In−C$_{9.167}$		−92898	36	−92835	13	1.8	U			GS2	1.0	03Li.A	*
^{110}Sn−C$_{9.167}$		−92189	30	−92157	15	1.1	2			GS2	1.0	03Li.A	
^{110}Te(α)^{106}Sn		2723.1	15.				2					81Sc17	
^{110}I(α)^{106}Sb		3574.2	10.	3580	50	0.2	7					81Sc17	
		3586.7	5.			−0.1	7					91He21	
^{110}Xe(α)^{106}Te		3878.3	30.	3885	14	0.2	7					81Sc17	
		3886.6	15.			−0.1	7					92He.A	
^{110}Pd(p,t)^{108}Pd		−6495	15	−6486	11	0.6	1	51	49 ^{110}Pd	Min		75Ku14	*
^{110}Pd(d,^{3}He)^{109}Rh		−5134	5				2			VUn		87Ka29	
^{110}Pd(t,α)^{109}Rh		9206	25	9186	5	−0.8	U			LAl		82Fl09	
^{109}Ag(n,γ)^{110}Ag		6809.2	0.1	6809.20	0.10	0.0	1	100	71 ^{109}Ag			81Bo.B	
		6808.20	0.16			6.3	B			Bdn		03Fi.A	
^{110}Tc(β^-)^{110}Ru		9021	55				2			Jyv		00Kr.A	
^{110}Ru(β^-)^{110}Rh		2810	50	2790	40	−0.3	1	78	45 ^{110}Ru	Jyv		91Jo11	
^{110}Rh(β^-)^{110}Pd		5400	100	5570	50	1.7	1	26	25 ^{110}Rh			70Pi01	
^{110}Rh^m(β^-)^{110}Pd		5500	500	5510	19	0.0	U					63Ka21	
		5510	19				2			Bwg		00Kr.A	
^{110}Ag(β^-)^{110}Cd		2891.4	3.0	2892.4	1.6	0.3	–					63Da03	*
		2892.9	2.0			−0.2	–					67Mo12	*
	ave.	2892.4	1.7			0.0	1	94	71 ^{110}Ag			average	
^{110}In(β^+)^{110}Cd		3928	20	3878	12	−2.5	2					51Mc11	*
		3868	20			0.5	2					53Bl44	*
		3838	20			2.0	2					62Ka08	*
^{110}Sb(β^+)^{110}Sn		8750	200	8300#	200#	−2.3	D					72Mi26	*
		9085	100			−7.8	D					72Si28	*
*^{110}Rh−C$_{9.167}$	M−A=–82641(72) keV for mixture gs+m at –20(60) keV											Nubase	**
*^{110}In−C$_{9.167}$	M−A=–86503(28) keV for mixture gs+m at 62.1 keV											Ens00	**
*^{110}Pd(p,t)^{108}Pd	Recalibrated with (p,t) results on ^{104}Pd, ^{105}Pd, ^{106}Pd and ^{108}Pd											AHW	**
*^{110}Ag(β^-)^{110}Cd	E$^-$=529(3) from ^{110}Ag^m at 117.59 to 2479.95 level											NDS92c	**
*^{110}Ag(β^-)^{110}Cd	E$^-$=2891(4); and 531(2)											67Mo12	**
*	from ^{110}Ag^m at 117.59 to 2479.95 level											NDS92c	**
*^{110}In(β^+)^{110}Cd	E$^+$ =2310(20) from ^{110}In^m at 62.08(0.04) to 657.76 level											89Kr12	**

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$*^{110}In(\beta^+)^{110}Cd$	E^+ =2250(20) from $^{110}In^m$ at 62.08(0.04) to 657.76 level										89Kr12	**
$*^{110}In(\beta^+)^{110}Cd$	E^+ =2220(20) from $^{110}In^m$ at 62.08(0.04) to 657.76 level										89Kr12	**
$*^{110}Sb(\beta^+)^{110}Sn$	Systematical trends suggest ^{110}Sb 720 more bound										GAu	**
$^{111}Ru-C_{9.25}$	−82304	79				2			JY1	1.0	03Ko.A	
$^{111}Rh-C_{9.25}$	−88283	79	−88410	30	−1.7	C			JY1	1.0	03Ko.A	
$^{111}Ag-C_{9.25}$	−94741	51	−94709	3	0.6	U			GS2	1.0	03Li.A	*
$C_8\ H_{15}-^{111}Cd$	213184.4	3.9	213197.4	2.9	1.3	1	9	9 ^{111}Cd	M16	2.5	63Da10	
$^{111}Cd-C_{9.25}$	−95774	30	−95821.9	2.9	−1.6	U			GS2	1.0	03Li.A	*
$^{111}Sb-C_{9.25}$	−86837	30				2			GS2	1.0	03Li.A	
$^{111}I(\alpha)^{107}Sb$	3270.1	10.	3280	50	0.2	3					79Sc22	
	3293.0	10.			−0.2	3					92He.A	
$^{111}Xe(\alpha)^{107}Te$	3693.3	25.	3720	50	0.5	4					79Sc22	
	3714.1	30.			0.1	4					81Sc17	
	3723.5	10.			−0.1	4					91He21	
$^{110}Pd(n,\gamma)^{111}Pd$	5726.3	0.4				2			Bdn		03Fi.A	
$^{110}Cd(n,\gamma)^{111}Cd$	6975.5	0.5	6975.85	0.19	0.7	–					86Ba72	
	6975.9	0.2			−0.3	–					90Ne.B	
	6975.1	0.4			1.9	B			Bdn		03Fi.A	
ave.	6975.84	0.19			0.0	1	100	68 ^{110}Cd			average	
$^{111}Te(\varepsilon p)^{110}Sn$	5070	70				3					68Ba53	
$^{111}Tc(\beta^-)^{111}Ru$	7449	80				3			Jyv		00Kr.A	
$^{111}Ru(\beta^-)^{111}Rh$	5039	50	5690	80	13.1	C			Jyv		00Kr.A	
$^{111}Rh(\beta^-)^{111}Pd$	3640	50	3647	28	0.1	3			Jyv		00Kr.A	
	3650	33			−0.1	3			Bwg		00Kr.A	
$^{111}Pd(\beta^-)^{111}Ag$	2210	100	2217	11	0.1	U					52Mc34	*
	2190	50			0.5	U					57Kn.A	*
	2160	100			0.6	U					60Pr07	*
$^{111}Ag(\beta^-)^{111}Cd$	1035	2	1036.8	1.4	0.9	2					71Na02	
	1038.6	2.			−0.9	2					77Re12	
$^{111}Sb(\beta^+)^{111}Sn$	4470	50	5057	29	11.7	B					72Si28	
$*^{111}Ag-C_{9.25}$	M−A=–88221(44) keV for mixture gs+m at 59.82 keV										NDS962	**
$*^{111}Cd-C_{9.25}$	M−A=–88817(28) keV for $^{111}Cd^m$ at Eexc=396.214 keV										Ens00	**
$*^{111}Pd(\beta^-)^{111}Ag$	Q^-=2150(100) to $^{111}Ag^m$ at 59.82										NDS908	**
$*^{111}Pd(\beta^-)^{111}Ag$	Q^-=2130(50) to $^{111}Ag^m$ at 59.82										NDS908	**
$*^{111}Pd(\beta^-)^{111}Ag$	Q^-=2100(100) to $^{111}Ag^m$ at 59.82										NDS908	**
$^{112}Ru-C_{9.333}$	−81035	79				2			JY1	1.0	03Ko.A	
$^{112}Rh-C_{9.333}$	−85510	117	−85610	60	−0.8	R			JY1	1.0	03Ko.A	*
$C_8\ H_{16}-^{112}Cd$	222445.3	3.9	222442.7	2.9	−0.3	1	9	9 ^{112}Cd	M16	2.5	63Da10	
$^{112}In-C_{9.333}$	−94366	58	−94468	6	−1.8	U			GS2	1.0	03Li.A	*
$C_8\ H_{16}-^{112}Sn$	220384	9	220382	5	−0.1	U			M16	2.5	63Da10	
$^{112}Sb-C_{9.333}$	−87597	30	−87602	19	−0.2	2			GS2	1.0	03Li.A	
$^{112}I(\alpha)^{108}Sb$	2987.0	30.				3					81Sc17	
$^{112}Xe(\alpha)^{108}Te$	3329.1	20.	3330	6	0.1	4					81Sc17	
	3308.5	15.			1.4	4					92He.A	
	3335.4	7.			−0.7	4					94Pa11	
$^{112}Sn(^3He,^6He)^{109}Sn$	−8686	9				2			MSU		78Pa11	
$^{110}Pd(t,p)^{112}Pd$	5659	20	5648	17	−0.5	1	70	60 ^{112}Pd	LAl		72Ca10	
$^{112}Cd(^{14}C,^{16}O)^{110}Pd$	5543	29	5526	11	−0.6	1	14	13 ^{110}Pd	LAl		84Co19	
$^{112}Cd(p,t)^{110}Cd$	−7891	5	−7888.4	0.4	0.5	U			Min		73Oo01	
$^{112}Sn(p,t)^{110}Sn$	−10485	15	−10478	14	0.5	R			Roc		70Fl08	
$^{111}Cd(n,\gamma)^{112}Cd$	9394.3	0.3	9394.32	0.30	0.1	1	100	60 ^{111}Cd	ILn		93Dr.A	
$^{112}Cd(\gamma,n)^{111}Cd$	−9403	5	−9394.32	0.30	1.7	U			McM		79Ba06	
$^{111}Cd(d,p)^{112}Cd$	7170	10	7169.75	0.30	0.0	U			Yal		67Ba15	
	7171	5			−0.3	U			MIT		67Sp09	
$^{112}Sn(p,d)^{111}Sn$	−8574	15	−8563	5	0.7	2			Har		70Ca01	
$^{112}Sn(d,t)^{111}Sn$	−4529.0	5.7	−4531	5	−0.3	2			SPa		75Be09	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{112}Cs(p)^{111}Xe		814.3	7.				5					94Pa12	
^{112}Tc(β^-)^{112}Ru		9484	100				3			Jyv		00Kr.A	
^{112}Ru(β^-)^{112}Rh		4520	80	4260	90	−3.3	B			Jyv		91Jo11	*
^{112}Rh(β^-)^{112}Pd		6200	500	6600	50	0.8	U			Jyv		88Ay02	
		6573	54			0.4	2			Bwg		00Kr.A	
^{112}Rh^m(β^-)^{112}Pd		6929	56				2			Bwg		00Kr.A	
^{112}Pd(β^-)^{112}Ag		299	20	288	17	−0.5	1	70	40 ^{112}Pd			55Nu11	
^{112}Ag(β^-)^{112}Cd		3967	20	3956	17	−0.5	1	70	70 ^{112}Ag			62In01	
^{112}Cd(p,n)^{112}In		−3376	6	−3367	5	1.5	1	62	58 ^{112}In	Tky		80Ad04	
^{112}In(β^-)^{112}Sn		656	6	665	5	1.5	1	62	42 ^{112}In			53Bl44	
^{112}Sb(β^+)^{112}Sn		7029	50	7061	18	0.6	R					72Si28	
		7062	26			−0.1	R					82Jo03	
^{112}Sn(p,n)^{112}Sb		−7995	55	−7843	18	2.8	B			VUn		76Ka19	
*^{112}Rh−C$_{9.333}$	ave M−A=–79482(36) keV for mixture gs+m at 340(70) keV											Nubase	**
*^{112}In−C$_{9.333}$	M−A=–87823(30) keV for mixture gs+m at 156.59 keV											NDS96b	**
*^{112}Ru(β^-)^{112}Rh	E$^-$=4190(80) to 327.0 level											NDS96b	**
^{113}Ru−C$_{9.417}$		−77034	93	−77510	80	−5.1	C			JY1	1.0	03Ko.A	*
^{113}Rh−C$_{9.417}$		−84466	83	−84470	50	0.0	1	40	40 ^{113}Rh	JY1	1.0	03Ko.A	
C$_9$ H$_5$−^{113}Cd		134721.1	3.9	134723.5	2.9	0.2	1	9	9 ^{113}Cd	M16	2.5	63Da10	
^{113}Cd−C$_{9.417}$		−95506	93	−95598.3	2.9	−1.0	U			GS2	1.0	03Li.A	*
C$_9$ H$_5$−^{113}In		135015	9	135067	3	2.3	B			M16	2.5	63Da10	
^{113}In−C$_{9.417}$		−95969	126	−95942	3	0.2	U			GS2	1.0	03Li.A	*
^{113}Sn−C$_{9.417}$		−94796	39	−94829	4	−0.9	U			GS2	1.0	03Li.A	*
^{113}Sb−C$_{9.417}$		−90635	30	−90628	19	0.2	R			GS2	1.0	03Li.A	
^{113}Te−C$_{9.417}$		−84109	30				2			GS2	1.0	03Li.A	
^{113}I(α)^{109}Sb		2705.9	40.				4					81Sc17	
^{113}Xe(α)^{109}Te		3094.8	15.				3					79Sc22	
^{113}Cd(p,t)^{111}Cd		−7456	5	−7452.6	0.7	0.7	U			Min		73Oo01	
^{113}In(p,t)^{111}In−^{115}In()^{113}In		−810	10	−807	5	0.3	1	25	11 ^{115}In	Roc		74Ma09	
^{113}In(p,t)^{111}In−^{112}Cd()^{110}Cd		−746.3	4.1	−746	4	0.0	1	78	77 ^{111}In	SPa		80Ta07	
^{112}Cd(n,γ)^{113}Cd		6542.0	0.2	6540.1	0.6	−9.6	C					90Ne.A	
^{112}Cd(d,p)^{113}Cd		4315.56	0.64	4315.5	0.6	−0.1	1	98	58 ^{113}Cd	Rez		90Pi05	*
^{112}Sn(n,γ)^{113}Sn		7741.9	2.3	7743.1	1.8	0.5	–					75Sl.A	
^{112}Sn(d,p)^{113}Sn		5518.2	3.2	5518.5	1.8	0.1	–			SPa		75Be09	
^{112}Sn(n,γ)^{113}Sn	ave.	7742.2	1.9	7743.1	1.8	0.5	1	96	80 ^{112}Sn			average	
^{112}Sn(^{3}He,d)^{113}Sb		−2400	40	−2446	17	−1.2	R			Sac		68Co22	
^{113}Xe(εp)^{112}Te		7920	150				4					82Pl05	
^{113}Cs(p)^{112}Xe		967	4	973.5	2.6	1.6	5					84Fa04	
		982.7	4.			−2.3	5					92He.A	
		967.6	6.			1.0	5					94Pa12	
^{113}Ru(β^-)^{113}Rh		6480	50				2			Jyv		00Kr.A	
^{113}Rh(β^-)^{113}Pd		5008	50	5010	40	0.0	1	75	60 ^{113}Rh	Jyv		00Kr.A	
^{113}Pd(β^-)^{113}Ag		3340	35	3340	30	0.0	1	88	85 ^{113}Pd	Stu		90Fo07	
^{113}Ag(β^-)^{113}Cd		2010	20	2017	16	0.3	–					57Je.A	
		2031	30			−0.5	–			Stu		90Fo07	*
	ave.	2016	17			0.0	1	97	97 ^{113}Ag			average	
^{113}Cd(β^-)^{113}In		320	10	320	3	0.0	1	11	7 ^{113}In	CIT		88Mi13	
^{113}Sn(β^+)^{113}In		1034.6	5.0	1036.6	2.7	0.4	–					93Li10	
^{113}In(p,n)^{113}Sn		−1809	6	−1818.9	2.7	−1.7	–			Oak		73Ra13	
^{113}Sn(β^+)^{113}In	ave.	1031	4	1036.6	2.7	1.4	1	51	45 ^{113}Sn			average	
^{113}Sb(β^+)^{113}Sn		3934	30	3913	17	−0.7	2					61Se08	
		3945	50			−0.6	2					69Ki16	
^{113}Te(β^+)^{113}Sb		5520	300	6070	30	1.8	U					74Bu21	
		5720	200			1.8	U					74Ch17	
*^{113}Ru−C$_{9.417}$	M−A=–71692(77) keV for mixture gs+m at 130(18) keV											Nubase	**
*^{113}Cd−C$_{9.417}$	M−A=–88832(41) keV for mixture gs+m at 263.54 keV											NDS983	**
*^{113}In−C$_{9.417}$	M−A=–89199(30) keV for mixture gs+m at 391.699 keV											Ens99	**
*^{113}Sn−C$_{9.417}$	M−A=–88263(29) keV for mixture gs+m at 77.386 keV											Ens00	**
*^{112}Cd(d,p)^{113}Cd	Estimated systematical error 0.5 added to statistical error 0.40											AHW	**
*^{113}Ag(β^-)^{113}Cd	Q$^-$=2075(30) from ^{113}Ag^m at 43.5											NDS904	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{114}Rh−$C_{9.5}$		−81194	121				2			JY1	1.0	03Ko.A	*
C_8 H_{18}−^{114}Cd		237487.6	4.	237492.0	2.9	0.4	1	8	8 ^{114}Cd	M16	2.5	63Da10	
^{114}In−$C_{9.5}$		−94986	68	−95086	3	−1.5	U			GS2	1.0	03Li.A	*
^{114}Sb−$C_{9.5}$		−90731	30				2			GS2	1.0	03Li.A	
^{114}Te−$C_{9.5}$		−87911	30				2			GS2	1.0	03Li.A	
^{114}Xe−^{133}$Cs_{.857}$		9008	12				2			MA6	1.0	03Di.1	
^{114}Cd ^{35}Cl−^{112}Cd ^{37}Cl		3548.5	1.0	3550.8	0.7	0.9	U			H26	2.5	73Me28	
^{114}Ba(γ,^{12}C)^{102}Sn		18110	780	18980	40	1.1	F					95Gu01	*
^{114}Cs(α)^{110}I		3357.0	30.				6					81Sc17	
^{114}Ba(α)^{110}Xe		3534.2	40.				8					02Ma19	
^{113}Cd(n,γ)^{114}Cd		9042.76	0.20	9042.98	0.14	1.1	–			ILn		79Br25	Z
		9043.18	0.19			−1.1	–			Bdn		03Fi.A	
	ave.	9042.98	0.14			0.0	1	100	71 ^{114}Cd			average	
^{113}In(n,γ)^{114}In		7274.0	1.2	7273.85	0.27	−0.1	U					75Ra07	Z
		7273.83	0.27			0.1	1	100	82 ^{113}In	Bdn		03Fi.A	
^{114}Sn(d,t)^{113}Sn		−4043.7	4.2	−4041.9	2.7	0.4	1	43	38 ^{113}Sn	SPa		75Be09	
^{114}Cs(εp)^{113}I		8730	150	9300#	300#	3.8	D					82Pl05	*
^{114}Ru(β^-)^{114}Rh		6100	200	5100#	200#	−5.0	o			Jyv		92Jo05	*
		6120	200			−5.1	D			Jyv		94Jo.A	*
^{114}Rh(β^-)^{114}Pd		6500	500	7860	120	2.7	U			Jyv		88Ay02	
		7392	53			8.9	C			Jyv		00Kr.A	
^{114}Pd(β^-)^{114}Ag		1414	30	1452	18	1.3	–			Stu		90Fo07	
		1451	25			0.0	–			Jyv		94Jo.A	
	ave.	1436	19			0.8	1	85	50 ^{114}Ag			average	
^{114}Ag(β^-)^{114}Cd		5160	110	5072	25	−0.8	U			Stu		84Lu02	
		5018	35			1.5	1	50	50 ^{114}Ag	Stu		90Fo07	
^{114}In(β^-)^{114}Sn		1987	2	1988.7	0.7	0.9	–					61Da01	
		1989	1			−0.3	–					61Ni02	
		1988.5	1.0			0.2	–					68Ze04	
	ave.	1988.6	0.7			0.3	1	98	72 ^{114}In			average	
^{114}Sb(β^+)^{114}Sn		5690	100	6046	28	3.6	U					69Bu.A	
^{114}Sn(p,n)^{114}Sb		−6875	35	−6828	28	1.3	B			VUn		76Ka19	
*^{114}Rh−$C_{9.5}$	ave M−A=−75532(61) keV for mixture gs+m at 200#150 keV											Nubase	**
*^{114}In−$C_{9.5}$	M−A=−88384(31) keV for mixture gs+m at 190.29 keV											NDS96b	**
*^{114}Ba(γ,^{12}C)^{102}Sn	Most probably background											GAu	**
*^{114}Cs(εp)^{113}I	Systematical trends suggest ^{114}Cs 570 less bound											CTh	**
*^{114}Ru(β^-)^{114}Rh	E^-=5910(120) doublet to 127.0, 255.2 levels											92Jo05	**
*^{114}Ru(β^-)^{114}Rh	Systematical trends suggest ^{114}Ru 1000 more bound											CTh	**
^{115}Rh−$C_{9.583}$		−79666	87				2			JY1	1.0	03Ko.A	
C_9 H_7−^{115}In		150910	8	150897	5	−0.7	U			M16	2.5	63Da10	
^{115}In−$C_{9.583}$		−96095	30	−96122	5	−0.9	U			GS2	1.0	03Li.A	
C_9 H_7−^{115}Sn		151411	8	151433	3	1.1	U			M16	2.5	63Da10	
^{115}Sb−$C_{9.583}$		−93402	30	−93402	17	0.0	2			GS2	1.0	03Li.A	
^{115}Te−$C_{9.583}$		−88098	30				2			GS2	1.0	03Li.A	*
^{115}I−$C_{9.583}$		−81952	31				2			GS2	1.0	03Li.A	
^{115}Xe−^{133}$Cs_{.865}$		8078	13				2			MA6	1.0	03Di.1	
^{114}Cd(d,p)^{115}Cd		3916.30	0.59	3916.3	0.6	0.0	1	98	87 ^{115}Cd	Rez		90Pi05	*
^{115}In(γ,n)^{114}In		−9039	5	−9036	4	0.6	1	58	48 ^{115}In	McM		79Ba06	
^{114}Sn(n,γ)^{115}Sn		7545.5	2.0	7546.4	1.7	0.4	–			ORn		78Ra16	Z
^{114}Sn(d,p)^{115}Sn		5320.6	3.4	5321.8	1.7	0.4	–			SPa		75Be09	
^{114}Sn(n,γ)^{115}Sn	ave.	7545.4	1.7	7546.4	1.7	0.6	1	94	70 ^{114}Sn			average	
^{115}Xe(εp)^{114}Te		6200	130	5940	30	−2.0	U					72Ho18	
^{115}Ru(β^-)^{115}Rh		7780	100				3			Jyv		00Kr.A	
^{115}Rh(β^-)^{115}Pd		6000	500	6190	100	0.4	U			Jyv		88Ay01	
		6566	50			−7.4	C			Jyv		00Kr.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{115}Pd(β^-)^{115}Ag		4584	50				3			Stu		90Fo07	
^{115}Ag(β^-)^{115}Cd		3180	100	3100	30	−0.8	2					64Ba36	
		3105	100			0.0	2					78Ma18	
		3091	40			0.3	2					90Fo07	*
^{115}Cd(β^-)^{115}In		1460	4	1446	4	−3.5	–					74Bo26	
		1431	5			3.0	–					75Bo29	*
		1440	2			3.1	–					76Ra33	*
	ave.	1443	6			0.6	1	49	41 ^{115}In			average	
^{115}In(β^-)^{115}Sn		494	20	499	4	0.3	U					49Be53	*
		494	30			0.2	U					62Se03	*
		480	30			0.6	U					62Wa15	
		495	20			0.2	U					72Mu02	
		482	15			1.2	U					78Pf01	
^{115}Sb(β^+)^{115}Sn		3030	20	3033	16	0.1	R					61Se08	
*^{115}Te−C$_{9.583}$	M−A=–82058(28) keV for mixture gs+m at 10(7) keV											Nubase	**
*^{114}Cd(d,p)^{115}Cd	Estimated systematical error 0.5 added to statistical error 0.32											AHW	**
*^{115}Ag(β^-)^{115}Cd	Q$^-$=3132(40) from ^{115}Ag^m at 41.1											NDS929	**
*^{115}Cd(β^-)^{115}In	E$^-$=320(5), 679(6) from ^{115}Cd^m at 181.0 to 1290.592, 933.780 levels											NDS991	**
*^{115}Cd(β^-)^{115}In	Q$^-$=1621(2) from ^{115}Cd^m at 181.0											NDS929	**
*^{115}In(β^-)^{115}Sn	Q$^-$=830(20) from ^{115}In^m at 336.244											NDS991	**
*^{115}In(β^-)^{115}Sn	Q$^-$=830(30) from ^{115}In^m at 336.244											NDS991	**
^{116}Rh−C$_{9.667}$		−75938	148				2			JY1	1.0	03Ko.A	*
C$_9$ H$_8$−^{116}Cd		157837.4	2.9	157844	3	1.0	1	22	22 ^{116}Cd	M16	2.5	63Da10	
C$_9$ H$_8$−^{116}Sn		160861	8	160860	3	−0.1	U			M16	2.5	63Da10	
^{116}Sb−C$_{9.667}$		−93123	126	−93206	6	−0.7	U			GS2	1.0	03Li.A	*
^{116}Te−C$_{9.667}$		−91540	30				2			GS2	1.0	03Li.A	
^{116}Xe−^{133}Cs$_{.872}$		4027	14				2			MA6	1.0	03Di.1	
^{116}Cd ^{35}Cl−^{114}Cd ^{37}Cl		4348.7	1.2	4347.4	2.2	−0.4	1	52	44 ^{116}Cd	H26	2.5	73Me28	
^{116}Cs($\varepsilon\alpha$)^{112}Te		12300	400	12810#	200#	1.3	D					77Bo28	
		12400	900			0.5	D					76Jo.A	*
		12810	100			0.0	R					S-sugg	
^{116}Cd(^{14}C,^{16}O)^{114}Pd		2497	29	2534	23	1.3	1	66	65 ^{114}Pd	LAl		84Co19	
^{116}Cd(p,t)^{114}Cd		−6363	5	−6359.3	2.0	0.7	1	16	14 ^{116}Cd	Min		73Oo01	
^{116}Cd(γ,n)^{115}Cd		−8702	4	−8700.2	2.0	0.4	1	26	21 ^{116}Cd	McM		79Ba06	
^{115}In(n,γ)^{116}In		6783.8	1.2	6784.72	0.22	0.8	U					72Ra39	Z
		6784.4	1.1			0.3	U					74Co35	
		6784.72	0.22				2			Bdn		03Fi.A	
^{115}Sn(n,γ)^{116}Sn		9563.41	0.11	9563.45	0.10	0.3	–			ORn		91Ra01	Z
		9563.55	0.19			−0.5	–			Bdn		03Fi.A	
	ave.	9563.45	0.10			0.0	1	100	78 ^{115}Sn			average	
^{115}Sn(^{3}He,d)^{116}Sb−^{120}Sn()^{121}Sb		−1722	10	−1705	5	1.7	1	29	27 ^{116}Sb	VUn		78Ka12	
^{116}Cs(εp)^{115}I		6350	300	6980#	110#	2.1	B					78Da07	*
^{116}Rh(β^-)^{116}Pd		8000	500	9220	150	2.4	B			Jyv		88Ay02	
^{116}Pd(β^-)^{116}Ag		2607	30				3			Stu		90Fo07	
		2620	100	2610	30	−0.1	U			Jyv		94Jo.A	
^{116}Ag(β^-)^{116}Cd		6028	130	6150	50	1.0	2			Stu		82Al29	*
		6170	50			−0.4	2			Stu		90Fo07	*
^{116}Sn(p,n)^{116}Sb		−5483.2	6.	−5489	5	−1.0	1	75	73 ^{116}Sb	Oak		77Jo03	
^{116}Sb^m(β^+)^{116}Sn		5090	40				2					60Je03	
^{116}Te(β^+)^{116}Sb		1554	100	1552	29	0.0	U					61Fi05	
^{116}I(β^+)^{116}Te		7760	130	7780	100	0.1	R					70Be.A	
		7710	200			0.3	R					76Go02	
^{116}Xe(β^+)^{116}I		4340	200	4450	100	0.5	3					76Go02	
*^{116}Rh−C$_{9.667}$	M−A=–70636(100) keV for mixture gs+m at 200#150 keV											Nubase	**
*^{116}Sb−C$_{9.667}$	M−A=–86553(34) keV for mixture gs+m at 380(40) keV											Nubase	**
*^{116}Cs($\varepsilon\alpha$)^{112}Te	Q=12500(900) from ^{116}Cs^m at estim 100#60 keV											GAu	**
*^{116}Cs($\varepsilon\alpha$)^{112}Te	Systematical trends suggest ^{116}Cs 500 less bound											CTh	**
*^{116}Cs(εp)^{115}I	Q=6450(300) from ^{116}Cs^m at estimated 100#60 keV											GAu	**
*^{116}Ag(β^-)^{116}Cd	Q$^-$=6110(130) from ^{116}Ag^m at 81.9											NDS949	**
*^{116}Ag(β^-)^{116}Cd	Q$^-$=6199(100); and 6241(50) from ^{116}Ag^m at 81.9											NDS949	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$C\ ^{35}Cl_3-{}^{117}Sn$		3596	2	3606	3	1.3	1	15	15 ^{117}Sn	H14	4.0	62Ba24	
$^{117}Te-C_{9.75}$		−91318	30	−91355	14	−1.2	2			GS2	1.0	03Li.A	
		−91359	30			0.1	2			GS2	1.0	03Li.A	*
$^{117}I-C_{9.75}$		−86350	30				2			GS2	1.0	03Li.A	
$^{117}Xe-C_{9.75}$		−79647	30	−79641	11	0.2	R			GS2	1.0	03Li.A	
$^{117}Xe-{}^{133}Cs_{.880}$		3562	12	3561	11	−0.1	2			MA6	1.0	03Di.1	
$^{117}Cs-{}^{133}Cs_{.880}$		11873	67	11870	70	0.0	1	100	100 ^{117}Cs	MA4	1.0	99Am05	*
$^{116}Cd(d,p)^{117}Cd$		3552.66	1.0				2			Rez		90Pi05	*
$^{116}Sn(n,\gamma)^{117}Sn$		6943.5	2.0	6943.2	0.5	−0.2	U					75Bh01	Z
		6943.3	1.5			−0.1	U					78Ra16	Z
		6942.9	0.5			0.5	–			Bdn		03Fi.A	
$^{116}Sn(d,p)^{117}Sn$		4721.0	1.8	4718.6	0.5	−1.3	–			SPa		75Be09	
$^{116}Sn(n,\gamma)^{117}Sn$	ave.	6943.1	0.5	6943.2	0.5	0.1	1	99	77 ^{116}Sn			average	
$^{116}Sn(^3He,d)^{117}Sb$		−1091	10	−1088	9	0.3	1	80	80 ^{117}Sb	VUn		78Ka12	*
$^{117}Xe(\varepsilon p)^{116}Te$		4100	200	3795	30	−1.5	U					72Ho18	
$^{117}Ba(\varepsilon p)^{116}Xe$		7900	300	8470#	300#	1.9	D					78Bo20	*
$^{117}La(p)^{116}Ba$		789.8	6.	803	11	2.3	3					01So02	
		813.0	5.			−1.9	3					01Ma69	
$^{117}La^m(p)^{116}Ba$		941.1	10.				3					01So02	
$^{117}Pd(\beta^-)^{117}Ag$		5735	32				4			Jyv		00Kr.A	
$^{117}Ag(\beta^-)^{117}Cd$		4160	50				3			Stu		82Al29	*
$^{117}In(\beta^-)^{117}Sn$		1456.6	5.	1455	5	−0.3	1	95	94 ^{117}In			55Mc17	*
$^{117}Sn(p,n)^{117}Sb$		−2525	20	−2538	9	−0.6	1	20	20 ^{117}Sb	Oak		71Ke21	
$^{117}Te(\beta^+)^{117}Sb$		3552	20	3548	16	−0.2	R					62Kh05	
		3492	30			1.9	R					67Be46	
$^{117}I(\beta^+)^{117}Te$		4680	100	4660	30	−0.2	U					69La33	
		4610	110			0.5	U					70Be.A	*
$^{117}Xe(\beta^+)^{117}I$		6270	300	6249	30	−0.1	U					85Le10	*
$^{117}Cs^x(IT)^{117}Cs$		50	50	50	50	0.0	1	100	100 $^{117}Cs^x$			AHW	
$*^{117}Te-C_{9.75}$	M−A=–84804(28) keV for $^{117}Te^m$ at Eexc=296.1 keV											NDS023	**
$*^{117}Cs-{}^{133}Cs_{.880}$	M−A=–66422(20) keV for mixture gs+m at 150#80 keV											Ens00	**
$*^{116}Cd(d,p)^{117}Cd$	Estimated systematical error 0.5 added to statistical error 0.85											AHW	**
$*^{116}Sn(^3He,d)^{117}Sb$	Q−Q($^{120}Sn(^3He,d)$= 1373(10,Ka), Q(120)=282.1(2.0)											AHW	**
$*^{117}Ba(\varepsilon p)^{116}Xe$	Systematical trends suggest ^{117}Ba 570 less bound											CTh	**
$*^{117}Ag(\beta^-)^{117}Cd$	Q^-=4260(110); and 4170(50) from $^{117}Ag^m$ at 28.6											NDS926	**
$*^{117}In(\beta^-)^{117}Sn$	E^-=740(10) to 711.54 level; and 1772(5), 1616(5)											55Mc17	**
*	from $^{117}In^m$ at 315.302 to ground-state, 158.56 level											NDS926	**
$*^{117}I(\beta^+)^{117}Te$	Q^+ =4310(100) assumed to 274.4, 325.9 levels											AHW	**
$*^{117}Xe(\beta^+)^{117}I$	May be lower limit											AHW	**
$C_9\ H_{10}-{}^{118}Sn$		176645	7	176647	3	0.1	U			M16	2.5	63Da10	
$^{118}Te-C_{9.833}$		−94162	30	−94172	16	−0.3	R			GS2	1.0	03Li.A	
$^{118}I-C_{9.833}$		−86932	30	−86926	21	0.2	2			GS2	1.0	03Li.A	
		−86920	30			−0.2	2			GS2	1.0	03Li.A	*
$^{118}Xe-C_{9.833}$		−83785	30	−83821	11	−1.2	R			GS2	1.0	03Li.A	
$^{118}Xe-{}^{133}Cs_{.887}$		37	12	43	11	0.5	2			MA6	1.0	03Di.1	
$^{118}Cs^x-{}^{133}Cs_{.887}$		10429	13	10429	13	0.0	1	100	100 $^{118}Cs^x$	MA1	1.0	99Am05	
$^{117}Cs^x-{}^{118}Cs^x_{.496}\ {}^{116}Cs_{.504}$		−1160	400	−1180#	130#	0.0	U			P32	2.5	86Au02	
$^{118}Cs(\varepsilon\alpha)^{114}Te$		10600	200	11050	30	2.3	U					77Bo28	
		10750	200			1.5	U					78Da07	*
$^{116}Cd(t,p)^{118}Cd$		5650	20				2			Ald		67Hi01	
$^{117}Sn(n,\gamma)^{118}Sn$		9326.5	2.	9327.4	0.9	0.5	–					70Or.A	
		9324.8	2.1			1.3	–					75Sl.A	
		9327.9	1.1			−0.4	–			Bdn		03Fi.A	
	ave.	9327.1	0.9			0.4	1	98	62 ^{117}Sn			average	
$^{118}Pd(\beta^-)^{118}Ag$		4100	200				4			Jyv		89Ko22	*
$^{118}Ag(\beta^-)^{118}Cd$		7122	100	7140	60	0.2	3			Stu		82Al29	*
		7110	470			0.1	U			Stu		82Al29	*
		7155	76			−0.2	3					95Ap.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{118}In^{m}(\beta^-)^{118}Sn$		4270	100	4530#	50#	2.6	B					64Ka10	
$^{118}Sn(p,n)^{118}Sb$		−4439.0	3.				2			Oak		77Jo03	
$^{118}Sb^{m}(\beta^+)^{118}Sn$		3907	5				2					61Bo13	
$^{118}I(\beta^+)^{118}Te$		7080	150	6750	25	−2.2	B					68La18	*
		7068	100			−3.2	C					70Be.A	
$^{118}Cs(\beta^+)^{118}Xe$		9300	1000	9670	16	0.4	U					76Da.C	
$^{118}Cs^{x}(IT)^{118}Cs$		5	4	5	4	0.0	1	100	100 ^{118}Cs			82Au01	*
$*^{118}I-C_{9.833}$	M−A=–80775(28) keV for $^{118}I^{m}$ at Eexc=190.1(1.0) keV											Nubase	**
$*^{118}Cs(\varepsilon\alpha)^{114}Te$	As read from $Fig_{.2}$ (p.401)											GAu	**
$*^{118}Pd(\beta^-)^{118}Ag$	Original value 4000(200) corrected for new branching ratios											93Ja03	**
$*^{118}Ag(\beta^-)^{118}Cd$	E^-=4330(240), 3960(170), 3810(150)											GAu	**
*	to 2788.75, 3224.37, 3265.70 levels, reinterpreted											95Ap.A	**
$*^{118}Ag(\beta^-)^{118}Cd$	E^-=3990(720), 3910(630)											NDS876	**
*	from $^{118}Ag^{m}$ at 127.49(0.05) to 3181.72, 3381.8 levels, reinterpreted											95Ap.A	**
$*^{118}I(\beta^+)^{118}Te$	E^+ =5450(150) to 605.71 level											68La18	**
$*^{118}Cs^{x}(IT)^{118}Cs$	Original 24(19) corrected for new estimated IT=100(60)#											GAu	**
$C_9\ H_{11}-^{119}Sn$		182778	7	182768	3	−0.6	U			M16	2.5	63Da10	
$^{119}I-C_{9.917}$		−89926	30				2			GS2	1.0	03Li.A	
$^{119}Xe-C_{9.917}$		−84601	30	−84589	11	0.4	R			GS2	1.0	03Li.A	
$^{119}Xe-^{133}Cs_{.895}$		33	12	31	11	−0.1	2			MA6	1.0	03Di.1	
$^{119}Cs-C_{9.917}$		−77532	57	−77623	15	−1.6	U			GS2	1.0	03Li.A	*
$^{119}Cs^{x}-^{133}Cs_{.895}$		7018	13	7015	9	−0.2	2			MA1	1.0	99Am05	
		7012	13			0.2	2			MA4	1.0	99Am05	
$^{119}I-^{118}I$		−2747	155	−3000	40	−1.1	U			CR2	1.5	92Sh.A	*
$^{119}I-^{117}I$		−3570	155	−3580	40	0.0	U			CR2	1.5	92Sh.A	*
$^{118}Cs^{x}-^{119}Cs^{x}_{.661}\ ^{116}Cs_{.339}$		530	80	420#	100#	−0.6	U			P32	2.5	86Au02	
$^{118}Cs^{x}-^{119}Cs^{x}_{.496}\ ^{117}Cs^{x}_{.504}$		870	50	910	40	0.3	U			P22	2.5	82Au01	
		980	40			−0.7	U			P32	2.5	86Au02	
$^{119}Sn(t,\alpha)^{118}In-^{118}Sn()^{117}In$		−127	6	−127	6	0.0	1	100	100 ^{118}In	McM		85Pi03	
$^{118}Sn(n,\gamma)^{119}Sn$		6484.6	1.5	6483.6	0.6	−0.7	–					78Ra16	
		6483.3	0.6			0.5	–			Bdn		03Fi.A	
	ave.	6483.5	0.6			0.3	1	99	64 ^{118}Sn			average	
$^{118}Sn(^3He,d)^{119}Sb$		−388	10	−383	8	0.5	1	59	59 ^{119}Sb	VUn		78Ka12	*
$^{119}Ba(\varepsilon p)^{118}Xe$		6200	200				3					78Bo20	
$^{119}Ag(\beta^-)^{119}Cd$		5350	40				3			Stu		82Al29	
$^{119}Cd(\beta^-)^{119}In$		3797	80				2			Stu		82Al29	*
$^{119}Sb(\varepsilon)^{119}Sn$		579	20	591	8	0.6	–					57Ol05	
$^{119}Sn(p,n)^{119}Sb$		−1369	15	−1373	8	−0.3	–			Oak		71Ke21	
$^{119}Sb(\varepsilon)^{119}Sn$	ave.	584	12	591	8	0.6	1	41	41 ^{119}Sb			average	
$^{119}Te(\beta^+)^{119}Sb$		2293	2				2					60Ko12	
$^{119}I(\beta^+)^{119}Te$		3630	100	3419	29	−2.1	U					69La33	
		3370	100			0.5	U					70Be.A	
$^{119}Xe(\beta^+)^{119}I$		4990	120	4971	30	−0.2	U					70Be.A	
$^{119}Cs(\beta^+)^{119}Xe$		6260	290	6489	17	0.8	U					83Pa.A	
$^{119}Cs^{x}(IT)^{119}Cs$		16	11				3					82Au01	*
$*^{119}Cs-C_{9.917}$	M−A=–72195(48) keV for mixture gs+m at 50#30 keV											Nubase	**
$*^{119}I-^{118}I$	From $^{118}I/^{119}I$=0.99161584(117) –3039(139)											GAu	**
$*^{119}I-^{117}I$	From $^{117}I/^{119}I$=0.98321059(130)											GAu	**
$*^{118}Sn(^3He,d)^{119}Sb$	Q−Q($^{120}Sn(^3He,d)^{121}Sb$)=–673(10), Q(120)=285.1(2.1)											AHW	**
$*^{119}Cd(\beta^-)^{119}In$	Q^-=3800(90); and 3940(80) from $^{119}Cd^{m}$ at 146.54											NDS92a	**
$*^{119}Cs^{x}(IT)^{119}Cs$	Original 33(22) corrected for new estimated IT=50(30)#											GAu	**
$^{13}C\ ^{35}Cl_2\ ^{37}Cl-^{120}Sn$		4758	3	4768.1	2.7	0.8	1	5	5 ^{120}Sn	H14	4.0	62Ba24	
$^{120}Sb-C_{10}$		−94796	76	−94928	8	−1.7	U			GS2	1.0	03Li.A	*
$C_9\ H_{12}-^{120}Te$		189879	9	189880	10	0.1	1	21	21 ^{120}Te	M16	2.5	63Da10	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{120}I−C$_{10}$	−90222	104	−89952	19	2.6	U			GS2	1.0	03Li.A	*
^{120}Xe−C$_{10}$	−88231	30	−88216	13	0.5	R			GS2	1.0	03Li.A	
^{120}Xe−^{133}Cs$_{.902}$	−2930	14	−2933	13	−0.2	2			MA6	1.0	03Di.1	
^{120}Cs−C$_{10}$	−79342	54	−79323	11	0.4	U			GS2	1.0	03Li.A	*
^{120}Cs^{x}−^{133}Cs$_{.902}$	5956	12	5965	10	0.7	2			MA1	1.0	99Am05	
	5983	17			−1.1	2			MA4	1.0	99Am05	
^{118}Cs^{x}−^{120}Cs$^{x}_{.328}$ ^{117}Cs$^{x}_{.672}$	460	120	450	60	0.0	U			P22	2.5	82Au01	
^{119}Cs^{x}−^{120}Cs$^{x}_{.661}$ ^{117}Cs$^{x}_{.339}$	−940	50	−945	30	0.0	U			P22	2.5	82Au01	
^{119}Cs^{x}−^{120}Cs$^{x}_{.496}$ ^{118}Cs$^{x}_{.504}$	−1220	30	−1167	14	0.7	U			P22	2.5	82Au01	
	−1200	30			0.4	U			P32	2.5	86Au02	
^{120}Cs($\varepsilon\alpha$)^{116}Te	9200	300	8955	30	−0.8	U					76Jo.A	
^{120}Te(p,t)^{118}Te	−9343	12	−9344	11	−0.1	2			Win		74De31	
^{120}Sn(d,^{3}He)^{119}In	−5169	20	−5196	7	−1.4	1	13	13 ^{119}In	MSU		71We01	
^{120}Sn(t,α)^{119}In−^{118}Sn()^{117}In	−692	6	−690	6	0.4	1	92	87 ^{119}In	McM		85Pi03	
^{120}Sn(d,t)^{119}Sn	−2847.0	2.5	−2850.8	2.2	−1.5	1	78	55 ^{119}Sn	SPa		75Be09	
^{120}Pd(β^-)^{120}Ag	5500	100				4			Jyv		94Jo.A	
^{120}Ag(β^-)^{120}Cd	8200	100	8320	70	1.2	3			Stu		82Al29	
	8450	100			−1.3	3					95Ap.A	
^{120}In(β^-)^{120}Sn	5370	40				2					87Ga.A	
^{120}In^{m}(β^-)^{120}Sn	5280	200	5420#	50#	0.7	D					64Ka10	*
	5340	170			0.5	D			Stu		78Al18	*
^{120}Sn(p,n)^{120}Sb	−3462.9	7.1				2			Tkm		63Ok01	
^{120}I(β^+)^{120}Te	5615	15				2					70Ga32	*
	5778	150	5615	15	−1.1	U					68La18	*
^{120}Xe(β^+)^{120}I	1960	40	1617	21	−8.6	F					74Mu10	*
^{120}Cs^{x}(IT)^{120}Cs	5	4				3					82Au01	*
^{120}Ba(β^+)^{120}Cs	5000	300				4					92Xu04	
*^{120}Sb−C$_{10}$	M−A=–88302(50) keV for mixture gs+m at 0#100 keV										Nubase	**
*^{120}I−C$_{10}$	M−A=–83881(28) keV for mixture gs+n at 320(15) keV										Nubase	**
*^{120}Cs−C$_{10}$	M−A=–73856(29) keV for mixture gs+m at 100#60 keV										Nubase	**
*^{120}In^{m}(β^-)^{120}Sn	Systematical trends suggest ^{120}In^{m} 105 less bound										GAu	**
*^{120}I(β^+)^{120}Te	E$^+$ =4595(15), 4030(20) to ground-state, 560.438 level										NDS026	**
*^{120}I(β^+)^{120}Te	E$^+$ =3130(150) from ^{120}I^{m} at 150(30) to 1776.23 level										Nubase	**
*^{120}Xe(β^+)^{120}I	p$^+$ =0.07(0.01) to 25.1 level, recalculated Q										AHW	**
*^{120}Cs^{x}(IT)^{120}Cs	Original 24(19) corrected for new estimated IT=100(60)#										GAu	**
C$_9$ H$_{13}$−^{121}Sb	197910.5	3.7	197909.7	2.4	−0.1	1	7	7 ^{121}Sb	M16	2.5	63Da10	
^{121}Sb−C ^{35}Cl ^{37}Cl$_2$	3162	3	3157.8	2.4	−0.3	U			H14	4.0	62Ba24	
^{121}Sb−C$_{10.083}$	−96180	30	−96184.3	2.4	−0.1	U			GS2	1.0	03Li.A	
^{121}I−C$_{10.083}$	−92609	30	−92633	11	−0.8	1	14	14 ^{121}I	GS2	1.0	03Li.A	
^{121}Xe−C$_{10.083}$	−88562	30	−88538	12	0.8	R			GS2	1.0	03Li.A	
^{121}Xe−^{133}Cs$_{.910}$	−2495	13	−2499	12	−0.3	2			MA6	1.0	03Di.1	
^{121}Cs−^{133}Cs$_{.910}$	3248	25	3268	15	0.8	R			MA1	1.0	99Am05	*
^{121}Cs−C$_{10.083}$	−82821	38	−82771	15	1.3	2			GS2	1.0	03Li.A	*
^{121}Sb ^{35}Cl−^{119}Sn ^{37}Cl	3452	2	3458.1	2.9	0.8	1	13	10 ^{119}Sn	H14	4.0	62Ba24	
^{119}Cs^{x}−^{121}Cs$^{x}_{.328}$ ^{118}Cs$^{x}_{.672}$	−1080	30	*			U			P22	2.5	82Au01	
^{120}Cs^{x}−^{121}Cs$^{x}_{.661}$ ^{118}Cs$^{x}_{.339}$	280	30	*			U			P22	2.5	82Au01	
^{120}Cs^{x}−^{121}Cs$^{x}_{.496}$ ^{119}Cs$^{x}_{.504}$	813	14	*			U			P32	2.5	86Au02	
^{120}Sn(n,γ)^{121}Sn	6170.3	2.	6170.3	0.3	0.0	U					76Ca24	
	6170.5	0.7			−0.3	–					81Ba53	
	6170.1	0.4			0.6	–			Bdn		03Fi.A	
^{120}Sn(d,p)^{121}Sn	3946.2	1.7	3945.8	0.3	−0.3	–			SPa		75Be09	
^{120}Sn(n,γ)^{121}Sn ave.	6170.2	0.3	6170.3	0.3	0.3	1	99	70 ^{120}Sn			average	
^{120}Te(^{3}He,d)^{121}I	−1320.5	4.4	−1322	4	−0.3	1	97	83 ^{121}I	Hei		78Sz09	
^{121}Ba(εp)^{120}Xe	4200	300	4140	140	−0.2	R					78Bo20	
^{121}Pr(p)^{120}Ce	837	50				3					90Bo39	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{121}Ag(β^-)^{121}Cd		6400	120				4			Stu		82Al29	
^{121}Cd(β^-)^{121}In		4780	80				3			Stu		82Al29	*
^{121}In(β^-)^{121}Sn		3406	50	3363	27	−0.9	R			Stu		78Al18	
^{121}Sn(β^-)^{121}Sb		383	5	391.0	2.1	1.6	–					49Du15	
		383.4	3.			2.5	–					68Sn01	*
	ave.	383.3	2.6			3.0	1	65	43 ^{121}Sn			average	
^{121}Te(β^+)^{121}Sb		1080	30	1044	26	−1.2	1	74	74 ^{121}Te			75Me23	*
^{121}I(β^+)^{121}Te		2364	50	2264	27	−2.0	1	29	26 ^{121}Te			53Fi.A	
		2384	100			−1.2	U					65Bu03	
^{121}Xe(β^+)^{121}I		4160	140	3814	15	−2.5	C					70Be.A	
^{121}Cs(β^+)^{121}Xe		5400	20	5372	18	−1.4	R					81So06	
		5400	40			−0.7	R			JAE		96Os04	*
^{121}Cs^x(IT)^{121}Cs		46	8	*			C					GAu	
^{121}Ba(β^+)^{121}Cs		6340	160	6360	140	0.1	3			JAE		96Os04	
*^{121}Cs−^{133}Cs$_{.910}$	D_M=3285(13) uu for mixture gs+m at 68.5 keV; M−A=–77089(12) keV											NDS005	**
*^{121}Cs−C$_{10.083}$	M−A=–77113(29) keV for mixture gs+m at 68.5 keV											NDS005	**
*^{121}Cd(β^-)^{121}In	Q$^-$=4890(150); and 4960(80) from ^{121}Cd^m at 214.89											NDS91a	**
*^{121}Sn(β^-)^{121}Sb	E$^-$=383(3); and 354(5) from ^{121}Sn^m at 6.30 to 37.13 level											NDS91a	**
*^{121}Te(β^+)^{121}Sb	p$^+$ =0.024(0.011) gives Q$^+$ =315(30), recalculated Q+											AHW	**
*	from ^{121}Te^m at 293.98 to 37.13 level											NDS91a	**
*^{121}Cs(β^+)^{121}Xe	Q$^+$ =5470(40) from ^{121}Cs^m at 68.5											NDS005	**
^{122}Xe−C$_{10.167}$		−91637	30	−91632	12	0.2	R			GS2	1.0	03Li.A	
^{122}Xe−^{133}Cs$_{.917}$		−4931	13	−4932	12	−0.1	2			MA6	1.0	03Di.1	
^{122}Cs−^{133}Cs$_{.917}$		2810	45	2810	30	0.1	1	58	58 ^{122}Cs	MA1	1.0	99Am05	*
^{122}Cs−C$_{10.167}$		−83881	53	−83890	30	−0.1	1	42	42 ^{122}Cs	GS2	1.0	03Li.A	*
^{122}Cs^m−^{133}Cs$_{.917}$		2961	12	2959	10	−0.2	2			MA1	1.0	99Am05	
		2955	17			0.2	2			MA4	1.0	99Am05	
^{122}Ba−C$_{10.167}$		−80096	30				2			GS2	1.0	03Li.A	
^{120}Cs^x−^{122}Cs$^x_{.492}$ ^{118}Cs$^x_{.508}$		−724	27	*			U			P32	2.5	86Au02	
^{120}Cs^x−^{122}Cs$^x_{.328}$ ^{119}Cs$^x_{.672}$		360	17	*			U			P32	2.5	86Au02	
^{121}Cs^x−^{122}Cs$^x_{.496}$ ^{120}Cs$^x_{.504}$		−1169	15	*			U			P32	2.5	86Au02	
^{122}Te(p,t)^{120}Te		−8560	12	−8570	10	−0.9	1	65	64 ^{120}Te	Win		74De31	
^{122}Sn(d,^{3}He)^{121}In		−5910	50	−5900	27	0.2	2			Sac		69Co03	
		−5861	43			−0.9	2			MSU		71We01	
^{122}Sn(d,t)^{121}Sn		−2558.8	3.0	−2556.0	2.5	0.9	1	67	40 ^{122}Sn	SPa		75Be09	
^{121}Sb(n,γ)^{122}Sb		6806.4	0.3	6806.38	0.15	−0.1	U					72Sh.A	Z
		6806.36	0.15			0.1	1	100	62 ^{121}Sb	Bdn		03Fi.A	
^{122}Sn(t,^{3}He)^{122}In		−6350	50				2			LAl		78Aj01	
^{122}In^n(β^-)^{122}Sn		6736	200	6660	130	−0.4	2					71Ta07	
		6590	180			0.4	2			Stu		78Al18	
^{122}Sb(β^-)^{122}Te		1970	5	1983.9	1.9	2.8	–					55Fa33	
		1980	3			1.3	–					68Hs02	
	ave.	1977.4	2.6			2.5	1	54	46 ^{122}Sb			average	
^{122}I(β^+)^{122}Te		4234	5				2					77Re.A	
^{122}Cs(β^+)^{122}Xe		7050	180	7220	30	0.9	U					83Pa.A	
		7000	150			1.4	U			IRS		93Al03	
		7080	50			2.7	B			JAE		96Os04	
^{122}Cs^m(β^+)^{122}Xe		6950	250	7350	14	1.6	U					83Pa.A	
		7300	150			0.3	U			IRS		93Al03	
^{122}Cs^x(IT)^{122}Cs		11	6	*			U					82Au01	*
*^{122}Cs−^{133}Cs$_{.917}$	D_M=2880(12) uu for mixture gs+m at 130(30) keV; M−A=–78082(11) keV											99Am05	**
*^{122}Cs−C$_{10.167}$	M−A=–78070(28) keV for mixture gs+m at 130(30) keV											NDS943	**
*^{122}Cs^x(IT)^{122}Cs	Original 45(33) revised from ^{122}Cs^m=114(18)											GAu	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$C_8\ H_{13}\ N-{}^{123}Sb$		200580.0	3.3	200585.5	2.2	0.7	U			M16	2.5	63Da10	
$^{123}Te-C_{10.25}$		−95615	83	−95730.0	1.6	−1.4	U			GS2	1.0	03Li.A	*
$^{123}I-C_{10.25}$		−94444	30	−94411	4	1.1	U			GS2	1.0	03Li.A	
$^{123}Xe-{}^{133}Cs_{.925}$		−4048	13	−4061	10	−1.0	1	62	62 ^{123}Xe	MA6	1.0	03Di.1	
$^{123}Cs-C_{10.25}$		−87007	57	−87004	13	0.1	U			GS2	1.0	03Li.A	*
$^{123}Cs-{}^{133}Cs_{.925}$		453	13				2			MA1	1.0	99Am05	
$^{123}Ba-{}^{133}Cs_{.925}$		6238	13				2			MA5	1.0	00Be42	
$^{123}Ba-C_{10.25}$		−81327	30	−81219	13	3.6	C			GS2	1.0	03Li.A	
$^{123}Sb\ ^{35}Cl-{}^{121}Sb\ ^{37}Cl$		3343	2	3348.4	2.3	0.7	1	8	5 ^{121}Sb	H14	4.0	62Ba24	
$^{122}Sn(n,\gamma)^{123}Sn$		5948	3	5945.8	1.2	−0.7	–					75Bh01	
		5945.8	1.5			0.0	–					77Ca09	
$^{122}Sn(d,p)^{123}Sn$		3721.8	2.6	3721.3	1.2	−0.2	–			SPa		75Be09	
$^{122}Sn(n,\gamma)^{123}Sn$	ave.	5946.3	1.2	5945.8	1.2	−0.4	1	94	49 ^{122}Sn			average	
$^{123}Sb(\gamma,n)^{122}Sb$		−8966	4	−8965.3	2.1	0.2	1	28	16 ^{122}Sb	McM		79Ba06	
$^{122}Te(n,\gamma)^{123}Te$		6937	5	6929.18	0.16	−1.6	U					68Ch.A	
		6929.1	0.5			0.2	–					91Ho08	
		6929.16	0.17			0.1	–			Bdn		03Fi.A	
$^{122}Te(d,p)^{123}Te$		4706	6	4704.62	0.16	−0.2	U			MIT		75Li22	
$^{122}Te(n,\gamma)^{123}Te$	ave.	6929.15	0.16	6929.18	0.16	0.2	1	100	92 ^{122}Te			average	
$^{122}Te(^3He,d)^{123}I$		−574.2	3.5	−575	3	−0.3	1	97	96 ^{123}I	Hei		78Sz04	
$^{123}Cd(\beta^-)^{123}In$		6115	33				3			Stu		87Sp09	
$^{123}In(\beta^-)^{123}Sn$		4400	30	4394	24	−0.2	2			Stu		87Sp09	*
$^{123}Sn(\beta^-)^{123}Sb$		1395	10	1403.6	2.9	0.9	–					49Du15	*
		1420	10			−1.6	–					50Ke11	
		1399	20			0.2	U					66Au04	
	ave.	1408	7			−0.5	1	17	11 ^{123}Sn			average	
$^{123}I(\beta^+)^{123}Te$		1260	7	1229	3	−4.5	C					86Ag.A	
$^{123}Xe(\beta^+)^{123}I$		2676	15	2695	10	1.3	1	42	38 ^{123}Xe			60Mo.A	
$^{123}Cs(\beta^+)^{123}Xe$		4110	30	4205	15	3.2	B			JAE		96Os04	
$^{123}Cs^x(IT)^{123}Cs$		7	4				3					82Au01	
$^{123}Ba(\beta^+)^{123}Cs$		5330	100	5389	17	0.6	U			JAE		96Os04	
$*^{123}Te-C_{10.25}$	M−A=–88941(30) keV for mixture gs+m at 247.55 keV											NDS93b	**
$*^{123}Cs-C_{10.25}$	M−A=–80968(28) keV for mixture gs+m at 156.74 keV											NDS93b	**
$*^{123}In(\beta^-)^{123}Sn$	Q^-=4410(31); and 4645(72) from $^{123}In^m$ at 327.21											NDS93b	**
$*^{123}Sn(\beta^-)^{123}Sb$	E^-=1260(10) from $^{123}Sn^m$ at 24.6 to 160.33 level											NDS93b	**
$^{124}Sn-{}^{13}C\ ^{37}Cl_3$		4210.47	0.71	4211.3	1.5	0.5	1	71	70 ^{124}Sn	H39	2.5	84Ha20	
$^{124}Sn-C_{10.333}$		−94716	21	−94726.1	1.5	−0.5	U			MA8	1.0	01Si.A	
$^{124}Te-{}^{13}C\ ^{37}Cl_3$		1754.63	1.26	1755.3	1.6	0.2	1	25	25 ^{124}Te	H39	2.5	84Ha20	
$^{124}Te-{}^{54}Fe\ ^{35}Cl_2$		25501.65	2.56	25502.0	1.7	0.1	1	7	6 ^{124}Te	H39	2.5	84Ha20	
$^{124}I-C_{10.333}$		−93786	30	−93790.1	2.5	−0.1	U			GS2	1.0	03Li.A	
$^{124}Xe-{}^{13}C\ ^{37}Cl_3$		4831.15	1.58	4830.4	2.0	−0.2	1	25	25 ^{124}Xe	H39	2.5	84Ha20	
$^{124}Xe-{}^{54}Fe\ ^{35}Cl_2$		28575.78	0.99	28577.1	1.9	0.5	1	61	57 ^{124}Xe	H39	2.5	84Ha20	
$^{124}Xe-{}^{133}Cs_{.932}$		−5986	13	−5988.2	2.0	−0.2	U			MA6	1.0	03Di.1	
$^{124}Cs-{}^{133}Cs_{.932}$		370	13	377	9	0.5	R			MA1	1.0	99Am05	
		361	15			1.0	R			MA8	1.0	03Gu.A	
$^{124}Cs-C_{10.333}$		−87696	30	−87742	9	−1.5	2			GS2	1.0	03Li.A	
		−87693	30			−1.6	2			GS2	1.0	03Li.A	*
$^{124}Ba-{}^{133}Cs_{.932}$		3212	15	3212	13	0.0	2			MA1	1.0	99Am05	
$^{124}Ba-C_{10.333}$		−84905	30	−84906	13	0.0	R			GS2	1.0	03Li.A	
$^{124}La-C_{10.333}$		−75464	71	−75430	60	0.5	2			GS2	1.0	03Li.A	*
$^{124}Sn\ ^{35}Cl-{}^{122}Sn\ ^{37}Cl$		4784	2	4785.0	2.8	0.1	1	12	11 ^{122}Sn	H15	4.0	62Ba23	
$^{124}Te\ ^{35}Cl-{}^{122}Te\ ^{37}Cl$		2728	2	2724.09	0.26	−0.5	U			H16	4.0	63Ba47	
$^{124}Sn-{}^{124}Te$		2458.51	0.89	2456.1	1.6	−1.1	1	54	30 ^{124}Te	H39	2.5	84Ha20	
$^{124}Xe-{}^{124}Te$		3076.00	1.78	3075.1	2.3	−0.2	1	27	17 ^{124}Xe	H39	2.5	84Ha20	
$^{120}Cs^x-{}^{124}Cs^x_{.194}\ {}^{119}Cs^x_{.807}$		310	30	*			U			P22	2.5	82Au01	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{121}Cs^x - {}^{124}Cs^x_{.244}\ {}^{120}Cs^x_{.756}$		−1360	30	*			U			P22	2.5	82Au01	
$^{123}Cs^x - {}^{124}Cs^x_{.744}\ {}^{120}Cs^x_{.256}$		−1390	30	*			U			P22	2.5	82Au01	
$^{124}Sn(d,{}^6Li)^{120}Cd$		−5216	24	−5214	19	0.1	2					79Ja21	
$^{124}Sn(^3He,{}^7Be)^{120}Cd$		−5098	30	−5102	19	−0.1	2			MSU		76St11	
$^{124}Sn(^{18}O,{}^{20}Ne)^{122}Cd$		−1246	43				2					97Gu32	
$^{124}Sn(d,{}^3He)^{123}In$		−6610	50	−6606	24	0.1	R			Sac		69Co03	
		−6572	66			−0.5	R			MSU		71We01	
$^{124}Sn(d,t)^{123}Sn$		−2233.4	3.7	−2230.4	2.6	0.8	1	48	43 ^{123}Sn	SPa		75Be09	
$^{123}Sb(n,\gamma)^{124}Sb$		6467.55	0.10	6467.50	0.06	−0.5	–					73Sh.A	Z
		6467.40	0.10			1.0	–					81Su.A	Z
		6467.58	0.14			−0.6	–			Bdn		03Fi.A	
	ave.	6467.50	0.06			0.0	1	100	79 ^{123}Sb			average	
$^{123}Te(n,\gamma)^{124}Te$		9425	2	9423.97	0.17	−0.5	U					69Bu05	
		9423.7	1.5			0.2	U					70Or.A	
		9424.05	0.30			−0.3	–			Ltn		95Ge06	Z
		9423.89	0.20			0.4	–			Bdn		03Fi.A	
	ave.	9423.94	0.17			0.2	1	100	92 ^{123}Te			average	
$^{124}Cd(\beta^-)^{124}In$		4166	39				3			Stu		87Sp09	
$^{124}In(\beta^-)^{124}Sn$		7360	49				2			Stu		87Sp09	
$^{124}In^m(\beta^-)^{124}Sn$		7341	51				2			Stu		87Sp09	
$^{124}Sb(\beta^-)^{124}Te$		2907.7	5.	2904.3	1.5	−0.7	–					65Hs02	
		2903.7	4.			0.1	–					66Ca10	
		2904.7	2.			−0.2	–					69Na05	
	ave.	2904.9	1.7			−0.4	1	83	79 ^{124}Sb			average	
$^{124}I(\beta^+)^{124}Te$		3157	4	3159.6	1.9	0.6	2					71Bo01	*
		3160.3	2.1			−0.3	2					92Wo03	
$^{124}Cs(\beta^+)^{124}Xe$		5910	30	5929	9	0.6	U			JAE		96Os04	
$^{124}Cs^x(IT)^{124}Cs$		30	20				3					AHW	*
$^{124}La(\beta^+)^{124}Ba$		8930	110	8830	60	−0.9	R			JAE		98Ko66	
$*^{124}Cs - C_{10.333}$	M−A=–81223(28) keV for $^{124}Cs^m$ at Eexc=462.55 keV											NDS974	**
$*^{124}La - C_{10.333}$	M−A=–70244(32) keV for mixture gs+m at 100#100 keV											Nubase	**
$*^{124}I(\beta^+)^{124}Te$	Original error increased see $^{84}Rb(\beta^+)$											AHW	**
$*^{124}Cs^x(IT)^{124}Cs$	Based on $^{124}Cs^m(IT)$=462.54											NDS843	**
$*^{124}Cs^x(IT)^{124}Cs$	Isomeric ratio assumed <0.1 as in ^{118}Cs, ^{120}Cs, ^{122}Cs											AHW	**
$^{125}I - C_{10.417}$		−95374	30	−95369.8	1.6	0.1	U			GS2	1.0	03Li.A	
$^{125}Cs - {}^{133}Cs_{.940}$		−1382	14	−1397	8	−1.0	–			MA1	1.0	99Am05	
		−1386	14			−0.8	–			MA4	1.0	99Am05	
	ave.	−1384	10			−1.3	1	71	71 ^{125}Cs			average	
$^{125}Cs - C_{10.417}$		−90280	30	−90272	8	0.3	U			GS2	1.0	03Li.A	
$^{125}Ba - {}^{133}Cs_{.940}$		3356	13	3348	12	−0.6	2			MA5	1.0	00Be42	
$^{125}Ba - C_{10.417}$		−85569	30	−85527	12	1.4	R			GS2	1.0	03Li.A	
$^{125}La - C_{10.417}$		−79191	30	−79184	28	0.2	2			GS2	1.0	03Li.A	
$^{122}Cs^x - {}^{125}Cs_{.244}\ {}^{121}Cs^x_{.756}$		715	23	*			U			P32	2.5	86Au02	
$^{124}Sn(n,\gamma)^{125}Sn$		5733.1	1.5	5733.1	0.6	0.0	2					77Ca09	Z
		5733.1	0.6			0.0	2					81Ba53	
$^{124}Sn(d,p)^{125}Sn$		3509.4	3.6	3508.5	0.6	−0.2	U			SPa		75Be09	
$^{124}Te(n,\gamma)^{125}Te$		6569.0	1.0	6568.970	0.030	0.0	U					71Gr.A	
		6568.97	0.03			0.0	1	100	83 ^{125}Te			99Ho01	
		6569.39	0.19			−2.2	B			Bdn		03Fi.A	
$^{124}Te(d,p)^{125}Te$		4344	8	4344.404	0.030	0.1	U			MIT		69Gr24	
$^{124}Te(^3He,d)^{125}I$		115.1	3.0	107.38	0.07	−2.6	B			Hei		78Sz04	
$^{124}Xe(n,\gamma)^{125}Xe$		7603.3	0.4	7603.3	0.4	−0.1	1	100	99 ^{125}Xe			82Ka.A	
$^{125}Cd(\beta^-)^{125}In$		7122	62				4			Stu		87Sp09	*
$^{125}Cd^m(\beta^-)^{125}In$		7172	35				4			Stu		87Sp09	*
$^{125}In(\beta^-)^{125}Sn$		5418	30				3			Stu		87Sp09	*
$^{125}Sb(\beta^-)^{125}Te$		767.7	3.	766.7	2.1	−0.3	2					64Ma30	
		765.7	3.			0.3	2					66Ma49	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{125}I(ε)^{125}Te		186.1	0.3	185.77	0.06	−1.1	U					86Bo46	
		185.77	0.06				2					94Hi04	
^{125}Cs(β^+)^{125}Xe		3072	20	3104	8	1.6	–					54Ma54	
		3082	20			1.1	–					75We23	
	ave.	3077	14			1.9	1	31	29 ^{125}Cs			average	
^{125}Ba(β^+)^{125}Cs		4560	250	4420	14	−0.6	U					68Da09	
		4380	50			0.8	U			JAE		96Os04	
^{125}La(β^+)^{125}Ba		5950	70	5909	28	−0.6	R			JAE		98Ko66	
$*^{125}$Cd(β^-)^{125}In	E$^-$=4625(62) to 2497.45 level											NDS93a	**
$*^{125}$Cd^m(β^-)^{125}In	E$^-$=5009(109), 4581(126), 4533(39) to 2101.50, 2640.32, 2641.92 levels											NDS93a	**
$*^{125}$In(β^-)^{125}Sn	Q$^-$=5443(31); and 5730(43) from ^{125}In^m at 360.12											NDS93a	**
^{126}Xe−C$_{10.5}$		−95647	30	−95726	7	−2.6	C			GS2	1.0	03Li.A	
^{126}Cs−^{133}Cs$_{.947}$		−1011	13				2			MA1	1.0	99Am05	
^{126}Ba−^{133}Cs$_{.947}$		786	15	787	13	0.1	2			MA1	1.0	99Am05	
^{126}Ba−C$_{10.5}$		−88745	30	−88750	13	−0.2	R			GS2	1.0	03Li.A	
^{126}La−C$_{10.5}$		−80503	232	−80490	100	0.1	2			GS2	1.0	03Li.A	*
^{126}Ce−C$_{10.5}$		−76029	30				2			GS2	1.0	03Li.A	
^{126}Te ^{35}Cl−^{124}Te ^{37}Cl		3441.28	1.54	3443.89	0.11	1.1	U			H43	1.5	90Dy04	
^{123}Cs^x−^{126}Cs$_{.390}$ ^{121}Cs$^x_{.610}$		−1160	30	*			U			P22	2.5	82Au01	
^{124}Cs^x−^{126}Cs$_{.590}$ ^{121}Cs$^x_{.410}$		−340	30	*			U			P22	2.5	82Au01	
^{124}Cs^x−^{126}Cs$_{.492}$ ^{122}Cs$^x_{.508}$		−570	30	*			U			P22	2.5	82Au01	
^{124}Cs^x−^{126}Cs$_{.328}$ ^{123}Cs$^x_{.672}$		390	30	*			U			P22	2.5	82Au01	
^{125}Cs−^{126}Cs$_{.496}$ ^{124}Cs$^x_{.504}$		−1130	30	−1075	26	0.7	U			P22	2.5	82Au01	
^{124}Sn(t,p)^{126}Sn		5445	15	5445	11	0.0	2			Ald		69Bj01	
		5444	15			0.0	2			Roc		70Fl05	
^{125}Te(n,γ)^{126}Te		9113.7	0.4	9113.69	0.08	0.0	U					77Ko.A	
		9113.69	0.08			0.0	1	100	83 ^{126}Te			03Vo03	
^{126}Cd(β^-)^{126}In		5486	36				4			Stu		87Sp09	
^{126}In(β^-)^{126}Sn		8207	39				3			Stu		87Sp09	
^{126}In^m(β^-)^{126}Sn		8309	51				3			Stu		87Sp09	
^{126}Sn(β^-)^{126}Sb		378	30				3					71Or04	
^{126}I(β^+)^{126}Te		2151	5	2154	4	0.6	1	53	50 ^{126}I			59Ha27	
^{126}I(β^-)^{126}Xe		1258	5				2					55Ko14	
^{126}Cs(β^+)^{126}Xe		4780	20	4824	14	2.2	B			JAE		96Os04	
^{126}La(β^+)^{126}Ba		7700	100	7700	90	0.0	R			JAE		98Ko66	
^{126}La^m(β^+)^{126}Ba		7910	400				3			JAE		98Ko66	
$*^{126}$La−C$_{10.5}$	M−A=–74883(28) keV for mixture gs+m at 210(410) keV											Nubase	**
C$_{10}$ H$_7$−^{127}I		150297	6	150303	4	0.4	1	6	6 ^{127}I	M16	2.5	63Da10	
		150305.3	3.4			−0.3	1	20	20 ^{127}I	M16	2.5	63Da10	
^{127}Cs−^{133}Cs$_{.955}$		−2287	13	−2289	6	−0.2	–			MA1	1.0	99Am05	
		−2293.3	7.7			0.5	–			MA8	1.0	03Gu.A	
	ave.	−2292	7			0.4	1	82	82 ^{127}Cs			average	
^{127}Cs−C$_{10.583}$		−92571	30	−92582	6	−0.4	U			GS2	1.0	03Li.A	
^{127}Ba−^{133}Cs$_{.955}$		1389	13	1387	12	−0.1	2			MA5	1.0	00Be42	
^{127}Ba−C$_{10.583}$		−88923	39	−88906	12	0.4	R			GS2	1.0	03Li.A	*
^{127}La−C$_{10.583}$		−83640	30	−83625	28	0.5	2			GS2	1.0	03Li.A	*
^{127}Ce−C$_{10.583}$		−77269	62				2			GS2	1.0	03Li.A	*
^{125}Cs−^{127}Cs$_{.591}$ ^{122}Cs$^x_{.410}$		−1098	18	*			U			P32	2.5	86Au02	
^{126}Te(n,γ)^{127}Te		6289	3	6287.8	0.4	−0.4	U					72Mu.A	
		6287.8	0.4			0.1	1	100	98 ^{127}Te	Bdn		03Fi.A	
^{127}I(γ,n)^{126}I		−9145	3	−9143.9	2.7	0.4	1	83	50 ^{126}I	MMn		86Ts04	
^{127}Cd(β^-)^{127}In		8468	63				5			Stu		87Sp09	
^{127}In(β^-)^{127}Sn		6514	31				4			Stu		87Sp09	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{127}In^{m}(\beta^-)^{127}Sn$		6976	64				4			Stu		87Sp09	
$^{127}Sn(\beta^-)^{127}Sb$		3201	24				3			Stu		77Lu06	*
$^{127}Sb(\beta^-)^{127}Te$		1581	5				2					67Ra13	
$^{127}Te(\beta^-)^{127}I$		683	10	702	3	1.9	–					55Da37	
		695	10			0.7	–					56Kn20	
	ave.	689	7			1.8	1	24	22 ^{127}I			average	
$^{127}Xe(\varepsilon)^{127}I$		663.3	2.2	662.3	2.0	−0.4	–					68Sc14	
$^{127}I(^3He,t)^{127}Xe$		−676	6	−680.9	2.0	−0.8	–			Pri		89Ch01	
$^{127}Xe(\varepsilon)^{127}I$	ave.	662.6	2.1	662.3	2.0	−0.1	1	98	92 ^{127}Xe			average	
$^{127}Cs(\beta^+)^{127}Xe$		2115	25	2081	6	−1.4	–					54Ma54	
		2076	20			0.2	–					67Sp08	
		2089	20			−0.4	–					75We23	
	ave.	2090	12			−0.8	1	27	18 ^{127}Cs			average	
$^{127}Ba(\beta^+)^{127}Cs$		3450	100	3424	13	−0.3	U					76Be11	
$^{127}La(\beta^+)^{127}Ba$		5010	70	4920	28	−1.3	R			JAE		98Ko66	
$*^{127}Ba-C_{10.583}$	M−A=–82791(28) keV for mixture gs+m at 80.33 keV											NDS961	**
$*^{127}La-C_{10.583}$	M−A=–77903(28) keV for mixture gs+m at 14.8(1.2) keV											NDS961	**
$*^{127}Ce-C_{10.583}$	M−A=–71976(29) keV for mixture gs+m at 0#100 keV											Nubase	**
$*^{127}Sn(\beta^-)^{127}Sb$	Q^-=3206(24) from $^{127}Sn^m$ at 4.7											NDS822	**
$C_{10}\ H_8-^{128}Xe$		159068.2	4.2	159069.0	1.5	0.1	U			M16	2.5	63Da10	
		159069.7	0.7			−0.4	1	77	77 ^{128}Xe	C3	2.5	70Ke05	
$^{128}Cs-^{133}Cs_{.962}$		−1293	13	−1296	6	−0.2	1	21	21 ^{128}Cs	MA1	1.0	99Am05	
$^{128}Cs-C_{10.667}$		−92181	30	−92251	6	−2.3	U			GS2	1.0	03Li.A	
$^{128}Ba-^{133}Cs_{.962}$		−720	13	−727	11	−0.5	–			MA1	1.0	99Am05	
	ave.	−718	12			−0.8	1	83	83 ^{128}Ba			average	
$^{128}Ba-C_{10.667}$		−91663	30	−91682	11	−0.6	R			GS2	1.0	03Li.A	
$^{128}La-C_{10.667}$		−84436	69	−84410	60	0.3	2			GS2	1.0	03Li.A	*
$^{128}Ce-C_{10.667}$		−81089	30				2			GS2	1.0	03Li.A	
$^{128}Pr-C_{10.667}$		−71209	32				2			GS2	1.0	03Li.A	
$^{128}Te\ ^{35}Cl-^{126}Te\ ^{37}Cl$		4106	2	4101.5	2.2	−0.6	1	8	5 ^{128}Te	H16	4.0	63Ba47	
		4102.3	1.8			−0.2	1	24	15 ^{128}Te	C3	2.5	70Ke05	
$^{128}Te-^{128}Xe$		931.26	1.20	931.8	1.6	0.3	1	77	57 ^{128}Te	H43	1.5	90Dy04	
$^{126}Cs-^{128}Cs_{.656}\ ^{122}Cs^{x}_{.344}$		−1130	30	*			U			P22	2.5	82Au01	
$^{124}Cs^{x}-^{128}Cs_{.323}\ ^{122}Cs^{x}_{.678}$		−1070	30	*			U			P22	2.5	82Au01	
$^{126}Cs-^{128}Cs_{.591}\ ^{123}Cs^{x}_{.410}$		−350	30	−334	18	0.2	U			P22	2.5	82Au01	
$^{124}Cs^{x}-^{128}Cs_{.194}\ ^{123}Cs^{x}_{.807}$		370	50	366	25	0.0	U			P22	2.5	82Au01	
$^{125}Cs-^{128}Cs_{.244}\ ^{124}Cs^{x}_{.756}$		−1440	30	−1354	23	1.1	U			P22	2.5	82Au01	
$^{126}Cs-^{128}Cs_{.492}\ ^{124}Cs^{x}_{.508}$		−610	30	−562	25	0.6	U			P22	2.5	82Au01	
$^{127}Cs-^{128}Cs_{.661}\ ^{125}Cs_{.339}$		−965	16	−934	7	0.8	U			P32	2.5	86Au02	
$^{127}Cs-^{128}Cs_{.496}\ ^{126}Cs_{.504}$		−1160	30	−1108	14	0.7	U			P22	2.5	82Au01	
$^{127}I(n,\gamma)^{128}I$		6826.12	0.05	6826.13	0.05	0.2	–			MMn		90Is03	Z
		6826.22	0.14			−0.6	–			Bdn		03Fi.A	
	ave.	6826.13	0.05			0.0	1	100	88 ^{128}I			average	
$^{128}Cd(\beta^-)^{128}In$		7070	290				5			Stu		87Sp09	
$^{128}In(\beta^-)^{128}Sn$		8992	45	8980	40	−0.4	4			Stu		87Sp09	
		8910	90			0.7	4			Gsn		90St13	
$^{128}In^{n}(\beta^-)^{128}Sn$		9306	43	9290	40	−0.3	4			Stu		87Sp09	
		9230	90			0.7	4			Gsn		90St13	
$^{128}Sn(\beta^-)^{128}Sb^{m}$		1265	30	1264	13	0.0	3					76Nu01	
		1290	40			−0.7	3			Stu		77Lu06	
		1260	15			0.3	3			Gsn		90St13	
$^{128}Sb^{m}(IT)^{128}Sb$		10	7				3					AHW	*
$^{128}Sb^{m}(\beta^-)^{128}Te$		4391	40	4394	24	0.1	2			Stu		77Lu06	
		4395	30			0.0	2			Gsn		90St13	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{128}I(β^-)^{128}Xe		2116	10	2122	4	0.6	1	14	12 ^{128}I			56Be18	
^{128}Cs(β^+)^{128}Xe		3928	6	3929	5	0.1	1	81	79 ^{128}Cs			76Cr.B	
^{128}La(β^+)^{128}Ba		6650	400	6770	60	0.3	U					66Li04	
		6820	100			−0.5	R			JAE		98Ko66	
*^{128}La−C$_{10.667}$	M−A=–78601(28) keV for mixture gs+m at 100#100 keV											Nubase	**
*^{128}Sb^m(IT)^{128}Sb	From 3.6% IT for M_3 transition											NDS832	**
^{129}Sn−C$_{10.75}$		−86521	31				2			MA8	1.0	01Si.A	*
^{129}Xe−C$_2$ ^{35}Cl$_3$		−1777.98	0.68	−1778.6	0.8	−0.6	1	60	59 ^{129}Xe	H47	1.5	94Hy01	
^{129}Cs−^{133}Cs$_{.970}$		−2216	14	−2224	5	−0.6	1	12	12 ^{129}Cs	MA1	1.0	99Am05	
^{129}La−C$_{10.75}$		−87300	30	−87307	22	−0.2	2			GS2	1.0	03Li.A	
^{129}Ce−C$_{10.75}$		−81898	30				2			GS2	1.0	03Li.A	
^{129}Pr−C$_{10.75}$		−74905	32				2			GS2	1.0	03Li.A	
^{128}Te(n,γ)^{129}Te		6085	3	6082.41	0.08	−0.9	U					72Mu.A	
		6082.42	0.09			−0.1	–					03Wi02	
		6082.36	0.19			0.3	–			Bdn		03Fi.A	
	ave.	6082.41	0.08			0.0	1	100	92 ^{129}Te			average	
^{129}Nd(εp)^{128}Ce		5300	300	6010#	200#	2.4	D					78Bo.A	*
^{129}In(β^-)^{129}Sn		7655	32				3			Stu		87Sp09	
^{129}In^m(β^-)^{129}Sn		8033	66				3			Stu		87Sp09	
^{129}Sn(β^-)^{129}Sb		3996	120	4030	40	0.3	U			Stu		77Lu06	
^{129}Sb(β^-)^{129}Te		2345	30	2375	21	1.0	2					70Oh05	
^{129}Te(β^-)^{129}I		1485	10	1500	3	1.5	U					64De10	*
		1503	4			−0.7	1	60	52 ^{129}I			68Go34	*
^{129}I(β^-)^{129}Xe		190	5	194	3	0.8	1	40	39 ^{129}I			54De17	
^{129}Cs(β^+)^{129}Xe		1197	5	1197	5	0.0	1	83	83 ^{129}Cs			76Ma35	
^{129}Ba(β^+)^{129}Cs		2446	15	2436	11	−0.7	1	53	49 ^{129}Ba			61Ar05	*
^{129}La(β^+)^{129}Ba		3720	50	3738	24	0.4	R					79Br05	
		3740	40			0.0	R			JAE		98Ko66	
^{129}Ce(β^+)^{129}La		5600	200	5040	30	−2.8	B			IRS		93Al03	
*^{129}Sn−C$_{10.75}$	M−A=–80576(27) keV for mixture gs+m at 35.2 keV											Ens96	**
*^{129}Nd(εp)^{128}Ce	Systematical trends suggest ^{129}Nd 710 less bound											CTh	**
*^{129}Te(β^-)^{129}I	E^-=1452(10) to 27.79 level; and 1595(10) from ^{129}Te^m at 105.50											NDS837	**
*^{129}Te(β^-)^{129}I	E^-=1476(4) to 27.79 level; and 1607(7) from ^{129}Te^m at 105.50											NDS837	**
*^{129}Ba(β^+)^{129}Cs	E^+ =1425(15); and 1243(35), 975(60)											61Ar05	**
*	from ^{129}Ba^m at 8.42 to 188.93, 426.48 levels											NDS837	**
^{130}Sn−C$_{10.833}$		−86028	19	−86033	11	−0.2	–			MA8	1.0	01Si.A	
		−86031	15			−0.1	–			MA8	1.0	01Si.A	*
	ave.	−86030	12			−0.2	1	95	95 ^{130}Sn			average	
^{13}C C$_8$ N H$_7$−^{130}Xe		157695.4	0.7	157696.1	0.8	0.4	1	21	21 ^{130}Xe	C3	2.5	70Ke05	
^{130}Xe−C ^{13}C ^{35}Cl$_3$		−6407.63	1.21	−6404.9	0.8	1.5	1	19	19 ^{130}Xe	H47	1.5	94Hy01	
^{130}Xe−^{133}Cs$_{.977}$		−4114	13	−4118.5	0.8	−0.3	U			MA6	1.0	03Di.1	
^{130}Cs−^{133}Cs$_{.977}$		−916	13	−918	9	−0.2	1	48	48 ^{130}Cs	MA1	1.0	99Am05	
^{130}Cs−C$_{10.833}$		−93181	60	−93291	9	−1.8	U			GS2	1.0	03Li.A	*
^{130}Ba−^{85}Rb$_{1.529}$		41195.8	3.4	41194.3	3.0	−0.4	1	78	78 ^{130}Ba	MA8	1.0	03Gu.A	
^{130}La−C$_{10.833}$		−87635	30	−87631	28	0.1	2			GS2	1.0	03Li.A	
^{130}Ce−C$_{10.833}$		−85264	30				2			GS2	1.0	03Li.A	
^{130}Pr−C$_{10.833}$		−76410	69				2			GS2	1.0	03Li.A	*
^{130}Nd ^{19}F−^{133}Cs$_{1.120}$		32902	130	32800	30	−0.8	U			MA5	1.0	00Be42	*
^{130}Nd−C$_{10.833}$		−71494	30				2			GS2	1.0	03Li.A	
^{130}Te ^{35}Cl−^{128}Te ^{37}Cl		4711.7	1.8	4711.4	1.1	−0.1	U			C3	2.5	70Ke05	
		4711.57	0.72			−0.1	1	96	80 ^{130}Te	H43	1.5	90Dy04	
^{130}Te−^{130}Xe		2712.98	3.02	2716.4	2.1	0.8	1	22	20 ^{130}Te	H43	1.5	90Dy04	
^{129}Cs−^{130}Cs$^x_{.794}$ ^{125}Cs$_{.206}$		−1270	40	−1201	17	0.7	U			P22	2.5	82Au01	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{130}Ba(p,t)^{128}Ba		−9482	24	−9521	10	−1.6	1	19	17 ^{128}Ba	Win		74De31	*
^{130}Te(d,^{3}He)^{129}Sb		−4550	30	−4519	21	1.0	R			Oak		68Au04	
^{129}I(n,γ)^{130}I		6500.33	0.04	6500.33	0.04	0.0	1	100	90 ^{130}I	ILn		89Sa11	Z
^{129}Xe(n,γ)^{130}Xe		9255.3	1.0	9255.64	0.29	0.3	U					71Gr28	Z
		9256.1	0.8			−0.6	U					74Ge05	Z
		9255.57	0.30			0.2	1	96	57 ^{130}Xe	Bdn		03Fi.A	
^{129}Xe(^{3}He,d)^{130}Cs		5	20	−1	8	−0.3	1	17	17 ^{130}Cs	ChR		81Ha08	
^{130}Ba(d,t)^{129}Ba		−4001	15	−4011	11	−0.7	1	53	51 ^{129}Ba	Tal		74Gr22	
^{130}Eu(p)^{129}Sm		1028.0	15.0				3			Arp		02Ma61	
^{130}Cd(β^-)^{130}In		8320	280				3			Bwg		02Di.A	
^{130}In(β^-)^{130}Sn		10249	38				2			Stu		87Sp09	
		9880	90	10250	40	4.1	B			Gsn		90St13	
^{130}In^{m}(β^-)^{130}Sn		10300	37				2			Stu		87Sp09	
^{130}In^{n}(β^-)^{130}Sn		10650	49				2			Stu		87Sp09	
		9880	200	10650	50	3.9	B			Gsn		90St13	
^{130}Sn(β^-)^{130}Sb		2195	35	2153	14	−1.2	–			Stu		77Lu06	*
		2080	40			1.8	–					77Nu01	
		2149	18			0.2	–			Gsn		90St13	*
	ave.	2148	15			0.3	1	91	86 ^{130}Sb			average	
^{130}Sb(β^-)^{130}Te		5046	100	5060	17	0.1	U					71Ki15	*
		5015	100			0.4	U			Stu		77Lu06	*
		4990	70			1.0	U			Gsn		90St13	*
		5015	45			1.0	1	15	14 ^{130}Sb	Stu		95Me16	*
^{130}I(β^-)^{130}Xe		2983	10	2949	3	−3.4	1	10	10 ^{130}I			65Da01	
^{130}Cs(β^+)^{130}Xe		2992	20	2981	8	−0.5	–					52Sm41	
		2972	20			0.5	–					75We23	
	ave.	2982	14			−0.1	1	35	35 ^{130}Cs			average	
^{130}Cs^{x}(IT)^{130}Cs		27	15				2					AHW	*
^{130}La(β^+)^{130}Ba		5660	70	5634	26	−0.4	R			JAE		98Ko66	
*^{130}Sn−C$_{10.833}$	Original –83941(15) for the 1946.88 isomer											01Si.A	**
*^{130}Cs−C$_{10.833}$	M−A=–86716(30) keV for mixture gs+m at 163.25 keV											Ens01	**
*^{130}Pr−C$_{10.833}$	M−A=–71125(29) keV for mixture gs+m at 100#100 keV											Nubase	**
*^{130}Nd ^{19}F−^{133}Cs$_{1.120}$	Tentative result, low statistics											00Be42	**
*^{130}Ba(p,t)^{128}Ba	Not resolved peak. Original uncertainty 16											GAu	**
*^{130}Sn(β^-)^{130}Sb	E$^-$=1490(90), 1150(35) to 702.32, 1047.40 levels											NDS017	**
*^{130}Sn(β^-)^{130}Sb	E$^-$=1415(30), 1112(18) to 702.32, 1047.40 levels											NDS017	**
*	and a 3sigma discrepant 3955(50) from ^{130}Sn^{m} at 1946.88											90St13	**
*^{130}Sb(β^-)^{130}Te	Q=5020(100) from ^{130}Sb^{m} at 4.8											GAu	**
*^{130}Sb(β^-)^{130}Te	Also 4960(25) from ^{130}Sb^{m} at 4.8, discrepant, not used											90St13	**
*^{130}Sb(β^-)^{130}Te	Derived from given average=5008(38) with ^{90}St$_{13}$=4990(70)											GAu	**
*^{130}Cs^{x}(IT)^{130}Cs	Combining isomer ratio of ref.											82Au01	**
*	with ^{130}Cs^{m}(IT)=163.25											NDS89c	**
^{131}Sn−C$_{10.917}$		−82966	34	−83000	23	−1.0	1	45	45 ^{131}Sn	MA8	1.0	01Si.A	*
C$_{10}$ H$_{11}$−^{131}Xe		180991.6	3.0	180993.0	1.0	0.2	U			M16	2.5	63Da10	
^{131}Xe−C$_2$ ^{35}Cl$_2$ ^{37}Cl		1472.65	0.80	1474.4	1.0	1.5	1	73	73 ^{131}Xe	H47	1.5	94Hy01	
^{131}Cs−^{133}Cs$_{.985}$		−1419	14	−1406	5	0.9	1	15	15 ^{131}Cs	MA1	1.0	99Am05	
^{131}Ba−^{133}Cs$_{.985}$		72	14	71	3	−0.1	1	5	5 ^{131}Ba	MA5	1.0	00Be42	
^{131}Ba−C$_{10.917}$		−92955	66	−93059	3	−1.6	U			GS2	1.0	03Li.A	*
^{131}La−C$_{10.917}$		−89930	30				2			GS2	1.0	03Li.A	
^{131}Ce−C$_{10.917}$		−85578	36				2			GS2	1.0	03Li.A	*
^{131}Pr−C$_{10.917}$		−79741	56				2			GS2	1.0	03Li.A	*
^{131}Nd−C$_{10.917}$		−72753	30				2			GS2	1.0	03Li.A	
^{129}Cs−^{131}Cs$_{.328}$ ^{128}Cs$_{.672}$		−1030	30	−871	6	2.1	B			P22	2.5	82Au01	
^{130}Te(n,γ)^{131}Te		5929.7	0.5	5929.38	0.06	−0.6	U					77Ko.A	
		5929.5	0.4			−0.3	U					80Ho29	Z
		5929.38	0.06			0.0	1	100	100 ^{131}Te			03To08	
		5930.16	0.19			−4.1	U			Bdn		03Fi.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{130}Ba(n,γ)^{131}Ba		7493.5	0.3	7493.50	0.30	0.0	1	100	89 ^{131}Ba			82Ka.A	
^{131}Nd(εp)^{130}Ce		4600	400	4360	40	−0.6	U					78Bo.A	
^{131}Eu(p)^{130}Sm		957.4	8.	939	7	−2.3	o					98Da03	
		939.2	7.				3					99So17	
^{131}In(β^-)^{131}Sn		9184	33	9177	18	−0.2	2			Stu		88Fo05	
		9165	30			0.4	o			Stu		95Me16	
		9174	22			0.1	2			Stu		99Fo01	
^{131}In^m(β^-)^{131}Sn		9547	46	9530	40	−0.4	2			Stu		88Fo05	
		9480	70			0.7	2			Stu		95Me16	
^{131}In^n(β^-)^{131}Sn		13450	163	13270	70	−1.1	2			Stu		88Fo05	
		13230	80			0.5	2			Stu		95Me16	
^{131}Sn(β^-)^{131}Sb		4632	20	4674	11	2.1	–			Stu		84Fo19	*
		4688	14			−1.0	–			Stu		99Fo01	
	ave.	4670	11			0.4	1	93	55 ^{131}Sn			average	
^{131}Sb(β^-)^{131}Te		3190	70	3221	21	0.4	U			Stu		77Lu06	
		3200	26			0.8	1	63	63 ^{131}Sb	Stu		99Fo01	
^{131}Te(β^-)^{131}I		2275	10	2234.9	2.2	−4.0	B					61Be20	*
		2278	15			−2.9	B					65De22	*
^{131}I(β^-)^{131}Xe		971.0	0.7	970.8	0.6	−0.2	2					51Ve05	
		970.4	1.2			0.4	2					52Ro16	
^{131}Cs(ε)^{131}Xe		355	10	355	5	0.0	–					54Sa22	
		355	10			0.0	–					56Ho66	
		360	15			−0.3	–					57Mi63	
	ave.	356	6			−0.1	1	61	60 ^{131}Cs			average	
^{131}Ba(β^+)^{131}Cs		1370	16	1376	5	0.4	–					76Ge14	
		1371	12			0.4	–					78Va04	
	ave.	1371	10			0.6	1	31	25 ^{131}Cs			average	
^{131}La(β^+)^{131}Ba		2960	100	2915	28	−0.5	U					60Cr01	
^{131}Ce(β^+)^{131}La		4020	400	4050	40	0.1	U					66No05	
^{131}Pr(β^+)^{131}Ce		5250	150	5440	60	1.2	U			IRS		93Al03	
^{131}Nd(β^+)^{131}Pr		6560	150	6510	60	−0.3	U			IRS		93Al03	
*^{131}Sn−C$_{10.917}$	M−A=–77242(15) keV for mixture gs+m at 80#30 keV											Nubase	**
*^{131}Ba−C$_{10.917}$	M−A=–86494(30) keV for mixture gs+m at 187.14 keV											NDS948	**
*^{131}Ce−C$_{10.917}$	M−A=–79685(28) keV for mixture gs+m at 61.8 keV											Nubase	**
*^{131}Pr−C$_{10.917}$	M−A=–74202(28) keV for mixture gs+m at 152.4 keV											Nubase	**
*^{131}Sn(β^-)^{131}Sb	Q$^-$=4638(20); and 4796(80) from ^{131}Sn^m at 241.8											NDS948	**
*^{131}Te(β^-)^{131}I	Q$^-$=2457(10) from ^{131}Te^m at 182.25											NDS948	**
*^{131}Te(β^-)^{131}I	Q$^-$=2460(15) from ^{131}Te^m at 182.25											NDS948	**
^{132}Sn−C$_{11}$		−82171	18	−82184	15	−0.7	1	66	66 ^{132}Sn	MA8	1.0	01Si.A	
C$_{10}$ H$_{12}$−^{132}Xe		189740.8	3.3	189746.9	1.0	0.7	U			M16	2.5	63Da10	
^{132}Xe−C ^{13}C ^{35}Cl$_2$ ^{37}Cl		−2803.73	1.40	−2809.3	1.0	−2.7	1	24	24 ^{132}Xe	H47	1.5	94Hy01	
^{132}La−C$_{11}$		−89874	67	−89900	40	−0.4	2			GS2	1.0	03Li.A	*
^{132}Ce−C$_{11}$		−88542	30	−88540	22	0.1	1	54	54 ^{132}Ce	GS2	1.0	03Li.A	
^{132}Ce O−^{142}Sm$_{1.042}$		−5258	32	−5261	22	−0.1	1	48	46 ^{132}Ce	MA7	1.0	01Bo59	*
^{132}Pr−C$_{11}$		−80745	61				2			GS2	1.0	03Li.A	*
^{132}Nd−^{133}Cs$_{.992}$		17147	52	17113	26	−0.7	R			MA5	1.0	00Be42	
^{132}Nd−C$_{11}$		−76690	30	−76679	26	0.4	2			GS2	1.0	03Li.A	
^{132}Ba−^{130}Ba		−1241	4	−1260	3	−1.9	1	10	9 ^{130}Ba	M17	2.5	66Be10	
^{130}Cs^x−^{132}Cs$_{.492}$ ^{128}Cs$_{.508}$		−210	40	−340	17	−1.3	U			P22	2.5	82Au01	
^{131}Xe(n,γ)^{132}Xe		8936.3	1.0	8936.59	0.22	0.3	U					71Ge05	
		8935	2			0.8	U					71Gr28	
		8936.65	0.22			−0.3	1	99	73 ^{132}Xe	Bdn		03Fi.A	
^{132}In(β^-)^{132}Sn		13600	400	14140	60	1.3	U					86Bj01	
		14135	60				2			Stu		95Me16	
^{132}Sn(β^-)^{132}Sb		3115	10	3119	9	0.4	1	88	54 ^{132}Sb	Stu		99Fo01	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{132}Sb(β^-)^{132}Te		5491	20	5509	14	0.9	1	52	46 ^{132}Sb	Stu		99Fo01	
^{132}Te(β^-)^{132}I		493	4	518	4	6.2	B					65Iv01	
		517	4			0.2	1	98	94 ^{132}Te	Stu		99Fo01	
^{132}I(β^-)^{132}Xe		3596	15	3581	6	−1.0	–					61De17	
		3558	15			1.5	–					65Jo13	
		3580	7			0.1	–			Stu		99Fo01	
	ave.	3579	6			0.3	1	96	96 ^{132}I			average	
^{132}I^m(β^-)^{132}Xe		3685	10				2					74Di03	
^{132}Cs(β^+)^{132}Xe		2127.7	6.	2124.6	2.1	−0.5	1	12	10 ^{132}Cs			87De33	*
^{132}La(β^+)^{132}Ba		4820	100	4690	40	−1.3	U					60Wa03	
		4680	50			0.3	R					67Fr02	
*^{132}La−C_{11}	M−A=–83623(30) keV for mixture gs+m at 188.18 keV											Ens94	**
*^{132}Ce O−^{142}$Sm_{1.042}$	Original error (22 keV) increased by 23 for BaF contamination in trap											GAu	**
*^{132}Pr−C_{11}	M−A=–75213(28) keV for mixture gs+m at 0#100 keV											Nubase	**
*^{132}Cs(β^+)^{132}Xe	p^+ =0.0042(0.0001) gives E^+ =438(6) recalculated											AHW	**
*	to 667.67 level											NDS922	**
^{133}Cs−^{85}$Rb_{1.565}$		43500	13	43501.00	0.03	0.1	U			MA5	1.0	00Be42	
		43499.3	1.6			1.1	U			MA8	1.0	02Ke.A	
		43500.9	6.7			0.0	U			MA8	1.0	02Ke.A	
^{133}Cs−$C_{11.083}$		−94548.41	0.41	−94548.067	0.024	0.8	U			ST2	1.0	99Ca46	
^{133}La−$C_{11.083}$		−91810	120	−91780	30	0.2	U			GS1	1.0	00Ra23	
		−91782	30				2			GS2	1.0	03Li.A	
^{133}Ce−$C_{11.083}$		−88471	32	−88485	18	−0.4	2			GS2	1.0	03Li.A	*
^{133}Ce O−^{142}$Sm_{1.049}$		−4618	21	−4613	19	0.3	R			MA7	1.0	01Bo59	*
^{133}Pr−$C_{11.083}$		−83663	30	−83669	13	−0.2	R			GS2	1.0	03Li.A	
^{133}Nd−$C_{11.083}$		−77652	50				2			GS2	1.0	03Li.A	*
^{133}Pm−$C_{11.083}$		−70218	54				2			GS2	1.0	03Li.A	*
^{133}Pr−^{133}$Cs_{1.000}$		10877	15	10879	13	0.1	2			MA5	1.0	00Be42	
^{133}Cs−C_3 O_6		−64035.786	0.026	−64035.785	0.024	0.1	1	83	83 ^{133}Cs	MI2	1.0	99Br47	
^{133}Cs−C_{10} H_{12}		−188448.445	0.057	−188448.452	0.024	−0.1	1	17	17 ^{133}Cs	MI2	1.0	99Br47	
^{133}Cs(γ,n)^{132}Cs		−8986	2	−8986.3	1.9	−0.2	1	90	90 ^{132}Cs	MMn		85Ts02	
^{132}Ba(n,γ)^{133}Ba		7189.91	0.36	7189.9	0.4	0.1	1	100	99 ^{132}Ba	MMn		90Is07	Z
^{133}Sn(β^-)^{133}Sb		7830	70	7990	25	2.3	B			Stu		83Bl16	
		7990	25				6			Stu		95Me16	
^{133}Sb(β^-)^{133}Te		4002	7				5			Stu		99Fo01	
^{133}Te(β^-)^{133}I		2960	100	2942	24	−0.2	U					68Mc09	
		2876	100			0.7	U					68Pa03	*
		2942	24				4			Stu		99Fo01	
^{133}I(β^-)^{133}Xe		1800	50	1757	4	−0.9	U					59Ho97	
		1760	30			−0.1	U					66Ei01	
		1757	4				3			Stu		99Fo01	
^{133}Xe(β^-)^{133}Cs		428.0	4.	427.4	2.4	−0.2	2					52Be55	
		427.0	3.			0.1	2					61Er04	
		424	11			0.3	U			Stu		99Fo01	
^{133}Ba(ε)^{133}Cs		517.3	1.0	517.5	1.0	0.2	1	99	99 ^{133}Ba			67Sc10	*
^{133}La(β^+)^{133}Ba		2230	200	2059	28	−0.9	U					50Na09	
*^{133}Ce−$C_{11.083}$	M−A=–82392(28) keV for mixture gs+m at 37.1 keV											NDS957	**
*^{133}Ce O−^{142}$Sm_{1.049}$	D_M=–4599(16) M=–87150(16) for mixture gs+m at 37.1 keV											GAu	**
*^{133}Nd−$C_{11.083}$	M−A=–72268(28) keV for mixture gs+m at 127.97 keV											NDS957	**
*^{133}Pm−$C_{11.083}$	M−A=–65342(33) keV for mixture gs+m at 130.4(1.0) keV											Nubase	**
*^{133}Te(β^-)^{133}I	Q^-=3210(100) from ^{133}Te^m at 334.26											NDS86c	**
*	reported as belonging to ground-state, reinterpreted											AHW	**
*^{133}Ba(ε)^{133}Cs	From L/K=0.371(0.007) to 437.01 level; recalculated Q											AHW	**

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{134}Xe−C$_{11.167}$	−94634.4	5.4	−94605.5	0.9	2.1	B			ACC	2.5	90Me08	
^{134}Xe−C ^{13}C ^{35}Cl ^{37}Cl$_2$	1381.76	0.60				2			H47	1.5	94Hy01	
^{134}La−C$_{11.167}$	−91456	34	−91486	21	−0.9	2			GS2	1.0	03Li.A	
^{134}Ce−C$_{11.167}$	−91190	130	−91075	22	0.9	U			GS1	1.0	00Ra23	
	−91056	30			−0.6	2			GS2	1.0	03Li.A	
^{134}Ce O−^{142}Sm$_{1.056}$	−6631	32	−6609	23	0.7	R			MA7	1.0	01Bo59	*
^{134}Pr−C$_{11.167}$	−84249	61	−84290	40	−0.6	2			GS2	1.0	03Li.A	*
^{134}Nd−C$_{11.167}$	−81234	30	−81210	13	0.8	R			GS2	1.0	03Li.A	
^{134}Pm−C$_{11.167}$	−71647	62				2			GS2	1.0	03Li.A	*
^{134}Pr−^{133}Cs$_{1.008}$	11029	56	11020	40	−0.2	R			MA5	1.0	00Be42	*
^{134}Nd−^{133}Cs$_{1.008}$	14100	14	14095	13	−0.4	2			MA5	1.0	00Be42	
^{131}Cs−^{134}Cs$_{.244}$ ^{130}Cs$^{x}_{.756}$	−1313	50	−1182	17	1.0	U			P22	2.5	82Au01	
^{133}Cs(n,γ)^{134}Cs	6891.540	0.017	6891.540	0.014	0.0	–			MMn		84Ke11	Z
	6891.540	0.027			0.0	–			ILn		87Bo24	Z
	6891.39	0.14			1.1	U			Bdn		03Fi.A	
ave.	6891.540	0.014			0.0	1	100	100 ^{134}Cs			average	
^{134}Sn(β^-)^{134}Sb	7370	90				6			Stu		95Me16	
^{134}Sb(β^-)^{134}Te	8400	300	8390	40	0.0	U			Stu		77Lu06	
	8420	120			−0.2	5			Bwg		87Gr.A	
	8390	45			0.1	5			Stu		95Me16	
^{134}Sb^{m}(β^-)^{134}Te	8280	240	8470	100	0.8	5			Stu		77Lu06	
	8510	110			−0.4	5			Bwg		87Gr.A	
^{134}Te(β^-)^{134}I	1560	90	1513	7	−0.5	U			Stu		77Lu06	
	1550	30			−1.2	U			Stu		95Me16	
	1513	7				4			Stu		99Fo01	
^{134}I(β^-)^{134}Xe	4170	60	4052	8	−2.0	U					61Jo08	
	4175	15			−8.2	B			Stu		95Me16	
	4052	8				3			Stu		99Fo01	
^{134}Cs(β^-)^{134}Ba	2058.6	0.4	2058.7	0.4	0.2	1	99	99 ^{134}Ba			68Hs01	
^{134}La(β^+)^{134}Ba	3772	50	3731	20	−0.8	R					65Bi12	
	3692	30			1.3	R					73Al20	
^{134}Pr(β^+)^{134}Ce	6190	90	6320	40	1.5	R			Dbn		95Ve08	*
^{134}Nd(β^+)^{134}Pr	2770	150	2870	40	0.7	U					77Ko.B	
^{134}Pm(β^+)^{134}Nd	9170	200	8910	60	−1.3	C			Dbn		95Ve08	*
*^{134}Ce O−^{142}Sm$_{1.056}$	Original error (22 keV) increased by 23 for BaF contamination in trap										GAu	**
*^{134}Pr−C$_{11.167}$	M−A=–78477(28) keV for mixture gs+m at 0#100 keV										Nubase	**
*^{134}Pm−C$_{11.167}$	M−A=–66739(30) keV for mixture gs+m at 0#100 keV										Nubase	**
*^{134}Pr−^{133}Cs$_{1.008}$	Most certainly gs. Mixture with isomer not completely excluded										00Be42	**
*^{134}Pr−^{133}Cs$_{1.008}$	D_M 11029(16) uu, M−A=–78503(15) keV for mixture gs+m at 0#100 keV										Nubase	**
*^{134}Pr(β^+)^{134}Ce	E$^+$ =4120(90) to 1048.65 4$^+$ level										NDS943	**
*^{134}Pm(β^+)^{134}Nd	E$^+$ =7360(200) to 788.97 4$^+$ level										NDS934	**
^{135}Ce−C$_{11.25}$	−90779	30	−90849	12	−2.3	U			GS2	1.0	03Li.A	*
^{135}Pr−C$_{11.25}$	−86897	30	−86888	13	0.3	R			GS2	1.0	03Li.A	
^{135}Nd−C$_{11.25}$	−81800	130	−81819	21	−0.1	o			GS1	1.0	00Ra23	
	−81811	36			−0.2	R			GS2	1.0	03Li.A	*
^{135}Pm−C$_{11.25}$	−75124	63				2			GS2	1.0	03Li.A	*
^{135}Sm−C$_{11.25}$	−67480	166				2			GS2	1.0	03Li.A	*
^{135}Cs−^{133}Cs$_{1.015}$	1957	14	1943.3	1.1	−1.0	U			MA1	1.0	99Am05	
^{135}Pr−^{133}Cs$_{1.015}$	9080	14	9078	13	−0.1	2			MA5	1.0	00Be42	
^{135}Nd−^{133}Cs$_{1.015}$	14144	25	14147	21	0.1	2			MA5	1.0	00Be42	*
^{134}Cs(n,γ)^{135}Cs	8762	1	8762.0	1.0	0.0	1	100	100 ^{135}Cs	ILn		92Ul.A	
^{134}Ba(n,γ)^{135}Ba	6972.17	0.18	6971.96	0.10	−1.2	–			MMn		90Is07	Z
	6971.84	0.17			0.7	–			Ltn		93Bo01	Z
	6973.24	0.22			−5.8	B			BNn		93Ch21	
	6971.87	0.18			0.5	–			Bdn		03Fi.A	
ave.	6971.96	0.10			0.1	1	100	99 ^{135}Ba			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{135}Sb(β^-)^{135}Te		8120	50				3			Stu		89Ho08	
^{135}Te(β^-)^{135}I		5970	200	5960	90	0.0	2					85Sa15	
		5960	100			0.0	2			Bwg		87Gr.A	
^{135}I(β^-)^{135}Xe		2780	80	2627	6	−1.9	U					70Ma19	
		2590	50			0.7	U			Stu		76Lu04	
		2627	6			0.1	1	96	94 ^{135}I	Stu		99Fo01	
^{135}Xe(β^-)^{135}Cs		1155	10	1165	4	1.0	–					52Be55	
		1167	5			−0.4	–			Stu		99Fo01	
	ave.	1165	4			0.0	1	98	98 ^{135}Xe			average	
^{135}La(β^+)^{135}Ba		1200	10				2					71Ba18	
^{135}Ce(β^+)^{135}La		2027	5	2026	5	−0.3	3					76Ga.A	
		2016	13			0.7	3					81Sa09	
^{135}Pr(β^+)^{135}Ce		3720	150	3689	16	−0.2	U					54Ha68	
^{135}Pm^m(β^+)^{135}Nd		6040	150	6290#	120#	1.6	U			Dbn		95Ve08	*
*^{135}Ce−C$_{11.25}$	M−A=–84114(28) keV for ^{135}Ce^m at Eexc=445.8 keV											NDS985	**
*^{135}Nd−C$_{11.25}$	M−A=–76174(28) keV for mixture gs+m at 65.0 keV											NDS985	**
*^{135}Pm−C$_{11.25}$	M−A=–69952(28) keV for mixture gs+m at 50#100 keV											Nubase	**
*^{135}Sm−C$_{11.25}$	M−A=–62857(38) keV for mixture gs+m at 0#300 keV											Nubase	**
*^{135}Nd−^{133}Cs$_{1.015}$	D_M=14179(14) uu for gs+m mixture at 65.0 keV; M−A=–76185(13) keV											NDS985	**
*^{135}Pm^m(β^+)^{135}Nd	E$^+$ =4920(150) to mixture ground-state and 198.5 level											95Ve08	**
C_{10} H_{16}−^{136}Xe		217982.	3.9	217982	8	0.0	1	60	60 ^{136}Xe	M16	2.5	63Da10	
^{136}La−C$_{11.333}$		−92392	87	−92360	60	0.3	2			GS2	1.0	03Li.A	*
^{136}Nd−C$_{11.333}$		−85044	30	−85024	13	0.7	R			GS2	1.0	03Li.A	
^{136}Pm−C$_{11.333}$		−76405	91	−76430	80	−0.3	2			GS2	1.0	03Li.A	*
^{136}Sm−C$_{11.333}$		−71768	30	−71724	13	1.5	R			GS2	1.0	03Li.A	
^{136}Pr−^{133}Cs$_{1.023}$		9418	15	9414	13	−0.2	1	77	77 ^{136}Pr	MA5	1.0	00Be42	
^{136}Nd−^{133}Cs$_{1.023}$		11703	14	11699	13	−0.3	2			MA5	1.0	00Be42	
^{136}Pm^m−^{133}Cs$_{1.023}$		20429	100				2			MA5	1.0	00Be42	*
^{136}Sm−^{133}Cs$_{1.023}$		25009	15	24998	13	−0.7	2			MA5	1.0	00Be42	
^{136}Te(β^-n)^{135}I		1285	50	1290	40	0.2	1	80	80 ^{136}Te			84Kr.B	
^{136}Xe(d,^{3}He)^{135}I		−4438	30	−4431	10	0.2	1	11	6 ^{135}I	Oak		71Wi04	
^{136}Xe(d,t)^{135}Xe		−1723	40	−1822	8	−2.5	U			Oak		68Mo21	
^{135}Ba(n,γ)^{136}Ba		9107.74	0.04	9107.74	0.04	0.0	–			MMn		90Is07	Z
		9107.73	0.19			0.1	–			Bdn		03Fi.A	
	ave.	9107.74	0.04			0.0	1	100	99 ^{136}Ba			average	
^{136}Te(β^-)^{136}I		5100	150	5070	60	−0.2	–					77Sc21	
		5095	100			−0.2	–			Bwg		87Gr.A	
	ave.	5100	80			−0.3	1	46	26 ^{136}I			average	
^{136}I(β^-)^{136}Xe		6960	100	6930	50	−0.3	–					59Jo37	
		6690	150			1.6	B			Stu		76Lu04	
		6925	70			0.0	–			Bwg		87Gr.A	
	ave.	6940	60			−0.2	1	74	74 ^{136}I			average	
^{136}I^m(β^-)^{136}Xe		7100	230	7580	110	2.1	2			Stu		76Lu04	
		7705	120			−1.1	2			Bwg		87Gr.A	
^{136}Cs(β^-)^{136}Ba		2548.1	2.0	2548.2	1.9	0.1	2					54Ol05	
		2549	5			−0.2	2					65Re07	
^{136}La(β^+)^{136}Ba		2870	70	2850	50	−0.3	R					59Gi50	
^{136}Pr(β^+)^{136}Ce		5084	50	5141	15	1.1	U					68Zh04	
		5114	75			0.4	U					71Ke07	
		5134	20			0.4	1	53	30 ^{136}Ce	IRS		83Al.B	
^{136}Nd(β^+)^{136}Pr		2211	25	2128	17	−3.3	B					75Br16	
^{136}Pm(β^+)^{136}Nd		7850	200	8000	80	0.8	R			IRS		83Al06	*
*^{136}La−C$_{11.333}$	M−A=–85935(32) keV for mixture gs+m at 255(9) keV											Nubase	**
*^{136}Pm−C$_{11.333}$	M−A=–71091(28) keV for mixture gs+m at 160(130) keV											Nubase	**
*^{136}Pm^m−^{133}Cs$_{1.023}$	Slightly contaminated by ground-state, original error (20) increased											00Be42	**
*^{136}Pm(β^+)^{136}Nd	E$^-$=4732(70) probably from high spin isomer going											AHW	**
*	to several high spin levels around 2100											NDS941	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{137}La−C$_{11.417}$		−93556	30	−93506	14	1.7	U			GS2	1.0	03Li.A	
^{137}Ce−C$_{11.417}$		−92101	85	−92194	14	−1.1	U			GS2	1.0	03Li.A	*
^{137}Nd−C$_{11.417}$		−85438	30	−85433	12	0.2	1	17	17 ^{137}Nd	GS2	1.0	03Li.A	
^{137}Pm−C$_{11.417}$		−79608	62	−79521	14	1.4	U			GS2	1.0	03Li.A	*
^{137}Sm−C$_{11.417}$		−73025	69	−73030	50	0.0	–			GS2	1.0	03Li.A	*
	ave.	−73030	50			0.0	1	78	78 ^{137}Sm			average	
^{137}Pr−^{133}Cs$_{1.030}$		8095	15	8090	13	−0.3	1	71	71 ^{137}Pr	MA5	1.0	00Be42	
^{137}Nd−^{133}Cs$_{1.030}$		11947	14	11952	12	0.3	1	78	78 ^{137}Nd	MA5	1.0	00Be42	
^{137}Pm−^{133}Cs$_{1.030}$		17864	14				2			MA5	1.0	00Be42	
^{137}Sm−^{133}Cs$_{1.030}$		24350	78	24360	50	0.1	R			MA5	1.0	00Be42	*
^{137}I(β^-n)^{136}Xe		1850	30	1851	27	0.0	2					84Kr.B	
^{136}Xe(n,γ)^{137}Xe		4025.5	0.5	4025.53	0.11	0.1	U					77Fo02	Z
		4025.8	0.3			−0.9	U					77Pr07	Z
		4025.53	0.11				2			Bdn		03Fi.A	
^{136}Xe(^{3}He,d)^{137}Cs		1918	12	1916	7	−0.2	1	34	34 ^{136}Xe	ChR		81Ha08	
^{136}Ba(n,γ)^{137}Ba		6905.54	0.10	6905.61	0.08	0.7	–			MMn		90Is07	Z
		6905.70	0.12			−0.8	–			Mtn		95Bo03	Z
		6905.74	0.16			−0.8	U			Bdn		03Fi.A	
	ave.	6905.61	0.08			0.0	1	100	99 ^{137}Ba			average	
^{136}Ce(n,γ)^{137}Ce		7481.3	0.4	7481.54	0.16	0.6	–					81Ko.A	Z
		7481.58	0.17			−0.3	–			Bdn		03Fi.A	
	ave.	7481.54	0.16			0.0	1	100	62 ^{136}Ce			average	
^{137}Te(β^-)^{137}I		7030	300	6940	120	−0.3	3					85Sa15	
		6925	130			0.1	3			Bwg		87Gr.A	
^{137}I(β^-)^{137}Xe		5880	60	5877	27	−0.1	R			Bwg		87Gr.A	
^{137}Cs(β^-)^{137}Ba		1175.55	0.26	1175.63	0.17	0.3	–					78Ch22	*
		1175.69	0.23			−0.3	–					83Be18	*
	ave.	1175.63	0.17			0.0	1	100	100 ^{137}Cs			average	
^{137}Ce(β^+)^{137}La		1222.1	1.6				2					81Ar.A	
^{137}Pr(β^+)^{137}Ce		2702	10	2701	9	−0.1	1	87	62 ^{137}Ce			73Bu17	
^{137}Nd(β^+)^{137}Pr		3690	54	3597	16	−1.7	1	9	5 ^{137}Pr			85Af.A	*
^{137}Pm^m(β^+)^{137}Nd		5690	130	5660	50	−0.3	–			IRS		83Al06	*
		5650	60			0.1	–			Dbn		95Ve08	*
	ave.	5660	50			0.0	1	71	70 ^{137}Pm^m			average	
^{137}Sm(β^+)^{137}Pm^m		5900	70	5900	50	0.0	1	53	30 ^{137}Pm^m	Dbn		95Ve08	
*^{137}Ce−C$_{11.417}$	M−A=–85665(29) keV for mixture gs+m at 254.29 keV											NDS947	**
*^{137}Pm−C$_{11.417}$	M−A=–74079(28) keV for mixture gs+m at 150(50) keV											Nubase	**
*^{137}Sm−C$_{11.417}$	M−A=–67932(28) keV for mixture gs+m at 180#50 keV											Nubase	**
*^{137}Sm−^{133}Cs$_{1.030}$	Might be a mixture of gs and isomer say authors											00Be42	**
*	D_M=24447(14) uu for mixture gs+m at 180#50 keV; M−A=–67941(13)											Nubase	**
*^{137}Cs(β^-)^{137}Ba	E$^-$=513.89(0.26) to ^{137}Ba^m at 661.660											NDS947	**
*^{137}Cs(β^-)^{137}Ba	E$^-$=514.03(0.23) to ^{137}Ba^m at 661.660											NDS947	**
*^{137}Nd(β^+)^{137}Pr	E$^+$ =2592(54) to 75.5 level											NDS	**
*^{137}Pm^m(β^+)^{137}Nd	E$^+$ =4132(+150−115) to ^{137}Nd^m at 519.6											NDS947	**
*^{137}Pm^m(β^+)^{137}Nd	E$^+$ =4110(60) to 11/2$^-$ ^{137}Nd^m at 519.6											NDS947	**
^{138}Pr^m−C$_{11.5}$		−88896	30	−88872	19	0.8	2			GS2	1.0	03Li.A	
^{138}Nd−C$_{11.5}$		−88060	130	−88050	13	0.1	o			GS1	1.0	00Ra23	
		−88060	30			0.3	R			GS2	1.0	03Li.A	
^{138}Pm−C$_{11.5}$		−80242	141	−80452	30	−1.5	o			GS1	1.0	00Ra23	*
		−80454	35			0.1	2			GS2	1.0	03Li.A	*
^{138}Sm−C$_{11.5}$		−76766	30	−76756	13	0.3	R			GS2	1.0	03Li.A	
^{138}Eu−C$_{11.5}$		−66291	30				2			GS2	1.0	03Li.A	
^{138}Cs−^{133}Cs$_{1.038}$		9157	14	9158	10	0.0	1	49	49 ^{138}Cs	MA1	1.0	99Am05	
^{138}Nd−^{133}Cs$_{1.038}$		10093	14	10091	13	−0.2	2			MA5	1.0	00Be42	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{138}Pm^{m}-^{133}Cs_{1.038}$		17721	14				2			MA5	1.0	00Be42	
$^{138}Sm-^{133}Cs_{1.038}$		21387	14	21385	13	−0.2	2			MA5	1.0	00Be42	
$^{138}Ce-^{136}Ce$		−1158	20	−1181	17	−0.5	1	12	8 ^{136}Ce	M17	2.5	66Be10	
$^{137}Ba(n,\gamma)^{138}Ba$		8611.72	0.04	8611.72	0.04	0.0	1	100	99 ^{138}Ba	MMn		90Is07	Z
		8611.5	0.15			1.5	U			Ltn		95Bo05	
		8611.63	0.18			0.5	U			Bdn		03Fi.A	
$^{138}I(\beta^-)^{138}Xe$		7820	70				3			Bwg		87Gr.A	
$^{138}Xe(\beta^-)^{138}Cs$		2700	50	2740	40	0.7	2					72Mo33	
		2830	80			−1.2	2			Trs		78Wo15	
$^{138}Cs^{x}(IT)^{138}Cs$		40	23				2					82Au01	
$^{138}Cs(\beta^-)^{138}Ba$		5388	25	5374	9	−0.6	–			Gsn		81De25	
		5370	15			0.3	–			McG		84He.A	
	ave.	5375	13			0.0	1	51	51 ^{138}Cs			average	
$^{138}Pr(\beta^+)^{138}Ce$		4437	10				2					71Af05	
$^{138}Pr^{m}(\beta^+)^{138}Ce$		4801	20	4785	20	−0.8	R					64Fu08	
$^{138}Nd(\beta^+)^{138}Pr$		2020	100	1113	19	−9.1	C					61Bo.B	
$^{138}Pm(\beta^+)^{138}Nd$		7090	100	7078	30	−0.1	R			IRS		83Al06	
		7080	60			0.0	R			Dbn		95Ve08	
$^{138}Pm^{m}(\beta^+)^{138}Nd$		7000	250	7107	18	0.4	U					81De38	*
$*^{138}Pm-C_{11.5}$	M−A=−74730(130) keV for mixture gs+m at 30(30) keV											Nubase	**
$*^{138}Pm-C_{11.5}$	M−A=−74927(28) keV for mixture gs+m at 30(30) keV											Nubase	**
$*^{138}Pm^{m}(\beta^+)^{138}Nd$	E^+ =3900(200) to spin 5 and 6 levels at 1990.5, 2134.3 and 2222.0											NDS935	**
$^{139}Nd-C_{11.583}$		−87840	79	−88022	28	−2.3	1	12	12 ^{139}Nd	GS2	1.0	03Li.A	*
$^{139}Sm-C_{11.583}$		−77704	30	−77703	12	0.0	R			GS2	1.0	03Li.A	
		−77711	30			0.3	R			GS2	1.0	03Li.A	*
$^{139}Eu-C_{11.583}$		−70215	30	−70208	14	0.2	R			GS2	1.0	03Li.A	
$^{139}Pm-^{133}Cs_{1.045}$		15604	15	15607	14	0.2	1	93	93 ^{139}Pm	MA5	1.0	00Be42	
$^{139}Sm-^{133}Cs_{1.045}$		21101	14	21099	12	−0.1	2			MA5	1.0	00Be42	
$^{139}Eu-^{133}Cs_{1.045}$		28597	16	28595	14	−0.1	2			MA5	1.0	00Be42	
$^{138}Cs^{x}-^{139}Cs_{.496}\ ^{137}Cs_{.504}$		770	40	799	25	0.3	U			P23	2.5	82Au01	
$^{138}Ba(n,\gamma)^{139}Ba$		4723.43	0.04	4723.43	0.04	0.0	1	100	99 ^{139}Ba	MMn		90Is07	Z
		4723.20	0.14			1.6	U			Bdn		03Fi.A	
$^{138}La(d,p)^{139}La$		6553	3	6553.4	2.6	0.1	2			Tal		71Du02	
$^{139}La(d,t)^{138}La$		−2522	5	−2520.8	2.6	0.2	2			Tal		72La20	
$^{139}I(\beta^-)^{139}Xe$		6806	23				4			Bwg		92Gr06	
$^{139}Xe(\beta^-)^{139}Cs$		5020	60	5057	21	0.6	3			Trs		78Wo15	
		5062	22			−0.2	3			Bwg		92Gr06	
$^{139}Cs(\beta^-)^{139}Ba$		4214	4	4213	3	−0.3	2			McG		84He.A	
		4211	5			0.4	2			Gsn		92Pr04	
$^{139}Ba(\beta^-)^{139}La$		2307	5	2317.6	2.4	2.1	–					75Fl07	
		2316	4			0.4	–			McG		84He.A	
	ave.	2312	3			1.6	1	59	59 ^{139}La			average	
$^{139}Ce(\varepsilon)^{139}La$		278	7	279	7	0.1	1	99	98 ^{139}Ce			Averag	*
$^{139}Pr(\beta^+)^{139}Ce$		2129	3	2129.2	3.0	0.1	1	100	98 ^{139}Pr			81Ar.A	
$^{139}Nd(\beta^+)^{139}Pr$		2787	50	2832	26	0.9	1	28	26 ^{139}Nd			75Vy02	*
$^{139}Pm(\beta^+)^{139}Nd$		4450	100	4495	25	0.5	–					77De06	
		4540	40			−1.1	–			IRS		83Al06	
		4470	50			0.5	–			Dbn		95Ve08	
	ave.	4507	30			−0.4	1	69	62 ^{139}Nd			average	
$^{139}Sm(\beta^+)^{139}Pm$		5430	150	5116	17	−2.1	U					82De06	
		5510	150			−2.6	B			IRS		83Al06	*
$^{139}Eu(\beta^+)^{139}Sm$		6080	50	6982	17	18.0	C			Dbn		95Ve08	
$*^{139}Nd-C_{11.583}$	M−A=−81707(30) keV for mixture gs+m at 231.15 keV											NDS013	**
$*^{139}Sm-C_{11.583}$	M−A=−71930(28) keV for $^{139}Sm^{m}$ at Eexc=457.40 keV											NDS013	**
$*^{139}Ce(\varepsilon)^{139}La$	Average pK=0.73(0.01) to 165.86 level from 10 references:											AHW	**
*	pK=0.76 (0.04)											54Pr31	**
*	pK=0.73 (0.01)											56Ke23	**
*	pK=0.68 (0.02)											67Ma07	**
*	pK=0.75 (0.01)											68Ad08	**
*	pK=0.69 (0.02)											68Va08	**
*	pK=0.716(0.02)											72Ca07	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
*		pK=0.78 (0.02)										72Sc08	**
*		pK=0.726(0.010)										75Ha43	**
*		pK=0.801(0.034)										75Pl06	**
*		pK=0.705(0.020)										76Ha36	**
*^{139}Nd(β^+)^{139}Pr	E^+ =1770(50); and 1170(50) from ^{139}Nd^m at 231.15 to 821.98 level											NDS897	**
*^{139}Sm(β^+)^{139}Pm	E^+ =4735(+180−130) from ^{139}Sm^m at 457.8 to ^{139}Pm^m at 188.7											NDS897	**
^{140}Nd−C$_{11.667}$		−90448	30				2			GS2	1.0	03Li.A	
^{140}Pm^m−C$_{11.667}$		−83532	30	−83503	14	1.0	R			GS2	1.0	03Li.A	
^{140}Sm−C$_{11.667}$		−81018	30	−81005	13	0.4	R			GS2	1.0	03Li.A	
^{140}Gd−C$_{11.667}$		−66326	30				2			GS2	1.0	03Li.A	
^{140}Cs−^{133}Cs$_{1.053}$		16836	14	16841	9	0.4	–			MA1	1.0	99Am05	
		16857	14			−1.1	–			MA4	1.0	99Am05	
	ave.	16847	10			−0.5	1	79	79 ^{140}Cs			average	
^{140}Ba−^{133}Cs$_{1.053}$		10150	14	10164	9	1.0	1	37	37 ^{140}Ba	MA1	1.0	99Am05	
^{140}Pm^m−^{133}Cs$_{1.053}$		16064	16	16056	14	−0.5	2			MA5	1.0	00Be42	
^{140}Sm−^{133}Cs$_{1.053}$		18557	15	18554	13	−0.2	2			MA5	1.0	00Be42	
^{140}Ce−^{138}Ce		−543	8	−553	11	−0.5	1	28	28 ^{138}Ce	M17	2.5	66Be10	
^{138}Ce(t,p)^{140}Ce		8184	15	8176	10	−0.6	–			LAl		72Mu09	
^{140}Ce(p,t)^{138}Ce		−8167	20	−8176	10	−0.4	–			Brk		77Sh06	
^{138}Ce(t,p)^{140}Ce	ave.	8178	12	8176	10	−0.2	1	68	68 ^{138}Ce			average	
^{139}La(n,γ)^{140}La		5160.97	0.05	5160.98	0.04	0.1	–			MMn		90Is09	Z
		5161.00	0.10			−0.2	–			Bdn		03Fi.A	
	ave.	5160.98	0.04			0.0	1	100	59 ^{140}La			average	
^{140}Ho(p)^{139}Dy		1093.9	10.				3					99Ry04	
^{140}Xe(β^-)^{140}Cs		4060	60				2			Trs		78Wo15	
^{140}Cs(β^-)^{140}Ba		6212	20	6220	10	0.4	–			Gsn		92Pr04	
		6199	25			0.9	–			Ida		93Gr17	
	ave.	6207	16			0.9	1	40	21 ^{140}Cs			average	
^{140}Ba(β^-)^{140}La		1060	20	1050	8	−0.5	–					49Be36	
		1050	20			0.0	–					59Bo61	
		1055	30			−0.2	–					65Bu07	
	ave.	1055	13			−0.4	1	40	37 ^{140}Ba			average	
^{140}La(β^-)^{140}Ce		3760.2	2.0	3762.2	1.8	1.0	1	84	45 ^{140}Ce			72Na04	
^{140}Pr(β^+)^{140}Ce		3388	6				2					68Ab17	
^{140}Nd(ε)^{140}Pr		160	60	444	29	4.7	B					72Ba91	
^{140}Pm(β^+)^{140}Nd		6080	100	6045	24	−0.3	U					75Ke09	
		6090	40			−1.1	3			IRS		83Al06	
		6020	30			0.8	3			Dbn		95Ve08	
^{140}Pm^m(β^+)^{140}Nd		6484	70	6470	30	−0.2	B					75Ke09	
^{140}Sm(ε)^{140}Pm		3400	300	2750	40	−2.2	U					87De04	
^{140}Eu(β^+)^{140}Sm		8400	400	8470	50	0.2	U			LBL		91Fi03	
		8470	50				3			Dbn		95Ve08	
^{140}Gd(β^+)^{140}Eu		4800	400	5200	60	1.0	U			LBL		91Fi03	
^{140}Tb(β^+)^{140}Gd		11300	800				3			LBL		91Fi03	*
*^{140}Tb(β^+)^{140}Gd	Lower limit											91Fi03	**
^{141}Pr−C$_{11.75}$		−92374	30	−92347.2	2.6	0.9	U			GS2	1.0	03Li.A	
^{141}Nd−C$_{11.75}$		−90401	30	−90390	4	0.4	U			GS2	1.0	03Li.A	
		−90365	30			−0.8	U			GS2	1.0	03Li.A	*
^{141}Sm−C$_{11.75}$		−81496	62	−81524	9	−0.4	U			GS2	1.0	03Li.A	*
^{141}Eu−C$_{11.75}$		−75048	42	−75069	14	−0.5	U			GS2	1.0	03Li.A	*
^{141}Gd−C$_{11.75}$		−67881	30	−67874	21	0.2	2			GS2	1.0	03Li.A	
		−67867	30			−0.2	2			GS2	1.0	03Li.A	*
^{141}Tb−C$_{11.75}$		−58552	113				2			GS2	1.0	03Li.A	*

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{141}Cs−^{133}Cs$_{1.060}$		20269	16	20267	11	−0.1	1	50	50 ^{141}Cs	MA4	1.0	99Am05	
^{141}Ba−^{133}Cs$_{1.060}$		14625	15	14632	9	0.5	–			MA1	1.0	99Am05	
		14631	16			0.1	–			MA4	1.0	99Am05	
	ave.	14628	11			0.4	1	63	63 ^{141}Ba			average	
^{141}Pm−^{133}Cs$_{1.060}$		13776	15				2			MA5	1.0	00Be42	
^{141}Sm−^{133}Cs$_{1.060}$		18692	14	18697	9	0.4	1	44	44 ^{141}Sm	MA5	1.0	00Be42	*
^{141}Eu−^{133}Cs$_{1.060}$		25164	15	25152	14	−0.8	1	82	82 ^{141}Eu	MA5	1.0	00Be42	*
^{140}Cs−^{141}Cs$_{.894}$ ^{131}Cs$_{.107}$		−970	40	−1046	12	−0.8	U			P23	2.5	82Au01	
^{141}Cs(β^-n)^{140}Ba		735	30	723	13	−0.4	1	18	11 ^{141}Cs			84Kr.B	
^{140}Ce(n,γ)^{141}Ce		5428.6	0.6	5428.14	0.10	−0.8	U			BNn		70Ge03	Z
		5428.01	0.20			0.7	–			PTn		80Ba.A	Z
		5428.19	0.12			−0.4	–			Bdn		03Fi.A	
	ave.	5428.14	0.10			0.0	1	100	54 ^{141}Ce			average	
^{141}Ho(p)^{140}Dy		1177.4	8.	1177	7	−0.1	3					98Da03	
		1172.9	20.			0.2	3					99Ry04	*
^{141}Xe(β^-)^{141}Cs		6150	90				2			Trs		78Wo15	
^{141}Cs(β^-)^{141}Ba		5242	15	5249	11	0.4	1	53	36 ^{141}Cs	Gsn		92Pr04	
^{141}Ba(β^-)^{141}La		3208	35	3213	9	0.1	–			Gsn		81De25	
		3217	20			−0.2	–			McG		84He.A	
	ave.	3215	17			−0.1	1	26	20 ^{141}Ba			average	
^{141}La(β^-)^{141}Ce		2502	4	2502	4	0.0	1	96	95 ^{141}La	McG		84He.A	
^{141}Ce(β^-)^{141}Pr		584	3	580.8	1.1	−1.1	–					50Fr58	
		585	4			−1.1	–					52Ko27	
		576.4	2.0			2.2	–					55Jo02	
		581.4	2.0			−0.3	–					68Be06	
		582.2	2.6			−0.5	–					79Ha09	
	ave.	580.6	1.1			0.1	1	92	47 ^{141}Pr			average	
^{141}Nd(β^+)^{141}Pr		1816	8	1823.0	2.8	0.9	2					73Bu21	
		1824	3			−0.3	2					76Ga.A	*
^{141}Pm(β^+)^{141}Nd		3730	40	3675	14	−1.4	B					70Ch29	
		3640	70			0.5	U					75Ke09	
^{141}Sm(β^+)^{141}Pm		4580	50	4584	16	0.1	U					77Ke03	*
		4463	60			2.0	U			IRS		83Al06	
		4524	80			0.8	U			IRS		93Al03	*
^{141}Eu(β^+)^{141}Sm		6030	100	6012	14	−0.2	U					77De25	
		5950	40			1.6	–			IRS		83Al06	
		6035	60			−0.4	U					85Af.A	
		5550	100			4.6	B			IRS		93Al03	
		5980	40			0.8	–			Dbn		95Ve08	*
	ave.	5965	28			1.7	1	26	18 ^{141}Eu			average	
*^{141}Nd−C$_{11.75}$	M−A=–83418(28) keV for ^{141}Nd^m at Eexc=756.51 keV											NDS012	**
*^{141}Sm−C$_{11.75}$	M−A=–75825(28) keV for mixture gs+m at 176.0 keV											NDS012	**
*^{141}Eu−C$_{11.75}$	M−A=–69858(28) keV for mixture gs+m at 96.45 keV											NDS012	**
*^{141}Gd−C$_{11.75}$	M−A=–62840(28) keV for ^{141}Gd^m at Eexc=377.8 keV											NDS012	**
*^{141}Tb−C$_{11.75}$	M−A=–54541(34) keV for mixture gs+m at 0#200 keV											Nubase	**
*^{141}Sm−^{133}Cs$_{1.060}$	D_M=18694(14) and D_M=18878(14) from ^{141}Sm^m at 175.8											00Be42	**
*^{141}Eu−^{133}Cs$_{1.060}$	Slight (< 10%) isomeric contamination cannot be excluded											00Be42	**
*^{141}Ho(p)^{140}Dy	Ep=1230(20) from ^{141}Ho^m at 66(2)											01Se03	**
*^{141}Nd(β^+)^{141}Pr	Was erroneously quoted 77Ga.A in the 1993 tables											GAu	**
*^{141}Sm(β^+)^{141}Pm	E$^+$ =3180(50), 3100(50) to 403.85, 438.29 levels											NDS918	**
*	and E$^+$ =1670(70), 1600(70)											77Ke03	**
*	from ^{141}Sm^m at 175.8 to 2091.66, 2119.0 levels											NDS918	**
*^{141}Sm(β^+)^{141}Pm	Q$^+$ =4700(80) from ^{141}Sm^m at 175.8											NDS918	**
*^{141}Eu(β^+)^{141}Sm	E$^+$ =4960(40) to 1.58 level											NDS918	**
^{142}Cs−^{133}Cs$_{1.068}$		25270	16	25276	11	0.4	1	51	51 ^{142}Cs	MA4	1.0	99Am05	
^{142}Ba−^{133}Cs$_{1.068}$		17410	15	17431	7	1.4	–			MA1	1.0	99Am05	
		17420	16			0.7	–			MA4	1.0	99Am05	
	ave.	17415	11			1.5	1	37	37 ^{142}Ba			average	
^{142}Pm−C$_{11.833}$		−87136	30	−87126	27	0.3	2			GS2	1.0	03Li.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{142}Sm−^{133}Cs$_{1.068}$		16173	14	16175	6	0.1	1	19	19 ^{142}Sm	MA5	1.0	00Be42	
^{142}Eu^{m}−^{133}Cs$_{1.068}$		24909	15	24910	13	0.1	2			MA5	1.0	00Be42	
^{142}Eu^{m}−C$_{11.833}$		−76063	30	−76067	13	−0.1	R			GS2	1.0	03Li.A	
^{142}Gd−C$_{11.833}$		−71884	30				2			GS2	1.0	03Li.A	
^{142}Ce−^{140}Ce		3818	3	3805.5	2.6	−1.7	1	12	9 ^{142}Ce	M17	2.5	66Be10	
^{140}Cs−^{142}Cs$_{.789}$ ^{132}Cs$_{.212}$		−2950	40	−2938	12	0.1	U			P23	2.5	82Au01	
^{141}Cs−^{142}Cs$_{.794}$ ^{137}Cs$_{.206}$		−580	40	−660	13	−0.8	U			P23	2.5	82Au01	
^{138}Cs^{x}−^{142}Cs$_{.194}$ ^{137}Cs$_{.806}$		550	40	588	25	0.4	U			P23	2.5	82Au01	
^{141}Cs−^{142}Cs$_{.496}$ ^{140}Cs$_{.504}$		−663	19	−668	12	−0.1	U			P33	2.5	86Au02	
^{140}Ce(t,p)^{142}Ce		4112	5	4116.0	2.4	0.8	1	23	17 ^{142}Ce	LAl		72Mu09	
^{142}Nd(p,t)^{140}Nd		−9150	20	−9364	28	−10.7	B			Osa		71Ya10	*
^{141}Pr(n,γ)^{142}Pr		5843.14	0.10	5843.15	0.08	0.1	–			MMn		81Ke11	Z
		5843.16	0.12			−0.1	–			Bdn		03Fi.A	
	ave.	5843.15	0.08			0.0	1	100	53 ^{141}Pr			average	
^{142}Xe(β^-)^{142}Cs		5040	100				2			Trs		78Wo15	
^{142}Cs(β^-)^{142}Ba		7280	40	7308	11	0.7	U			Bwg		87Gr.A	
		7315	15			−0.5	1	51	42 ^{142}Cs	Gsn		92Pr04	
^{142}Ba(β^-)^{142}La		2200	25	2212	5	0.5	U					83Ch39	
		2216	5			−0.9	1	84	54 ^{142}Ba	McG		84He.A	
^{142}La(β^-)^{142}Ce		4510	6	4504	5	−1.0	1	77	70 ^{142}La	McG		84He.A	
^{142}Pr(β^-)^{142}Nd		2164	2	2162.5	1.5	−0.8	–					66Be12	
		2158	3			1.5	–					75Ra09	
	ave.	2162.2	1.7			0.2	1	82	53 ^{142}Pr			average	
^{142}Pm(β^+)^{142}Nd		4800	80	4798	25	0.0	R					60Ma.A	
		4880	80			−1.0	R			IRS		83Al06	
		4880	160			−0.5	U			LBL		91Fi03	
^{142}Sm(β^+)^{142}Pm		2050	70	2164	26	1.6	C					60Ma.A	
^{142}Eu(β^+)^{142}Sm		7400	100	7670	30	2.7	U					82Gr.A	
		7000	300			2.2	U			LBL		91Fi03	
		7673	30				2			Dbn		94Po26	
^{142}Eu^{m}(β^+)^{142}Sm		8150	100	8137	14	−0.1	U					75Ke08	
		8174	50			−0.7	U			IRS		83Al06	
		7480	100			6.6	B			IRS		93Al03	*
		8150	60			−0.2	U			Dbn		94Po26	
^{142}Gd(β^+)^{142}Eu		4200	300	4360	40	0.5	U			LBL		91Fi03	
^{142}Tb(β^+)^{142}Gd		10400	700	9900#	300#	−0.7	D			LBL		91Fi03	*
^{142}Dy(β^+)^{142}Tb		7100	200				4			LBL		91Fi03	
*^{142}Nd(p,t)^{140}Nd	Disagrees strongly with ^{140}Nd−C											AHW	**
*^{142}Eu^{m}(β^+)^{142}Sm	Measured half-life 73.4(0.5) s corresponds to ^{142}Eu^{m}											GAu	**
*^{142}Tb(β^+)^{142}Gd	Systematical trends suggest ^{142}Tb 500 more bound											GAu	**
^{143}Ba−^{133}Cs$_{1.075}$		22268	16	22266	14	−0.1	1	79	79 ^{143}Ba	MA1	1.0	99Am05	
^{143}Pm−^{133}Cs$_{1.075}$		12567	15	12572	4	0.3	U			MA5	1.0	00Be42	
^{143}Sm−^{133}Cs$_{1.075}$		16268	15	16268	4	0.0	U			MA5	1.0	00Be42	
^{143}Sm−C$_{11.917}$		−85347	30	−85372	4	−0.8	U			GS2	1.0	03Li.A	*
^{143}Eu−^{133}Cs$_{1.075}$		21947	14	21937	12	−0.7	2			MA5	1.0	00Be42	
^{143}Eu−C$_{11.917}$		−79706	30	−79702	12	0.1	R			GS2	1.0	03Li.A	
^{143}Gd−C$_{11.917}$		−73012	56	−73250	220	−4.3	C			GS2	1.0	03Li.A	*
^{143}Tb−C$_{11.917}$		−64879	64				2			GS2	1.0	03Li.A	*
^{141}Cs−^{143}Cs$_{.493}$ ^{139}Cs$_{.507}$		−230	40	−200	16	0.3	U			P23	2.5	82Au01	
		−115	22			−1.5	U			P33	2.5	86Au02	
^{142}Cs−^{143}Cs$_{.497}$ ^{141}Cs$_{.504}$		647	15	654	16	0.2	1	18	9 ^{143}Cs	P33	2.5	86Au02	
^{142}Ce(n,γ)^{143}Ce		5145.9	0.5	5144.84	0.09	−2.1	–					76Ge02	
		5144.78	0.15			0.4	–			Ptn		80Ba.A	Z
		5144.81	0.12			0.2	–			Bdn		03Fi.A	
	ave.	5144.84	0.09			0.0	1	100	67 ^{142}Ce			average	
^{142}Nd(n,γ)^{143}Nd		6123.62	0.08	6123.57	0.07	−0.6	–			MMn		82Is05	Z
		6123.41	0.14			1.1	–			Bdn		03Fi.A	
	ave.	6123.57	0.07			0.0	1	100	62 ^{142}Nd			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{142}Nd(^{3}He,d)^{143}Pm	−1195	5	−1194.0	2.4	0.2	1	23	23 ^{143}Pm	McM		80St10	*
^{143}Cs(β^-)^{143}Ba	6240	70	6264	22	0.3	U			Bwg		87Gr.A	
	6270	25			−0.2	1	76	69 ^{143}Cs	Gsn		92Pr04	
^{143}Ba(β^-)^{143}La	4240	50	4251	18	0.2	–					79Sc11	
	4259	40			−0.2	–			Gsn		81De25	
	4210	70			0.6	U			Bwg		87Gr.A	
ave.	4250	30			0.0	1	34	20 ^{143}La			average	
^{143}La(β^-)^{143}Ce	3425	17	3425	15	0.0	1	80	80 ^{143}La			84Is09	
^{143}Ce(β^-)^{143}Pr	1460.6	2.	1461.5	1.8	0.4	1	83	67 ^{143}Ce			77Ra18	
^{143}Pr(β^-)^{143}Nd	932	2	933.9	1.4	1.0	–					49Fe18	
	935	2			−0.5	–					76Ra33	
ave.	933.5	1.4			0.3	1	92	84 ^{143}Pr			average	
^{143}Sm(β^+)^{143}Pm	3461	40	3443	4	−0.5	U			Dbn		94Po26	
^{143}Eu(β^+)^{143}Sm	5100	50	5281	12	3.6	B					74Ch21	
	5240	70			0.6	U			IRS		83Al06	
	5250	80			0.4	U			IRS		93Al03	
	5236	30			1.5	R			Dbn		94Po26	
^{143}Gd(β^+)^{143}Eu	6010	200				3			IRS		93Al03	*
*^{143}Sm−$C_{11.917}$	M−A=–78746(28) keV for ^{143}Sm^{m} at Eexc=753.99 keV										NDS01b	**
*^{143}Gd−$C_{11.917}$	M−A=–67934(28) keV for mixture gs+m at 152.6 keV										Ens02	**
*^{143}Tb−$C_{11.917}$	M−A=–60434(32) keV for mixture gs+m at 0#100 keV										Nubase	**
*^{142}Nd(^{3}He,d)^{143}Pm	Based on ^{146}Nd(^{3}He,d)^{147}Pm Q=–87.6(0.9)										AHW	**
*^{143}Gd(β^+)^{143}Eu	Q^+ =6160(200) from ^{143}Gd^{m} at 152.6										NDS91a	**
^{144}Ba−^{133}$Cs_{1.083}$	25347	15	25348	14	0.1	1	91	91 ^{144}Ba	MA1	1.0	99Am05	
^{144}Eu−^{133}$Cs_{1.083}$	21223	17	21212	12	−0.6	1	47	47 ^{144}Eu	MA5	1.0	00Be42	
^{144}Eu−C_{12}	−81117	30	−81183	12	−2.2	1	15	15 ^{144}Eu	GS2	1.0	03Li.A	
^{144}Gd−C_{12}	−77037	30				2			GS2	1.0	03Li.A	
^{144}Tb−C_{12}	−66955	30				2			GS2	1.0	03Li.A	*
^{144}Dy−C_{12}	−60746	33				2			GS2	1.0	03Li.A	
^{144}Sm−^{144}Nd	1911.9	1.1	1912.2	1.9	0.1	1	49	43 ^{144}Sm	H25	2.5	72Ba08	
^{142}Cs−^{144}$Cs_{.592}$ ^{139}$Cs_{.409}$	−60	40	−53	19	0.1	U			P23	2.5	82Au01	
^{143}Cs−^{144}$Cs_{.745}$ ^{140}$Cs_{.255}$	−920	50	−887	28	0.3	U			P23	2.5	82Au01	
^{142}Cs−^{144}$Cs_{.329}$ ^{141}$Cs_{.671}$	290	40	275	15	−0.2	U			P23	2.5	82Au01	
^{143}Cs−^{144}$Cs_{.662}$ ^{141}$Cs_{.338}$	−651	21	−614	27	0.7	1	27	18 ^{143}Cs	P33	2.5	86Au02	
^{143}Cs−^{144}$Cs_{.497}$ ^{142}$Cs_{.504}$	−790	50	−687	25	0.8	U			P23	2.5	82Au01	
^{144}Sm(^{3}He,^{6}He)^{141}Sm	−8693	12	−8697	9	−0.3	1	52	49 ^{141}Sm	MSU		78Pa11	
^{144}Sm(p,t)^{142}Sm	−10649	15	−10640	6	0.6	1	14	12 ^{142}Sm	Ham		73Oe02	
^{143}Nd(n,γ)^{144}Nd	7817.11	0.07	7817.03	0.05	−1.1	–			MMn		82Is05	Z
	7816.93	0.08			1.3	–			ILn		91Ro.A	Z
	7816.94	0.23			0.4	U			Bdn		03Fi.A	
ave.	7817.03	0.05			0.0	1	100	66 ^{144}Nd			average	
^{143}Nd(^{3}He,d)^{144}Pm	−804	5	−790.8	2.2	2.6	1	20	20 ^{144}Pm	McM		80St10	*
^{143}Nd(^{3}He,d)^{144}Pm−^{142}Nd()^{143}Pm	402.7	1.6	403.1	1.5	0.3	1	89	60 ^{143}Pm			75Ma04	
^{144}Sm(p,d)^{143}Sm−^{148}Gd()^{147}Gd	−1536	2	−1536.0	2.0	0.0	1	100	100 ^{143}Sm			86Ru04	
^{144}Cs(β^-)^{144}Ba	8560	80	8499	26	−0.8	–			Bwg		87Gr.A	
	8462	35			1.1	–			Gsn		92Pr04	
ave.	8480	30			0.7	1	63	57 ^{144}Cs			average	
^{144}Ba(β^-)^{144}La	3055	70	3120	50	1.0	1	49	47 ^{144}La	Bwg		87Gr.A	
^{144}La(β^-)^{144}Ce	4300	100	5540	50	12.4	B					79Ik07	
	5435	90			1.2	–			Bwg		87Gr.A	
	5540	100			0.0	o			Kur		02Sh.B	
	5540	100			0.0	–			Kur		02Sh16	
ave.	5480	70			0.9	1	53	53 ^{144}La			average	
^{144}Ce(β^-)^{144}Pr	315.6	1.5	318.7	0.8	2.0	–					66Da04	
	320	1			−1.3	–					76Ra33	
ave.	318.6	0.8			0.0	1	100	100 ^{144}Ce			average	
^{144}Pr(β^-)^{144}Nd	2996	3	2997.5	2.4	0.5	–					59Po77	
	3000	4			−0.6	–					66Da04	
ave.	2997.4	2.4			0.0	1	100	100 ^{144}Pr			average	
^{144}Eu(β^+)^{144}Sm	6330	30	6350	11	0.7	–			IRS		83Al06	
	6287	30			2.1	–			Dbn		94Po26	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{144}Sm(p,n)^{144}Eu		−7110.0	30.	−7133	11	−0.8	–					65Me12	
^{144}Eu(β^+)^{144}Sm	ave.	6315	17	6350	11	2.0	1	40	38 ^{144}Eu			average	
^{144}Gd(β^+)^{144}Eu		4300	400	3862	30	−1.1	U					70Ar04	
$*^{144}$Tb−C_{12}	M−A=–61971(28) keV for ^{144}Tb^m at Eexc=396.9 keV											Ens01	**
$*^{143}$Nd(^{3}He,d)^{144}Pm	Based on ^{146}Nd(^{3}He,d)^{147}Pm Q=–87.6(0.9)											AHW	**
^{145}Cs−^{133}$Cs_{1.090}$		38588	12	38584	12	−0.4	1	94	94 ^{145}Cs	MA8	1.0	03We.A	
^{145}Pm−$C_{12.083}$		−87255	30	−87251	3	0.1	U			GS2	1.0	03Li.A	
^{145}Sm−$C_{12.083}$		−86535	30	−86590	3	−1.8	U			GS2	1.0	03Li.A	
^{145}Eu−^{133}$Cs_{1.090}$		19338	17	19323	4	−0.9	U			MA5	1.0	00Be42	
^{145}Gd−$C_{12.083}$		−78287	30	−78291	20	−0.1	2			GS2	1.0	03Li.A	
		−78294	30			0.1	2			GS2	1.0	03Li.A	*
^{145}Tb−$C_{12.083}$		−70726	61				2			GS2	1.0	03Li.A	*
^{145}Dy−$C_{12.083}$		−62575	49				2			GS2	1.0	03Li.A	*
^{142}Cs−^{145}$Cs_{.490}$ ^{139}$Cs_{.511}$		240	50	151	12	−0.7	U			P23	2.5	82Au01	
^{144}Cs−^{145}$Cs_{.828}$ ^{139}$Cs_{.173}$		450	50	418	27	−0.3	U			P23	2.5	82Au01	
^{143}Cs−^{145}$Cs_{.493}$ ^{141}$Cs_{.507}$		−310	40	−304	25	0.1	U			P23	2.5	82Au01	
^{144}Cs−^{145}$Cs_{.662}$ ^{142}$Cs_{.338}$		320	18	322	26	0.0	1	35	33 ^{144}Cs	P33	2.5	86Au02	
^{144}Cs−^{145}$Cs_{.497}$ ^{143}$Cs_{.503}$		600	40	617	27	0.2	U			P23	2.5	82Au01	
^{144}Nd(n,γ)^{145}Nd		5755.3	0.7	5755.29	0.25	0.0	U					75Na.A	
		5756.9	2.0			−0.8	U					77Mc09	
		5755.26	0.25			0.1	1	99	71 ^{145}Nd	Bdn		03Fi.A	
^{144}Nd(^{3}He,d)^{145}Pm		−680	5	−683.9	2.2	−0.8	1	19	18 ^{145}Pm	McM		80St10	*
^{144}Nd(^{3}He,d)^{145}Pm−^{143}Nd()^{144}Pm		105.2	1.6	106.9	1.5	1.1	1	87	50 ^{144}Pm			75Ma04	
^{144}Sm(n,γ)^{145}Sm		6757.1	0.3	6757.10	0.30	0.0	1	99	71 ^{145}Sm			79Wa22	
^{144}Sm(^{3}He,d)^{145}Eu		−2184	4	−2178.0	2.7	1.5	–			Mun		82Sc25	
		−2174	4			−1.0	–					84Ru.A	
	ave.	−2179.0	2.8			0.3	1	92	89 ^{145}Eu			average	
^{145}Tm(p)^{144}Er		1740.1	10.				3					98Ba13	
^{145}Cs(β^-)^{145}Ba		7358	70				2			Gsn		81De25	
		7930	75	7360	70	−7.6	C			Bwg		87Gr.A	
		7865	50			−10.1	B			Gsn		92Pr04	
^{145}Ba(β^-)^{145}La		4925	80	5570	110	8.1	C			Bwg		87Gr.A	
^{145}La(β^-)^{145}Ce		4110	80				3			Bwg		87Gr.A	
^{145}Ce(β^-)^{145}Pr		2490	100	2530	40	0.4	2					67Ho19	
		2600	100			−0.7	2					80Ya07	
		2530	50			0.1	2			Bwg		87Gr.A	
^{145}Pr(β^-)^{145}Nd		1805	10	1805	7	0.0	1	50	50 ^{145}Pr			59Dr.A	
^{145}Pm(ε)^{145}Nd		143	15	163.4	2.2	1.4	U					59Br65	
		150	5			2.7	1	19	18 ^{145}Pm			74To04	
^{145}Sm(ε)^{145}Pm		607	6	616.0	2.4	1.5	–					71My01	
		622	5			−1.2	–					83Vo10	
	ave.	616	4			0.0	1	40	26 ^{145}Pm			average	
^{145}Gd(β^+)^{145}Eu		5070	60	5071	19	0.0	R					79Fi07	
		5090	90			−0.2	o			IRS		83Ve.A	
		5070	80			0.0	U			IRS		85Al13	
^{145}Tb^m(β^+)^{145}Gd		6700	200	7050#	120#	1.7	C					86Ve.A	*
		6400	150			4.3	B			IRS		93Al03	
^{145}Dy(β^+)^{145}Tb		7300	200	7590	70	1.5	U			IRS		93Al03	
$*^{145}$Gd−$C_{12.083}$	M−A=–72181(28) keV for ^{145}Gd^m at Eexc=749.1 keV											Ens01	**
$*^{145}$Tb−$C_{12.083}$	M−A=–65881(28) keV for mixture gs+m at 0#100 keV											Nubase	**
$*^{145}$Dy−$C_{12.083}$	M−A=–58230(30) keV for mixture gs+m at 118.2 keV											NDS934	**
$*^{144}$Nd(^{3}He,d)^{145}Pm	Based on ^{146}Nd(^{3}He,d)^{147}Pm Q=–87.6(0.9)											AHW	**
$*^{145}$Tb^m(β^+)^{145}Gd	E^+ =3300(200) to 2382.3 9/2$^-$ level											NDS934	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{146}Pm−C$_{12.167}$		−85289	30	−85304	5	−0.5	U			GS2	1.0	03Li.A	
^{146}Eu−^{133}Cs$_{1.098}$		21029	15	21020	7	−0.6	1	20	20 ^{146}Eu	MA5	1.0	00Be42	
^{146}Tb−C$_{12.167}$		−72464	77	−72750	50	−3.8	C			GS2	1.0	03Li.A	*
^{146}Dy−C$_{12.167}$		−67150	30	−67155	29	−0.2	1	94	94 ^{146}Dy	GS2	1.0	03Li.A	
^{146}Nd ^{35}Cl−^{144}Nd ^{37}Cl		5982.8	1.1	5979.76	0.29	−1.1	U			H25	2.5	72Ba08	
^{145}Cs−^{146}Cs$_{.828}$ ^{140}Cs$_{.173}$		−580	80	−670	60	−0.5	U			P23	2.5	82Au01	
^{144}Cs−^{146}Cs$_{.329}$ ^{143}Cs$_{.671}$		320	50	440	40	0.9	U			P23	2.5	82Au01	
^{145}Cs−^{146}Cs$_{.662}$ ^{143}Cs$_{.338}$		−440	30	−360	50	1.0	1	39	38 ^{146}Cs	P33	2.5	86Au02	
^{145}Cs−^{146}Cs$_{.497}$ ^{144}Cs$_{.503}$		−730	30	−590	40	1.9	1	24	21 ^{146}Cs	P33	2.5	86Au02	
^{146}Sm(α)^{142}Nd		2524.2	4.	2528.4	2.9	1.0	1	49	47 ^{146}Sm			87Me08	Z
^{144}Sm(^{3}He,p)^{146}Eu		2797	12	2793	6	−0.4	1	25	23 ^{146}Eu			84Ru.A	
^{146}Nd(d,^{3}He)^{145}Pr		−3095	10	−3095	7	0.0	1	50	50 ^{145}Pr	KVI		79Sa.A	
^{145}Nd(n,γ)^{146}Nd		7565.28	0.10	7565.23	0.09	−0.5	–			MMn		82Is05	Z
		7565.05	0.18			1.0	–			Bdn		03Fi.A	
	ave.	7565.23	0.09			0.1	1	100	72 ^{146}Nd			average	
^{146}Sm(^{3}He,α)^{145}Sm		12161	5	12162	3	0.2	1	37	28 ^{146}Sm			86Ru04	*
^{146}Tm(p)^{145}Er		1126.8	5.	1127	4	0.0	3					93Li18	
		1127.8	10.			−0.1	3			ORp		01Ry01	
^{146}Tm^m(p)^{145}Er		1197.3	5.	1198	4	0.0	3			Dap		93Li18	
		1198.3	10.			−0.1	3			ORp		01Ry01	
^{146}Cs(β^-)^{146}Ba		9310	60	9380	40	1.2	–			Bwg		87Gr.A	
		9375	50			0.1	–			Gsn		92Pr04	
	ave.	9350	40			0.8	1	93	51 ^{146}Ba			average	
^{146}Ba(β^-)^{146}La		4280	100	4120	40	−1.6	–			Gsn		81De25	
		4030	50			1.9	–			Bwg		87Gr.A	
	ave.	4080	40			1.0	1	90	49 ^{146}Ba			average	
^{146}La(β^-)^{146}Ce		6380	70	6550	50	2.5	–			Trs		82Br23	
		6620	70			−1.0	–			Bwg		87Gr.A	
	ave.	6500	50			1.1	1	88	58 ^{146}La			average	
^{146}Ce(β^-)^{146}Pr		1100	80	1040	40	−0.8	–					54Be10	
		1050	100			−0.1	–					67Ho19	
		951	50			1.7	–					80Ya07	
		1065	100			−0.3	–					81Eb01	
	ave.	1010	40			0.8	1	94	70 ^{146}Ce			average	
^{146}Pr(β^-)^{146}Nd		4150	200	4220	60	0.3	U					54Be10	
		4250	200			−0.2	U					65Ra02	
		4080	100			1.4	–					68Da13	
		4140	100			0.8	–					78Ik03	
	ave.	4110	70			1.5	1	76	76 ^{146}Pr			average	
^{146}Pm(β^-)^{146}Sm		1542	3				2					74Sc06	
^{146}Eu(β^+)^{146}Sm		3871	10	3880	6	0.9	–					62Fu16	
		3871	20			0.4	–					64Ta11	
		3896	20			−0.8	–			Got		88Sa06	
	ave.	3875	8			0.5	1	52	45 ^{146}Eu			average	
^{146}Tb(β^+)^{146}Gd		8240	150	8320	50	0.6	o			IRS		83Al06	
		7910	150			2.8	B			IRS		93Al03	*
		8310	50			0.3	1	81	81 ^{146}Tb	Dbn		94Po26	
^{146}Dy(β^+)^{146}Tb		5160	100	5220	50	0.6	1	25	19 ^{146}Tb	IRS		93Al03	
*^{146}Tb−C$_{12.167}$	M−A=–67424(28) keV for mixture gs+m at 150#100 keV											Nubase	**
*^{146}Sm(^{3}He,α)^{145}Sm	Q−Q(^{148}Gd(^{3}He,α))=–567(5)											AHW	**
*^{146}Tb(β^+)^{146}Gd	Reported half-life 24.1(0.5)s corresponds to ^{146}Tb^m											GAu	**
*	Q=8060(100) keV from ^{146}Tb^m at estimated Eexc=150#100 keV											GAu	**
^{147}Cs−^{133}Cs$_{1.105}$		48640	64	48630	60	−0.1	1	79	79 ^{147}Cs	MA8	1.0	03We.A	
^{147}Eu−^{133}Cs$_{1.105}$		21215	16	21222	3	0.4	U			MA5	1.0	00Be42	
^{147}Tb−C$_{12.25}$		−75934	34	−75955	13	−0.6	U			GS2	1.0	03Li.A	*
^{147}Dy−C$_{12.25}$		−68909	30	−68909	21	0.0	2			GS2	1.0	03Li.A	
		−68908	30			0.0	2			GS2	1.0	03Li.A	*

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{147}Ho−$C_{12.25}$		−59944	30				2			GS2	1.0	03Li.A	
^{147}Eu−^{142}Sm$_{1.035}$		4516	17	4517	6	0.0	1	15	12 ^{142}Sm	MA7	1.0	01Bo59	
^{145}Cs−^{147}Cs$_{.493}$ ^{143}Cs$_{.507}$		−87	22	−102	29	−0.3	1	27	21 ^{147}Cs	P33	2.5	86Au02	
^{147}Eu(α)^{143}Pm		2990.6	10.	2990.3	3.0	0.0	U					62Si14	Z
		2987.2	5.			0.6	1	33	18 ^{143}Pm			67Go32	Z
^{146}Nd(n,γ)^{147}Nd		5292.19	0.15	5292.20	0.09	0.1	–			ILn		75Ro16	Z
		5292.19	0.11			0.1	–			Bdn		03Fi.A	
	ave.	5292.19	0.09			0.1	1	100	77 ^{147}Nd			average	
^{147}Tb(p)^{146}Gd		−1945	18	−1948	12	−0.2	R					87Sc.A	
^{147}Tm(p)^{146}Er		1058.2	3.3				3					93Se04	
^{147}Tm^{m}(p)^{146}Er		1118.5	3.9				3			Dap		93Se04	
^{147}Ba(β^-)^{147}La		5750	50	6250#	200#	10.0	D			Bwg		87Gr.A	*
^{147}La(β^-)^{147}Ce		4945	55	5180	40	4.3	B			Bwg		87Gr.A	
		5150	40			0.8	4			Kur		95Ik03	
		5370	100			−1.9	4			Kur		02Sh.B	
^{147}Ce(β^-)^{147}Pr		3290	40	3426	20	3.4	B			Bwg		87Gr.A	
		3426	20				3			Kur		95Ik03	
		3380	100			0.5	U			Kur		02Sh.B	
^{147}Pr(β^-)^{147}Nd		2790	100	2697	23	−0.9	U					81Ya06	
		2711	28			−0.5	2			Kur		95Ik03	
^{147}Nd(β^-)^{147}Pm		894.6	1.0	896.0	0.9	1.4	1	80	58 ^{147}Pm			67Ca18	
^{147}Pm(β^-)^{147}Sm		223.2	0.5	224.1	0.3	1.9	–					50La04	
		224.3	1.3			−0.1	–					58Ha32	
		224.5	0.4			−0.9	–					66Hs01	
	ave.	224.0	0.3			0.4	1	98	56 ^{147}Sm			average	
^{147}Eu(β^+)^{147}Sm		1723	3	1721.6	2.3	−0.5	1	59	55 ^{147}Eu			80Bu04	
^{147}Gd(β^+)^{147}Eu		2185	5	2187.4	2.8	0.5	1	31	18 ^{147}Eu			80Vy01	
		2199	17			−0.7	U					84Sc18	
^{147}Tb(β^+)^{147}Gd		4700	90	4611	12	−1.0	U					83Ve06	*
		4490	60			2.0	B			Got		85Ti01	
		4609	15			0.1	2			GSI		91Ke11	*
^{147}Dy(β^+)^{147}Tb		6334	60	6564	23	3.8	C					85Af.A	*
		6480	100			0.8	U			IRS		85Al08	*
*^{147}Tb−$C_{12.25}$	M−A=–70707(28) keV for mixture gs+m at 50.6 keV											Ens99	**
*^{147}Dy−$C_{12.25}$	M−A=–63437(28) keV for ^{147}Dy^{m} at Eexc=750.5 keV											NDS928	**
*^{147}Ba(β^-)^{147}La	Systematical trends suggest ^{147}Ba +500											GAu	**
*^{147}Tb(β^+)^{147}Gd	E^+ =2460(80) to 1152.2 and 1292.3 levels, reinterpreted											AHW	**
*^{147}Tb(β^+)^{147}Gd	Q^+ =4660(15) from ^{147}Tb^{m} at 50.6(0.9)											87Li09	**
*^{147}Dy(β^+)^{147}Tb	E^+ =6012(60) from ^{147}Dy^{m} at 750.5 to ^{147}Tb^{m} at 50.6(0.9)											NDS928	**
*^{147}Dy(β^+)^{147}Tb	Q^+ =7180(100) from ^{147}Dy^{m} at 750.5 to ^{147}Tb^{m} at 50.6(0.9)											NDS928	**
^{148}Eu−^{133}Cs$_{1.113}$		23315	15	23318	11	0.2	1	53	53 ^{148}Eu	MA5	1.0	00Be42	
^{148}Tb−$C_{12.333}$		−75692	41	−75728	15	−0.9	U			GS2	1.0	03Li.A	*
^{148}Dy−^{133}Cs$_{1.113}$		32394	16	32382	11	−0.8	R			MA5	1.0	00Be42	
	ave.	−72852	12			0.1	1	93	93 ^{148}Dy			average	
^{148}Ho−$C_{12.333}$		−62282	139				2			GS2	1.0	03Li.A	*
^{148}Eu−^{142}Sm$_{1.042}$		6451	17	6450	11	−0.1	1	44	36 ^{148}Eu	MA7	1.0	01Bo59	
^{148}Nd $^{35}Cl_2$−^{144}Nd $^{37}Cl_2$		12703.6	2.1	12706.2	1.8	0.5	1	12	11 ^{148}Nd	H25	2.5	72Ba08	
^{148}Sm $^{35}Cl_2$−^{144}Sm $^{37}Cl_2$		8721.4	2.6	8723.4	2.1	0.3	1	10	8 ^{144}Sm	H25	2.5	72Ba08	
^{148}Nd ^{35}Cl−^{146}Nd ^{37}Cl		6725.7	0.9	6726.4	1.8	0.3	1	61	60 ^{148}Nd	H26	2.5	73Me28	
^{145}Cs−^{148}Cs$_{.392}$ ^{143}Cs$_{.608}$		−370	90	−370	230	0.0	1	100	100 ^{148}Cs	P33	2.5	86Au02	
^{148}Eu(α)^{144}Pm		2703.2	30.	2694	10	−0.3	1	11	11 ^{148}Eu			64To04	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{148}Gd(α)^{144}Sm		3271.29	0.03	3271.21	0.03	0.0	1	100	89 ^{148}Gd			73Go29	Z
^{148}Sm(p,t)^{146}Sm		−6011	8	−6001.1	3.0	1.2	1	14	12 ^{146}Sm	Min		72De47	
		−6018	15			1.1	U			Ham		74Oe03	
^{148}Gd(p,t)^{146}Gd		−7843	4	−7843	4	−0.1	1	93	91 ^{146}Gd	Liv		86Ma40	
^{148}Nd(d,^{3}He)^{147}Pr		−3726	40	−3754	23	−0.7	R			KVI		79Sa.A	
^{148}Nd(d,t)^{147}Nd		−1072	4	−1075.6	1.6	−0.9	1	17	17 ^{148}Nd	McM		77St22	
^{147}Sm(n,γ)^{148}Sm		8139.8	1.2	8141.41	0.28	1.3	F					69Re04	Z
		8141.1	1.5			0.2	U					70Bu19	Z
		8141.8	0.8			−0.5	–					71Gr37	Z
		8141.3	0.3			0.4	–			Bdn		03Fi.A	
	ave.	8141.36	0.28			0.2	1	97	64 ^{148}Sm			average	
^{148}Gd(p,d)^{147}Gd−^{148}Sm()^{147}Sm		−842	2	−842.7	1.2	−0.3	–					86Ru04	
^{148}Gd(d,t)^{147}Gd−^{148}Sm()^{147}Sm		−843	2			0.2	–					86Ru04	
^{148}Gd(^{3}He,α)^{147}Gd−^{148}Sm()^{147}Sm		−842	3			−0.2	–					86Ru04	
^{148}Gd(p,d)^{147}Gd−^{148}Sm()^{147}S	ave.	−842.4	1.3			−0.2	1	92	84 ^{147}Gd			average	
^{148}Ba(β^-)^{148}La		5115	60				5			Bwg		90Gr10	
^{148}La(β^-)^{148}Ce		7310	140	7260	50	−0.3	4			Trs		82Br23	*
		7255	55			0.1	4			Bwg		90Gr10	
		7650	100			−3.9	C			Kur		02Sh.B	
^{148}Ce(β^-)^{148}Pr		2060	75	2140	14	1.1	U			Bwg		87Gr.A	
		2140	14				3			Kur		95Ik03	
^{148}Pr(β^-)^{148}Nd		4800	200	4883	26	0.4	U					79Ik06	
		4965	100			−0.8	U			Bwg		87Gr.A	
		4890	50			−0.1	2					88Ka14	
		4880	30			0.1	2			Kur		95Ik03	
		4930	100			−0.5	U			Kur		02Sh.B	
^{148}Pm(β^-)^{148}Sm		2480	15	2470	6	−0.6	R					62Sc04	
^{148}Eu(β^+)^{148}Sm		3122	30	3040	10	−2.7	B					63Ba32	
		3150	30			−3.7	B					70Ag01	
^{148}Tb(β^+)^{148}Gd		5630	80	5735	14	1.3	F					76Cr.B	*
		5835	70			−1.4	U					83Ve06	*
		5710	100			0.3	U			Got		85Sc09	*
		5390	100			3.5	B			Got		85Ti01	*
		5760	80			−0.3	U			IRS		93Al03	*
		5752	40			−0.4	1	12	12 ^{148}Tb	GSI		95Ke05	*
^{148}Dy(β^+)^{148}Tb		2682	10	2681	10	−0.1	1	95	88 ^{148}Tb	GSI		95Ke05	*
^{148}Ho^m(β^+)^{148}Dy		9400	250	*			B			IRS		93Al03	
*^{148}Tb−C$_{12.333}$	M−A=−70462(28) keV for mixture gs+m at 90.1 keV											NDS004	**
*^{148}Ho−C$_{12.333}$	M−A=−57815(30) keV for mixture gs+m at 400#100 keV											Nubase	**
*^{148}La(β^-)^{148}Ce	E$^-$=5862(100) supposed to go to levels around E=1450(100)											90Gr10	**
*^{148}Tb(β^+)^{148}Gd	E$^+$ =4610(80) assumed to ground-state											76Cr.B	**
*	F: since ^{148}Tb gs 2$^-$, transition to ^{148}Gd gs weak											AHW	**
*^{148}Tb(β^+)^{148}Gd	E$^+$ =2210(70) from ^{148}Tb^m at 90.1 to 2693.3 level											NDS902	**
*	and E$^+$ =4560(80) mainly to 748.5 level. Discrepant, not used											NDS902	**
*^{148}Tb(β^+)^{148}Gd	p$^+$ =0.271(0.10) gives E$^+$ =1920(30) from ^{148}Tb^m at 90.1 to 2693.3 level											85Sc09	**
*	but assuming 5(5)% side feeding; compare ref.											90Sa32	**
*^{148}Tb(β^+)^{148}Gd	KL/β^+=1.54(0.09) to 1863.42 level=>Q$^+$ =5295(45)											85Ti01	**
*	but assuming 7(7)% side feeding; compare 1990Sa32											AHW	**
*^{148}Tb(β^+)^{148}Gd	Q$^+$ =5700(80); and 5910(80) from ^{148}Tb^m at 90.1											NDS902	**
*^{148}Tb(β^+)^{148}Gd	Q$^+$ =5750(40); and 5846(50) from ^{148}Tb^m at 90.1											NDS902	**
*^{148}Dy(β^+)^{148}Tb	GSI average of E$^+$ =1043(10) and 1036(10) of ref.											91Ke11	**
*	to 620.24 level											NDS902	**
^{149}Eu−^{133}Cs$_{1.120}$		23849	17	23825	5	−1.4	U			MA5	1.0	00Be42	
^{149}Tb−C$_{12.417}$		−76730	32	−76754	5	−0.8	U			GS2	1.0	03Li.A	*
^{149}Dy−^{133}Cs$_{1.120}$		33278	109	33199	9	−0.7	U			MA5	1.0	00Be42	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{149}Dy−C$_{12.417}$		−72698	30	−72695	9	0.1	1	10	10 ^{149}Dy	GS2	1.0	03Li.A	*
^{149}Ho−C$_{12.417}$		−66179	34	−66225	20	−1.4	R			GS2	1.0	03Li.A	*
^{149}Er−C$_{12.417}$		−57694	30				2			GS2	1.0	03Li.A	*
^{149}Eu−^{142}Sm$_{1.049}$		6909	18	6889	7	−1.1	1	16	11 ^{142}Sm	MA7	1.0	01Bo59	
^{149}Dy−^{142}Sm$_{1.049}$		16249	16	16262	10	0.8	1	39	29 ^{149}Dy	MA7	1.0	01Bo59	
^{149}Sm ^{35}Cl−^{147}Sm ^{37}Cl		5239.8	0.8	5236.9	1.0	−1.4	1	23	14 ^{149}Sm	M21	2.5	75Ka25	
^{149}Gd(α)^{145}Sm		3102.3	10.	3099	3	−0.3	–					65Ma51	Z
		3096.2	10.			0.3	–			ORa		66Wi12	Z
		3099.1	5.			0.1	–			Dba		67Go32	Z
	ave.	3099	4			0.1	1	58	51 ^{149}Gd			average	
^{149}Tb(α)^{145}Eu		4074.4	3.	4077.5	2.2	1.1	–			Dba		67Go32	Z
		4073.8	7.			0.5	U					74To07	*
		4081.8	5.			−0.8	–					82Bo04	Z
		4082.8	4.			−1.3	–			Daa		96Pa01	
	ave.	4078.1	2.2			−0.3	1	95	84 ^{149}Tb			average	
^{149}Sm(n,α)^{146}Nd		9429	4	9435.5	1.2	1.6	1	9	6 ^{149}Sm	McM		67Oa01	
^{148}Nd(n,γ)^{149}Nd		5038.76	0.10	5038.79	0.07	0.3	–			ILn		76Pi04	Z
		5038.82	0.11			−0.3	–			Bdn		03Fi.A	
	ave.	5038.79	0.07			0.0	1	100	99 ^{149}Nd			average	
^{148}Nd(^{3}He,d)^{149}Pm		455	5	453	3	−0.3	1	47	42 ^{149}Pm	McM		80St10	*
^{149}Sm(d,^{3}He)^{148}Pm		−2064	6	−2066	6	−0.3	2					88No02	
^{148}Sm(n,γ)^{149}Sm		5872.5	1.8	5871.1	0.9	−0.8	1	24	14 ^{149}Sm			70Sm.A	
		5850.8	0.6			33.8	C					82Ba15	
^{149}Er(εp)^{148}Dy		7080	470	6829	30	−0.5	U			LBL		89Fi01	
^{149}La(β^-)^{149}Ce		6450	200	5900#	300#	−2.8	D			Kur		02Sh.B	*
^{149}Ce(β^-)^{149}Pr		4190	75	4360	50	2.3	B			Bwg		87Gr.A	
		4380	60			−0.3	3			Kur		95Ik03	
		4310	100			0.5	3			Kur		02Sh.B	
^{149}Pr(β^-)^{149}Nd		3000	200	3320	80	1.6	2					67Va14	
		3390	90			−0.7	2			Kur		95Ik03	
^{149}Nd(β^-)^{149}Pm		1669	10	1690	3	2.1	1	12	11 ^{149}Pm			64Go08	
^{149}Pm(β^-)^{149}Sm		1072	2	1071	4	−0.7	–					60Ar05	
		1062	2			4.3	–					78Re01	
	ave.	1067	5			0.7	1	49	47 ^{149}Pm			average	
^{149}Eu(ε)^{149}Sm		680	10	695	4	1.5	1	14	13 ^{149}Eu			85Ad.A	
^{149}Gd(ε)^{149}Eu		1308	6	1313	4	0.9	1	48	28 ^{149}Eu	Got		84Sc.B	
^{149}Tb(β^+)^{149}Gd		3635	10	3637	4	0.2	1	19	11 ^{149}Tb	GSI		91Ke06	*
^{149}Dy(β^+)^{149}Tb		3797	13	3781	9	−1.2	1	46	40 ^{149}Dy	GSI		91Ke11	*
^{149}Ho(β^+)^{149}Dy		6043	50	6027	16	−0.3	2			IRS		83Al06	
		6009	20			0.9	2			GSI		91Ke11	
^{149}Er(ε)^{149}Ho		8610	650	7950	30	−1.0	U			LBL		89Fi01	*
*^{149}Tb−C$_{12.417}$	M−A=–71456(28) keV for mixture gs+m at 35.78 keV											Ens99	**
*^{149}Dy−C$_{12.417}$	M−A=–65057(28) keV for ^{149}Dy^m at Eexc=2661.1 keV											NDS94b	**
*^{149}Ho−C$_{12.417}$	M−A=–61621(28) keV for mixture gs+m at 48.80 keV											NDS94b	**
*^{149}Er−C$_{12.417}$	M−A=–53000(28) keV for ^{149}Er^m at Eexc=741.8 keV											Ens95	**
*^{149}Tb(α)^{145}Eu	E(α)=3999(7) from ^{149}Tb^m at 35.78											NDS94b	**
*^{148}Nd(^{3}He,d)^{149}Pm	Based on ^{146}Nd(^{3}He,d)^{147}Pm Q=–87.6(0.9)											AHW	**
*^{149}La(β^-)^{149}Ce	Systematical trends suggest ^{149}La 550 more bound											CTh	**
*^{149}Tb(β^+)^{149}Gd	E$^+$ =1853(10) from ^{149}Tb^m at 35.78 to 795.82 level											NDS94b	**
*^{149}Dy(β^+)^{149}Tb	Original Q=3812(10) from E$^+$ =1965(10) to 825.16 level corrected											GAu	**
*	to E$^+$ =1950(13) for background substraction											GAu	**
*^{149}Er(ε)^{149}Ho	KLM/β^+=0.68(0.34) from ^{149}Er^m at 741.8 to 4699.7 level											NDS94b	**
^{150}Tb^m−C$_{12.5}$		−75850	30				2			GS2	1.0	03Li.A	
^{150}Ho−^{133}Cs$_{1.128}$		40150	29	40146	15	−0.1	–			MA5	1.0	00Be42	
	ave.	40132	21			0.7	1	53	53 ^{150}Ho			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{150}Ho−C$_{12.5}$		−66499	40	−66504	15	−0.1	U			GS2	1.0	03Li.A	*
^{150}Er−C$_{12.5}$		−62060	30	−62086	18	−0.9	1	38	38 ^{150}Er	GS2	1.0	03Li.A	
^{150}Nd ^{35}Cl$_2$−^{146}Nd ^{37}Cl$_2$		13672.5	1.8	13674.1	2.5	0.4	1	30	28 ^{150}Nd	H25	2.5	72Ba08	
^{150}Sm ^{35}Cl−^{148}Sm ^{37}Cl		5404.8	0.6	5403.0	0.9	−1.2	1	39	22 ^{150}Sm	M21	2.5	75Ka25	
^{150}Nd−^{150}Sm		3617.0	1.2	3615.3	2.4	−0.6	1	62	58 ^{150}Nd	H25	2.5	72Ba08	
^{150}Nd−^{148}Nd		3988	3	3997.6	2.9	1.3	1	15	10 ^{150}Nd	M17	2.5	66Be10	
^{150}Gd(α)^{146}Sm		2804.9	10.	2808	6	0.3	–					62Si14	
		2792.6	18.			0.8	–					65Og01	
	ave.	2802	9			0.7	1	45	39 ^{150}Gd			average	
^{150}Tb(α)^{146}Eu		3585.5	5.	3587	5	0.3	1	92	81 ^{150}Tb			67Go32	Z
^{150}Dy(α)^{146}Gd		4345.8	5.	4351.3	1.5	1.1	–					67Go32	Z
		4349.5	5.			0.4	–					79Ho10	Z
		4351.3	3.			0.0	–					82Bo04	*
		4352.4	2.			−0.5	–					82De11	Z
	ave.	4351.2	1.5			0.0	1	99	90 ^{150}Dy			average	
^{150}Nd(d,^{3}He)^{149}Pr		−4501	10	−4430	80	7.2	C			KVI		79Sa.A	
^{149}Sm(n,γ)^{150}Sm		7984.9	0.6	7986.7	0.4	3.1	F					69Re04	Z
		7986.7	1.5			0.0	–					70Bu19	Z
		7986.7	0.4			0.1	–			Bdn		03Fi.A	
	ave.	7986.7	0.4			0.1	1	95	64 ^{149}Sm			average	
^{150}Lu(p)^{149}Yb		1269.6	4.	1269.6	2.8	0.0	3					84Ho.A	
		1269.6	4.			0.0	3					93Se04	
^{150}Lu^m(p)^{149}Yb		1303.8	15.				3			Oak		00Gi01	
^{150}Ce(β^-)^{150}Pr		3010	90	3480	40	5.2	B			Bwg		87Gr.A	
		3480	40				3			Kur		95Ik03	
^{150}Pr(β^-)^{150}Nd		5690	80	5386	26	−3.8	B			Bwg		87Gr.A	
		5386	26				2			Kur		95Ik03	
		5290	100			1.0	U			Kur		02Sh.B	
^{150}Pm(β^-)^{150}Sm		3454	20				2					77Ho09	
^{150}Eu(β^-)^{150}Gd		978	10	971	4	−0.7	–					63Yo07	*
		968	4			0.9	–					65Gu03	*
	ave.	969	4			0.6	1	91	54 ^{150}Eu			average	
^{150}Tb(β^+)^{150}Gd		4670	15	4658	8	−0.8	1	31	19 ^{150}Tb			76Cr.B	
^{150}Tb^m(β^+)^{150}Gd		5040	100	5115	29	0.7	U			IRS		93Al03	
^{150}Ho(β^+)^{150}Dy		6980	150	7369	15	2.6	B					84Al36	*
		6560	100			8.1	B			IRS		93Al03	
^{150}Ho(ε)^{150}Dy		6560	100			8.1	B			IRS		93Al03	
		7372	27			−0.1	1	29	27 ^{150}Ho			00Ca.A	
		7444	126			−0.6	U					01Ro35	
^{150}Ho^m(β^+)^{150}Dy		7360	50				2			IRS		83Al06	
		6625	120	7360	50	6.1	B			Got		85Sc09	
		7060	80			3.8	C			IRS		93Al03	
^{150}Er(β^+)^{150}Ho		4108	15	4115	14	0.5	1	82	62 ^{150}Er	GSI		91Ke11	
*^{150}Ho−C$_{12.5}$	M−A=–61948(28) keV for mixture gs+m at –10(50) keV											Nubase	**
*^{150}Dy(α)^{146}Gd	Recalibrated as in ref.											91Ry01	**
*^{150}Eu(β^-)^{150}Gd	Q$^-$=1020(10) from ^{150}Eu^m at 42.1											NDS866	**
*^{150}Eu(β^-)^{150}Gd	Q$^-$=1010(4) from ^{150}Eu^m at 42.1											NDS866	**
*^{150}Ho(β^+)^{150}Dy	E$^+$ =4550(150) to 1395.0 and 1456.8 levels											82No08	**
^{151}Eu−^{85}Rb$_{1.776}$		76520	15	76511.6	2.6	−0.6	U			MA5	1.0	00Be42	
^{151}Tb−C$_{12.583}$		−76866	43	−76897	5	−0.7	U			GS2	1.0	03Li.A	*
^{151}Dy−C$_{12.583}$		−73809	30	−73815	4	−0.2	U			GS2	1.0	03Li.A	
^{151}Ho−C$_{12.583}$		−68323	33	−68312	13	0.3	U			GS2	1.0	03Li.A	*
^{151}Er−C$_{12.583}$		−62528	30	−62551	18	−0.8	2			GS2	1.0	03Li.A	
		−62540	30			−0.4	2			GS2	1.0	03Li.A	*
^{151}Tb(α)^{147}Eu		3499.6	5.	3496	4	−0.7	1	58	49 ^{151}Tb			67Go32	
^{151}Dy(α)^{147}Gd		4175.7	5.	4179.5	2.6	0.8	2					67Go32	Z
		4181.1	3.			−0.5	2					82Bo04	Z
^{151}Ho(α)^{147}Tb		4696.3	5.	4695.0	1.8	−0.3	3			GSa		79Ho10	*
		4695.8	3.			−0.3	3					82Bo04	*
		4693.8	3.			0.4	3					82De11	*
		4694.9	5.			0.0	3			Daa		96Pa01	*

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{151}Eu(p,t)^{149}Eu		−5872	5	−5873	4	−0.3	1	55	53 ^{149}Eu	Min		75Ta12	
^{150}Nd(n,γ)^{151}Nd		5334.55	0.2	5334.55	0.10	0.0	2			ILn		76Pi13	Z
		5334.55	0.11			0.0	2			Bdn		03Fi.A	
^{150}Nd(^{3}He,d)^{151}Pm		1503	5	1501	4	−0.4	1	81	77 ^{151}Pm	McM		80St10	*
^{150}Sm(n,γ)^{151}Sm		5596.42	0.20	5596.46	0.11	0.2	–			ILn		86Va08	Z
		5596.44	0.13			0.1	–			Bdn		03Fi.A	
	ave.	5596.43	0.11			0.2	1	100	59 ^{151}Sm			average	
^{151}Eu(p,d)^{150}Eu		−5721	9	−5709	6	1.4	1	48	46 ^{150}Eu			82So.B	
^{151}Yb(εp)^{150}Er		9000	300				2					86To12	*
^{151}Lu(p)^{150}Yb		1241.0	2.8				3					93Se04	
^{151}Lu^m(p)^{150}Yb		1318.8	10.	1318	6	−0.1	o			Daa		99Bi14	*
^{151}Ce(β^-)^{151}Pr		5270	100				4			Kur		02Sh.B	
^{151}Pr(β^-)^{151}Nd		4170	75	4182	23	0.2	3			Bwg		90Gr10	
		4136	40			1.2	3			Ida		93Gr17	*
		4210	30			−0.9	3			Kur		95Ik03	
^{151}Nd(β^-)^{151}Pm		2480	50	2442	4	−0.8	U			Kur		95Ik03	
^{151}Pm(β^-)^{151}Sm		1195	10	1187	5	−0.8	1	23	23 ^{151}Pm			64Be10	
^{151}Sm(β^-)^{151}Eu		75.9	0.6	76.6	0.5	1.2	1	81	55 ^{151}Eu			59Ac28	
^{151}Gd(ε)^{151}Eu		463	3	464.2	2.8	0.4	1	86	84 ^{151}Gd			83Vo10	
^{151}Tb(β^+)^{151}Gd		2562	5	2565	4	0.7	–					77Cr05	
		2566	12			−0.1	–					84Sc18	
	ave.	2563	5			0.6	1	66	51 ^{151}Tb			average	
^{151}Er(β^+)^{151}Ho		5130	110	5366	20	2.1	B					98Fo06	
^{151}Lu^m(IT)^{151}Lu		77	5				4			Daa		99Bi14	
*^{151}Tb−C$_{12.583}$	M−A=–71551(28) keV for mixture gs+m at 99.54 keV											Ens99	**
*^{151}Ho−C$_{12.583}$	M−A=–63622(28) keV for mixture gs+m at 41.0 keV											NDS972	**
*^{151}Er−C$_{12.583}$	M−A=–55670(28) keV for ^{151}Er^m at Eexc=2585.5 keV											NDS972	**
*^{151}Ho(α)^{147}Tb	E=4523.8(5,Z) to ^{147}Tb^m at 50.6(0.9); 4610.8(5,Z) from ^{151}Ho^m at 41.1(0.2											91To08	**
*^{151}Ho(α)^{147}Tb	E=4521.5(3,Z) to ^{147}Tb^m at 50.6(0.9); 4611.5(3,Z) from ^{151}Ho^m at 41.1(0.2											91To08	**
*^{151}Ho(α)^{147}Tb	E=4521.2(3,Z) to ^{147}Tb^m at 50.6(0.9); 4607.2(4,Z) from ^{151}Ho^m at 41.1(0.2											91To08	**
*^{151}Ho(α)^{147}Tb	E(α)=4521(5,Z) to ^{147}Tb^m at 50.6(0.9)											96Pa01	**
*^{150}Nd(^{3}He,d)^{151}Pm	Based on ^{146}Nd(^{3}He,d)^{147}Pm Q=–87.6(0.9)											AHW	**
*^{151}Yb(εp)^{150}Er	E(p) estimated 7300(300) to levels around 1700											GAu	**
*	"Statistical p's originate from 11/2$^-$ isomer."											86To12	**
*^{151}Lu^m(p)^{150}Yb	Derived from ^{151}Lu^m(IT)=77(5)											99Bi14	**
*^{151}Pr(β^-)^{151}Nd	Two highest Q$^-$=4135(50),4137(40)											AHW	**
$C_{12}H_8$−^{152}Sm		142867.0	5.0	142867.8	2.7	0.1	U			M22	2.5	75Ka25	
^{152}Eu−C$_{12.667}$		−78347	50	−78255.5	2.6	1.8	U			GS2	1.0	03Li.A	*
^{152}Tb−C$_{12.667}$		−76212	159	−75930	40	1.8	U			GS2	1.0	03Li.A	*
^{152}Dy−C$_{12.667}$		−75278	30	−75282	6	−0.1	U			GS2	1.0	03Li.A	
^{152}Ho−C$_{12.667}$		−68248	58	−68286	15	−0.7	U			GS2	1.0	03Li.A	*
^{152}Er−C$_{12.667}$		−64962	30	−64950	11	0.4	R			GS2	1.0	03Li.A	
^{152}Tm−C$_{12.667}$		−55578	79				2			GS2	1.0	03Li.A	*
^{152}Sm ^{35}Cl$_2$−^{148}Sm ^{37}Cl$_2$		10810.8	2.0	10809.9	1.1	−0.2	U			H25	2.5	72Ba08	
		10807.9	1.4			0.6	1	10	6 ^{152}Sm	M21	2.5	75Ka25	
^{152}Sm ^{35}Cl−^{150}Sm ^{37}Cl		5402.7	0.8	5407.0	0.7	2.1	1	11	8 ^{152}Sm	M21	2.5	75Ka25	
^{152}Dy(α)^{148}Gd		3728.0	8.	3726	4	−0.2	2					65Ma51	Z
		3726.0	5.			0.1	2					67Go32	Z
^{152}Ho(α)^{148}Tb		4506.9	3.	4507.3	1.3	0.1	2					82Bo04	*
		4508.0	2.			−0.3	2					82De11	Z
		4505.8	3.			0.5	2					82To14	
		4507.9	3.			−0.2	2					87St.A	Z
^{152}Er(α)^{148}Dy		4935.2	5.	4934.4	1.6	−0.1	2					79Ho10	
		4934.6	3.			0.0	2					82Bo04	Z
		4934.3	2.			0.1	2					82De11	Z

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{150}Nd(t,p)^{152}Nd		4125	30	4129	24	0.1	1	67	66 ^{152}Nd	Ald		72Ch11	
^{151}Sm(n,γ)^{152}Sm		8257.6	0.8	8257.6	0.6	0.0	1	60	44 ^{152}Sm			71Gr22	Z
^{151}Eu(n,γ)^{152}Eu		6306.70	0.10	6306.72	0.10	0.2	1	99	59 ^{152}Eu	ILn		85Vo15	Z
		6307.11	0.14			−2.8	B			Bdn		03Fi.A	
^{152}Pr(β^-)^{152}Nd		6350	120				2			Kur		95Ik03	
^{152}Nd(β^-)^{152}Pm		1088	27	1104	19	0.6	–					93Sh23	
		1120	30			−0.5	–			Kur		95Ik03	
	ave.	1102	20			0.1	1	85	51 ^{152}Pm			average	
^{152}Pm(β^-)^{152}Sm		3600	200	3506	26	−0.5	U					71Da19	
		3520	150			−0.1	U					72Wa04	
		3400	200			0.5	U					75Wi08	
		3500	100			0.1	–					77Ya07	
		3500	40			0.2	–			Kur		95Ik03	
	ave.	3500	40			0.2	1	49	49 ^{152}Pm			average	
^{152}Pm^m(β^-)^{152}Sm		3603	100	3650	80	0.5	2					71Da19	
		3753	150			−0.7	2					72Wa04	
^{152}Eu(β^+)^{152}Sm		1871	5	1874.3	0.7	0.7	U					58Al99	*
		1866	5			1.7	U					62Lo10	*
		1870.8	2.			1.7	–					72Sv02	
		1872.8	1.5			1.0	–					77Mi.A	
	ave.	1872.1	1.2			1.8	1	35	20 ^{152}Sm			average	
^{152}Eu(β^-)^{152}Gd		1809	10	1819.7	1.2	1.1	U					58Al99	*
		1827	7			−1.0	U					60La04	
		1806	4			3.4	U					69An18	*
^{152}Tb(β^+)^{152}Gd		3990	40				3					76Cr.B	*
^{152}Ho(β^+)^{152}Dy		6690	100	6516	15	−1.7	B			IRS		83Al06	*
		6270	140			1.8	U					Averag	*
		6225	90			3.2	B			IRS		93Al03	*
^{152}Yb(β^+)^{152}Tm		5465	195				3			Got		90Sa.A	
*^{152}Eu−$C_{12.667}$	M−A=–72915(35) keV for mixture gs+m+n at 45.5998 and 147.86 keV											NDS969	**
*^{152}Tb−$C_{12.667}$	M−A=–70740(29) keV for mixture gs+m at 501.74 keV											NDS969	**
*^{152}Ho−$C_{12.667}$	M−A=–63492(28) keV for mixture gs+m at 160(1) keV											NDS969	**
*^{152}Tm−$C_{12.667}$	M−A=–51720(54) keV for mixture gs+m at 100#80 keV											Nubase	**
*^{152}Ho(α)^{148}Tb	E(α)=4389.1(3,Z); and 4455.1(3,Z) from ^{152}Ho^m to ^{148}Tb^m											82Bo04	**
*	combined with ^{152}Ho^m(IT)-^{148}Tb^m(IT)=160(1)-90.1(0.3)											87St.A	**
*^{152}Eu(β^+)^{152}Sm	E^+ =895(5) fron ^{152}Eu^m at 45.5994											NDS899	**
*^{152}Eu(β^+)^{152}Sm	E^+ =890(5) from ^{152}Eu^m at 45.5994											NDS899	**
*^{152}Eu(β^-)^{152}Gd	Q^-=1855(10) from ^{152}Eu^m at 45.600											NDS969	**
*^{152}Eu(β^-)^{152}Gd	Q^-=1852(4) from ^{152}Eu^m at 45.600											NDS969	**
*^{152}Tb(β^+)^{152}Gd	E^+ =2830(15) 8(4)% to ground-state, 5.2(1)% to 344.28 level											NDS899	**
*^{152}Ho(β^+)^{152}Dy	E^+ =3390(100) from ^{152}Ho^m at 160(1) to 2437.1 8^+ level											87St.A	**
*^{152}Ho(β^+)^{152}Dy	From adopted KLM/β^+=0.97(0.13)											AHW	**
*	from ^{152}Ho^m at 160(1) to 2437.1 8^+ level											87St.A	**
*	after extra 3(2)% side feeding correction; see ref.											90Sa32	**
*	p^+ =0.52(0.04)/.967 gives KLM/β^+=0.86(0.14)											85Sc09	**
*	KLM/β^+=1.12(0.10) after 0.967(0.008) side feeding correction											90Sa32	**
*^{152}Ho(β^+)^{152}Dy	Q^+ =6270(90); and 6330(100) from ^{152}Ho^m at 160(1)											87St.A	**
^{153}Eu−^{85}$Rb_{1.800}$		80021	16	80008.8	2.6	−0.8	U			MA5	1.0	00Be42	
^{153}Ho−$C_{12.75}$		−69814	37	−69801	6	0.3	U			GS2	1.0	03Li.A	*
^{153}Er−$C_{12.75}$		−64942	30	−64937	9	0.2	1	10	10 ^{153}Er	GS2	1.0	03Li.A	
^{153}Dy(α)^{149}Gd		3560.0	8.	3559	4	−0.1	–					65Ma51	Z
		3554.9	5.			0.8	–					67Go32	Z
	ave.	3556	4			0.6	1	70	48 ^{153}Dy			average	
^{153}Ho(α)^{149}Tb		4052.3	5.	4052	4	−0.1	2					68Go.C	*
		4051.0	5.			0.1	2					71To01	*
^{153}Er(α)^{149}Dy		4804.5	3.	4802.3	1.4	−0.7	–					82Bo04	Z
		4802.0	2.			0.2	–					82De11	Z
		4802.8	3.			−0.2	–					87Sc.A	Z
		4799.7	4.			0.6	–			Daa		96Pa01	
	ave.	4802.3	1.4			−0.1	1	100	78 ^{153}Er			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{153}Tm(α)^{149}Ho		5252.3	5.	5248.1	1.5	−0.8	U					79Ho10	*
		5246.1	3.			0.7	3					82Bo04	*
		5249.2	2.			−0.5	3					82De11	*
		5247.7	3.			0.1	3					87Sc.A	*
		5249.5	5.			−0.3	U			Daa		96Pa01	
^{152}Sm(n,γ)^{153}Sm		5867.1	0.4	5868.40	0.13	3.2	F					69Re04	Z
		5868.4	0.3			0.0	–					71Be41	Z
		5868.4	0.7			0.0	U					82Ba15	Z
		5868.40	0.15			0.0	–			Bdn		03Fi.A	
	ave.	5868.40	0.13			0.0	1	100	100 ^{153}Sm			average	
^{152}Eu(n,γ)^{153}Eu		8550.28	0.12	8550.29	0.12	0.1	1	100	74 ^{153}Eu	ILn		85Vo15	Z
^{152}Gd(n,γ)^{153}Gd		6247.27	0.35	6246.94	0.13	−0.9	2			ILn		85Vo15	Z
		6246.89	0.14			0.4	2			ILn		93Sp.A	
		6247.48	0.21			−2.6	B			Bdn		03Fi.A	
^{153}Pr(β^-)^{153}Nd		5720	100				3			Kur		02Sh.B	
^{153}Nd(β^-)^{153}Pm		3336	25				2			Ida		93Gr17	
		3260	100	3336	25	0.8	U			Kur		02Sh.B	
^{153}Pm(β^-)^{153}Sm		1863	15	1881	11	1.2	1	52	52 ^{153}Pm	Ida		93Gr17	
^{153}Tb(β^+)^{153}Gd		1573	5	1570	4	−0.7	1	61	58 ^{153}Tb			78Cr02	
^{153}Dy(β^+)^{153}Tb		2171	2	2170.5	1.9	−0.3	1	94	52 ^{153}Dy			78Gr13	
^{153}Lu^m(IT)^{153}Lu		80	5	80	5	0.0	R					157Ta-4	
		80	5				10					97Ir01	
*^{153}Ho−C$_{12.75}$	M−A=–64997(28) keV for mixture gs+m at 68.7 keV											NDS982	**
*^{153}Ho(α)^{149}Tb	E(α)=4013.1(5,Z) from ^{153}Ho^m at 68.7(1.0)											94Xu09	**
*^{153}Ho(α)^{149}Tb	E(α)=3910(5) to ^{149}Tb^m at 35.78											NDS94b	**
*^{153}Tm(α)^{149}Ho	E(α)=5114.2(5,Z) contains a 8% 5.6(0.3) lower ^{153}Tm^m(α) branch											87Sc.A	**
*^{153}Tm(α)^{149}Ho	E(α)=5108.2(3,Z) contains a 8% 5.6(0.3) lower ^{153}Tm^m(α) branch											87Sc.A	**
*^{153}Tm(α)^{149}Ho	E(α)=5111.2(2,Z) contains a 8% 5.6(0.3) lower ^{153}Tm^m(α) branch											87Sc.A	**
*^{153}Tm(α)^{149}Ho	E(α)=5110.6(3,Z); and 5103.6(4,Z) for lower ^{153}Tm^m(α) branch											87Sc.A	**
^{12}C$_{10}$H−^{154}Sm		156035.7	4.0	156041.0	2.7	0.5	1	7	7 ^{154}Sm	M22	2.5	75Ka25	
^{154}Tb−C$_{12.833}$		−75376	115	−75320	50	0.5	R			GS2	1.0	03Li.A	*
^{154}Dy−^{133}Cs$_{1.158}$		33903	19	33911	8	0.4	1	19	19 ^{154}Dy	MA5	1.0	00Be42	*
^{154}Ho−C$_{12.833}$		−69348	82	−69398	9	−0.6	U			GS2	1.0	03Li.A	*
^{154}Tm−C$_{12.833}$		−58480	48	−58432	15	1.0	U			GS2	1.0	03Li.A	*
^{154}Sm ^{35}Cl−^{152}Sm ^{37}Cl		5427.2	0.4	5426.9	0.9	−0.3	1	86	66 ^{154}Sm	M21	2.5	75Ka25	
^{154}Sm−^{154}Gd		1342.8	0.8	1343.7	1.4	0.4	1	47	27 ^{154}Sm	M21	2.5	75Ka25	
^{154}Sm−C$_{12}$H$_9$		−148211.0	8.0	−148216.0	2.7	−0.3	U			M21	2.5	75Ka25	
^{154}Dy(α)^{150}Gd		2946.4	5.	2946	5	−0.1	1	93	81 ^{154}Dy			67Go32	Z
^{154}Ho(α)^{150}Tb		4041.3	5.	4041	4	0.0	2					68Go.C	Z
		4041.7	5.			0.0	2					74Sc19	Z
^{154}Ho^m(α)^{150}Tb^m		3819.2	10.	3823	5	0.4	3					71To01	Z
		3824.0	5.			−0.2	3					74Sc19	Z
^{154}Er(α)^{150}Dy		4280.5	5.	4279.9	2.6	−0.1	–					68Go.C	Z
		4279.5	3.			0.2	–					82Bo04	Z
	ave.	4279.7	2.6			0.1	1	98	90 ^{154}Er			average	
^{154}Tm(α)^{150}Ho		5096.7	5.	5093.8	2.6	−0.6	2					79Ho10	Z
		5092.7	3.			0.4	2					82Bo04	
^{154}Tm^m(α)^{150}Ho^m		5174.8	5.	5171.7	1.6	−0.6	3					79Ho10	Z
		5170.8	3.			0.3	3					82Bo04	Z
		5171.7	2.			0.0	3					82De11	Z
^{154}Yb(α)^{150}Er		5473.4	5.	5474.2	1.7	0.2	2					79Ho10	Z
		5474.7	2.			−0.2	2					82De11	Z
		5473.4	4.			0.2	2			Daa		96Pa01	
^{154}Sm(d,^{3}He)^{153}Pm		−3623	25	−3572	11	2.0	–					76Su.B	
^{154}Sm(t,α)^{153}Pm		10748	20	10748	11	0.0	–			LAl		78Bu18	
^{154}Sm(d,^{3}He)^{153}Pm	ave.	−3592	16	−3572	11	1.3	1	48	48 ^{153}Pm			average	
^{153}Eu(n,γ)^{154}Eu		6442.2	0.3	6442.23	0.24	0.1	–			ILn		87Ba52	Z
		6442.2	0.4			0.1	–			Bdn		03Fi.A	
	ave.	6442.20	0.24			0.1	1	99	73 ^{154}Eu			average	
^{153}Gd(n,γ)^{154}Gd		8895.25	0.30	8894.71	0.17	−1.8	–			ILn		85Vo15	Z
		8894.47	0.20			1.2	–			ILn		93Sp.A	Z

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{153}Gd(n,γ)^{154}Gd	ave.	8894.71	0.17	8894.71	0.17	0.0	1	100	97 ^{153}Gd			average	
^{154}Pr(β^-)^{154}Nd		7490	100				4			Kur		02Sh.B	
^{154}Nd(β^-)^{154}Pm^m		2687	25				3			Ida		93Gr17	
^{154}Pm^m(IT)^{154}Pm		210	70	120	120	−1.3	B					72Ta13	
		−30	20			7.5	B					90So08	
^{154}Pm(β^-)^{154}Sm		3900	200	3960	40	0.3	U					71Da28	
		4190	170			−1.3	U					72Ta13	
		3940	50			0.5	2					73Pr05	
		3940	200			0.1	U					74Ya07	
		4056	100			−0.9	2			Ida		93Gr17	
^{154}Pm^m(β^-)^{154}Sm		3900	200	4080	110	0.9	2					71Da28	
		4396	180			−1.7	2					72Ta13	
		3880	200			1.0	2					74Ya07	
^{154}Eu(β^-)^{154}Gd		1978	5	1968.8	1.1	−1.8	U					60La04	
		1967	2			0.9	–					77Ra08	
		1975	3			−2.1	–					81Bu.A	
	ave.	1969.5	1.7			−0.4	1	47	27 ^{154}Gd			average	
^{154}Tb(β^+)^{154}Gd		3562	50	3550	50	−0.2	2					70Ag03	
^{154}Ho^m(β^+)^{154}Dy		6000	100	5992	29	−0.1	U			IRS		83Al.A	
		6070	80			−1.0	U			IRS		93Al03	
^{154}Tm^m(β^+)^{154}Er		8232	150	8250	50	0.1	U			Dbn		94Po26	
$*^{154}$Tb−C$_{12.833}$	M−A=–70142(43) keV for mixture gs+m+n at 12(7) and 200#150 keV											Nubase	**
$*^{154}$Dy−^{133}Cs$_{1.158}$	No contamination observed, but contamination by ^{154}Tb											00Be42	**
*	cannot be excluded											00Be42	**
$*^{154}$Ho−C$_{12.833}$	M−A=–64478(28) keV for mixture gs+m at 238(30) keV											Nubase	**
$*^{154}$Tm−C$_{12.833}$	M−A=–54438(32) keV for mixture gs+m at 70(50) keV											Nubase	**
^{155}Tb−C$_{12.917}$		−76431	30	−76495	13	−2.1	U			GS2	1.0	03Li.A	
^{155}Dy−C$_{12.917}$		−74227	30	−74246	13	−0.6	U			GS2	1.0	03Li.A	
^{155}Ho−C$_{12.917}$		−70867	30	−70897	19	−1.0	2			GS2	1.0	03Li.A	
^{155}Er−C$_{12.917}$		−66785	30	−66791	7	−0.2	U			GS2	1.0	03Li.A	
^{155}Tm−C$_{12.917}$		−60814	33	−60801	14	0.4	U			GS2	1.0	03Li.A	*
^{155}Gd ^{35}Cl−^{153}Eu ^{37}Cl		4345.4	2.4	4341.8	1.2	−0.6	U			H25	2.5	72Ba08	
^{155}Er(α)^{151}Dy		4118.3	5.				3					74To07	Z
^{155}Tm(α)^{151}Ho		4579.3	10.	4572	5	−0.6	4					71To01	*
		4568.1	10.			0.4	4					71To01	*
		4570.1	8.			0.2	4					92Ha10	*
^{155}Yb(α)^{151}Er		5344.1	5.	5337.6	2.3	−1.3	3					79Ho10	
		5336.6	5.			0.2	3					82Bo04	Z
		5331.8	4.			1.4	3					91To08	
		5340.1	4.			−0.6	3			Daa		96Pa01	
^{155}Lu(α)^{151}Tm		5796.9	5.	5802.7	2.6	1.2	11					89Ho12	
		5797.9	5.			1.0	11					91To08	
		5805.1	5.			−0.5	11			Daa		96Pa01	
		5811.2	5.			−1.7	11			Ara		97Da07	
^{155}Lu^m(α)^{151}Tm^m		5723.0	10.	5730.5	2.8	0.7	12					89Ho12	
		5727.1	5.			0.7	12			ORa		91To08	
		5732.2	5.			−0.3	12			Daa		96Pa01	
		5734.2	5.			−0.7	12			Ara		97Da07	
^{155}Lu^n(α)^{151}Tm		7574.9	15.	7584	3	0.2	U					89Ho12	
		7586.2	5.			−0.5	R			Daa		96Pa01	*
^{154}Sm(n,γ)^{155}Sm		5806.8	0.6	5806.96	0.27	0.3	2					82Ba15	Z
		5807.0	0.3			−0.1	2			ILn		82Sc03	Z
^{154}Eu(n,γ)^{155}Eu		8151.3	0.4	8151.4	0.4	0.3	1	98	92 ^{155}Eu	ILn		86Pr03	
^{154}Gd(n,γ)^{155}Gd		6435.11	0.30	6435.22	0.18	0.4	–			ILn		86Sc25	Z
		6435.29	0.23			−0.3	–			Bdn		03Fi.A	
	ave.	6435.22	0.18			0.0	1	99	50 ^{154}Gd			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{155}Ta(p)^{154}Hf		1776	10				3			Arp		98Uu.A	
^{155}Nd(β^-)^{155}Pm		4222	150	4500#	150#	1.9	D			Ida		93Gr17	*
^{155}Pm(β^-)^{155}Sm		3224	30				3			Ida		93Gr17	
^{155}Sm(β^-)^{155}Eu		1607	25	1627.2	1.2	0.8	U			Ida		93Gr17	
^{155}Eu(β^-)^{155}Gd		252	5	252.7	1.2	0.1	–					54Le08	
		245	5			1.5	–					58Gl56	
		245	5			1.5	–					59Am16	
	ave.	247.3	2.9			1.8	1	17	9 ^{155}Gd			average	
^{155}Dy(β^+)^{155}Tb		2099	6	2094.5	1.9	−0.8	3					63Pe13	
		2094	2			0.2	3					80Bu04	
^{155}Ho(β^+)^{155}Dy		3102	20	3120	22	0.9	R					72To07	
^{155}Lu^m(IT)^{155}Lu		19.9	6.2	20	6	0.0	R					159Ta-4	
		19.9	6.2				11					97Da07	
^{155}Lu^n(IT)^{155}Lu		1781	2	1781.0	2.0	0.0	R					151Tm+4	
		1781	2				11					96Pa01	
*^{155}Tm−C$_{12,917}$	M−A=–56627(28) keV for mixture gs+m at 41(6) keV											Ens95	**
*^{155}Tm(α)^{151}Ho	First assigned to ^{156}Tm^m but belongs to ^{155}Tm gs											94To10	**
*^{155}Tm(α)^{151}Ho	Doublet from ground-state and isomer, less than 5 keV apart											90Po13	**
*^{155}Lu^n(α)^{151}Tm	Replaced by authors value for ^{155}Lu^n(IT)											AHW	**
*^{155}Nd(β^-)^{155}Pm	Systematical trends suggest ^{155}Nd + 330											GAu	**
^{156}Tb−C$_{13}$		−75165	40	−75253	5	−2.2	U			GS2	1.0	03Li.A	*
^{156}Ho−C$_{13}$		−70082	114	−70160	50	−0.7	o			GS1	1.0	00Ra23	*
		−70161	48				2			GS2	1.0	03Li.A	*
^{156}Er−C$_{13}$		−68907	30	−68935	26	−0.9	2			GS2	1.0	03Li.A	
^{156}Tm−C$_{13}$		−61044	30	−61020	17	0.8	U			GS2	1.0	03Li.A	
^{156}Yb−C$_{13}$		−57202	30	−57182	12	0.7	R			GS2	1.0	03Li.A	
^{156}Er(α)^{152}Dy		3109.9	70.	3487	25	5.4	C					95Ka.A	
^{156}Tm(α)^{152}Ho		4341.6	10.	4344	7	0.2	3					71To10	
		4345.6	10.			−0.2	3					81Ga36	
^{156}Yb(α)^{152}Er		4813.6	10.	4811	4	−0.3	3					77Ha48	
		4809.6	10.			0.1	3					79Ho10	
		4810.6	4.			0.1	3			Daa		96Pa01	
^{156}Lu(α)^{152}Tm		5593.7	10.	5596	3	0.2	U			GSa		79Ho10	
		5592.7	5.			0.6	3			Dba		92Po14	
		5597.9	4.			−0.5	3			Daa		96Pa01	
^{156}Lu^m(α)^{152}Tm^m		5713.7	5.	5711.4	2.6	−0.4	4			GSa		79Ho10	Z
		5709.7	5.			0.4	4			Dba		92Po14	
		5709.7	8.			0.2	4					92Ha10	
		5711.7	4.			−0.1	4			Daa		96Pa01	
^{156}Hf(α)^{152}Yb		6033.0	10.	6028	4	−0.4	4					79Ho10	
		6027.9	4.			0.2	4			Daa		96Pa01	
^{156}Hf^m(α)^{152}Yb		7987.2	4.	7987	4	0.1	R			Daa		96Pa01	*
^{154}Sm(t,p)^{156}Sm		4556	25	4570	9	0.5	1	14	14 ^{156}Sm	Ald		66Bj01	
^{154}Eu(t,p)^{156}Eu		6003	10	6009	5	0.6	1	29	28 ^{156}Eu	LAl		84La06	*
^{155}Gd(n,γ)^{156}Gd		8536.8	0.5	8536.39	0.07	−0.8	U			ILn		82Ba28	
		8536.39	0.07			0.0	1	100	61 ^{156}Gd	MMn		82Is05	Z
		8536.04	0.19			1.9	B			Bdn		03Fi.A	
^{155}Gd(α,t)^{156}Tb−^{158}Gd()^{159}Tb		−821.9	3.6	−822	4	0.0	1	100	100 ^{156}Tb	McM		75Bu02	
^{156}Dy(d,t)^{155}Dy		−3184	10				2			Kop		70Gr46	
^{156}Ta(p)^{155}Hf		1028.6	13.	1014	5	−1.2	U			Dap		92Pa05	
		1013.6	5.				3			Dap		96Pa01	
^{156}Ta^m(p)^{155}Hf		1110.2	12.	1114	7	0.3	3			Dap		93Li34	
		1115.2	8.			−0.2	3			Dap		96Pa01	
^{156}Nd(β^-)^{156}Pm		3690	200				3			Kur		02Sh.B	
^{156}Pm(β^-)^{156}Sm		5155	35	5150	30	−0.1	2			Stu		90He11	
		5110	100			0.4	2			Kur		02Sh.B	
^{156}Sm(β^-)^{156}Eu		721	10	723	8	0.2	–					63Gu04	
		721	15			0.1	–					65Wi08	
	ave.	721	8			0.2	1	90	86 ^{156}Sm			average	
^{156}Eu(β^-)^{156}Gd		2430	10	2449	5	1.9	–					62Ew01	
		2460	10			−1.1	–					63Th02	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{156}Eu(β^-)^{156}Gd		2450	15	2449	5	0.0	–					64Pe17	
		2478	20			−1.4	U					67Va23	
	ave.	2446	6			0.5	1	68	68 ^{156}Eu			average	
^{156}Ho(β^+)^{156}Dy		4400	400	5180	50	1.9	F					76Gr20	
		5050	90			1.4	B					02Iz01	
^{156}Er(β^+)^{156}Ho		1670	70	1140	50	−7.5	B					82Vy06	
^{156}Tm(β^+)^{156}Er		7458	50	7373	29	−1.7	R			Dbn		94Po26	
		7390	100			−0.2	U					95Ga.A	
^{156}Hf^m(IT)^{156}Hf		1959	1	1959.0	1.0	0.0	R					152Yb+4	
		1959	1				5					96Pa01	
$*^{156}$Tb−C$_{13}$	M−A=−69968(32) keV for mixture gs+m+n at 54(3)and 88.4 keV											Nubase	**
$*^{156}$Ho−C$_{13}$	M−A=−65230(100) keV for mixture gs+m+n at 52.4 and 100#50 keV											Nubase	**
$*^{156}$Ho−C$_{13}$	M−A=−65304(28) keV for mixture gs+m+n at 52.4 and 100#50 keV											Nubase	**
$*^{156}$Hf^m(α)^{152}Yb	Replaced by authors value for ^{156}Hf^m(IT)											AHW	**
$*^{154}$Eu(t,p)^{156}Eu	Q=5569(10) to 434.23 3$^-$ level											91Ba06	**
^{157}Ho−C$_{13.083}$		−71724	30	−71744	26	−0.7	2			GS2	1.0	03Li.A	
^{157}Er−C$_{13.083}$		−68084	30				2			GS2	1.0	03Li.A	
^{157}Tm−C$_{13.083}$		−63027	30				2			GS2	1.0	03Li.A	
^{157}Yb−C$_{13.083}$		−57389	30	−57372	11	0.6	1	13	13 ^{157}Yb	GS2	1.0	03Li.A	
^{157}Lu−C$_{13.083}$		−49842	31	−49902	20	−1.9	C			GS2	1.0	03Li.A	*
^{157}Yb(α)^{153}Er		4622.0	7.	4621	6	−0.1	–					77Ha48	
		4623.0	10.			−0.2	–					79Ho10	
	ave.	4622	6			−0.2	1	95	84 ^{157}Yb			average	
^{157}Lu(α)^{153}Tm		5097.2	5.	5107.3	2.9	2.0	o			Dba		91Le15	*
		5111.5	5.			−0.8	R			Dba		92Po14	*
^{157}Lu^m(α)^{153}Tm		5128.9	10.	5128.3	2.1	−0.1	U			IRa		79Al16	Z
		5131.8	5.			−0.7	4					79Ho10	Z
		5133.7	5.			−1.0	4					83To01	Z
		5128.9	5.			−0.1	o			Dba		91Le15	
		5118.7	5.			1.9	4					91To09	
		5125.8	6.			0.4	4					92Ha10	
		5132.0	5.			−0.7	4			Dba		92Po14	
		5127.9	4.			0.1	4			Daa		96Pa01	
^{157}Hf(α)^{153}Yb		5869.4	10.	5880	3	1.0	3					73Ea01	Z
		5884.1	5.			−0.8	3					79Ho10	Z
		5879.1	4.			0.2	3			Daa		96Pa01	
^{157}Ta(α)^{153}Lu^m		6277.2	4.	6275	8	−0.6	R			Ara		97Ir01	*
^{157}Ta^m(α)^{153}Lu		6381.9	10.	6377	4	−0.5	9			GSa		79Ho10	
		6375.8	4.			0.2	9			Daa		96Pa01	*
^{157}Ta^n(α)^{153}Lu		7946.9	8.	7948	8	0.0	R			Daa		96Pa01	*
^{156}Gd(n,γ)^{157}Gd		6359.80	0.15	6359.80	0.15	0.0	1	99	59 ^{157}Gd	ILn		87Sp.A	Z
^{156}Gd(α,t)^{157}Tb−^{158}Gd()^{159}Tb		−616.2	2.0	−613.9	0.8	1.2	1	16	9 ^{159}Tb	McM		75Bu02	
^{156}Dy(d,p)^{157}Dy		4748	10	4745	6	−0.3	–			Tal		68Be.A	
		4753	10			−0.8	–			Kop		70Gr46	
	ave.	4751	7			−0.8	1	66	34 ^{157}Dy			average	
^{157}Ta(p)^{156}Hf		925.0	17.	935	10	0.6	o			Dap		96Pa01	
		933.0	7.			0.2	R			Ara		97Ir01	*
^{157}Pm(β^-)^{157}Sm		4360	100				3			Kur		02Sh.B	
^{157}Sm(β^-)^{157}Eu		2700	200	2730	50	0.2	U					73Ka23	
		2734	50				2			Ida		93Gr17	
^{157}Eu(β^-)^{157}Gd		1350	20	1363	5	0.7	–					64Sh21	
		1370	20			−0.3	–					66Fu05	
	ave.	1360	14			0.2	1	12	11 ^{157}Eu			average	
^{157}Tb(ε)^{157}Gd		60.0	0.3	60.05	0.30	0.2	1	98	94 ^{157}Tb			92Ra18	
^{157}Ho(β^+)^{157}Dy		2540	50	2599	25	1.2	R					72To05	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{157}Er(β^+)^{157}Ho		3470	80	3410	40	−0.8	U					75Al.A	
		3805	100			−4.0	F			Dbn		94Po26	*
^{157}Tm(β^+)^{157}Er		4480	100	4710	40	2.3	B			IRS		93Al03	
		4482	100			2.3	B			Dbn		94Po26	
^{157}Yb(β^+)^{157}Tm		5074	100	5267	30	1.9	B			Dbn		94Po26	
^{157}Lu^m(IT)^{157}Lu		32	2	21.0	2.0	−5.5	o			Dba		91Le15	
		21	2			0.0	R					153Tm+4	
		21	2				5			Dba		92Po14	*
^{157}Ta^m(IT)^{157}Ta		22	5	22	5	0.0	R					156Hf+1	
		22	5				9					97Ir01	
^{157}Ta^n(IT)^{157}Ta^m		1571	7	1571	7	0.0	R					153Lu+4	
		1571	7				9			Daa		96Pa01	
*^{157}Lu−$C_{13.083}$	M−A=–46417(28) keV for mixture gs+m at 21.0(2.0) keV											Nubase	**
*^{157}Lu(α)^{153}Tm	E(α)=4925(5) to ^{153}Tm^m at 43.2(0.2)											89Ko02	**
*^{157}Lu(α)^{153}Tm	E(α)=4939(5) to ^{153}Tm^m at 43.2(0.2); replaced by ^{157}Lu^m(IT)											NDS982	**
*^{157}Ta(α)^{153}Lu^m	Replaced by ^{153}Lu^m(IT)											AHW	**
*^{157}Ta^m(α)^{153}Lu	Reassigned.											97Ir01	**
*^{157}Ta^n(α)^{153}Lu	Replaced by authors value for ^{157}Ta^n(IT)											AHW	**
*^{157}Ta(p)^{156}Hf	Use instead ^{157}Ta^m(IT)											AHW	**
*^{157}Er(β^+)^{157}Ho	E^+ =2525(100) to gs yielding 3547(100)											94Po26	**
*	Rather 24% to 174.53 15% to 391.32 − > +258											NDS966	**
*^{157}Lu^m(IT)^{157}Lu	Derived from ^{157}Lu^m(α)-^{157}Lu(α) difference											NDS966	**
^{158}Ho−$C_{13.167}$		−71101	67	−71059	29	0.6	R			GS2	1.0	03Li.A	*
^{158}Er−$C_{13.167}$		−70220	110	−70107	27	1.0	U			GS1	1.0	00Ra23	
		−70107	30			0.0	1	81	81 ^{158}Er	GS2	1.0	03Li.A	
^{158}Tm−$C_{13.167}$		−63080	110	−63020	27	0.5	U			GS1	1.0	00Ra23	
		−63020	30			0.0	1	81	81 ^{158}Tm	GS2	1.0	03Li.A	
^{158}Yb−^{142}$Sm_{1.113}$		34252	22	34251	9	−0.1	–			MA7	1.0	01Bo59	
	ave.	34256	14			−0.4	1	44	30 ^{158}Yb			average	
^{158}Lu−$C_{13.167}$		−50720	30	−50687	16	1.1	R			GS2	1.0	03Li.A	
^{158}Dy ^{35}Cl−^{156}Dy ^{37}Cl		3081.4	3.3	3076	6	−0.6	1	54	54 ^{156}Dy	H25	2.5	72Ba08	
^{158}Yb(α)^{154}Er		4174.9	10.	4172	7	−0.2	–					77Ha48	
		4164.6	12.			0.6	–					92Ha10	
	ave.	4171	8			0.2	1	79	70 ^{158}Yb			average	
^{158}Lu(α)^{154}Tm		4792.2	10.	4790	5	−0.2	3			IRa		79Al16	Z
		4789.5	5.			0.1	3					83To01	Z
^{158}Hf(α)^{154}Yb		5406.0	5.	5404.7	2.7	−0.2	3					79Ho10	Z
		5401.4	5.			0.7	3					83To01	Z
		5406.1	4.			−0.3	3			Daa		96Pa01	
^{158}Ta(α)^{154}Lu		6124.4	8.	6124	4	−0.1	9			Daa		96Pa01	
		6123.3	5.			0.1	9			Ara		97Da07	
^{158}Ta^m(α)^{154}Lu^m		6208.5	6.	6205.0	2.8	−0.6	10					79Ho10	
		6203.4	4.			0.4	10			Daa		96Pa01	
		6205.4	5.			−0.1	10			Ara		97Da07	
^{158}W(α)^{154}Hf		6600.4	30.	6613	3	0.4	U			GSa		81Ho10	*
		6609.7	30.			0.1	U			Daa		96Pa01	
		6612.7	3.				3			Ara		00Ma95	
^{158}W^m(α)^{154}Hf		8495.5	30.	8502	7	0.2	U			GSa		89Ho12	
		8506.8	24.			−0.2	U			Daa		96Pa01	
		8501.6	7.				3			Ara		00Ma95	
^{158}Dy(p,t)^{156}Dy		−7535	15	−7543	6	−0.5	1	14	14 ^{156}Dy	Pri		77Ko04	
^{158}Gd(t,α)^{157}Eu−^{156}Gd()^{155}Eu		−512	5	−512	5	0.1	1	89	89 ^{157}Eu	LAl		79Bu05	
^{157}Gd(n,γ)^{158}Gd		7937.39	0.07	7937.39	0.06	0.0	–			MMn		82Is05	Z
		7937.39	0.17			0.0	–			Bdn		03Fi.A	
	ave.	7937.39	0.06			0.0	1	99	70 ^{158}Gd			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{158}Gd(d,t)^{157}Gd−^{159}Tb()^{158}Tb		195.0	1.5	195.8	0.6	0.5	1	17	16 ^{158}Tb	McM		84Bu14	
^{157}Gd(α,t)^{158}Tb−^{158}Gd()^{159}Tb		−196.6	1.0	−195.8	0.6	0.8	1	39	37 ^{158}Tb	McM		84Bu14	*
^{158}Dy(d,t)^{157}Dy		−2804	10	−2798	6	0.6	–			Tal		68Be.A	
		−2804	10			0.6	–			Kop		70Gr46	
	ave.	−2804	7			0.8	1	66	66 ^{157}Dy			average	
^{158}Pm(β^-)^{158}Sm		6120	100				4					02Sh.A	
^{158}Sm(β^-)^{158}Eu		1999	15				3			Ida		93Gr17	
^{158}Eu(β^-)^{158}Gd		3550	120	3490	80	−0.5	2					65Sc19	
		3440	100			0.5	2					66Da06	
^{158}Tb(ε)^{158}Gd		1222.1	3.	1219.5	0.9	−0.9	1	10	8 ^{158}Tb			85Vo13	*
^{158}Tb(β^-)^{158}Dy		952	10	934.9	2.6	−1.7	U					68Sc04	
		933	6			0.3	1	19	16 ^{158}Dy			85Vo03	
^{158}Ho(β^+)^{158}Dy		4350	100	4221	27	−1.3	U					61Bo24	*
		4230	30			−0.3	2					68Ab14	*
^{158}Er(β^+)^{158}Ho		1710	40	890	40	−20.6	F					82Vy06	*
^{158}Tm(β^+)^{158}Er		6530	100	6600	30	0.7	–			IRS		93Al03	
		6624	60			−0.4	–			Dbn		94Po26	
	ave.	6600	50			0.0	1	37	19 ^{158}Er			average	
^{158}Lu(ε)^{158}Yb		8960	200	8800	17	−0.8	U					95Ga.A	
*^{158}Ho−$C_{13.167}$	M−A=–66148(29) keV for mixture gs+m+n at 67.200 and 180#70 keV											NDS963	**
*^{158}W(α)^{154}Hf	Original value E=6450(30) (Q=6617.8) recalibrated											89Ho12	**
*^{157}Gd(α,t)^{158}Tb−^{158}Gd()	Value 198.3(1.0) for same; same lab; unused											75Bu02	**
*^{158}Tb(ε)^{158}Gd	pL=0.689(0.01) to 1187.147 level, recalculated Q											AHW	**
*	E^+ =780(80) NOT ^{158}Er(β^+); reinterpreted											AHW	**
*^{158}Ho(β^+)^{158}Dy	E^+ =2890(20), 700(60) to 317.11−637.66 and 2436−2605 levels,											NDS892	**
*	and E^+ =1300(30), 1850(25)											68Ab14	**
*	from ^{158}Ho^m at 67.25 to 1920.24−1940.72 and 1441.75 levels,											NDS892	**
*	E^+ =700(60) NOT ^{158}Er(β^+); reinterpreted											AHW	**
*^{158}Er(β^+)^{158}Ho	p^+ =0.3(0.1) from annih. γ coinc. to 146.90 level											96Go06	**
*^{158}Er(β^+)^{158}Ho	F: Q<1550 from upper limit on p+											75Bu.A	**
^{159}Dy−$C_{13.25}$		−74285	30	−74260.8	2.9	0.8	U			GS2	1.0	03Li.A	
^{159}Ho−$C_{13.25}$		−72365	71	−72288	4	1.1	U			GS2	1.0	03Li.A	*
^{159}Er−$C_{13.25}$		−69290	30	−69316	5	−0.9	U			GS2	1.0	03Li.A	
^{159}Tm−$C_{13.25}$		−65025	30				2			GS2	1.0	03Li.A	
^{159}Yb−^{142}$Sm_{1.120}$		35035	24	35029	19	−0.3	2			MA7	1.0	01Bo59	
^{159}Yb−$C_{13.25}$		−59960	30	−59950	20	0.3	R			GS2	1.0	03Li.A	
^{159}Lu−$C_{13.25}$		−53420	61	−53370	40	0.8	2			GS2	1.0	03Li.A	*
^{159}Hf−$C_{13.25}$		−46044	32	−46005	18	1.2	R			GS2	1.0	03Li.A	
^{159}Tb $^{35}Cl_2$−^{155}Gd $^{37}Cl_2$		8625.64	1.03	8624.9	0.8	−0.3	1	10	7 ^{159}Tb	H41	2.5	85Dy04	
^{159}Tb ^{35}Cl−^{157}Gd ^{37}Cl		4333.3	1.2	4336.7	0.8	1.1	U			H25	2.5	72Ba08	
		4337.01	0.61			−0.2	1	27	20 ^{159}Tb	H41	2.5	85Dy04	
^{159}Lu(α)^{155}Tm		4534.3	10.	4500	40	−0.8	R			IRa		80Al14	
		4531.3	10.			−0.7	R					92Ha10	
^{159}Hf(α)^{155}Yb		5221.2	10.	5225.0	2.7	0.4	U					73Ea01	Z
		5226.2	5.			−0.2	4					79Ho10	Z
		5223.0	5.			0.4	4					83To01	Z
		5219.6	6.			0.9	4					92Ha10	
		5229.8	5.			−0.9	4			Daa		96Pa01	
^{159}Ta(α)^{155}Lu^m		5658.6	5.	5661	9	0.5	R			Daa		96Pa01	
		5661.7	5.			−0.1	R			Ara		97Da07	*
^{159}Ta^m(α)^{155}Lu		5745.8	6.	5745	3	−0.2	10					79Ho10	
		5743.8	5.			0.2	10			Daa		96Pa01	
		5744.8	5.			0.0	10			Ara		97Da07	
^{159}W(α)^{155}Hf		6444.5	6.	6450	4	1.0	3					81Ho10	*
		6441.4	5.			1.8	U			Daa		92Pa05	
		6454.7	5.			−0.8	3			Daa		96Pa01	
^{158}Gd(n,γ)^{159}Gd		5943.07	0.15	5943.09	0.12	0.1	–			ILn		87Sp.A	Z
		5943.1	0.2			0.0	–			Dbn		03Gr13	
	ave.	5943.08	0.12			0.1	1	100	93 ^{159}Gd			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{158}Gd(α,t)^{159}Tb−^{164}Dy()^{165}Ho		−85.7	2.2	−89.0	1.1	−1.5	1	25	13 ^{159}Tb	McM		84Bu14	
^{159}Tb(d,t)^{158}Tb−^{164}Dy()^{163}Dy		−474.3	1.0	−475.0	0.6	−0.7	1	39	36 ^{158}Tb	McM		84Bu14	
^{158}Dy(d,p)^{159}Dy		4608	10	4608.1	2.7	0.0	U			Tal		68Be.A	
		4600	10			0.8	U			Kop		70Gr46	
^{159}Sm(β^-)^{159}Eu		3840	100				2					02Sh.A	
^{159}Gd(β^-)^{159}Tb		969.0	1.5	970.5	0.7	1.0	1	25	17 ^{159}Tb			77Bo.A	
^{159}Dy(ε)^{159}Tb		365.9	1.3	365.6	1.2	−0.3	1	81	68 ^{159}Dy			68My.A	
^{159}Ho(β^+)^{159}Dy		1837.6	6.	1837.6	2.7	0.0	2					79Ad08	
		1837.6	3.			0.0	2					82Vy02	
^{159}Er(β^+)^{159}Ho		2768.5	2.0				3					84Ka.A	
^{159}Tm(β^+)^{159}Er		3850	100	3997	28	1.5	U			IRS		93Al03	
		3670	100			3.3	B			Dbn		94Po26	
^{159}Yb(β^+)^{159}Tm		5050	200	4730	30	−1.6	U			IRS		93Al03	
		4554	150			1.2	U			Dbn		94Po26	
^{159}Lu(β^+)^{159}Yb		5850	150	6130	40	1.9	U			IRS		93Al03	
		5803	150			2.2	U			Dbn		94Po26	
^{159}Ta^m(IT)^{159}Ta		63.7	5.2	64	5	0.0	R					163Re-4	
		63.7	5.2				10			Ara		97Da07	
$*^{159}$Ho−$C_{13.25}$	M−A=–67304(28) keV for mixture gs+m at 205.91 keV											NDS945	**
$*^{159}$Lu−$C_{13.25}$	M−A=–49710(28) keV for mixture gs+m at 100#80 keV											Nubase	**
$*^{159}$Ta(α)^{155}Lu^m	Replaced by ^{155}Lu^m(IT)											AHW	**
$*^{159}$W(α)^{155}Hf	See ^{158}W(α) remark											AHW	**
^{160}Er−$C_{13.333}$		−70916	30	−70917	26	0.0	2			GS2	1.0	03Li.A	
^{160}Tm−$C_{13.333}$		−64773	127	−64740	40	0.3	U			GS1	1.0	00Ra23	*
		−64755	39			0.5	2			GS2	1.0	03Li.A	*
^{160}Yb−^{142}$Sm_{1.127}$		33120	20	33125	17	0.2	2			MA7	1.0	01Bo59	
^{160}Yb−$C_{13.333}$		−62440	120	−62448	18	−0.1	U			GS1	1.0	00Ra23	
		−62438	30			−0.3	R			GS2	1.0	03Li.A	
^{160}Lu−$C_{13.333}$		−53967	61				2			GS2	1.0	03Li.A	*
^{160}Hf−$C_{13.333}$		−49334	30	−49316	12	0.6	R			GS2	1.0	03Li.A	
^{160}Gd $^{35}Cl_2$−^{156}Gd $^{37}Cl_2$		10831.70	1.27	10831.6	0.8	0.0	1	6	4 ^{160}Gd	H41	2.5	85Dy04	
^{160}Gd ^{35}Cl−^{158}Gd ^{37}Cl		5900.0	0.5	5900.3	0.7	0.3	1	34	27 ^{160}Gd	M21	2.5	75Ka25	
		5899.88	0.96			0.2	1	9	7 ^{160}Gd	H41	2.5	85Dy04	
^{160}Dy ^{35}Cl−^{158}Dy ^{37}Cl		3731.8	2.3	3738.1	2.5	1.1	1	19	18 ^{158}Dy	H25	2.5	72Ba08	
^{160}Gd−^{160}Dy		1854.5	0.8	1856.6	1.4	1.1	1	46	24 ^{160}Gd	H25	2.5	72Ba08	
^{160}Hf(α)^{156}Yb		4892.2	10.	4902.4	2.6	1.0	4					73Ea01	Z
		4905.0	5.			−0.5	4					79Ho10	Z
		4904.0	5.			−0.3	4					83To01	Z
		4901.8	6.			0.1	4					92Ha10	
		4902.8	10.			0.0	4					95Hi12	
		4900.8	6.			0.3	4			Daa		96Pa01	
^{160}Ta(α)^{156}Lu		5449.5	5.				4			Daa		96Pa01	
^{160}Ta^m(α)^{156}Lu^m		5550.9	5.	5548	3	−0.5	5					79Ho10	Z
		5538.7	6.			1.5	5					92Ha10	
		5552.1	5.			−0.8	5			Daa		96Pa01	
^{160}W(α)^{156}Hf		6072.1	10.	6065	5	−0.6	5					79Ho10	
		6063.9	5.			0.3	5			Daa		96Pa01	
^{160}Re(α)^{156}Ta		6704.9	16.	6715	10	0.6	o			Daa		92Pa05	
		6711.1	16.			0.2	R			Daa		96Pa01	
^{158}Gd(t,p)^{160}Gd		4912.0	2.2	4912.7	0.7	0.3	1	10	7 ^{160}Gd	McM		89Lo07	
^{160}Gd(p,t)^{158}Gd		−4919	5	−4912.7	0.7	1.3	U			Min		73Oo01	
^{160}Dy(p,t)^{158}Dy		−6924	5	−6926.8	2.3	−0.6	–			Min		73Oo01	
		−6925.1	3.4			−0.5	–			McM		88Bu08	*
	ave.	−6924.8	2.8			−0.7	1	67	66 ^{158}Dy			average	
^{160}Gd(t,α)^{159}Eu−^{158}Gd()^{157}Eu		−666	5	−666	5	0.0	1	100	100 ^{159}Eu	LAl		79Bu05	
^{159}Tb(n,γ)^{160}Tb		6375.45	0.3	6375.21	0.13	−0.8	–					74Ke01	Z
		6375.13	0.15			0.5	–			Bdn		03Fi.A	
	ave.	6375.19	0.13			0.1	1	99	94 ^{160}Tb			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{160}Re(p)^{159}W	1269.1	6.	1278	8	1.5	o			Dap		92Pa05	
	1279.1	9.			−0.1	4			Dap		96Pa01	
^{160}Eu(β^-)^{160}Gd	3900	300	4580#	200#	2.3	D					73Da05	
	4200	200			1.9	D					73Mo18	*
^{160}Ho(β^+)^{160}Dy	3290	15				2					66Av03	*
^{160}Tm(β^+)^{160}Er	5600	300	5760	40	0.5	U					75St12	
	5890	100			−1.3	R			IRS		93Al03	
^{160}Lu(β^+)^{160}Yb	7210	240	7900	60	2.9	B					83Ge08	
	7300	100			6.0	B			IRS		93Al03	
*^{160}Tm−C$_{13.333}$	M−A=–60300(110) keV for mixture gs+m at 70(20) keV										NDS968	**
*^{160}Tm−C$_{13.333}$	M−A=–60283(28) keV for mixture gs+m at 70(20) keV										NDS968	**
*^{160}Lu−C$_{13.333}$	M−A=–50270(28) keV for mixture gs+m at 0#100 keV										Nubase	**
*^{160}Dy(p,t)^{158}Dy	Q−Q(^{164}Dy(p,t)=–1477.9(3.4), see ^{164}Dy(p,t)										AHW	**
*^{160}Eu(β^-)^{160}Gd	Systematical trends suggest ^{160}Eu 470 less bound										GAu	**
*^{160}Ho(β^+)^{160}Dy	E$^+$ =570(15) to 1694.37 4$^+$ level; and 1045(15)										NDS932	**
*	from ^{160}Ho^m at 59.98 to 1285.59 and 1286.69 levels										NDS932	**
^{161}Tm−C$_{13.417}$	−66451	30				2			GS2	1.0	03Li.A	*
^{161}Yb−^{142}Sm$_{1.134}$	34071	19	34068	16	−0.2	2			MA7	1.0	01Bo59	
^{161}Yb−C$_{13.417}$	−62120	110	−62098	17	0.2	U			GS1	1.0	00Ra23	
	−62107	30			0.3	R			GS2	1.0	03Li.A	
^{161}Lu−C$_{13.417}$	−56428	30				2			GS2	1.0	03Li.A	
^{161}Hf−C$_{13.417}$	−49733	30	−49725	24	0.3	1	65	65 ^{161}Hf	GS2	1.0	03Li.A	
^{161}Dy ^{35}Cl−^{159}Tb ^{37}Cl	4535.0	1.0	4536.7	1.3	0.7	1	29	15 ^{159}Tb	H25	2.5	72Ba08	
^{161}Hf(α)^{157}Yb	4717.0	10.	4698	24	−0.4	–					73Ea01	Z
	4725.2	10.			−0.5	–					82Sc15	Z
	4724.2	5.			−0.5	–					83To01	Z
	4716.4	7.			−0.4	–					92Ha10	
	4721.5	10.			−0.5	–					95Hi12	
ave.	4721	3			−0.5	1	23	19 ^{161}Hf			average	
^{161}Ta^m(α)^{157}Lu^m	5278.9	5.	5353	29	1.5	U					79Ho10	Z
	5280.4	5.			1.5	U					92Ha10	
	5271.2	7.			1.6	U			Daa		96Pa01	
^{161}W(α)^{157}Hf	5923.4	5.	5923	4	−0.1	4					79Ho10	Z
	5922.4	5.			0.1	4			Daa		96Pa01	
^{161}Re^m(α)^{157}Ta^m	6439.3	10.	6430	4	−0.9	8			GSa		79Ho10	
	6425.0	6.			0.8	8			Daa		96Pa01	
	6432.1	7.			−0.3	8			Ara		97Ir01	
^{161}Dy(p,t)^{159}Dy	−6546	5	−6548.5	1.5	−0.5	–			Min		73Oo01	
	−6547.9	2.5			−0.2	–			McM		88Bu08	*
ave.	−6547.5	2.2			−0.4	1	43	32 ^{159}Dy			average	
^{160}Gd(n,γ)^{161}Gd	5635.4	1.0				2					71Gr42	
^{160}Gd(α,t)^{161}Tb−^{158}Gd()^{159}Tb	678.0	1.0	677.3	0.7	−0.7	1	52	26 ^{160}Gd	McM		75Bu02	
^{160}Tb(n,γ)^{161}Tb	7696.3	0.6	7696.6	0.5	0.4	1	83	77 ^{161}Tb			75He.C	
^{160}Dy(n,γ)^{161}Dy	6454.40	0.09	6454.39	0.08	−0.2	–			ILn		86Sc16	Z
	6454.34	0.14			0.3	–			Bdn		03Fi.A	
ave.	6454.38	0.08			0.0	1	100	77 ^{160}Dy			average	
^{160}Dy(^{3}He,d)^{161}Ho−^{164}Dy()^{165}Ho	−1406.5	2.0	−1406.5	2.0	0.0	1	100	100 ^{161}Ho	McM		75Bu02	
^{161}Re(p)^{160}W	1199.5	6.	1197	5	−0.4	6			Ara		97Ir01	
^{161}Re^m(p)^{160}W	1323.3	7.	1321	5	−0.3	R			Ara		97Ir01	*
^{161}Er(β^+)^{161}Ho	1980	18	1994	9	0.8	R					84Ka.A	
^{161}Tm(β^+)^{161}Er	3100	200	3310	29	1.1	U					75Ad08	
	3180	100			1.3	U			IRS		93Al03	
^{161}Yb(β^+)^{161}Tm	3850	250	4050	30	0.8	U					81Ad02	
	3585	200			2.3	B			Dbn		94Po26	
^{161}Lu(β^+)^{161}Yb	5300	100	5280	30	−0.2	U			IRS		93Al03	
	5255	150			0.2	U			Dbn		94Po26	*

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{161}Re^{m}(IT)^{161}Re$	123.8	1.3	123.8	1.3	0.0	R					160W+1	
	123.8	1.3				7					97Ir01	
$*^{161}Tm-C_{13.417}$	M−A=–61895(28) keV for mixture gs+m at 7.4 keV										Ens00	**
$*^{161}Dy(p,t)^{159}Dy$	Q−Q(^{164}Dy(p,t)=–1100.7(2.5)										AHW	**
$*^{161}Re^{m}(p)^{160}W$	Replaced by author's result for $^{161}Re^{m}(IT)^{161}Re$										AHW	**
$*^{161}Lu(\beta^{+})^{161}Yb$	E^{+} =3866(150) to 367.28 level										NDS008	**
$^{162}Tm-C_{13.5}$	−65942	55	−66005	28	−1.2	R			GS2	1.0	03Li.A	*
$^{162}Yb-^{142}Sm_{1.141}$	32524	19	32528	16	0.2	2			MA7	1.0	01Bo59	
$^{162}Yb-C_{13.5}$	−64210	110	−64232	17	−0.2	U			GS1	1.0	00Ra23	
	−64223	30			−0.3	R			GS2	1.0	03Li.A	
$^{162}Lu-C_{13.5}$	−56758	234	−56720	80	0.2	o			GS1	1.0	00Ra23	*
	−56781	190			0.3	2			GS2	1.0	03Li.A	*
$^{162}Hf-C_{13.5}$	−52756	30	−52790	10	−1.1	R			GS2	1.0	03Li.A	
$^{162}Er\ ^{35}Cl_2-^{158}Gd\ ^{37}Cl_2$	10577.5	2.7	10574.5	2.9	−0.4	1	18	16 ^{162}Er	H25	2.5	72Ba08	
$^{162}Er\ ^{35}Cl-^{160}Gd\ ^{37}Cl$	4674.6	1.9	4674.2	2.8	−0.1	1	36	32 ^{162}Er	H25	2.5	72Ba08	
$^{162}Hf(\alpha)^{158}Yb$	4417.2	10.	4417	5	0.0	2					82Sc15	
	4420.2	10.			−0.3	2					83To01	
	4414.2	9.			0.3	2					92Ha10	
	4416.0	10.			0.1	2					95Hi12	
$^{162}Ta(\alpha)^{158}Lu$	5003.8	10.	5010	50	0.1	4					86Ru05	
	5007.9	5.			0.0	4					92Ha10	
$^{162}W(\alpha)^{158}Hf$	5669.9	10.	5677.3	2.7	0.7	U					73Ea01	Z
	5668.0	10.			0.9	U					75To05	Z
	5677.5	5.			0.0	4					81Ho10	Z
	5674.7	4.			0.7	4					82De11	Z
	5681.6	5.			−0.8	4			Daa		96Pa01	
$^{162}Re(\alpha)^{158}Ta$	6240.3	5.				8			Ara		97Da07	
$^{162}Re^{m}(\alpha)^{158}Ta^{m}$	6274.2	6.	6274	3	0.0	9					79Ho10	
	6278.3	6.			−0.7	9			Daa		96Pa01	
	6271.1	5.			0.6	9			Ara		97Da07	
$^{162}Os(\alpha)^{158}W$	6778.8	30.	6767	3	−0.4	U			GSa		89Ho12	
	6785.8	10.			−1.8	U			ORa		96Bi07	
	6767.4	3.				4			Ara		00Ma95	
$^{160}Gd(t,p)^{162}Gd$	3999.5	3.8				2			McM		89Lo07	
$^{162}Er(p,t)^{160}Er$	−7944	51	−7945	25	0.0	R			Win		74De31	*
$^{161}Dy(n,\gamma)^{162}Dy$	8196.99	0.06	8196.99	0.06	0.0	1	100	52 ^{161}Dy	MMn		82Is05	Z
	8193	3			1.3	U			Bdn		03Fi.A	
$^{161}Dy(^{3}He,d)^{162}Ho-^{164}Dy()^{165}Ho$	−945.3	3.0	−945	3	0.0	1	100	100 ^{162}Ho	McM		75Bu02	
$^{162}Er(d,t)^{161}Er$	−2952	10	−2948	9	0.4	2			Kop		69Tj01	
$^{162}Gd(\beta^{-})^{162}Tb$	1442	100	1390	40	−0.5	R					70Ch02	
$^{162}Tb(\beta^{-})^{162}Dy$	2448	100	2510	40	0.6	2					66Fu08	
	2523	50			−0.3	2					66Sc24	
	2528	80			−0.3	2					77Ka08	
$^{162}Tm(\beta^{+})^{162}Er$	4840	50	4859	26	0.4	2					63Ab02	
	4705	70			2.2	2					74De47	
	4900	100			−0.4	2			IRS		93Al03	
	4892	50			−0.7	2			Dbn		94Po26	
$^{162}Lu(\beta^{+})^{162}Yb$	6740	270	6990	80	0.9	U					83Ge08	
	6960	100			0.3	R			IRS		93Al03	
	7111	150			−0.8	R			Dbn		94Po26	*
$*^{162}Tm-C_{13.5}$	M−A=–61359(28) keV for mixture gs+m at 130(40) keV										Nubase	**
$*^{162}Lu-C_{13.5}$	M−A=–52730(130) keV for mixture gs+m+n at 120#200 and 300#200 keV										AHW	**
$*^{162}Lu-C_{13.5}$	M−A=–52751(28) keV for mixture gs+m+n at 120#200 and 300#200 keV										AHW	**
$*^{162}Er(p,t)^{160}Er$	Not resolved peak. Original uncertainty 28										GAu	**
$*^{162}Lu(\beta^{+})^{162}Yb$	E^{+} =6006(150) to gs and 166.8 unknown ratio										NDS919	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{163}Tm−$C_{13.583}$		−67327	30	−67349	6	−0.7	U			GS2	1.0	03Li.A	
^{163}Yb−^{142}Sm$_{1.148}$		33686	19	33687	16	0.1	2			MA7	1.0	01Bo59	
^{163}Yb−$C_{13.583}$		−63663	30	−63666	17	−0.1	R			GS2	1.0	03Li.A	
^{163}Lu−$C_{13.583}$		−58730	110	−58820	30	−0.8	U			GS1	1.0	00Ra23	
		−58821	30				2			GS2	1.0	03Li.A	
^{163}Hf−$C_{13.583}$		−52911	30				2			GS2	1.0	03Li.A	
^{163}Ta−$C_{13.583}$		−45780	30	−45670	40	3.7	C			GS2	1.0	03Li.A	
^{163}Ta(α)^{159}Lu		4741.5	15.	4749	5	0.5	3					83Sc18	*
		4746.7	10.			0.2	3					86Ru05	
		4751.8	7.			−0.4	3					92Ha10	
^{163}W(α)^{159}Hf		5520.3	5.	5520	50	0.0	5					73Ea01	Z
		5518.1	5.			0.0	5					79Ho10	Z
		5519.9	3.			0.0	5					82De11	Z
		5518.7	6.			0.0	5			Daa		96Pa01	
^{163}Re(α)^{159}Ta		6017.9	5.	6017	7	−0.2	R			Ara		97Da07	*
^{163}Re^m(α)^{159}Ta^m		6067.2	6.	6068	3	0.2	9					79Ho10	
		6067.2	7.			0.1	9			Daa		96Pa01	
		6069.2	5.			−0.2	9			Ara		97Da07	
^{163}Os(α)^{159}W		6674.1	30.	6680	50	0.1	4					81Ho10	
		6678.2	10.			0.0	4			ORa		96Bi07	
		6676.2	19.			0.0	4			Daa		96Pa01	
^{162}Dy(n,γ)^{163}Dy		6270.98	0.06	6271.01	0.05	0.4	–			MMn		82Is05	Z
		6271.00	0.09			0.1	–			ILn		89Sc31	Z
		6271.14	0.13			−1.0	–			Bdn		03Fi.A	
	ave.	6271.01	0.05			0.0	1	100	93 ^{162}Dy			average	
^{162}Dy(^{3}He,d)^{163}Ho−^{164}Dy()^{165}Ho		−734.3	1.0	−734.1	0.9	0.2	1	77	41 ^{164}Dy	McM		75Bu02	
^{162}Er(d,p)^{163}Er		4682	10	4678	5	−0.4	1	25	20 ^{163}Er	Kop		69Tj01	
^{163}Ho(ε)^{163}Dy		2.56	0.05	2.555	0.016	−0.1	–					85Ha12	*
		2.60	0.03			−1.5	o					86Ya17	
		2.561	0.020			−0.3	–					92Ha15	
		2.54	0.03			0.5	–					93Bo.A	*
		2.71	0.10			−1.5	U					94Ya07	
	ave.	2.555	0.016			0.0	1	100	58 ^{163}Ho			average	
^{163}Er(β^+)^{163}Ho		1210	6	1210	5	0.0	1	60	59 ^{163}Er			63Pe16	
^{163}Tm(β^+)^{163}Er		2439	3				2					82Vy07	
^{163}Yb(β^+)^{163}Tm		3370	100	3431	17	0.6	U					75Ad09	
^{163}Lu(β^+)^{163}Yb		4860	170	4510	30	−2.0	B					83Ge08	
		4600	200			−0.4	U			IRS		93Al03	
^{163}Re^m(IT)^{163}Re		115.1	4.0	115	4	0.0	R					167Ir-4	
		115.1	4.0				9			Ara		97Da07	
*^{163}Ta(α)^{159}Lu	Original assignment to 13 s ^{164}Ta changed to ^{163}Ta											86Ru05	**
*^{163}Re(α)^{159}Ta	Replaced by author's value for ^{159}Ta^m(IT)											AHW	**
*^{163}Ho(ε)^{163}Dy	Orig. value 2.60(0.03) corrected to 2.561(0.020) for dynamic effects											87Sp02	**
*	error 0.020 is statistical only											87Sp02	**
*^{163}Ho(ε)^{163}Dy	Original 2616<Q<2694 68% CL from ^{163}Dy$_{66}$+(β^-)^{163}Ho$_{66}$+											92Ju01	**
*	corrected to 2511<Q<2572 68% CL											93Bo.A	**
^{164}Tm−$C_{13.667}$		−66440	30				2			GS2	1.0	03Li.A	*
^{164}Yb−^{142}Sm$_{1.155}$		32429	19	32436	16	0.4	2			MA7	1.0	01Bo59	
^{164}Yb−$C_{13.667}$		−65690	104	−65511	17	1.7	U			GS1	1.0	00Ra23	
		−65493	30			−0.6	R			GS2	1.0	03Li.A	
^{164}Lu−$C_{13.667}$		−58750	110	−58660	30	0.8	U			GS1	1.0	00Ra23	
		−58661	30				2			GS2	1.0	03Li.A	
^{164}Hf−$C_{13.667}$		−55620	110	−55633	22	−0.1	U			GS1	1.0	00Ra23	
		−55596	30			−1.2	R			GS2	1.0	03Li.A	
^{164}Ta−$C_{13.667}$		−46466	30				2			GS2	1.0	03Li.A	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{164}Er ^{35}Cl−^{162}Er ^{37}Cl	3373.3	1.3	3372.1	2.6	−0.4	1	66	47 ^{162}Er	H25	2.5	72Ba08	
^{164}W(α)^{160}Hf	5281.7	5.	5278.5	2.0	−0.6	5					73Ea01	Z
	5274.7	5.			0.8	5					75To05	Z
	5279.0	5.			−0.1	5					79Ho10	
	5279.2	3.			−0.2	5					82De11	Z
	5277.0	6.			0.3	5			Daa		96Pa01	
^{164}Re^{m}(α)^{160}Ta	5922.7	10.	5930	50	0.1	5					79Ho10	
	5928.9	7.			0.0	5			Daa		96Pa01	
^{164}Os(α)^{160}W	6478.3	20.	6477	6	−0.1	U					81Ho10	
	6473.2	10.			0.4	6			ORa		96Bi07	
	6479.4	7.			−0.3	6			Daa		96Pa01	
^{164}Dy(t,α)^{163}Tb	11153	4				2			McM		92Ga15	*
^{163}Dy(n,γ)^{164}Dy	7658.11	0.07	7658.11	0.07	0.1	1	100	52 ^{163}Dy	MMn		82Is05	Z
	7658.90	0.06			−13.1	C					99Fo.A	
	7655.0	0.9			3.5	B			Bdn		03Fi.A	
^{163}Dy(^{3}He,d)^{164}Ho−^{164}Dy()^{165}Ho	−331.6	1.4	−330.7	1.1	0.6	1	67	67 ^{164}Ho	McM		75Bu02	*
^{164}Er(d,t)^{163}Er	−2593	10	−2590	5	0.3	1	23	21 ^{163}Er	Kop		69Tj01	
^{164}Ir^{m}(p)^{163}Os	1844	9	1836	8	−0.8	5			Jyp		01Ke05	
	1818	14			1.3	5			Arp		02Ma61	
^{164}Tb(β^-)^{164}Dy	3890	100				2					71Gu18	
^{164}Tm(β^+)^{164}Er	3985	20	4061	28	3.8	B					67Vr04	*
	3989	50			1.4	B			IRS		94Po26	*
^{164}Lu(β^+)^{164}Yb	6390	140	6380	30	−0.1	U					83Ge08	
	6290	90			1.0	U			IRS		93Al03	*
	6255	120			1.0	U			Dbn		94Po26	*
*^{164}Tm−$C_{13.667}$	M−A=–61884(28) keV for mixture gs+m at 10(6) keV										Nubase	**
*^{164}Dy(t,α)^{163}Tb	Q−^{162}Dy()^{161}Tb=–123(4)+54−584=–653(4)										AHW	**
*^{163}Dy(^{3}He,d)^{164}Ho−^{164}D	See erratum										75Bu02	**
*^{164}Tm(β^+)^{164}Er	E^+ =2940(20) 29 to gs 10 to 91.38 level										NDS016	**
*^{164}Tm(β^+)^{164}Er	E^+ =2944(50) 29 to gs 10 to 91.38 level										NDS016	**
*^{164}Lu(β^+)^{164}Yb	Q^+ =6250(90) partly to 123.31 level										NDS016	**
*^{164}Lu(β^+)^{164}Yb	E^+ =5191(120) partly to 123.31 level										NDS016	**
^{165}Tm−^{142}$Sm_{1.162}$	30970	20	30976	7	0.3	1	13	11 ^{142}Sm	MA7	1.0	01Bo59	
^{165}Yb−$C_{13.75}$	−64721	30				2			GS2	1.0	03Li.A	
^{165}Lu−$C_{13.75}$	−60602	30	−60593	28	0.3	2			GS2	1.0	03Li.A	
^{165}Hf−$C_{13.75}$	−55360	140	−55430	30	−0.5	U			GS1	1.0	00Ra23	
	−55433	30				2			GS2	1.0	03Li.A	
^{165}Ta−$C_{13.75}$	−49191	30	−49227	19	−1.2	R			GS2	1.0	03Li.A	
^{165}W−$C_{13.75}$	−41720	30	−41720	27	0.0	1	80	80 ^{165}W	GS2	1.0	03Li.A	
^{165}W(α)^{161}Hf	5031.0	5.	5032	30	0.0	–					75To05	Z
	5034.2	10.			0.0	–					84Sc06	*
ave.	5032	4			0.0	1	36	20 ^{165}W			average	
^{165}Re^{m}(α)^{161}Ta^{m}	5631.7	10.	5649	4	1.7	13					78Sc26	*
	5643.0	10.			0.6	13			GSa		81Ho10	
	5664.5	4.			−3.8	F			Ora		82De11	*
	5655.4	5.			−1.2	13			Daa		96Pa01	*
^{165}Os(α)^{161}W	6354.3	20.	6340	50	−0.4	5					78Ca11	
	6317.4	10.			0.4	5					81Ho10	
	6342.1	7.			−0.1	5			Daa		96Pa01	
^{165}Ir^{m}(α)^{161}Re^{m}	6882.1	7.				8			Ara		97Da07	
^{164}Dy(n,γ)^{165}Dy	5716.36	0.20	5715.96	0.05	−2.0	B			ILn		79Br25	Z
	5715.96	0.06			0.0	2			MMn		82Is05	Z
	5715.70	0.30			0.9	U			ILn		90Ka21	Z
	5715.95	0.12			0.1	2			Bdn		03Fi.A	
^{165}Ho(γ,n)^{164}Ho	−7987	2	−7988.8	1.1	−0.9	1	33	33 ^{164}Ho	MMn		85Ts01	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{164}Er(n,γ)^{165}Er	6650.1	0.6	6650.1	0.6	−0.1	1	94	56 ^{165}Er			70Bo29	Z
^{164}Er(α,t)^{165}Tm−^{168}Er()^{169}Tm	−1298.0	2.0	−1296.9	1.5	0.6	1	58	50 ^{165}Tm	McM		75Bu02	
^{165}Ir^{m}(p)^{164}Os	1717.5	7.	1726	11	1.2	R			Ara		97Da07	
^{165}Er(ε)^{165}Ho	370	10	376.3	2.0	0.6	U					63Ry01	
	371	6			0.9	1	12	10 ^{165}Er			63Zy01	
^{165}Tm(β^+)^{165}Er	1591.3	2.0	1592.4	1.5	0.5	1	58	48 ^{165}Tm			82Vy03	
^{165}Yb(β^+)^{165}Tm	2762	20	2649	28	−5.7	B					67Pa04	
^{165}Lu(β^+)^{165}Yb	4250	140	3840	40	−2.9	B					83Ge08	
	3920	80			−0.9	R			IRS		93Al03	
$*^{165}$W(α)^{161}Hf	Originally assigned ^{168}Re, re-assigned by ref.										92Me10	**
$*^{165}$W(α)^{161}Hf	Original E(α)=4894 recalibrated using their ^{168}Os−^{170}Os results										GAu	**
$*^{165}$Re^{m}(α)^{161}Ta^{m}	Originally assigned to ^{166}Re										AHW	**
$*^{165}$Re^{m}(α)^{161}Ta^{m}	Originally assigned to ^{166}Re										AHW	**
$*^{165}$Re^{m}(α)^{161}Ta^{m}	Due to a high spin isomer										99Po09	**
^{166}Lu−C$_{13.833}$	−60157	108	−60140	30	0.1	U			GS1	1.0	00Ra23	*
	−60141	32				2			GS2	1.0	03Li.A	*
^{166}Hf−C$_{13.833}$	−57860	110	−57820	30	0.4	U			GS1	1.0	00Ra23	
	−57820	30				2			GS2	1.0	03Li.A	
^{166}Ta−C$_{13.833}$	−49488	30				2			GS2	1.0	03Li.A	
^{166}W−C$_{13.833}$	−44957	30	−44973	11	−0.5	R			GS2	1.0	03Li.A	
^{166}Er ^{35}Cl−^{164}Er ^{37}Cl	4040.9	1.4	4042.9	2.1	0.6	1	34	32 ^{164}Er	H25	2.5	72Ba08	
^{166}W(α)^{162}Hf	4856.0	5.	4856	4	0.1	3					75To05	Z
	4855.0	10.			0.1	3					79Ho10	Z
	4858.2	8.			−0.2	3					89Hi04	
^{166}Re^{m}(α)^{162}Ta	5637.0	13.	5660	50	0.4	5			Bea		92Me10	
	5669.9	10.			−0.2	5			Daa		96Pa01	
^{166}Os(α)^{162}W	6148.5	20.	6139	4	−0.5	U					77Ca23	
	6129.0	6.			1.6	5					81Ho10	
	6148.5	6.			−1.6	5			Daa		96Pa01	
^{166}Ir(α)^{162}Re	6702.8	20.	6724	6	1.1	U					81Ho10	
	6724.3	6.				7			Ara		97Da07	
^{166}Ir^{m}(α)^{162}Re^{m}	6718.2	11.	6722	5	0.4	8			Daa		96Pa01	*
	6723.3	5.			−0.2	8			Ara		97Da07	
^{166}Pt(α)^{162}Os	7285.9	15.				5			ORa		96Bi07	
^{166}Er(p,t)^{164}Er	−6641	5	−6642.9	1.9	−0.4	1	15	14 ^{164}Er	Min		73Oo01	
^{165}Dy(n,γ)^{166}Dy	7043.5	0.4				3					83Ke.A	
^{165}Ho(n,γ)^{166}Ho	6243.64	0.02	6243.640	0.020	0.0	1	100	61 ^{166}Ho	MMn		84Ke15	Z
	6243.68	0.13			−0.3	U			Bdn		03Fi.A	
^{166}Ir(p)^{165}Os	1152.0	8.0				6			Ara		97Da07	
^{166}Ir^{m}(p)^{165}Os	1324.1	8.	1324	10	−0.1	R			Ara		97Da07	*
^{166}Tb(β^-)^{166}Dy	4830	100				4					02Sh.A	
^{166}Ho(β^-)^{166}Er	1859	3	1854.7	0.9	−1.4	–					63Fu17	
	1857	3			−0.8	–					66Da04	
	1854.7	1.5			0.0	–					74Gr41	
	1851.6	2.0			1.5	–					83Ra.A	
ave.	1854.7	1.0			0.0	1	73	39 ^{166}Ho			average	
^{166}Tm(β^+)^{166}Er	3043	20	3038	12	−0.3	2					61Gr33	
	3031	20			0.3	2					61Zy02	
	3039	20			−0.1	2					63Pr13	
^{166}Yb(ε)^{166}Tm	280	40	305	14	0.6	U					Averag	*
^{166}Lu(β^+)^{166}Yb	5480	160	5570	30	0.5	U					74De09	
^{166}Ir^{m}(IT)^{166}Ir	171.5	6.1	172	6	0.0	R					165Os+1	
	171.5	6.1				7			Ara		97Da07	
$*^{166}$Lu−C$_{13.833}$	M−A=–56010(100) keV for mixture gs+m+n at 34.37 and 42.9 keV										NDS929	**
$*^{166}$Lu−C$_{13.833}$	M−A=–55995(28) keV for mixture gs+m+n at 34.37 and 42.9 keV										NDS929	**
$*^{166}$Ir^{m}(α)^{162}Re^{m}	Correlated with E(α)=6123 of ^{162}Re^{m}										96Pa01	**
$*^{166}$Ir^{m}(p)^{165}Os	Replaced by author's value for ^{166}Ir^{m}(IT)^{166}Ir										97Da07	**
$*^{166}$Yb(ε)^{166}Tm	From average pK=0.712(0.038) to 82.29(0.02) level										AHW	**
$*^{166}$Yb(ε)^{166}Tm	pK=0.74(0.05) to 82.29 level										63Ja06	**
$*^{166}$Yb(ε)^{166}Tm	pK=0.675(0.059) to 82.29 level										73De22	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$C_{13}\,H_{11}-{}^{167}Er$		154040.4	6.2	154027.2	2.7	−0.9	U			M23	2.5	79Ha32	
${}^{167}Lu-C_{13.917}$		−61730	34				2			GS2	1.0	03Li.A	*
${}^{167}Hf-C_{13.917}$		−57490	110	−57400	30	0.8	U			GS1	1.0	00Ra23	
		−57400	30				2			GS2	1.0	03Li.A	
${}^{167}Ta-C_{13.917}$		−51870	120	−51910	30	−0.3	U			GS1	1.0	00Ra23	
		−51907	30				2			GS2	1.0	03Li.A	
${}^{167}W-C_{13.917}$		−45175	30	−45184	21	−0.3	R			GS2	1.0	03Li.A	
${}^{167}Er\ {}^{35}Cl-{}^{165}Ho\ {}^{37}Cl$		4679.5	1.2	4676.2	1.0	−1.1	1	10	6 ${}^{165}Ho$	H25	2.5	72Ba08	
${}^{167}W(\alpha){}^{163}Hf$		4661.9	20.	4770	30	2.2	U					89Me02	
		4671.1	13.			2.0	U					91Me05	
${}^{167}Re^{m}(\alpha){}^{163}Ta$		5408.8	3.	5407.0	2.9	−0.6	4			Ora		82De11	*
		5397.5	10.			0.9	4			ChR		84Sc06	*
		5392.4	12.			1.2	4			Bea		92Me10	
${}^{167}Os(\alpha){}^{163}W$		5983.6	5.	5980	50	0.0	6					81Ho10	Z
		5978.7	2.			0.1	6					82De11	Z
		5996.9	5.			−0.3	6			Daa		96Pa01	
		5979.5	5.			0.0	6			Bka		02Ro17	
${}^{167}Ir(\alpha){}^{163}Re$		6507.1	5.	6503	6	−0.8	R			Ara		97Da07	*
${}^{167}Ir^{m}(\alpha){}^{163}Re^{m}$		6543.0	10.	6563	4	2.0	8					81Ho10	
		6567.6	11.			−0.4	8			Daa		96Pa01	
		6567.6	5.			−0.8	8			Ara		97Da07	
${}^{167}Pt(\alpha){}^{163}Os$		7159.8	10.				5			ORa		96Bi07	
${}^{167}Er(p,t){}^{165}Er$		−6427	6	−6429.3	1.9	−0.4	–			Min		73Oo01	
		−6430	5			0.1	–					75St08	
	ave.	−6429	4			−0.1	1	26	24 ${}^{165}Er$			average	
${}^{166}Er(n,\gamma){}^{167}Er$		6436.35	0.50	6436.45	0.18	0.2	–					70Bo29	Z
		6436.51	0.40			−0.1	–					70Mi01	Z
		6436.46	0.22			0.0	–			Bdn		03Fi.A	
	ave.	6436.46	0.18			0.0	1	99	62 ${}^{166}Er$			average	
${}^{166}Er(\alpha,t){}^{167}Tm-{}^{168}Er(){}^{169}Tm$		−666.5	1.0	−666.5	1.0	0.0	1	99	99 ${}^{167}Tm$	McM		75Bu02	
${}^{167}Ir(p){}^{166}Os$		1070.5	6.	1071	5	0.0	6					97Da07	
${}^{167}Ir^{m}(p){}^{166}Os$		1245.5	7.	1246	6	0.1	R					97Da07	*
${}^{167}Dy(\beta^{-}){}^{167}Ho$		2350	60				3					77Tu01	
${}^{167}Ho(\beta^{-}){}^{167}Er$		970	20	1010	5	2.0	U					68Fu07	
${}^{167}Yb(\beta^{+}){}^{167}Tm$		1954	4	1954	4	0.1	1	91	90 ${}^{167}Yb$			77Kr.A	
${}^{167}Lu(\beta^{+}){}^{167}Yb$		3130	100	3090	30	−0.4	U					64Ag.A	
${}^{167}W(\beta^{+}){}^{167}Ta$		5620	270	6260	30	2.4	U			Got		89Me02	
${}^{167}Ir^{m}(IT){}^{167}Ir$		175.3	2.2	175.3	2.2	0.0	R					166Os+1	
		175.3	2.2				7			Ara		97Da07	
$*{}^{167}Lu-C_{13.917}$	M−A=–57501(28) keV for mixture gs+m at 0#30 keV											Nubase	**
$*{}^{167}Re^{m}(\alpha){}^{163}Ta$	Original assignment to ${}^{168}Re$ changed by ref.											92Me10	**
$*{}^{167}Re^{m}(\alpha){}^{163}Ta$	Original assignment to ${}^{168}Re^{m}$ changed by ref.											92Me10	**
*	original E(α)=5250 recalibrated using their ${}^{168}Os-{}^{170}Os$ results											GAu	**
$*{}^{167}Ir(\alpha){}^{163}Re$	Replaced by author's value for ${}^{163}Re^{m}(IT){}^{163}Re$											AHW	**
$*{}^{167}Ir^{m}(p){}^{166}Os$	Replaced by author's value for ${}^{167}Ir^{m}(IT){}^{167}Ir$											97Da07	**
$C_{13}\,H_{12}-{}^{168}Er$		161543.3	5.1	161530.2	2.7	−1.0	1	4	4 ${}^{168}Er$	M23	2.5	79Ha32	
${}^{168}Lu-C_{14}$		−61210	89	−61260	50	−0.6	R			GS2	1.0	03Li.A	*
${}^{168}Hf-C_{14}$		−59560	104	−59430	30	1.2	U			GS1	1.0	00Ra23	
		−59432	30				2			GS2	1.0	03Li.A	
${}^{168}Ta-C_{14}$		−52020	110	−51950	30	0.6	U			GS1	1.0	00Ra23	
		−51953	30				2			GS2	1.0	03Li.A	
${}^{168}W-C_{14}$		−48181	30	−48192	17	−0.4	R			GS2	1.0	03Li.A	
${}^{168}W(\alpha){}^{164}Hf$		4506.5	12.				5					91Me05	
${}^{168}Re(\alpha){}^{164}Ta$		5063	13				3			Bea		92Me10	*
${}^{168}Os(\alpha){}^{164}W$		5819.0	3.	5818.2	2.9	−0.3	6					82De11	Z
		5800.4	8.			2.2	B					84Sc06	*
		5812.7	8.			0.7	6					95Hi02	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{168}Ir(α)^{164}Re		6477.5	8.				8			Daa		96Pa01	*
^{168}Ir^{m}(α)^{164}Re^{m}		6410.9	5.	6410	50	−0.1	6					82De11	
		6379.2	15.			0.6	6			Daa		96Pa01	
^{168}Pt(α)^{164}Os		6990.8	20.	6997	9	0.3	7					81Ho10	
		6998.9	10.			−0.2	7			ORa		96Bi07	
^{168}Yb(p,t)^{166}Yb		−7647	7				2			Min		73Oo01	
^{167}Er(n,γ)^{168}Er		7771.43	0.40	7771.32	0.12	−0.3	–					70Mi01	Z
		7771.05	0.20			1.3	–			ILn		79Br25	Z
		7771.0	0.5			0.6	U					85Va.A	
		7771.45	0.16			−0.8	–			Bdn		03Fi.A	
	ave.	7771.31	0.12			0.1	1	100	60 ^{168}Er			average	
^{167}Er(α,t)^{168}Tm−^{168}Er()^{169}Tm		−262.3	1.5	−262.3	1.5	0.0	1	100	100 ^{168}Tm	McM		75Bu02	
^{168}Yb(d,t)^{167}Yb		−2797	12	−2795	5	0.2	1	18	10 ^{167}Yb	Kop		66Bu16	
^{168}Ho(β^-)^{168}Er		2740	100	2930	30	1.9	U					73Ka07	
		2930	30				2					90Ch37	
^{168}Lu(β^+)^{168}Yb		4475	80	4510	50	0.4	2					70Ch28	
		4500	80			0.1	2					83Vi.A	
^{168}Lu^{m}(β^+)^{168}Yb		4695	100				2					72Ch44	
*^{168}Lu−C$_{14}$	M−A=−56922(28) keV for mixture gs+m at 190(110) keV											Nubase	**
*^{168}Re(α)^{164}Ta	E(α)=4833(13) to 111.7 level											92Me10	**
*^{168}Os(α)^{164}W	Used for recalibration of other results of same ref.											GAu	**
*^{168}Ir(α)^{164}Re	Correlated with E(α)=6878 of ^{172}Au											96Pa01	**
^{169}Lu−C$_{14.083}$		−62362	31	−62349	6	0.4	U			GS2	1.0	03Li.A	*
^{169}Hf−C$_{14.083}$		−58741	30				2			GS2	1.0	03Li.A	
^{169}Ta−C$_{14.083}$		−53960	110	−53990	30	−0.3	U			GS1	1.0	00Ra23	
		−53989	30				2			GS2	1.0	03Li.A	
^{169}W−C$_{14.083}$		−48195	30	−48221	17	−0.9	1	31	31 ^{169}W	GS2	1.0	03Li.A	
^{169}Re−C$_{14.083}$		−41188	57	−41210	30	−0.4	1	28	28 ^{169}Re	GS2	1.0	03Li.A	*
^{169}Tm ^{35}Cl$_2$−^{165}Ho ^{37}Cl$_2$		9793.0	1.1	9791.4	1.4	−0.6	1	24	14 ^{165}Ho	H25	2.5	72Ba08	
^{169}Tm ^{35}Cl−^{167}Er ^{37}Cl		5113.2	1.1	5115.2	1.2	0.7	1	18	10 ^{167}Er	H25	2.5	72Ba08	
^{169}Re(α)^{165}Ta^{p}		4989.3	12.				2			Bea		92Me10	
^{169}Re^{m}(α)^{165}Ta		5189.1	3.				4			Ora		82De11	
		5191.1	10.	5189	3	−0.2	U			ChR		84Sc06	*
		5184.0	10.			0.5	U			Bea		92Me10	
^{169}Os(α)^{165}W		5717.6	4.	5716	3	−0.4	2					82De11	
		5699.2	8.			2.1	B					84Sc06	*
		5713	8			0.3	2					95Hi02	
		5711.5	8.			0.5	2			Daa		96Pa01	
^{169}Ir(α)^{165}Re		6150.8	8.				13			Ara		99Po09	
^{169}Ir^{m}(α)^{165}Re^{m}		6276.0	3.	6257	4	−6.2	B			Ora		82De11	Z
		6258.4	10.			−0.1	U					84Sc.A	
		6267.6	9.			−1.1	12			Daa		96Pa01	
		6254.3	5.			0.6	12			Ara		99Po09	
^{169}Pt(α)^{165}Os		6840.2	15.	6846	13	0.4	6			GSa		81Ho10	
		6860.7	23.			−0.6	6			Daa		96Pa01	
^{168}Er(n,γ)^{169}Er		6002.5	0.7	6003.27	0.15	1.1	U					70Bo29	Z
		6003.5	0.3			−0.8	–					70Mu15	Z
		6003.16	0.18			0.6	–			Bdn		03Fi.A	
	ave.	6003.25	0.15			0.1	1	100	92 ^{169}Er			average	
^{168}Yb(n,γ)^{169}Yb		6866.8	0.4	6866.98	0.15	0.5	–					68Mi08	Z
		6867.2	0.4			−0.5	–					68Sh12	Z
		6866.97	0.18			0.1	–			Bdn		03Fi.A	
	ave.	6866.98	0.15			0.0	1	100	54 ^{168}Yb			average	
^{169}Dy(β^-)^{169}Ho		3200	300				3			LBL		90Ch34	
^{169}Er(β^-)^{169}Tm		343.8	3.	351.3	1.1	2.5	1	13	8 ^{169}Er			56Bi30	
		347.8	5.			0.7	U					65Du02	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{169}Yb(ε)^{169}Tm		913	12	910	4	−0.3	U					86Ad07	
^{169}Lu(β^+)^{169}Yb		2293	3				2					77Bo31	
^{169}Hf(β^+)^{169}Lu		3365	200	3360	28	0.0	U					69Ar23	
		3250	90			1.2	U					73Me09	
$*^{169}$Lu−$C_{14.083}$	M−A=–58075(28) keV for mixture gs+m at 29.0 keV											NDS91a	**
$*^{169}$Re−$C_{14.083}$	M−A=–38293(29) keV for mixture gs+m at 145(29) keV											Nubase	**
$*^{169}$Re^m(α)^{165}Ta	Original E(α)=5050 recalibrated using their ^{168}Os−^{170}Os results											GAu	**
$*^{169}$Os(α)^{165}W	Used for recalibration of other results of same ref.											GAu	**
^{170}Lu−$C_{14.167}$		−61529	42	−61525	18	0.1	R			GS2	1.0	03Li.A	*
^{170}Hf−$C_{14.167}$		−60400	104	−60390	30	0.1	U			GS1	1.0	00Ra23	
		−60391	30				2			GS2	1.0	03Li.A	
^{170}Ta−$C_{14.167}$		−53810	104	−53830	30	−0.1	U			GS1	1.0	00Ra23	
		−53825	30				2			GS2	1.0	03Li.A	
^{170}W−$C_{14.167}$		−50710	110	−50772	16	−0.6	U			GS1	1.0	00Ra23	
		−50755	30			−0.6	R			GS2	1.0	03Li.A	
^{170}Re−$C_{14.167}$		−41782	30	−41780	28	0.1	2			GS2	1.0	03Li.A	
^{170}Os−$C_{14.167}$		−36454	31	−36423	12	1.0	R			GS2	1.0	03Li.A	
^{170}Er ^{35}Cl−^{168}Er ^{37}Cl		6046.9	1.8	6044.2	1.6	−0.6	1	13	10 ^{170}Er	H25	2.5	72Ba08	
^{170}Yb ^{35}Cl−^{168}Yb ^{37}Cl		3806.0	7.6	3815	4	0.5	U			H27	2.5	74Ba90	
^{170}Os(α)^{166}W		5533.5	10.	5539	3	0.6	4					72To06	Z
		5541.6	4.			−0.6	4					82De11	Z
		5523.2	8.			2.0	B					84Sc06	*
		5533.4	8.			0.7	4					95Hi02	
		5537.5	10.			0.2	4			Bka		02Ro17	
^{170}Ir(α)^{166}Re^p		5955.4	10.				8			Bka		02Ro17	
^{170}Ir^m(α)^{166}Re^m		6175.4	10.	6230	11	1.1	U					78Sc26	Z
		6172.7	5.			1.1	U			Ora		82De11	Z
		6147.9	10.			1.6	U			Daa		96Pa01	
		6229.9	11.				6			Daa		96Pa01	*
^{170}Pt(α)^{166}Os		6703.0	8.	6708	4	0.6	6					81Ho10	
		6705.0	10.			0.3	6					82En03	
		6708.1	6.			0.0	6			ORa		96Bi07	
		6711.2	11.			−0.3	6			Jya		97Uu01	
		6723.5	14.			−1.1	6			Bka		01Ro.B	
^{170}Au(α)^{166}Ir		7174.1	11.	7168	21	−0.1	U			Jya		02Ke.C	
^{170}Au^m(α)^{166}Ir^m		7277.5	6.	7271	17	−0.1	U			Jya		02Ke.C	
		7226.3	15.			0.9	U			Ara		02Ma61	
^{170}Er(p,α)^{167}Ho		7036	5				2			NDm		83Ta.A	
^{170}Er(^{18}O,^{20}Ne)^{168}Dy		4710	140				2					98Lu08	
^{170}Er(p,t)^{168}Er		−4785	5	−4778.7	1.5	1.3	U			Min		73Oo01	
^{170}Yb(p,t)^{168}Yb		−6861	6	−6855	4	1.0	1	38	37 ^{168}Yb	Min		73Oo01	
^{170}Er(d,^{3}He)^{169}Ho		−3107	20				2					76Su.A	
^{169}Tm(n,γ)^{170}Tm		6595.	2.5	6591.97	0.17	−1.2	U					66Sh03	
		6592.1	1.5			−0.1	U					70Or.A	
		6591.7	0.9			0.3	U			BNn		96Ho12	Z
		6591.95	0.17			0.1	1	99	52 ^{170}Tm	Bdn		03Fi.A	
^{170}Au(p)^{169}Pt		1473.8	15.				7			Jyp		02Ke.C	
^{170}Au^m(p)^{169}Pt		1749.5	8.	1748	6	−0.2	7			Jyp		02Ke.C	
		1745.4	10.			0.3	7			Arp		02Ma61	
^{170}Ho(β^-)^{170}Er		3870	50				2					78Tu04	
^{170}Ho^m(β^-)^{170}Er		3970	60				2					78Tu04	
^{170}Tm(β^-)^{170}Yb		970	2	968.3	0.8	−0.8	–					54Po26	
		967.3	1.			1.0	–					69Va17	
	ave.	967.8	0.9			0.6	1	78	48 ^{170}Tm			average	
^{170}Lu(β^+)^{170}Yb		3467	20	3459	17	−0.4	2					60Dz02	
		3410	50			1.0	2					65Ha30	
$*^{170}$Lu−$C_{14.167}$	M−A=–57267(29) keV for mixture gs+m at 92.91 keV											Ens02	**
$*^{170}$Os(α)^{166}W	Used for recalibration of other results of same ref.											GAu	**
$*^{170}$Ir^m(α)^{166}Re^m	Correlated with ^{166}Re E(α)=5533											96Pa01	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{171}Lu−C$_{14.25}$		−62132	41	−62086.9	3.0	1.1	U			GS2	1.0	03Li.A	*
^{171}Hf−C$_{14.25}$		−59570	104	−59510	30	0.6	U			GS1	1.0	00Ra23	*
		−59508	31				2			GS2	1.0	03Li.A	*
^{171}Ta−C$_{14.25}$		−55550	104	−55520	30	0.3	U			GS1	1.0	00Ra23	
		−55524	30				2			GS2	1.0	03Li.A	
^{171}W−C$_{14.25}$		−50650	110	−50550	30	0.9	U			GS1	1.0	00Ra23	
		−50549	30				2			GS2	1.0	03Li.A	
^{171}Re−C$_{14.25}$		−44284	30				2			GS2	1.0	03Li.A	
^{171}Os−C$_{14.25}$		−36796	30	−36815	20	−0.6	–			GS2	1.0	03Li.A	
	ave.	−36801	21			−0.7	1	90	90 ^{171}Os			average	
^{171}Yb ^{35}Cl$_2$−^{167}Er ^{37}Cl$_2$		10178.0	1.7	10177.8	1.4	0.0	1	10	7 ^{167}Er	H27	2.5	74Ba90	
^{171}Yb ^{35}Cl−^{169}Tm ^{37}Cl		5061.9	1.7	5062.6	1.0	0.2	1	5	4 ^{169}Tm	H27	2.5	74Ba90	
^{171}Os(α)^{167}W		5365.8	10.	5371	4	0.5	2					72To06	
		5365.8	10.			0.5	2					78Sc26	
		5393.4	15.			−1.5	2					79Ha10	
		5367.9	8.			0.3	2					95Hi02	
		5374.0	9.			−0.4	2			Daa		96Pa01	
^{171}Ir(α)^{167}Re^m		5854.2	10.				5			Bka		02Ro17	*
^{171}Ir^m(α)^{167}Re		6159.2	3.	6160.2	2.5	0.3	9					82De11	*
		6159	5			0.2	9					92Sc16	*
		6180	11			−1.8	9			Daa		96Pa01	*
^{171}Pt(α)^{167}Os		6608.1	4.	6610	50	0.0	7					81De22	Z
		6606.8	5.			0.0	7					81Ho10	Z
		6604.8	11.			0.1	7			Jya		97Uu01	
^{171}Au^m(α)^{167}Ir^m		7163.9	6.				8			Ara		97Da07	
^{171}Yb(p,t)^{169}Yb		−6599	5	−6603	4	−0.7	1	54	54 ^{169}Yb	Min		73Oo01	
^{170}Er(n,γ)^{171}Er		5681.5	0.5	5681.6	0.4	0.1	–					71Al01	
		5681.6	0.5			−0.1	–			Bdn		03Fi.A	
	ave.	5681.6	0.4			0.1	1	98	69 ^{171}Er			average	
^{170}Er(α,t)^{171}Tm−^{168}Er()^{169}Tm		817.9	1.0	817.8	0.9	−0.1	1	81	59 ^{170}Er	McM		75Bu02	
^{170}Yb(n,γ)^{171}Yb		6614.3	0.6	6614.5	0.6	0.3	1	88	77 ^{170}Yb			72Wa10	Z
		6616.6	0.4			−5.3	B			Bdn		03Fi.A	
^{170}Yb(α,t)^{171}Lu−^{174}Yb()^{175}Lu		−1156.2	2.0	−1156.5	1.7	−0.2	1	74	69 ^{171}Lu	McM		75Bu02	
^{171}Au(p)^{170}Pt		1452.6	17.	1452	18	0.0	R			Arp		99Po09	
^{171}Au^m(p)^{170}Pt		1702.1	6.	1702	9	−0.1	R					97Da07	
^{171}Ho(β^-)^{171}Er		3200	600				2			LBL		90Ch34	
^{171}Er(β^-)^{171}Tm		1490	2	1490.7	1.2	0.4	1	38	31 ^{171}Er			61Ar15	
^{171}Tm(β^-)^{171}Yb		96.5	1.0	96.5	1.0	0.0	1	94	93 ^{171}Tm			57Sm73	
^{171}Lu(β^+)^{171}Yb		1479.3	3.	1478.6	1.9	−0.2	1	41	31 ^{171}Lu			77Bo32	
^{171}Re(β^+)^{171}W		5670	200	5840	40	0.8	U			Got		87Ru05	
^{171}Au^m(IT)^{171}Au		250	16	250	16	0.0	R					170Pt+1	
		250	16				9					99Po09	
*^{171}Lu−C$_{14.25}$	M−A=–57840(33) keV for mixture gs+m at 71.13 keV											NDS027**	
*^{171}Hf−C$_{14.25}$	M−A=–55480(100) keV for mixture gs+m at 21.93 keV											NDS027**	
*^{171}Hf−C$_{14.25}$	M−A=–55420(28) keV for mixture gs+m at 21.93 keV											NDS027**	
*^{171}Ir(α)^{167}Re^m	Correlated with ^{175}Au E(α)=6412											02Ro17	**
*^{171}Ir^m(α)^{167}Re	E(α)=5925.2(3,Z) to 92 level											92Sc16	**
*	this 92 level 11/2$^-$ above 9/2$^-$ 5.9 s state											NDS007**	
*^{171}Ir^m(α)^{167}Re	E(α)=5925(5) to 92 level											92Sc16	**
*^{171}Ir^m(α)^{167}Re	E(α)=5945(11) followed by 92 γ											96Pa01	**
^{172}Hf−C$_{14.333}$		−60555	30	−60552	26	0.1	2			GS2	1.0	03Li.A	
^{172}Ta−C$_{14.333}$		−55105	30				2			GS2	1.0	03Li.A	
^{172}W−C$_{14.333}$		−52770	110	−52710	30	0.6	U			GS1	1.0	00Ra23	
		−52708	30				2			GS2	1.0	03Li.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{172}Re−$C_{14.333}$		−44702	221	−44580	60	0.6	U			GS1	1.0	00Ra23	*
		−44587	62			0.2	R			GS2	1.0	03Li.A	*
^{172}Yb $^{35}Cl_2$−^{168}Er $^{37}Cl_2$		9906.7	1.7	9911.4	1.4	1.1	1	10	7 ^{168}Er	H27	2.5	74Ba90	
^{172}Yb ^{35}Cl−^{170}Yb ^{37}Cl		4568.5	2.0	4569.7	0.6	0.2	U			H27	2.5	74Ba90	
^{172}Os(α)^{168}W		5226.8	10.	5227	7	0.0	4					71Bo06	
		5227.8	10.			−0.1	4			Daa		96Pa01	
^{172}Ir(α)^{168}Re		5990.6	10.	5850#	100#	−14.1	F					92Sc16	*
^{172}Ir^m(α)^{168}Re		6129.3	3.	6129.2	2.6	0.0	4					82De11	*
		6129.1	5.			0.0	4					92Sc16	*
		6123.0	12.			0.5	U			Daa		96Pa01	*
^{172}Pt(α)^{168}Os		6464.8	4.				7					81De22	Z
^{172}Au(α)^{168}Ir		7023.6	10.	7030	50	0.2	8					93Se09	
		7042.1	9.			−0.2	8			Daa		96Pa01	
^{172}Hg(α)^{168}Pt		7525	12				8					99Se14	
^{170}Er(t,p)^{172}Er		4034	4	4036	4	0.4	1	89	87 ^{172}Er			80Sh14	
^{171}Yb(n,γ)^{172}Yb		8020.3	0.7	8019.46	0.14	−1.2	–					71Al14	Z
		8020.1	0.5			−1.3	–					75Gr32	
		8019.67	0.35			−0.6	–			ILn		85Ge02	Z
		8019.27	0.17			1.1	–			Bdn		03Fi.A	
	ave.	8019.45	0.14			0.1	1	100	73 ^{171}Yb			average	
^{171}Yb(α,t)^{172}Lu−^{174}Yb()^{175}Lu		−791.9	2.0	−791.9	2.0	0.0	1	100	100 ^{172}Lu	McM		75Bu02	
^{172}Er(β^-)^{172}Tm		888	5	891	5	0.5	1	83	70 ^{172}Tm			62Gu03	
^{172}Tm(β^-)^{172}Yb		1870	10	1880	6	1.0	1	30	30 ^{172}Tm			66Ha15	
^{172}Hf(ε)^{172}Lu		350	50	338	25	−0.2	R					79To18	
^{172}Ta(β^+)^{172}Hf		4920	180	5070	40	0.9	U					73Ca10	
^{172}W(β^+)^{172}Ta		3210	100	2230	40	−9.8	C					74Ca.A	
*^{172}Re−$C_{14.333}$	M−A=–41640(200) keV for mixture gs+m at 0#100 keV											Nubase	**
*^{172}Re−$C_{14.333}$	M−A=–41533(28) keV for mixture gs+m at 0#100 keV											Nubase	**
*^{172}Ir(α)^{168}Re	E(α)=5510(10) to 89.7+123.2+136.3 level											92Sc16	**
*^{172}Ir(α)^{168}Re	Considers 349.2 level uncertain											NDS942	**
*^{172}Ir(α)^{168}Re	E(α)=5510(10) correlated with E(α)=6260 of ^{186}Au											02Ro17	**
*^{172}Ir^m(α)^{168}Re	E(α)=5828.2(3,Z) followed by 162.1 γ-ray											92Sc16	**
*^{172}Ir^m(α)^{168}Re	E(α)=5828(5) followed by 162.1 γ-ray											92Sc16	**
*^{172}Ir^m(α)^{168}Re	E(α)=5822(12) to 162.1 level											NDS942	**
^{173}Hf−$C_{14.417}$		−59487	30				2			GS2	1.0	03Li.A	
^{173}Ta−$C_{14.417}$		−56270	104	−56250	30	0.2	U			GS1	1.0	00Ra23	
		−56250	30				2			GS2	1.0	03Li.A	
^{173}W−$C_{14.417}$		−52340	104	−52310	30	0.3	U			GS1	1.0	00Ra23	
		−52311	30				2			GS2	1.0	03Li.A	
^{173}Re−$C_{14.417}$		−46910	110	−46760	30	1.4	U			GS1	1.0	00Ra23	
		−46757	30				2			GS2	1.0	03Li.A	
^{173}Os−$C_{14.417}$		−40169	30	−40192	16	−0.8	1	29	29 ^{173}Os	GS2	1.0	03Li.A	
^{173}Ir−$C_{14.417}$		−32463	110	−32498	15	−0.3	U			GS2	1.0	03Li.A	*
^{173}Yb $^{35}Cl_2$−^{169}Tm $^{37}Cl_2$		9898.3	1.2	9897.7	1.0	−0.2	1	11	8 ^{169}Tm	H27	2.5	74Ba90	
^{173}Os(α)^{169}W		5057.2	10.	5055	6	−0.2	–					71Bo06	
		5055.2	7.			−0.1	–			GSa		84Sc.A	
	ave.	5056	6			−0.2	1	97	69 ^{169}W			average	
^{173}Ir(α)^{169}Re^m		5544.4	10.				3					92Sc16	
^{173}Ir^m(α)^{169}Re		5930.4	5.	5941.8	2.5	2.3	–					67Si02	*
		5947.1	4.			−1.3	–					82De11	*
		5937	10			0.5	–			GSa		84Sc.A	*
		5944.8	5.			−0.6	–					92Sc16	*
		5951.9	13.			−0.8	–			Daa		96Pa01	*
		5927.3	20.			0.7	U			Ara		01Ko.B	
	ave.	5941.8	2.5			0.0	1	100	72 ^{169}Re			average	
^{173}Pt(α)^{169}Os		6359.1	8.	6350	50	−0.1	3					79Ha10	Z
		6352.3	3.			0.1	3					81De22	Z
		6382.9	10.			−0.6	U			GSa		84Sc.A	
		6372.6	9.			−0.4	3			Daa		96Pa01	
^{173}Au(α)^{169}Ir		6830.2	6.	6836	5	1.0	12			Ara		99Po09	
		6847.6	8.			−1.4	12			Ara		01Ko44	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference
$^{173}Au^{m}(\alpha)^{169}Ir^{m}$	6896.8	10.	6896	3	0.0	11			GSa		84Sc.A
	6909.1	9.			−1.4	11			Daa		96Pa01
	6891.6	4.			1.1	11			Ara		99Po09
	6900.8	6.			−0.7	11			Ara		01Ko44
$^{173}Hg(\alpha)^{169}Pt$	7381	11				7					99Se14
$^{172}Yb(n,\gamma)^{173}Yb$	6367.3	0.4	6367.3	0.3	0.0	–					71Al01 Z
	6367.2	0.6			0.2	–			Bdn		03Fi.A
ave.	6367.3	0.3			0.1	1	98	70 ^{172}Yb			average
$^{172}Yb(\alpha,t)^{173}Lu-^{174}Yb()^{175}Lu$	−595.6	1.0	−595.6	1.0	0.0	1	100	100 ^{173}Lu	McM		75Bu02
$^{173}Ta(\beta^{+})^{173}Hf$	3670	200	3020	40	−3.3	U					73Re03
$^{173}W(\beta^{+})^{173}Ta$	4000	300	3670	40	−1.1	U					80Vi.A
$*^{173}Ir-C_{14.417}$	M−A=–30113(70) keV for mixture gs+m at 253(27) keV										Nubase **
$*^{173}Ir^{m}(\alpha)^{169}Re$	E(α)=5660.0(5,Z) to 136.2 level										92Sc16 **
$*^{173}Ir^{m}(\alpha)^{169}Re$	E(α)=5676.2(4,Z) to 136.2 level										92Sc16 **
$*^{173}Ir^{m}(\alpha)^{169}Re$	E(α)=5666(10) followed by 136.0 E_1 γ (and 90.6)										84Sc.A **
*	136.2 γ: M_1E_2 instead (90 not mentioned)										92Sc16 **
$*^{173}Ir^{m}(\alpha)^{169}Re$	E(α)=5674(5) to 136.2 level										92Sc16 **
$*^{173}Ir^{m}(\alpha)^{169}Re$	E(α)=5681(13) to 136.2 level										92Sc16 **
$^{174}Ta-C_{14.5}$	−55546	30				2			GS2	1.0	03Li.A
$^{174}W-C_{14.5}$	−53940	104	−53920	30	0.2	U			GS1	1.0	00Ra23
	−53921	30				2			GS2	1.0	03Li.A
$^{174}Re-C_{14.5}$	−46930	104	−46890	30	0.4	U			GS1	1.0	00Ra23
	−46885	30				2			GS2	1.0	03Li.A
$^{174}Os-C_{14.5}$	−42880	110	−42938	12	−0.5	U			GS1	1.0	00Ra23
	−42919	30			−0.6	R			GS2	1.0	03Li.A
$^{174}Ir-C_{14.5}$	−33127	72	−33139	30	−0.2	R			GS2	1.0	03Li.A *
$^{174}Yb\ ^{35}Cl-^{172}Yb\ ^{37}Cl$	5430.3	1.1	5430.7	0.4	0.1	U			H27	2.5	74Ba90
$^{174}Os(\alpha)^{170}W$	4872.2	10.				5					71Bo06
$^{174}Ir(\alpha)^{170}Re$	5624.1	10.				3					92Sc16 *
$^{174}Ir^{m}(\alpha)^{170}Re$	5817.6	6.	5817	4	−0.1	3					67Si02 *
	5816.4	5.			0.1	3					92Sc16 *
$^{174}Pt(\alpha)^{170}Os$	6176.3	10.	6184	5	0.7	5					79Ha10 Z
	6185.7	5.			−0.4	5					81De22 Z
$^{174}Au(\alpha)^{170}Ir$	6700.3	10.	6699	7	−0.1	9			GSa		84Sc.A
	6698.3	10.			0.1	9			Daa		96Pa01 *
$^{174}Au^{m}(\alpha)^{170}Ir^{m}$	6778	10	6784	8	0.6	7			GSa		84Sc.A *
	6793.5	13.			−0.7	7			Daa		96Pa01
$^{174}Hg(\alpha)^{170}Pt$	7235.6	11.	7233	6	−0.2	7					97Uu01
	7232	8			0.1	7					99Se14
	7231	14			0.1	7			Bka		01Ro.B
$^{173}Yb(n,\gamma)^{174}Yb$	7464.63	0.06	7464.63	0.06	0.1	1	100	57 ^{173}Yb	MMn		82Is05 Z
	7464.58	0.35			0.2	U			ILn		87Ge01 Z
	7465.5	0.4			−2.2	U			Bdn		03Fi.A
$^{173}Yb(\alpha,t)^{174}Lu-^{174}Yb()^{175}Lu$	−202.1	1.0	−202.1	1.0	0.0	1	100	100 ^{174}Lu	McM		75Bu02
$^{174}Tm(\beta^{-})^{174}Yb$	3080	100	3080	40	0.0	2					64Ka16
	3080	50			0.0	2					67Gu12
$^{174}Ta(\beta^{+})^{174}Hf$	3845	80	4106	28	3.3	B					71Ch26
$*^{174}Ir-C_{14.5}$	M−A=–30761(36) keV for mixture gs+m at 193(11) keV										Nubase **
$*^{174}Ir(\alpha)^{170}Re$	E(α)=5275(10) to 224.7 level										92Sc16 **
$*^{174}Ir^{m}(\alpha)^{170}Re$	E(α)=5478(6) to 210.4 level										92Sc16 **
$*^{174}Ir^{m}(\alpha)^{170}Re$	E(α)=5478(5), 5316(10) to 210.4, 370.2 levels										92Sc16 **
$*^{174}Au(\alpha)^{170}Ir$	E(α)=6538 correlated with ^{170}Ir E(α)=5817										02Ro17**
*	and with ^{178}Tl α's										02Ro17**
$*^{174}Au^{m}(\alpha)^{170}Ir^{m}$	E(α)=6626, 6470, 6435 to ground-state, 152.7, 190.0 levels										84Sc.A **
*	Last two E(α) orig. assgnd to ^{175}Au										01Ko.B**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{175}Lu ^{37}Cl−^{142}Nd ^{35}Cl$_2$		61249.5	2.5	61245.7	2.0	−0.6	1	11	6 ^{142}Nd	H31	2.5	77So02	
^{175}Ta−C$_{14.583}$		−56350	120	−56260	30	0.7	U			GS1	1.0	00Ra23	
		−56263	30				2			GS2	1.0	03Li.A	
^{175}W−C$_{14.583}$		−53290	104	−53280	30	0.1	U			GS1	1.0	00Ra23	
		−53283	30				2			GS2	1.0	03Li.A	
^{175}Re−C$_{14.583}$		−48630	104	−48620	30	0.1	U			GS1	1.0	00Ra23	
		−48619	30				2			GS2	1.0	03Li.A	
^{175}Os−C$_{14.583}$		−43120	110	−43054	15	0.6	U			GS1	1.0	00Ra23	
		−43024	30			−1.0	R			GS2	1.0	03Li.A	
^{175}Ir−C$_{14.583}$		−35828	30	−35887	21	−2.0	1	50	50 ^{175}Ir	GS2	1.0	03Li.A	
^{175}Lu ^{35}Cl−^{173}Yb ^{37}Cl		5507.3	1.4	5511.1	1.4	1.1	1	15	12 ^{173}Yb	H27	2.5	74Ba90	
^{175}Ir(α)^{171}Re		5709.0	5.	5400	30	−62.5	B					67Si02	*
		5709.2	5.			−62.5	B					92Sc16	*
^{175}Pt(α)^{171}Os		6179	5	6178.1	2.6	−0.2	–					79Ha10	*
		6178.1	3.			0.0	–					82De11	*
	ave.	6178.3	2.6			−0.1	1	100	90 ^{175}Pt			average	
^{175}Au(α)^{171}Ir		6562.3	15.				6			Bka		02Ro17	*
^{175}Au^m(α)^{171}Ir^m		6590.9	10.	6584	5	−0.7	8			Ora		75Ca06	
		6775.8	10.			−19.2	F					84Sc.A	*
		6588.8	9.			−0.5	8			Daa		96Pa01	
		6579.6	6.			0.7	8			Ara		01Ko44	
^{175}Hg(α)^{171}Pt		7039.2	20.	7060	50	0.3	8			GSa		84Sc.A	
		7071.0	24.			−0.3	8			Daa		96Pa01	
		7058.7	11.			0.0	8			Jya		97Uu01	
^{174}Yb(n,γ)^{175}Yb		5822.35	0.07	5822.35	0.07	0.1	1	100	53 ^{175}Yb	MMn		82Is05	Z
		5822.5	0.4			−0.4	U			Bdn		03Fi.A	
^{174}Hf(n,γ)^{175}Hf		6708.4	0.5	6708.5	0.4	0.3	–					71Al01	Z
		6708.8	0.6			−0.4	–			Bdn		03Fi.A	
	ave.	6708.6	0.4			−0.1	1	99	86 ^{175}Hf			average	
^{175}Tm(β^-)^{175}Yb		2385	50				2					66Wi04	
^{175}Yb(β^-)^{175}Lu		466	3	470.1	1.3	1.4	–					55De18	
		468	5			0.4	–					55Mi90	
		471	3			−0.3	–					56Co13	
		467	3			1.0	–					62Ba32	
	ave.	468.0	1.6			1.3	1	60	47 ^{175}Yb			average	
^{175}Ir^p(IT)^{175}Ir		100	20	72	17	−1.4	1	74	50 ^{175}Ir			84Sc.A	
*^{175}Ir(α)^{171}Re	E(α)=5392.8(5,Z) to 189.8 level											95Hi02	**
*^{175}Ir(α)^{171}Re	E(α)=5393(5) to 189.8 level											95Hi02	**
*^{175}Pt(α)^{171}Os	E(α)=6037(10), 5963.0(5,Z) to ground-state, 76.4(0.5) level											84Sc.A	**
*^{175}Pt(α)^{171}Os	E(α)=5959.2(3,Z) to 76.4(0.5) level											84Sc.A	**
*^{175}Au(α)^{171}Ir	Analysis of data of ref											02Ro17	**
*^{175}Au^m(α)^{171}Ir^m	F: Belong to ^{174}Au !											01Ko.B	**
^{176}Lu ^{37}Cl−^{143}Nd ^{35}Cl$_2$		61067.2	1.4	61069.2	2.0	0.6	1	34	20 ^{143}Nd	H31	2.5	77So02	
^{176}Ta−C$_{14.667}$		−55143	33				2			GS2	1.0	03Li.A	
^{176}W−C$_{14.667}$		−54420	104	−54370	30	0.5	U			GS1	1.0	00Ra23	
		−54366	30				2			GS2	1.0	03Li.A	
^{176}Re−C$_{14.667}$		−48380	110	−48380	30	0.0	U			GS1	1.0	00Ra23	
		−48377	30				2			GS2	1.0	03Li.A	
^{176}Os−C$_{14.667}$		−45150	110	−45190	30	−0.4	U			GS1	1.0	00Ra23	
		−45194	30				2			GS2	1.0	03Li.A	
^{176}Ir−C$_{14.667}$		−36328	30	−36351	22	−0.8	–			GS2	1.0	03Li.A	
	ave.	−36334	27			−0.6	1	65	65 ^{176}Ir			average	
^{176}Yb ^{35}Cl$_2$−^{172}Yb ^{37}Cl$_2$		12088.9	2.4	12090.4	1.1	0.2	U			H27	2.5	74Ba90	
^{176}Yb ^{35}Cl−^{174}Yb ^{37}Cl		6656.3	1.4	6659.7	1.0	1.0	1	9	9 ^{176}Yb	H27	2.5	74Ba90	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{176}Hf ^{35}Cl−^{174}Hf ^{37}Cl		4314.21	0.86	4312.5	1.9	−0.8	1	76	75 ^{174}Hf	H37	2.5	77Sh12	
^{176}Ir(α)^{172}Re		5237.3	8.				2					67Si02	
^{176}Pt(α)^{172}Os		5890.1	5.	5885.2	2.1	−0.9	3					79Ha10	Z
		5881.4	4.			1.0	3					82Bo04	Z
		5887.3	3.			−0.6	3					82De11	Z
		5874.8	8.			1.3	3			Daa		96Pa01	
^{176}Au(α)^{172}Ir		6574.2	10.	6558	7	−1.6	5			Ora		75Ca06	*
		6541.5	10.			1.6	5					84Sc.A	*
^{176}Au^{m}(α)^{172}Ir^{m}		6436.6	10.	6433	5	−0.3	5			Ora		75Ca06	*
		6428.4	10.			0.5	5			GSa		84Sc.A	*
		6433.4	6.			−0.1	5			Ara		01Ko44	*
^{176}Hg(α)^{172}Pt		6924.7	10.	6897	6	−2.8	C			GSa		84Sc.A	
		6907.3	20.			−0.5	U			Daa		96Pa01	
		6897.0	6.				8			Ara		99Po09	
^{176}Yb(p,α)^{173}Tm		7628.8	4.4				2			NDm		78Ta10	
^{176}Hf(p,t)^{174}Hf		−6397	5	−6391.7	1.7	1.1	1	12	12 ^{174}Hf	Min		73Oo01	
^{175}Lu(n,γ)^{176}Lu		6287.96	0.15	6287.98	0.15	0.1	1	100	77 ^{175}Lu	ILn		91Kl02	Z
		6289.78	0.24			−7.5	B			Bdn		03Fi.A	
^{176}Tm(β^-)^{176}Yb		4120	100				2					67Gu11	*
^{176}Lu(β^-)^{176}Hf		1194.1	1.0	1190.2	0.8	−3.9	1	58	36 ^{176}Hf			73Va11	*
^{176}Ta(β^+)^{176}Hf		3110	100	3210	30	1.0	U					71Be10	
*^{176}Au(α)^{172}Ir	E(α)=6260(10) coinc. with E(γ)=168.4(0.5)											75Ca06	**
*^{176}Au(α)^{172}Ir	E(α)=6228(10) to 168.4(0.5) γ											84Sc.A	**
*^{176}Au(α)^{172}Ir	E(α)=6260 correlated with ^{172}Ir E(α)=5510											02Ro17	**
*^{176}Au^{m}(α)^{172}Ir^{m}	E(α)=6286 correlated with ^{172}Ir^{m} E(α)=5828											02Ro17	**
*^{176}Au^{m}(α)^{172}Ir^{m}	E(α)=6115(6) coinc. with 175.1 γ of ref											84Sc.A	**
*	E(α)=6119+E(γ)=175.1 misassigned to ^{177}Au by ref											84Sc.A	**
*^{176}Tm(β^-)^{176}Yb	E$^-$=2000(100), 1150(100) to 2053.4, 3050 levels											NDS905	**
*^{176}Lu(β^-)^{176}Hf	Q$^-$=1317(1) to ^{176}Lu^{m} at 122.855(0.009)											91Kl02	**
^{177}Ta−$C_{14.75}$		−55559	30	−55528	4	1.0	U			GS2	1.0	03Li.A	
^{177}W−$C_{14.75}$		−53420	110	−53360	30	0.6	U			GS1	1.0	00Ra23	
		−53357	30				2			GS2	1.0	03Li.A	
^{177}Re−$C_{14.75}$		−49620	104	−49670	30	−0.5	U			GS1	1.0	00Ra23	
		−49672	30				2			GS2	1.0	03Li.A	
^{177}Os−$C_{14.75}$		−45020	104	−45035	17	−0.1	U			GS1	1.0	00Ra23	
		−45012	30			−0.8	R			GS2	1.0	03Li.A	
^{177}Ir−$C_{14.75}$		−38810	110	−38699	21	1.0	U			GS1	1.0	00Ra23	
		−38699	30			0.0	2			GS2	1.0	03Li.A	
^{177}Pt−$C_{14.75}$		−31545	30	−31531	16	0.5	1	29	29 ^{177}Pt	GS2	1.0	03Li.A	
^{177}Ir(α)^{173}Re		5127.1	10.	5080	30	−0.9	F					67Si02	*
^{177}Pt(α)^{173}Os		5654.6	6.	5642.8	2.7	−1.9	–					79Ha10	Z
		5640.7	3.			0.8	–					82Bo04	Z
	ave.	5643.3	2.7			−0.2	1	99	55 ^{177}Pt			average	
^{177}Au(α)^{173}Ir		6292.5	10.	6297	5	0.4	2			Daa		75Ca06	
		6292.5	20.			0.2	U			GSa		84Sc.A	
		6296.5	10.			0.0	2			Daa		96Pa01	
		6298.6	6.			−0.3	2			Ara		01Ko44	
^{177}Au^{m}(α)^{173}Ir^{m}		6251.5	10.	6260	4	0.9	–			Ora		75Ca06	
		6260.8	10.			0.0	–			GSa		84Sc.A	*
		6259.7	9.			0.1	–			Daa		96Pa01	*
		6263.8	6.			−0.6	–			Ara		01Ko44	
	ave.	6260	4			0.0	1	100	72 ^{173}Ir^{m}			average	
^{177}Hg(α)^{173}Pt		6732.4	8.	6740	50	0.1	4					79Ha10	
		6747.8	10.			−0.2	4					91Ko.A	
		6730.3	9.			0.1	4			Daa		96Pa01	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{177}Tl(α)^{173}Au		7067.0	7.				11			Ara		99Po09	
^{177}Tl^{m}(α)^{173}Au^{m}		7660.4	13.				10			Ara		99Po09	
^{177}Hf(p,t)^{175}Hf		−6071	5	−6066.6	1.9	0.9	1	14	14 ^{175}Hf	Min		73Oo01	
^{176}Yb(n,γ)^{177}Yb		5565.1	1.0	5566.40	0.22	1.3	U					72Al19	Z
		5566.40	0.22				2			Bdn		03Fi.A	
^{176}Yb(α,t)^{177}Lu−^{174}Yb()^{175}Lu		674.1	1.0	673.8	1.0	−0.3	1	91	91 ^{176}Yb	McM		75Bu02	
^{176}Lu(n,γ)^{177}Lu		7071.2	0.4	7072.99	0.16	4.5	B					71Ma45	Z
		7073.1	0.4			−0.3	–					72Mi16	Z
		7072.85	0.17			0.8	–			Bdn		03Fi.A	
	ave.	7072.89	0.16			0.7	1	99	57 ^{177}Lu			average	
^{176}Hf(n,γ)^{177}Hf		6385.8	0.8	6383.4	0.7	−3.0	1	69	58 ^{176}Hf	Bdn		03Fi.A	
^{177}Tl(p)^{176}Hg		1162.6	20.	1162	21	0.0	R			Arp		99Po09	*
^{177}Tl^{m}(p)^{176}Hg		1969.2	10.				9			Arp		99Po09	
^{177}Lu(β^-)^{177}Hf		497	2	500.6	0.7	1.8	–					55Ma12	
		497.1	1.0			3.5	–					62El02	
	ave.	497.1	0.9			3.9	1	65	43 ^{177}Lu			average	
^{177}Ta(β^+)^{177}Hf		1166	3				2					61We11	
^{177}Au^{m}(IT)^{177}Au		210	30	216	26	0.2	1	77	73 ^{177}Au^{m}			01Ko44	*
^{177}Au^{n}(IT)^{177}Au^{m}		240.8	0.5				2					01Ko44	
^{177}Tl^{m}(IT)^{177}Tl		807	18	807	18	0.0	R					176Hg+1	
		807	18				10					99Po09	
*^{177}Ir(α)^{173}Re	Final state uncertain: possibly to 214.7 5/2$^-$ level											95Hi02	**
*^{177}Au^{m}(α)^{173}Ir^{m}	Followed by 175.1(0.5) γ											84Sc.A	**
*	Gamma belongs to E(α)=6116 of ^{176}Au											01Ko44	**
*	Yet E(α)=6118 correlated with E(α)=5672 of ^{173}Ir^{m}											02Ro17	**
*^{177}Au^{m}(α)^{173}Ir^{m}	E(α) correlated with ^{173}Ir E(α)=5681(13)											96Pa01	**
*	Also correlated with ^{181}Tl E(α)=6180											96To01	**
*	Doubts correctness of latter remark											AHW	**
*^{177}Tl(p)^{176}Hg	Replaced by ^{177}Tl^{m}(IT)											AHW	**
*^{177}Au^{m}(IT)^{177}Au	Auth. say 157.9+x, estimate x from ref.											AHW	**
^{178}W−C$_{14.833}$		−54152	30	−54124	16	0.9	U			GS2	1.0	03Li.A	
^{178}Re−C$_{14.833}$		−48800	110	−49010	30	−1.9	U			GS1	1.0	00Ra23	
		−49011	30				2			GS2	1.0	03Li.A	
^{178}Os−C$_{14.833}$		−46790	104	−46749	18	0.4	U			GS1	1.0	00Ra23	
		−46710	30			−1.3	R			GS2	1.0	03Li.A	
^{178}Ir−C$_{14.833}$		−38950	110	−38918	21	0.3	U			GS1	1.0	00Ra23	
		−38888	30			−1.0	2			GS2	1.0	03Li.A	
^{178}Pt−C$_{14.833}$		−34300	110	−34351	12	−0.5	U			GS1	1.0	00Ra23	
		−34333	30			−0.6	R			GS2	1.0	03Li.A	
^{178}Hf ^{35}Cl−^{176}Hf ^{37}Cl		5239.5	1.3	5240.2	0.7	0.2	1	5	4 ^{176}Hf	H27	2.5	74Ba90	
^{178}Pt(α)^{174}Os		5583.3	5.	5573.4	2.6	−1.9	4					79Ha10	Z
		5569.9	3.			1.2	4					82Bo04	Z
		5568.4	13.			0.4	U					94Wa23	
^{178}Au(α)^{174}Ir		6117.7	20.				4			GSa		86Ke03	
^{178}Hg(α)^{174}Pt		6578.1	6.	6577	5	−0.1	6					79Ha10	
		6576.1	9.			0.2	6			Daa		96Pa01	
^{178}Tl(α)^{174}Au		7017.0	5.				10			Bka		02Ro17	*
^{178}Pb(α)^{174}Hg		7790.4	14.				8			Bka		01Ro.B	
^{176}Yb(t,p)^{178}Yb		3865	10				2			Phi		82Zu02	
^{176}Lu(t,p)^{178}Lu^{m}		4482	5	4492.6	2.9	2.1	1	34	34 ^{178}Lu^{m}	LAl		81Gi01	
^{177}Hf(n,γ)^{178}Hf		7626.2	0.3	7625.96	0.18	−0.8	–			ILn		86Ha22	Z
		7625.80	0.22			0.7	–			Bdn		03Fi.A	
	ave.	7625.94	0.18			0.1	1	100	67 ^{177}Hf			average	
^{178}Lu^{m}(IT)^{178}Lu		120	3	123.8	2.6	1.3	1	76	66 ^{178}Lu^{m}	McM		93Bu02	
^{178}Ta(β^+)^{178}Hf		1937	15				2					61Ga05	*

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{178}W(ε)^{178}Ta		91.3	2.				3					67Ni02	
^{178}Re(β^+)^{178}W		4660	180	4760	30	0.6	U					70Go20	
$*^{178}$Tl(α)^{174}Au	And a stronger E(α)=6704; both correlated with ^{174}Au E(α)=6538											02Ro17	**
$*^{178}$Ta(β^+)^{178}Hf	E$^+$ =890(10) to gs and 93.18 level ratio 2.7 to 1											NDS886	**
C_{14} $H_{11}-^{179}$Hf		140260.3	1.8	140259.2	2.3	−0.2	1	26	26 ^{179}Hf	M23	2.5	79Ha32	
^{179}W$-C_{14.917}$		−52964	76	−52930	17	0.5	U			GS2	1.0	03Li.A	*
^{179}Re$-C_{14.917}$		−50010	30	−50012	26	−0.1	2			GS2	1.0	03Li.A	
^{179}Os$-C_{14.917}$		−46220	104	−46184	19	0.3	U			GS1	1.0	00Ra23	
		−46176	30			−0.3	R			GS2	1.0	03Li.A	
^{179}Ir$-C_{14.917}$		−40910	104	−40878	12	0.3	U			GS1	1.0	00Ra23	
		−40852	30			−0.9	R			GS2	1.0	03Li.A	
^{179}Pt$-C_{14.917}$		−34710	110	−34637	10	0.7	U			GS1	1.0	00Ra23	
		−34625	30			−0.4	R			GS2	1.0	03Li.A	
^{179}Au$-C_{14.917}$		−26811	31	−26787	18	0.8	1	33	33 ^{179}Au	GS2	1.0	03Li.A	
^{179}Hg$-^{208}$Pb$_{.861}$		1900	34	1936	29	1.1	1	74	74 ^{179}Hg	MA6	1.0	01Sc41	
^{179}Hf ^{35}Cl$-^{177}$Hf ^{37}Cl		5544.4	0.7	5545.59	0.22	0.7	U			H27	2.5	74Ba90	
^{179}Pt(α)^{175}Os		5370	10	5416	10	4.6	F					66Si08	*
		5416	10				3					79Ha10	*
		5382	3			11.3	F					82Bo04	*
^{179}Au(α)^{175}Ir^p		5981.8	5.	5980	5	−0.4	1	98	76 ^{175}Ir^p			68Si01	Z
^{179}Hg(α)^{175}Pt		6431.0	5.	6344	30	−1.7	–			ISa		79Ha10	Z
		6418.7	9.			−1.5	–			Daa		96Pa01	
	ave.	6428	4			−1.7	1	36	26 ^{179}Hg			average	
^{179}Tl(α)^{175}Au		6710.2	20.	6718	8	0.4	7					83Sc24	
		6718.4	18.			0.0	7			Daa		96Pa01	
		6719.4	10.			−0.2	7			Ara		98To14	
^{179}Tl^m(α)^{175}Au^m		7364.5	20.	7374	8	0.4	8					83Sc24	
		7366.0	20.			0.4	8			Daa		96Pa01	
		7378.1	10.			−0.4	8			Ara		98To14	
^{179}Hf(t,α)^{178}Lu$-^{178}$Hf()^{177}Lu		−72	2	−73.7	1.9	−0.9	1	89	89 ^{178}Lu	McM		93Bu02	
^{178}Hf(n,γ)^{179}Hf		6099.02	0.10	6098.99	0.08	−0.3	–			ILn		89Ri03	Z
		6098.95	0.12			0.3	–			Bdn		03Fi.A	
	ave.	6098.99	0.08			0.0	1	100	66 ^{178}Hf			average	
^{179}Ta(ε)^{179}Hf		129	16	105.6	0.4	−1.5	U					61Jo15	*
		105.61	0.41			0.0	1	99	88 ^{179}Ta			01Hi06	
^{179}Re(β^+)^{179}W		2710	50	2717	29	0.1	R					75Me20	
$*^{179}$W$-C_{14.917}$	M−A=–49225(29) keV for mixture gs+m at 221.926 keV											Ens94	**
$*^{179}$Pt(α)^{175}Os	F: part of double line (with ^{180}Pt); E(α)=5150(10) to 102.3 level											AHW	**
$*^{179}$Pt(α)^{175}Os	E(α)=5195(10) to 102.3 1/2$^-$ level											NDS948	**
$*^{179}$Pt(α)^{175}Os	F: part of double line (with ^{180}Pt)											AHW	**
$*^{179}$Pt(α)^{175}Os	E(α)=5161(3) to 102.3 level, recalibrated as in ref.											91Ry01	**
$*^{179}$Ta(ε)^{179}Hf	As corrected by ref.											76He.B	**
C_{14} $H_{12}-^{180}$Hf		147356.6	4.8	147350.4	2.3	−0.5	U			M23	2.5	79Ha32	
^{180}W$-C_{15}$		−53299	30	−53296	4	0.1	U			GS2	1.0	03Li.A	
^{180}Re$-C_{15}$		−49209	30	−49211	23	−0.1	2			GS2	1.0	03Li.A	
^{180}Os$-C_{15}$		−47650	104	−47621	22	0.3	U			GS1	1.0	00Ra23	
		−47626	30			0.2	R			GS2	1.0	03Li.A	
^{180}Ir$-C_{15}$		−40800	104	−40771	23	0.3	U			GS1	1.0	00Ra23	
		−40765	30			−0.2	2			GS2	1.0	03Li.A	
^{180}Pt$-C_{15}$		−36900	104	−36969	12	−0.7	U			GS1	1.0	00Ra23	
		−36918	30			−1.7	R			GS2	1.0	03Li.A	
^{180}Au$-C_{15}$		−27496	30	−27479	23	0.6	1	57	57 ^{180}Au	GS2	1.0	03Li.A	
^{180}Hg$-^{208}$Pb$_{.865}$		−1569	22	−1538	15	1.4	–			MA6	1.0	01Sc41	
	ave.	−1544	16			0.4	1	85	85 ^{180}Hg			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{180}Hf $^{35}Cl_2-^{176}$Hf $^{37}Cl_2$		11036.1	3.0	11041.5	0.8	0.7	U			H27	2.5	74Ba90	
^{180}Hf ^{35}Cl$-^{178}$Hf ^{37}Cl		5798.4	0.7	5801.28	0.19	1.6	U			H27	2.5	74Ba90	
^{180}Pt(α)^{176}Os		5257.1	10.	5240	30	−2.0	F					66Si08	*
		5279	3			−14.0	F					82Bo04	*
^{180}Au(α)^{176}Ir		5845	30	5840	18	−0.2	–					86Ke03	*
		5857	30			−0.6	–			Lvn		93Wa03	*
	ave.	5851	21			−0.5	1	75	41 ^{180}Au			average	
^{180}Hg(α)^{176}Pt		6258.4	5.	6258	4	0.0	2					79Ha10	Z
		6258.4	5.			0.0	2			Lvn		93Wa03	Z
^{180}Tl(α)^{176}Au		6709.4	10.				6			Ara		98To14	*
^{180}Pb(α)^{176}Hg		7375.2	10.	7415	15	4.0	F			GSa		86Ke03	*
		7394.6	40.			0.5	U			ORa		96To08	
		7415.1	15.				9			Ara		99To11	
^{180}Hf(t,α)^{179}Lu$-^{178}$Hf()^{177}Lu		−669	5	−669	5	0.0	1	100	100 ^{179}Lu	McM		92Bu12	
^{179}Hf(n,γ)^{180}Hf		7387.3	0.4	7387.78	0.15	1.2	–					74Bu22	Z
		7387.8	0.6			0.0	–					90Bo52	Z
		7387.85	0.17			−0.4	–			Bdn		03Fi.A	
	ave.	7387.77	0.15			0.1	1	100	84 ^{180}Hf			average	
^{180}W(d,t)^{179}W		−2155	15				2			Kop		72Ca01	
^{180}Lu(β^-)^{180}Hf		3148	100	3100	70	−0.5	2					71Gu02	
		3058	100			0.4	2					71Sw01	
^{180}Ta(β^-)^{180}W		705	15	708	4	0.2	–					51Br87	
		712	15			−0.2	–					62Ga07	
	ave.	709	11			0.0	1	16	13 ^{180}W			average	
^{180}Re(β^+)^{180}W		3830	60	3805	22	−0.4	R					67Go22	
		3790	40			0.4	R					67Ho12	
*^{180}Pt(α)^{176}Os	F: part of double line (with ^{179}Pt); E(α)=5140(10)											AHW	**
*^{180}Pt(α)^{176}Os	F: part of double line (with ^{179}Pt)											AHW	**
*^{180}Pt(α)^{176}Os	E(α)=5161(3) recalibrated as in ref.											91Ry01	**
*^{180}Au(α)^{176}Ir	E(α)=5685(10) to 40(30) level											93Wa03	**
*^{180}Au(α)^{176}Ir	E(α)=5647(10,Z) to 80(30) level											93Wa03	**
*^{180}Tl(α)^{176}Au	Highest E(α); not necessarily gs to gs											98To14	**
*^{180}Pb(α)^{176}Hg	F: tentative reassignment of their ^{181}Pb											AHW	**
^{181}Re$-$C$_{15.083}$		−49915	30	−49932	14	−0.6	R			GS2	1.0	03Li.A	
^{181}Os$-$C$_{15.083}$		−46670	110	−46760	30	−0.8	U			GS1	1.0	00Ra23	*
		−46756	34				2			GS2	1.0	03Li.A	*
^{181}Ir$-$C$_{15.083}$		−42330	104	−42375	28	−0.4	U			GS1	1.0	00Ra23	
		−42372	30			−0.1	2			GS2	1.0	03Li.A	
^{181}Pt$-$C$_{15.083}$		−36880	104	−36903	16	−0.2	U			GS1	1.0	00Ra23	
		−36900	30			−0.1	2			GS2	1.0	03Li.A	
^{181}Au$-$C$_{15.083}$		−30030	110	−29921	21	1.0	U			GS1	1.0	00Ra23	
		−29920	30			0.0	R			GS2	1.0	03Li.A	
^{181}Hg$-^{208}$Pb$_{.870}$		−1929	40	−1868	17	1.5	1	17	17 ^{181}Hg	MA6	1.0	01Sc41	
^{181}Tl$-^{133}$Cs$_{1.361}$		114936	11	114937	10	0.1	–			MA8	1.0	03We.A	
	ave.	114939	10			−0.2	1	92	92 ^{181}Tl			average	
^{181}Ta ^{35}Cl$-^{179}$Hf ^{37}Cl		5128.6	2.1	5129.7	2.3	0.2	1	19	12 ^{179}Hf	H35	2.5	80Sh06	
^{181}Pt(α)^{177}Os		5133.7	20.	5150	5	0.8	U					66Si08	
		5150.1	5.				3					95Bi01	
^{181}Au(α)^{177}Ir		5750.1	5.	5751.3	2.9	0.2	3					68Si01	Z
		5751.9	5.			−0.1	3					79Ha10	Z
		5735	4			4.1	C			IRa		92Sa03	
		5752	5			−0.1	3			ORa		95Bi01	*
^{181}Hg(α)^{177}Pt		6288	5	6284	4	−0.7	–					79Ha10	*
		6283	10			0.1	–					86Ke03	*
		6269.3	13.			1.2	–			Daa		96Pa01	*
	ave.	6285	4			−0.2	1	99	83 ^{181}Hg			average	
^{181}Tl(α)^{177}Au		6319.9	20.	6324	9	0.2	–					92Bo.D	
		6326.1	10.			−0.2	–			Ara		98To14	*
	ave.	6325	9			−0.1	1	98	96 ^{177}Au			average	
^{181}Tl^m(α)^{177}Au^n		6714.7	20.	6724	9	0.5	3			GSa		84Sc.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{181}Tl^{m}(\alpha)^{177}Au^{n}$		6727.0	10.	6724	9	−0.2	3			Ara		98To14	
$^{181}Pb(\alpha)^{177}Hg$		7374.3	10.	7210	50	−3.3	F					86Ke03	*
		7203.5	15.			0.2	5			ORa		89To01	
		7224.9	20.			−0.3	5			Ara		96To01	*
$^{181}Ta(p,t)^{179}Ta$		−5738	5	−5736.2	2.1	0.4	1	18	12 ^{179}Ta	Min		73Oo01	
$^{180}Hf(n,\gamma)^{181}Hf$		5695.2	0.6	5694.80	0.07	−0.7	U					71Al22	
		5694.80	0.07			0.0	1	100	84 ^{181}Hf			02Bo41	
		5695.58	0.20			−3.9	B			Bdn		03Fi.A	
$^{181}Ta(\gamma,n)^{180}Ta$		−7580	5	−7576.8	1.3	0.6	U			McM		79Ba06	
		−7579	2			1.1	–			McM		81Co17	
$^{181}Ta(d,t)^{180}Ta$		−1317.7	1.8	−1319.5	1.3	−1.0	–			NDm		79Ta.B	
$^{181}Ta(\gamma,n)^{180}Ta$	ave.	−7576.8	1.3	−7576.8	1.3	0.0	1	99	97 ^{180}Ta			average	
$^{180}Ta^{m}(n,\gamma)^{181}Ta$		7651.8	0.5	7652.08	0.19	0.6	2			MMn		81Co17	Z
		7652.13	0.20			−0.2	2			ILn		84Fo.A	Z
$^{180}W(d,p)^{181}W$		4468	15	4456	6	−0.8	1	15	9 ^{181}W	Kop		72Ca01	
$^{181}Hf(\beta^{-})^{181}Ta$		1023	8	1029.8	2.1	0.8	–					52Fa14	
		1020	5			2.0	–					53Ba81	
	ave.	1021	4			2.1	1	25	16 ^{181}Hf			average	
$^{181}W(\varepsilon)^{181}Ta$		184	12	188	5	0.3	–					66Ra03	
		190	6			−0.4	–					83Se17	
	ave.	189	5			−0.2	1	72	69 ^{181}W			average	
$^{181}Os(\beta^{+})^{181}Re$		2990	200	2960	30	−0.2	U					67Go25	*
$*^{181}Os-C_{15.083}$	M−A=–43450(100) keV for mixture gs+m at 48.9 keV											Nubase	**
$*^{181}Os-C_{15.083}$	M−A=–43529(28) keV for mixture gs+m at 48.9 keV											Nubase	**
$*^{181}Au(\alpha)^{177}Ir$	E(α)=5626(5) to gs; favored 5479(5) to 148.0 level											NDS933	**
$*^{181}Hg(\alpha)^{177}Pt$	E(α)=6147.0(10,Z), 6005.0(5,Z) to ground-state and 147.7 level											NDS933	**
$*^{181}Hg(\alpha)^{177}Pt$	E(α)=6136.6(10,Z), 6005.6(10,Z) to ground-state and 147.7 level											NDS933	**
$*^{181}Hg(\alpha)^{177}Pt$	E(α)=5986(13) to 147.7 level											NDS933	**
$*^{181}Tl(\alpha)^{177}Au$	The 6180 line is correlated with the 6110 line from $^{177}Au^{m}$											96To01	**
*	in contradiction with mass-spectrometric data for ^{181}Tl and ^{165}Ta											GAu	**
$*^{181}Pb(\alpha)^{177}Hg$	F: This α-line not found in same reaction; see ^{180}Pb											96To01	**
$*^{181}Pb(\alpha)^{177}Hg$	Seen in correlation with ^{177}Hg E(α)=8580											96To01	**
$*^{181}Os(\beta^{+})^{181}Re$	E^{+} =1750(200) from $^{181}Os^{m}$ at 48.9(0.2) to 263.0 level											95Ro09	**
$^{182}Re-C_{15.167}$		−48311	65	−48790	110	−7.4	F			GS2	1.0	03Li.A	*
$^{182}Os-C_{15.167}$		−47883	30	−47890	23	−0.2	1	61	61 ^{182}Os	GS2	1.0	03Li.A	
$^{182}Ir-C_{15.167}$		−41942	30	−41924	23	0.6	1	56	56 ^{182}Ir	GS2	1.0	03Li.A	
$^{182}Pt-C_{15.167}$		−38870	104	−38829	17	0.4	U			GS1	1.0	00Ra23	
		−38860	30			1.0	R			GS2	1.0	03Li.A	
$^{182}Au-C_{15.167}$		−30420	110	−30382	22	0.3	U			GS1	1.0	00Ra23	
		−30412	30			1.0	R			GS2	1.0	03Li.A	
$^{182}Hg-C_{15.167}$		−25297	30	−25310	10	−0.4	R			GS2	1.0	03Li.A	
$^{182}Hg-^{208}Pb_{.875}$		−4893	19	−4881	10	0.7	2			MA6	1.0	01Sc41	
		−4898	21			0.8	2			MA6	1.0	01Sc41	
$^{182}Pt(\alpha)^{178}Os$		4928.5	30.	4952	5	0.8	U					63Gr08	
		4948.9	20.			0.2	U					66Si08	
		4952.0	5.				4					95Bi01	
$^{182}Au(\alpha)^{178}Ir$		5529	10	5526	4	−0.3	3					79Ha10	*
		5525.5	5.			0.1	3			ORa		95Bi01	*
$^{182}Hg(\alpha)^{178}Pt$		5998.1	5.	5997	5	−0.2	3					79Ha10	Z
		5990.2	13.			0.5	3					94Wa23	
$^{182}Tl(\alpha)^{178}Au$		6550.2	10.				5					86Ke03	
		6186.2	20.	6550	50	7.3	C					92Bo.D	*
$^{182}Pb(\alpha)^{178}Hg$		7076.8	10.	7066	6	−1.1	7					86Ke03	
		7074.8	15.			−0.6	7					87To09	
		7050.2	10.			1.5	7			ARa		99To11	
		7066.6	10.			−0.1	7			Jya		00Je09	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{180}Hf(t,p)^{182}Hf		3931	6				2			McM		83Bu03	
^{180}W(t,p)^{182}W		6265	5	6264	4	−0.2	–			LAl		76Ca10	*
^{182}W(p,t)^{180}W		−6261	10	−6264	4	−0.3	–			Min		73Oo01	
^{180}W(t,p)^{182}W	ave.	6264	4	6264	4	−0.1	1	74	74 ^{180}W			average	
^{181}Ta(n,γ)^{182}Ta		6063.0	0.4	6062.94	0.11	−0.2	–					71He13	Z
		6063.1	0.5			−0.3	–					77St15	Z
		6063.1	0.5			−0.3	–			MMn		81Co17	Z
		6062.95	0.2			−0.1	–			ILn		83Fo.B	
		6062.89	0.14			0.3	–			Bdn		03Fi.A	
	ave.	6062.93	0.11			0.0	1	100	60 ^{182}Ta			average	
^{182}W(d,t)^{181}W		−1809	10	−1808	5	0.1	1	22	22 ^{181}W	Kop		72Ca01	
^{182}Ta(β^-)^{182}W		1809	5	1814.3	1.7	1.1	–					64Da15	
		1813	3			0.4	–					67Ba01	
	ave.	1811.9	2.6			0.9	1	42	40 ^{182}Ta			average	
^{182}Re^m(β^+)^{182}W		2860	20				2					63Ba37	
^{182}Re^m(IT)^{182}Re		60	100				3					63Ba37	
^{182}Os(ε)^{182}Re^m		848	15	778	30	−4.6	B					70Ak02	*
^{182}Ir(β^+)^{182}Os		5700	200	5560	30	−0.7	U					72We.A	
^{182}Pt(β^+)^{182}Ir		2900	200	2882	26	−0.1	U					72We.A	
^{182}Au(β^+)^{182}Pt		6850	200	7869	26	5.1	C					72We.A	
^{182}Hg(β^+)^{182}Au		4950	200	4725	22	−1.1	U					72We.A	
*^{182}Re−C$_{15.167}$	M−A=–44972(29) keV for mixture gs+m at 60(100) keV											Nubase	**
*^{182}Au(α)^{178}Ir	E(α)=5353(10) to 55(1) level											NDS	**
*^{182}Au(α)^{178}Ir	E(α)=5403(5), 5352(5) to ground-state, 54.4 level											95Bi01	**
*^{182}Tl(α)^{178}Au	No ^{182}Tl α seen following ^{186}Bi(α)											97Ba21	**
*^{180}W(t,p)^{182}W	Q−Q(^{170}Y(t,p))=112(5,Ca), Q(170)=–6153(4)											AHW	**
*^{182}Os(ε)^{182}Re^m	pK=0.47(0.07) to 726.98 level above Rem, recalculated Q											AHW	**
^{183}W O−C$_2$ ^{35}Cl$_5$		100858.0	2.7	100874.2	0.9	2.4	F			H29	2.5	77Sh04	
		100873.6	0.8			0.5	1	53	52 ^{183}W	H48	1.5	03Ba49	
^{183}Re−C$_{15.25}$		−49151	30	−49180	9	−1.0	U			GS2	1.0	03Li.A	
^{183}Os−C$_{15.25}$		−46879	61	−46870	50	0.1	2			GS2	1.0	03Li.A	*
^{183}Ir−C$_{15.25}$		−43160	104	−43154	27	0.1	U			GS1	1.0	00Ra23	
		−43145	30			−0.3	1	81	81 ^{183}Ir	GS2	1.0	03Li.A	
^{183}Pt−C$_{15.25}$		−38440	107	−38403	17	0.3	U			GS1	1.0	00Ra23	
		−38400	32			−0.1	–			GS2	1.0	03Li.A	*
	ave.	−38398	23			−0.3	1	55	55 ^{183}Pt			average	
^{183}Au−C$_{15.25}$		−32440	104	−32407	11	0.3	U			GS1	1.0	00Ra23	
		−32371	30			−1.2	R			GS2	1.0	03Li.A	
^{183}Hg−C$_{15.25}$		−25537	35	−25550	9	−0.4	U			GS2	1.0	03Li.A	*
^{183}Hg−^{208}Pb$_{.880}$		−5009	19	−5004	9	0.3	–			MA6	1.0	01Sc41	
		−5002	19			−0.1	–			MA6	1.0	01Sc41	
	ave.	−5002	11			−0.2	1	60	60 ^{183}Hg			average	
^{183}Tl−^{133}Cs$_{1.376}$		112286	11	112291	10	0.4	1	91	91 ^{183}Tl	MA8	1.0	03We.A	
^{183}W O$_2$−^{178}Hf ^{37}Cl		30455.7	5.0	30450.8	2.3	−0.4	U			H35	2.5	80Sh06	
^{183}W O$_2$−^{180}W ^{35}Cl		24509	6	24495	4	−0.9	1	8	8 ^{180}W	H28	2.5	77Sh04	
^{183}W ^{35}Cl−^{181}Ta ^{37}Cl		5177.2	1.2	5177.3	1.8	0.0	1	36	34 ^{181}Ta	H35	2.5	80Sh06	
^{183}W O$_2$ ^{37}Cl−^{182}W ^{35}Cl$_2$		20045.6	1.8	20045.26	0.13	−0.1	U			H28	2.5	77Sh04	
^{183}Pt(α)^{179}Os		4846.1	30.	4823	9	−0.8	U					63Gr08	
		4835.9	20.0			−0.6	2					66Si08	
		4819.4	10.0			0.3	2			ORa		95Bi01	
^{183}Au(α)^{179}Ir		5462.6	5.	5465.6	3.0	0.6	3					68Si01	Z
		5465.5	5.			0.0	3					82Bo04	Z
		5449.3	10.			1.6	C					84Br.A	
		5468.8	5.			−0.6	3					95Bi01	
^{183}Hg(α)^{179}Pt		6043.4	6.	6039	4	−0.7	2					76To06	
		6036.2	5.			0.6	2					79Ha10	Z

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{183}Tl^{m}(\alpha)^{179}Au$		6593.4	15.	6583	14	−0.7	1	79	44 ^{179}Au	GSa		80Sc09	
$^{183}Tl^{m}(\alpha)^{179}Au^{p}$		6485.1	10.	6484	9	−0.1	2			GSa		80Sc09	
		6482.0	15.			0.1	2					87To09	
$^{183}Pb(\alpha)^{179}Hg$		6928	7				2					02Je09	*
$^{183}Pb^{m}(\alpha)^{179}Hg$		7029	20	7022	4	−0.3	U			GSa		84Sc.A	*
		7026.9	10.			−0.5	2			GSa		86Ke03	
		7034	10			−1.2	2			ORa		89To01	*
		7018	5			0.8	2			Jya		02Je09	*
$^{182}Ta(n,\gamma)^{183}Ta$		6934.18	0.20				2			ILn		83Fo.B	
$^{182}W(n,\gamma)^{183}W$		6191.6	2.0	6190.82	0.09	−0.4	U					67Sp03	Z
		6190.1	1.5			0.5	U					70Or.A	
		6190.76	0.12			0.5	–			Ltn		93Pr.A	
		6190.89	0.13			−0.5	–			Bdn		03Fi.A	
	ave.	6190.82	0.09			0.0	1	100	98 ^{182}W			average	
$^{183}Hf(\beta^{-})^{183}Ta$		2010	30				3					67Mo13	
$^{183}Re(\varepsilon)^{183}W$		556	8				2					69Ku03	
$^{183}Ir(\beta^{+})^{183}Os$		3450	100	3470	60	0.2	R					70Be.A	*
$*^{183}Os-C_{15.25}$	M−A=–43582(28) keV for mixture gs+m at 170.71 keV											NDS924	**
$*^{183}Pt-C_{15.25}$	M−A=–35752(28) keV for mixture gs+m at 34.50 keV											Ens93	**
$*^{183}Hg-C_{15.25}$	No isomer observed											Nubase	**
$*^{183}Pb(\alpha)^{179}Hg$	E(α)=6775(7), 6570(10) to ground-state, 217 level											02Je09	**
$*^{183}Pb^{m}(\alpha)^{179}Hg$	E(α)=6868(20), 6715(20) to ground-state, 171.4 isomer											02Je09	**
$*^{183}Pb^{m}(\alpha)^{179}Hg$	Original assignment to ^{182}Pb changed											AHW	**
$*^{183}Pb^{m}(\alpha)^{179}Hg$	E(α)=6874(15), 6712(10) to ground-state, 171.4 isomer											02Je09	**
$*^{183}Pb^{m}(\alpha)^{179}Hg$	E(α)=6860(11), 6698(5) to ground-state, 171.4 isomer											02Je09	**
$*^{183}Ir(\beta^{+})^{183}Os$	Q^{+} =3190(100) mainly to 258.35 level											NDS924	**
$^{184}Ir-C_{15.333}$		−42460	110	−42520	30	−0.6	U			GS1	1.0	00Ra23	
		−42524	30				2			GS2	1.0	03Li.A	
$^{184}Pt-C_{15.333}$		−40120	104	−40078	19	0.4	U			GS1	1.0	00Ra23	
		−40068	30			−0.3	1	42	42 ^{184}Pt	GS2	1.0	03Li.A	
$^{184}Au-C_{15.333}$		−32540	104	−32548	24	−0.1	U			GS1	1.0	00Ra23	*
		−32557	37			0.2	R			GS2	1.0	03Li.A	*
$^{184}Hg-C_{15.333}$		−28230	110	−28287	11	−0.5	U			GS1	1.0	00Ra23	
		−28296	30			0.3	–			GS2	1.0	03Li.A	
	ave.	−28280	17			−0.4	1	39	39 ^{184}Hg			average	
$^{184}Hg-^{204}Pb_{.902}$		−3986	20	−3972	11	0.7	1	29	29 ^{184}Hg	MA6	1.0	01Sc41	
$^{184}Hg-^{208}Pb_{.885}$		−7620	19	−7624	11	−0.2	1	32	32 ^{184}Hg	MA6	1.0	01Sc41	
$^{184}Tl-C_{15.333}$		−18196	126	−18130	50	0.5	1	18	18 ^{184}Tl	GS2	1.0	03Li.A	*
$^{184}W\ O_2-^{181}Ta\ ^{35}Cl$		23917.5	2.8	23912.0	1.8	−0.8	U			H35	2.5	80Sh06	
$^{184}W\ ^{35}Cl-^{182}W\ ^{37}Cl$		5676.3	2.2	5677.12	0.30	0.1	U			H28	2.5	77Sh04	
$^{184}Pt(\alpha)^{180}Os$		4579.8	20.	4602	9	1.1	B					63Gr08	
		4600.2	20.			0.1	2					66Si08	
		4602.2	10.			0.0	2					95Bi01	
$^{184}Au(\alpha)^{180}Ir$		5218.6	15.	5234	5	1.0	U			ISa		70Ha18	*
		5233.9	5.				3					95Bi01	*
$^{184}Hg(\alpha)^{180}Pt$		5658.2	15.	5662	4	0.2	2					70Ha18	
		5662.2	5.			−0.1	2					76To06	
		5662.2	10.			0.0	2			Lvn		93Wa03	Z
$^{184}Tl(\alpha)^{180}Au$		6299.4	5.	6290	50	−0.3	–					76To06	Z
		6292.9	10.			−0.1	–					80Sc09	Z
	ave.	6298	4			−0.2	1	85	82 ^{184}Tl			average	
$^{184}Pb(\alpha)^{180}Hg$		6765.4	10.	6774	4	0.9	–					80Du02	
		6779.6	10.			−0.5	–					80Sc09	
		6773.6	10.			0.1	–					84Sc.A	
		6781.6	10.			−0.7	–					87To09	
		6773.6	6.			0.2	–			Jya		98Co27	
		6772.5	10.			0.2	–			Ara		99To11	
	ave.	6774	4			0.1	1	99	84 ^{184}Pb			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference
^{184}Bi(α)^{180}Tl	8024.8	50.				7			GSa		02An.A
^{183}W(n,γ)^{184}W	7411.2	0.5	7411.60	0.26	0.8	–					74Gr11 Z
	7411.8	0.3			−0.7	–					75Bu01 Z
	7411.15	0.16			2.8	B			Bdn		03Fi.A
ave.	7411.64	0.26			−0.2	1	99	94 ^{184}W			average
^{184}Hf(β^-)^{184}Ta	1340	30				3					73Wa18
^{184}Ta(β^-)^{184}W	2866	26				2					73Ya02
^{184}Ir(β^+)^{184}Os	5100	250	4645	28	−1.8	U					70Be.A *
	4300	100			3.5	B					73Ho09
	4285	70			5.1	B					89Po09
^{184}Au(β^+)^{184}Pt	6380	50	7013	29	12.7	C					84Da.A *
^{184}Hg(β^+)^{184}Au	3760	30	3970	24	7.0	C					84Da.A
*^{184}Au−$C_{15.333}$	M−A=–30280(100) keV for mixture gs+m at 68.46 keV										Nubase **
*^{184}Au−$C_{15.333}$	M−A=–30292(28) keV for mixture gs+m at 68.46 keV										Nubase **
*^{184}Tl−$C_{15.333}$	M−A=–16899(102) keV for mixture gs+m at 100#100 keV										Nubase **
*^{184}Au(α)^{180}Ir	E(α)=5172(15) from ^{184}Au^m at 68.6(0.1)										94Ib01 **
*	transition to ground-state in ^{180}Ir										95Bi01 **
*^{184}Au(α)^{180}Ir	E(α)=5187(5) from ^{184}Au^m at 68.6(0.1)										94Ib01 **
*^{184}Ir(β^+)^{184}Os	Q^+ =4720(250) to 383.77 level										AHW **
*^{184}Au(β^+)^{184}Pt	Q^+ =6450(50) from ^{184}Au^m at 68.6(0.1)										94Ib01 **
^{185}Os−$C_{15.417}$	−46037	31	−45957.7	1.4	2.6	U			GS2	1.0	03Li.A
^{185}Ir−$C_{15.417}$	−43340	110	−43300	30	0.3	U			GS1	1.0	00Ra23
	−43302	30				2			GS2	1.0	03Li.A
^{185}Pt−$C_{15.417}$	−39334	112	−39380	40	−0.4	U			GS1	1.0	00Ra23 *
	−39381	44				2			GS2	1.0	03Li.A *
^{185}Au−$C_{15.417}$	−34213	115	−34211	28	0.0	o			GS1	1.0	00Ra23 *
	−34224	69			0.2	R			GS2	1.0	03Li.A *
^{185}Hg−$C_{15.417}$	−28070	107	−28101	17	−0.3	U			GS1	1.0	00Ra23
	−28088	44			−0.3	R			GS2	1.0	03Li.A *
^{185}Hg−^{208}Pb$_{.889}$	−7373	29	−7345	17	1.0	R			MA6	1.0	01Sc41
^{185}Tl−$C_{15.417}$	−21353	145	−21210	60	1.0	U			GS2	1.0	03Li.A *
^{185}Re ^{35}Cl−^{183}W ^{37}Cl	5678.7	1.0	5682.1	1.0	1.4	1	15	15 ^{185}Re	H28	2.5	77Sh04
^{185}Re(α,^{8}He)^{181}Re	−26480	14	−26484	14	−0.3	2			INS		90Ka19
^{185}Pt(α)^{181}Os	4542.0	10.0	4440	50	−1.9	F			ORa		91Bi04 *
^{185}Au(α)^{181}Ir	5180.2	5.	5180	5	0.0	3					68Si01 *
	5182.9	15.			−0.2	U					70Ha18 Z
	5179	10			0.1	3			ORa		91Bi04 *
^{185}Hg(α)^{181}Pt	5777	15	5774	5	−0.2	3					70Ha18 *
	5775	5			−0.2	3			ORa		76To06 *
	5761	15			0.9	3					76Gr.A *
^{185}Tl^m(α)^{181}Au	6143.3	5.				4			ORa		76To06 Z
	6145.6	15.	6140	50	0.0	U			GSa		80Sc09 Z
^{185}Pb(α)^{181}Hg	6693	15	6695	5	0.1	U			GSa		80Sc09 *
	6695	5				2			ISn		02An15 *
^{185}Pb^m(α)^{181}Hg^p	6622.9	20.	6550	5	−3.7	F			Ora		75Ca06
	6679.7	20.			−6.5	B					80Sc09
	6550.0	5.				4			ISn		02An15
^{185}Bi^m(α)^{181}Tl	8258.9	30.	8234	19	−0.8	1	39	33 ^{185}Bi^m			01Po05 *
^{184}W(n,γ)^{185}W	5753.7	0.3	5753.69	0.30	0.0	1	98	93 ^{185}W	BNn		87Br05 Z
	5754.62	0.24			−3.9	B			Bdn		03Fi.A
^{185}Re(d,t)^{184}Re−^{187}Re()^{186}Re	−310	4	−310	4	0.0	1	100	100 ^{184}Re	Roc		76El12
^{184}Os(n,γ)^{185}Os	6625.4	0.9	6624.53	0.28	−1.0	U					74Pr15
	6624.52	0.28			0.0	1	100	100 ^{184}Os	Bdn		03Fi.A
^{185}Bi^m(p)^{184}Pb	1606.8	16.	1614	15	0.4	1	83	67 ^{185}Bi^m			01Po05 *
	1568.6	50.			0.9	U					02An.A
^{185}Ta(β^-)^{185}W	2013	20	1994	14	−1.0	2					69Ku07

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{185}W(\beta^-)^{185}Re$		432.6	1.0	432.5	0.9	−0.1	1	75	68 ^{185}Re			67Wi19	
$^{185}Os(\varepsilon)^{185}Re$		1012.7	1.0	1012.8	0.4	0.1	–					67Sc15	
		1012.8	0.5			0.0	–					70Sc06	
	ave.	1012.8	0.4			0.0	1	100	100 ^{185}Os			average	
$^{185}Au(\beta^+)^{185}Pt$		4707	40	4820	50	2.7	F					86Da.A	
$^{185}Tl^m(IT)^{185}Tl$		452.8	2.				5					77Sc03	
$*^{185}Pt-C_{15.417}$	M−A=–36590(100) keV for mixture gs+m at 103.4 keV											NDS952	**
$*^{185}Pt-C_{15.417}$	M−A=–36631(28) keV for mixture gs+m at 103.4 keV											NDS952	**
$*^{185}Au-C_{15.417}$	M−A=–31820(90) keV for mixture gs+m at 100#100 keV											Nubase	**
$*^{185}Au-C_{15.417}$	M−A=–31829(28) keV for mixture gs+m at 100#100 keV											Nubase	**
$*^{185}Hg-C_{15.417}$	M−A=–26112(28) keV for mixture gs+m at 103.8(1.0) keV											Nubase	**
$*^{185}Tl-C_{15.417}$	M−A=–19664(31) keV for mixture gs+m at 452.8(2.0) keV											Nubase	**
$*^{185}Pt(\alpha)^{181}Os$	F: Assignment to gs or isomer at 103.2 uncertain											91Bi04	**
$*^{185}Au(\alpha)^{181}Ir$	E(α)=5069(10), 4826(10) to ground-state, 243.3level											91Bi04	**
*	unh. E(α)=5069(10) to gs or very low level; from coinc.											95Bi01	**
$*^{185}Hg(\alpha)^{181}Pt$	E(α)=5653.4(15,Z), 5576.4(15,Z) to ground-state, 79.41 level											NDS996	**
*	and E(α)=5376.4(15,Z) from $^{185}Hg^m$ at 103.8 to 380.92 level											NDS952	**
$*^{185}Hg(\alpha)^{181}Pt$	E(α)=5653(5), 5569(5) to ground-state, 79.41 level;											NDS996	**
*	and 5371(10) from $^{185}Hg^m$ at 103.8 to 380.92 level											NDS952	**
$*^{185}Hg(\alpha)^{181}Pt$	E(α)=5365(15) from $^{185}Hg^m$ at 103.8 to 380.92 level											NDS952	**
$*^{185}Pb(\alpha)^{181}Hg$	E(α)=6485(15) to 64 level											02An15	**
$*^{185}Pb(\alpha)^{181}Hg$	E(α)=6486(5),6288(5) to 64, 269 levels											02An15	**
$*^{185}Bi^m(\alpha)^{181}Tl$	E(α)=8030 of same authors from only one event											96Da06	**
$*^{185}Bi^m(p)^{184}Pb$	Average by authors of Ep=1618(11), and 1585(9) of ref.											96Da06	**
$*^{185}Au(\beta^+)^{185}Pt$	Information about correctness insufficient											GAu	**
$^{186}W\ O-C\ ^{13}C\ ^{35}Cl_4\ ^{37}Cl$		104592.7	3.2	104610.6	1.9	2.2	F			H29	2.5	77Sh04	*
$^{186}Ir-C_{15.5}$		−42063	30	−42054	18	0.3	2			GS2	1.0	03Li.A	*
$^{186}Pt-C_{15.5}$		−40656	30	−40649	23	0.2	1	61	61 ^{186}Pt	GS2	1.0	03Li.A	
$^{186}Au-C_{15.5}$		−34029	30	−34047	23	−0.6	1	56	56 ^{186}Au	GS2	1.0	03Li.A	
$^{186}Hg-C_{15.5}$		−30660	104	−30638	12	0.2	U			GS1	1.0	00Ra23	
		−30630	30			−0.3	R			GS2	1.0	03Li.A	
$^{186}Hg-^{204}Pb_{.912}$		−6065	20	−6054	12	0.6	2			MA6	1.0	01Sc41	
$^{186}Tl-C_{15.5}$		−21814	275	−21680	200	0.5	o			GS1	1.0	00Ra23	*
		−21675	198				2			GS2	1.0	03Li.A	*
$^{186}Tl^m-^{133}Cs_{1.398}$		110842.1	9.2				2			MA8	1.0	03We.A	
$^{186}W\ ^{35}Cl-^{184}W\ ^{37}Cl$		6382.0	1.4	6383.0	1.7	0.3	1	23	23 ^{186}W	H28	2.5	77Sh04	
$^{186}Pt(\alpha)^{182}Os$		4323.2	20.	4320	18	−0.2	1	79	39 ^{182}Os			63Gr08	
$^{186}Au(\alpha)^{182}Ir$		4907	15	4912	14	0.3	1	87	44 ^{182}Ir			90Ak04	*
$^{186}Hg(\alpha)^{182}Pt$		5206.2	15.	5205	11	−0.1	3					70Ha18	
		5204.2	15.			0.1	3					96Ri12	
$^{186}Tl^m(\alpha)^{182}Au$		5891.9	7.	6001	22	2.2	U					77Ij01	
$^{186}Pb(\alpha)^{182}Hg$		6458.2	20.	6470	6	0.6	3					74Le02	Z
		6470.1	10.			0.0	3					80Sc09	Z
		6474.7	10.			−0.5	3					84To09	Z
		6476.5	15.			−0.4	3			ORa		97Ba25	
		6459.2	15.			0.7	3			Jya		97An09	
$^{186}Bi(\alpha)^{182}Tl$		7760	20	7757	12	−0.2	6			Ara		97Ba21	*
		7755	15			0.1	6			GSa		02An.A	*
$^{186}Bi^m(\alpha)^{182}Tl^p$		7349.3	25.	7423	5	2.9	C			GSa		84Sc.A	
		7420.9	20.			0.1	U			Ara		97Ba21	
		7422.9	5.				8			GSa		02An.A	
$^{186}W(p,t)^{184}W$		−4474	5	−4463.1	1.6	2.2	1	10	10 ^{186}W	Min		73Oo01	
$^{186}W(t,\alpha)^{185}Ta$		11430	20	11412	14	−0.9	R			LAl		80Lo10	
$^{185}Re(n,\gamma)^{186}Re$		6179.8	0.8	6179.36	0.18	−0.6	–			Tal		69La11	Z
		6178.6	1.5			0.5	U					70Or.A	
		6179.34	0.18			0.1	–			Bdn		03Fi.A	
	ave.	6179.36	0.18			0.0	1	99	85 ^{186}Re			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{186}Ta(β^-)^{186}W		3901	60				2					69Mo16	
^{186}Re(β^-)^{186}Os		1064	2	1069.3	0.9	2.6	–					56Jo05	
		1071.5	1.3			−1.7	–					56Po28	
		1076	3			−2.2	–					64Ma36	
		1064	3			1.8	–					68An11	
	ave.	1069.4	1.0			−0.1	1	80	64 ^{186}Os			average	
^{186}Ir(β^+)^{186}Os		3831	20	3827	17	−0.2	R					63Em02	
^{186}Au(β^+)^{186}Pt		5950	200	6150	30	1.0	U					72We.A	
^{186}Hg(β^+)^{186}Au		3250	200	3176	24	−0.4	U					72We.A	
^{186}Tl^n(IT)^{186}Tl^m		373.9	0.5				3			Lvn		91Va04	
$*^{186}$W O−C ^{13}C ^{35}Cl$_4$ ^{37}Cl	See ^{183}W O−C$_2$ ^{35}Cl$_5$ in same reference											AHW	**
$*^{186}$Ir−C$_{15.5}$	M−A=–39181(28) keV for mixture gs+m at 0.8 keV											Nubase	**
$*^{186}$Tl−C$_{15.5}$	M−A=–20030(180) keV for mixture gs+m+n at 250(160) and 620(160) keV											Nubase	**
$*^{186}$Tl−C$_{15.5}$	M−A=–19900(29) keV for mixture gs+m+n at 250(160) and 620(160) keV											Nubase	**
$*^{186}$Au(α)^{182}Ir	E(α)=4653(15) to 152.3 3$^-$ level											95Sa42	**
$*^{186}$Bi(α)^{182}Tl	E(α)=7158(20) followed by E(γ)=444											02An.A	**
$*^{186}$Bi(α)^{182}Tl	E(α)=7152(15), 7085(15) followed by E(γ)=444, 520											02An.A	**
^{187}Ir−C$_{15.583}$		−42458	30	−42637	7	−6.0	C			GS2	1.0	03Li.A	
^{187}Pt−C$_{15.583}$		−39500	110	−39410	30	0.8	U			GS1	1.0	00Ra23	
		−39413	30				2			GS2	1.0	03Li.A	
^{187}Au−C$_{15.583}$		−35470	114	−35432	27	0.3	U			GS1	1.0	00Ra23	*
		−35441	30			0.3	1	81	81 ^{187}Au	GS2	1.0	03Li.A	
^{187}Hg−C$_{15.583}$		−30188	109	−30186	15	0.0	U			GS1	1.0	00Ra23	*
		−30155	36			−0.9	1	17	17 ^{187}Hg	GS2	1.0	03Li.A	*
^{187}Hg−^{208}Pb$_{.899}$		−9210	20	−9196	15	0.7	1	56	56 ^{187}Hg	MA6	1.0	01Sc41	
^{187}Hg^m−^{208}Pb$_{.899}$		−9152	19	−9133	21	1.0	R			MA6	1.0	01Sc41	*
^{187}Tl−C$_{15.583}$		−24120	107	−24094	9	0.2	U			GS1	1.0	00Ra23	
		−23928	109			−1.5	U			GS2	1.0	03Li.A	*
	ave.	−23704	21			−1.4	1	15	15 ^{187}Tl^m			average	
^{187}Tl^m−^{133}Cs$_{1.406}$		109151	24	109200	8	2.0	F			MA8	1.0	03We.A	*
^{187}Pb−C$_{15.583}$		−16072	45	−16082	9	−0.2	U			GS2	1.0	03Li.A	*
^{187}Pb−^{133}Cs$_{1.406}$		116844	14	116853	9	0.6	1	40	40 ^{187}Pb	MA8	1.0	03We.A	
^{187}Pb^m−^{133}Cs$_{1.406}$		116871	14	116865	11	−0.4	1	67	67 ^{187}Pb^m	MA8	1.0	03We.A	
^{187}Re O$_2$−^{184}W ^{35}Cl		25797.4	3.5	25798.5	1.3	0.1	U			H28	2.5	77Sh04	
^{187}Re ^{35}Cl−^{185}Re ^{37}Cl		5744.2	1.2	5748.2	1.1	1.3	1	12	10 ^{187}Re	H28	2.5	77Sh04	
^{187}Au(α)^{183}Ir		4792.7	20.	4770	30	−0.5	1	38	19 ^{183}Ir			68Si01	*
^{187}Hg(α)^{183}Pt		5229.9	20.	5230	14	0.0	1	49	31 ^{183}Pt	ISa		70Ha18	*
^{187}Hg^m(α)^{183}Pt		5293.4	20.	5289	16	−0.2	1	64	49 ^{187}Hg^m	ISa		70Ha18	*
^{187}Tl^m(α)^{183}Au		5643	20	5653	7	0.5	2					76To06	*
		5661.5	10.			−0.8	2					80Sc09	*
		5645.1	12.			0.7	2			Lvn		85Co06	*
^{187}Pb(α)^{183}Hg		6393.0	10.	6395	6	0.2	–					75Ca06	*
		6398.4	10.			−0.3	–					81Mi12	*
		6395.0	19.			0.0	–			GSa		80Sc09	
	ave.	6396	7			−0.1	1	84	44 ^{187}Pb			average	
^{187}Pb^m(α)^{183}Hg^p		6213.1	20.	6208	7	−0.2	o			Ora		74Le02	
		6213.1	10.			−0.5	2			Ora		75Ca06	
		6223.3	10.			−1.5	o			GSa		80Sc09	
		6205.9	10.			0.2	2					81Mi12	
		6202.9	15.			0.4	2			Jya		99An36	
^{187}Bi(α)^{183}Tl		7778.7	15.	7789	14	0.7	1	79	69 ^{187}Bi	ORa		99Ba45	
^{187}Bi(α)^{183}Tl^m		7139.0	10.	7146	6	0.7	–					84Sc.A	
		7153.3	8.			−0.9	–			ORa		99Ba45	
	ave.	7148	6			−0.3	1	96	66 ^{183}Tl^m			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{187}Bi^{m}(\alpha)^{183}Tl$		7749.1	10.	7890	15	14.1	F					84Sc.A	*
		7890.1	15.				2			ORa		99Ba45	
$^{186}W(n,\gamma)^{187}W$		5466.3	0.3	5466.54	0.11	0.8	–			BNn		87Br05	Z
		5467.22	0.15			−4.5	B					92Be17	*
		5466.59	0.12			−0.4	–			Bdn		03Fi.A	
	ave.	5466.55	0.11			−0.1	1	100	68 ^{186}W			average	
$^{186}Os(n,\gamma)^{187}Os$		6291.1	1.0	6290.0	0.6	−1.1	–					74Pr15	Z
		6289.4	0.8			0.8	–			Bdn		03Fi.A	
	ave.	6290.1	0.6			−0.1	1	92	56 ^{187}Os			average	
$^{187}W(\beta^{-})^{187}Re$		1314	2	1310.9	1.3	−1.5	–					69Na03	
		1310	2			0.5	–					70He14	
	ave.	1312.0	1.4			−0.7	1	82	68 ^{187}W			average	
$^{187}Re(\beta^{-})^{187}Os$		2.64	0.05	2.469	0.004	−3.4	U					67Hu05	
		2.667	0.020			−9.9	U					92Co23	
		2.70	0.09			−2.6	U					93As02	
		2.460	0.011			0.8	–					99Al20	
		2.470	0.004			−0.3	–					01Ga01	
	ave.	2.469	0.004			0.0	1	100	76 ^{187}Re			average	
$^{187}Os(^{3}He,t)^{187}Ir$		−1521	6				2			INS		90Ka27	
$^{187}Au(\beta^{+})^{187}Pt$		3600	40	3710	40	2.7	C					83Gn01	
$^{187}Hg^{m}(IT)^{187}Hg$		54	21	59	16	0.2	R					187Hgm-x	
		54	21			0.2	1	60	51 $^{187}Hg^{m}$	MA6		01Sc41	*
$^{187}Tl^{m}(IT)^{187}Tl$		330	5	335	3	1.0	1	48	38 ^{187}Tl			77Sc03	
$*^{187}Au-C_{15.583}$	M−A=–32980(100) keV for mixture gs+m at 120.51 keV											NDS911	**
$*^{187}Hg-C_{15.583}$	M−A=–28090(100) keV for mixture gs+m at 59(16) keV											Nubase	**
$*^{187}Hg-C_{15.583}$	M−A=–28060(28) keV for mixture gs+m at 59(16) keV											Nubase	**
$*^{187}Hg^{m}-^{208}Pb_{.899}$	Use instead their difference between gs and m lines											GAu	**
$*^{187}Tl-C_{15.583}$	M−A=–22121(28) keV for mixture gs+m at 335(3) keV											Nubase	**
$*^{187}Tl^{m}-^{133}Cs_{1.406}$	F: contamination from ground-state not resolved											03We.A	**
$*^{187}Pb-C_{15.583}$	M−A=–14965(41) keV for mixture gs+m at 11(11) keV											Nubase	**
$*^{187}Au(\alpha)^{183}Ir$	Assignment uncertain											NDS	**
$*^{187}Hg(\alpha)^{183}Pt$	E(α)=5035(20) to 84.62 level											NDS924	**
$*^{187}Hg^{m}(\alpha)^{183}Pt$	E(α)=4870(20) to 316.7(0.5) level											NDS924	**
$*^{187}Tl^{m}(\alpha)^{183}Au$	E(α)=5510(20) to 12.4(0.4) level											NDS924	**
$*^{187}Tl^{m}(\alpha)^{183}Au$	E(α)=5528(10) to 12.4(0.4) level											NDS924	**
$*^{187}Tl^{m}(\alpha)^{183}Au$	E(α)=5512(12) to 12.4(0.4) level											NDS924	**
$*^{187}Pb(\alpha)^{183}Hg$	E(α)=6190(10) to 67.4(0.3) level											NDS87c	**
$*^{187}Pb(\alpha)^{183}Hg$	E(α)=6194(10),5993(10) to 67.4,275.5 levels											NDS87c	**
$*^{187}Bi^{m}(\alpha)^{183}Tl$	T=300(60) us not 700 us											99Ba45	**
$*^{186}W(n,\gamma)^{187}W$	Only statistical error 0.04 keV given. ,Z recalibrated											GAu	**
$*^{187}Hg^{m}(IT)^{187}Hg$	Original error (7 keV) increased by 20 for isomer+gs lines in trap											01Sc41	**
$^{188}Au-C_{15.667}$		−34750	104	−34676	22	0.7	U			GS1	1.0	00Ra23	
		−34674	30			−0.1	2			GS2	1.0	03Li.A	
$^{188}Hg-C_{15.667}$		−32500	104	−32423	12	0.7	U			GS1	1.0	00Ra23	
		−32428	30			0.2	1	17	17 ^{188}Hg	GS2	1.0	03Li.A	
$^{188}Hg-^{208}Pb_{.904}$		−11330	20	−11316	12	0.7	–			MA6	1.0	01Sc41	
	ave.	−11318	15			0.1	1	72	72 ^{188}Hg			average	
$^{188}Tl-C_{15.667}$		−23827	110	−23990	40	−1.5	U			GS1	1.0	00Ra23	*
		−23994	38			0.1	2			GS2	1.0	03Li.A	*
$^{188}Pb-C_{15.667}$		−19070	110	−19126	11	−0.5	U			GS1	1.0	00Ra23	
		−19144	30			0.6	R			GS2	1.0	03Li.A	
$^{188}Os\ ^{35}Cl-^{186}W\ ^{37}Cl$		4426	3	4424.2	1.4	−0.2	U			H22	2.5	70Mc03	
$^{188}Pt(\alpha)^{184}Os$		4015.7	10.	4008	5	−0.7	–					63Gr08	
		4000.3	10.			0.8	–					78El11	
		3990.1	15.			1.2	–					79Ha10	
	ave.	4005	7			0.6	1	65	64 ^{188}Pt			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{188}Hg(α)^{184}Pt		4710.4	20.	4705	17	−0.2	1	69	58 ^{184}Pt			79Ha10	
^{188}Pb(α)^{184}Hg		6110.3	10.	6109	3	−0.1	2					74Le02	Z
		6109.2	10.			0.0	2					77De32	Z
		6120.5	15.			−0.8	2			GSa		80Sc09	Z
		6110.5	5.			−0.3	2					81To02	Z
		6109.3	10.			0.0	2			Lvn		93Wa03	Z
		6100.0	8.			1.1	2			Jya		03Ke04	
^{188}Bi(α)^{184}Tl		7274.5	25.	7255	7	−0.8	U			GSa		80Sc09	*
		7255.2	7.				2			Lvn		97Wa05	*
^{188}Bi^{m}(α)^{184}Tl^{n}		6968.5	20.	6963	6	−0.3	U			GSa		80Sc09	
		6963.5	6.				3			Lvn		97Wa05	
^{188}Po(α)^{184}Pb		8087.4	25.	8082	13	−0.2	2					99An52	
		8080.2	15.			0.1	2					01Va.B	
^{188}Os(p,t)^{186}Os		−5802	5	−5797.8	0.6	0.8	U			Min		73Oo01	
		−5803	4			1.3	U			McM		75Th04	
^{187}Re(n,γ)^{188}Re		5871.77	0.3	5871.75	0.12	−0.1	2					72Sh13	Z
		5871.75	0.13			0.0	2			Bdn		03Fi.A	
^{187}Os(n,γ)^{188}Os		7989.6	0.3	7989.56	0.15	−0.1	–					83Fe06	Z
		7989.58	0.17			−0.1	–			Bdn		03Fi.A	
	ave.	7989.58	0.15			−0.2	1	100	80 ^{188}Os			average	
^{188}W(β^-)^{188}Re		349	3				3					64Bu10	
^{188}Ir(β^+)^{188}Os		2833	10	2808	7	−2.5	–					62Wa20	
		2781	20			1.4	–					69Ya02	
		2827	30			−0.6	–					70Ag03	
	ave.	2823	9			−1.7	1	65	64 ^{188}Ir			average	
^{188}Pt(ε)^{188}Ir		525	10	505	7	−2.0	1	52	36 ^{188}Ir			78El11	
^{188}Au(β^+)^{188}Pt		5520	30	5522	21	0.1	R					84Da.A	
^{188}Hg(β^+)^{188}Au		2040	20	2099	23	3.0	C					84Da.A	
^{188}Tl^{n}(IT)^{188}Tl^{m}		268.8	0.5				4			Lvn		91Va04	
*^{188}Tl−C$_{15.667}$	M−A=–22180(100) keV for mixture gs+m at 30(40) keV											GAu	**
*^{188}Tl−C$_{15.667}$	M−A=–22335(28) keV for mixture gs+m at 30(40) keV											GAu	**
*^{188}Bi(α)^{184}Tl	E(α)=7005(25) to 117.0(0.5) level											84Sc.A	**
*^{188}Bi(α)^{184}Tl	E(α)=6987(6) followed by 117.0(0.5) E$_1$ γ-ray											84Sc.A	**
*	An E(α)=7029(7) 3 times weaker exists too											97Wa05	**
C_{14} H_{21}−^{189}Os		206188.3	6.2	206178.2	1.6	−0.7	U			M23	2.5	79Ha32	
^{189}Au−C$_{15.75}$		−36080	140	−36052	22	0.2	U			GS1	1.0	00Ra23	*
		−36045	31			−0.2	2			GS2	1.0	03Li.A	
		−36058	30			0.2	2			GS2	1.0	03Li.A	*
^{189}Hg−C$_{15.75}$		−31793	113	−31810	40	−0.2	U			GS1	1.0	00Ra23	*
		−31796	46			−0.3	1	61	61 ^{189}Hg	GS2	1.0	03Li.A	*
^{189}Hg^{m}−^{208}Pb$_{.909}$		−10501	20	−10498	19	0.1	1	93	93 ^{189}Hg^{m}	MA6	1.0	01Sc41	
^{189}Tl−C$_{15.75}$		−26497	139	−26412	12	0.6	U			GS1	1.0	00Ra23	*
		−26313	93			−1.1	U			GS2	1.0	03Li.A	*
^{189}Pb−C$_{15.75}$		−19206	99	−19190	40	0.1	U			GS1	1.0	00Ra23	*
		−19193	37				2			GS2	1.0	03Li.A	*
^{189}Pb(α)^{185}Hg		5954.2	10.	5870	40	−8.1	o			Ora		72Ga27	*
		5943.9	10.			−7.1	U			Ora		74Le02	*
^{189}Bi(α)^{185}Tl		7267.4	10.	7269.8	2.8	0.2	6			Ora		74Le02	*
		7272.5	10.			−0.3	6			GSa		84Sc.A	*
		7269.2	5.			0.1	6			Lvn		85Co06	*
		7270.8	15.			−0.1	U			Jya		97An09	*
		7268.1	6.			0.3	6			Lvn		97Wa05	
		7271.5	5.			−0.3	6			Jya		02Hu14	*
^{189}Bi^{m}(α)^{185}Tl		7362.1	20.	7451	6	1.8	C					84Sc.A	
		7499.0	30.			−1.6	U					93An19	
		7458.2	40.			−0.2	U			ORa		95Ba75	
		7458.2	15.			−0.5	6			Jya		97An09	
		7450.0	6.			0.2	6			Lvn		97Wa05	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{189}Po(α)^{185}Pb		7701	15				3			GSa		99An52	*
^{188}Os(n,γ)^{189}Os		5920.6	0.5	5920.3	0.5	−0.7	1	98	78 ^{189}Os	ILn		92Br17	
		5922.0	0.4			−4.3	B			Bdn		03Fi.A	
^{189}W(β^-)^{189}Re		2500	200				3					65Ka07	
^{189}Re(β^-)^{189}Os		1000	20	1007	8	0.4	R					63Cr06	
		1015	20			−0.4	R					65Bl06	
^{189}Pt(β^+)^{189}Ir		1950	20	1970	14	1.0	1	49	29 ^{189}Ir			71Pl08	
^{189}Au(β^+)^{189}Pt		3160	300	2901	23	−0.9	U					75Un.A	
^{189}Hg(β^+)^{189}Au		4200	200	3950	40	−1.2	C					75Un.A	
^{189}Hg^m(IT)^{189}Hg		100	50	80	30	−0.4	1	47	39 ^{189}Hg	MA6		01Sc41	
^{189}Tl^m(β^+)^{189}Hg		5460	200	5310	30	−0.7	U					75Un.A	
*^{189}Au−C$_{15.75}$	M−A=–33490(100) keV for mixture gs+m at 247.23 keV											Ens92	**
*^{189}Au−C$_{15.75}$	M−A=–33341(28) keV for ^{189}Au^m at Eexc=247.23 keV											Ens92	**
*^{189}Hg−C$_{15.75}$	M−A=–29570(100) keV for mixture gs+m at 90(40) keV											Nubase	**
*^{189}Hg−C$_{15.75}$	M−A=–29573(28) keV for mixture gs+m at 90(40) keV											Nubase	**
*^{189}Tl−C$_{15.75}$	M−A=–24540(100) keV for mixture gs+m at 283(6) keV											Nubase	**
*^{189}Tl−C$_{15.75}$	M−A=–24369(28) keV for mixture gs+m at 283(6) keV											Nubase	**
*^{189}Pb−C$_{15.75}$	M−A=–17870(90) keV for mixture gs+m at 40#30 keV											Nubase	**
*^{189}Pb−C$_{15.75}$	M−A=–17858(29) keV for mixture gs+m at 40#30 keV											Nubase	**
*^{189}Pb(α)^{185}Hg	E(α)=5730.1(10,Z) possibly from ground-state, and to 26.1 level											NDS952	**
*^{189}Pb(α)^{185}Hg	E(α)=5720(10) possibly from ground-state, and to 26.1 level											NDS952	**
*^{189}Bi(α)^{185}Tl	E(α)=6670.1(10,Z) to ^{185}Tl^m at 452.8(2.0)											NDS952	**
*^{189}Bi(α)^{185}Tl	E(α)=6675(10) to ^{185}Tl^m at 452.8(2.0)											77Sc03	**
*^{189}Bi(α)^{185}Tl	E(α)=7115.6(15,Z) and 6671.6(5,Z) to ^{185}Tl^m at 452.8(2.0)											77Sc03	**
*^{189}Bi(α)^{185}Tl	E(α)=7120(15), 6670(15) to ground-state and 452.8 isomer											NDS952	**
*^{189}Bi(α)^{185}Tl	E(α)=6674(5) to ^{185}Tl^m at 452.8(2.0)											77Sc03	**
*^{189}Po(α)^{185}Pb	E(α)=7264(15) to 280(1) level											99An52	**
^{190}Au−C$_{15.833}$		−35213	106	−35300	17	−0.8	U			GS2	1.0	03Li.A	*
^{190}Hg−C$_{15.833}$		−33670	107	−33678	17	−0.1	U			GS1	1.0	00Ra23	
^{190}Hg−^{208}Pb$_{.913}$		−12361	20	−12361	17	0.0	1	73	73 ^{190}Hg	MA6	1.0	01Sc41	
^{190}Tl−C$_{15.833}$		−26125	123	−26120	50	0.0	U			GS1	1.0	00Ra23	*
		−26118	66			−0.1	R			GS2	1.0	03Li.A	*
^{190}Pb−C$_{15.833}$		−21940	104	−21918	13	0.2	U			GS1	1.0	00Ra23	
		−21905	30			−0.4	R			GS2	1.0	03Li.A	
^{190}Bi^m−^{133}Cs$_{1.429}$		123800	27	123856	10	2.1	F			MA8	1.0	03We.A	*
^{190}Os ^{35}Cl−^{188}Os ^{37}Cl		5557	3	5558.9	0.6	0.3	U			H22	2.5	70Mc03	
^{190}Os−C$_{14}$ H$_{21}$		−205897.8	5.8	−205878.6	1.6	1.3	U			M23	2.5	79Ha32	
^{190}Pt(α)^{186}Os		3238.3	20.	3251	6	0.6	–					61Pe23	
		3248.5	20.			0.1	–					63Gr08	
	ave.	3243	14			0.5	1	15	15 ^{190}Pt			average	
^{190}Pb(α)^{186}Hg		5699.8	10.	5697	5	−0.2	3					74Le02	Z
		5697.0	5.			0.1	3					81El03	Z
^{190}Bi(α)^{186}Tl		6862.2	5.				3			Lvn		91Va04	*
^{190}Bi^m(α)^{186}Tl^m		6967.9	5.	6967	4	−0.2	3			Lvn		91Va04	*
^{190}Bi^m(α)^{186}Tl^n		6589.0	10.	6593	5	0.4	R					74Le02	
^{190}Po(α)^{186}Pb		7643.2	20.	7693	7	2.5	F			GSa		88Qu.A	
		7651.4	40.			1.0	U			ORa		96Ba35	
		7691.2	10.			0.2	4			ORa		97Ba25	
		7695.3	10.			−0.2	4			GSa		00An14	*
^{190}Os(p,t)^{188}Os		−5234	5	−5230.7	0.5	0.7	U			Min		73Oo01	
		−5237	4			1.6	U			McM		75Th04	
^{190}Pt(p,t)^{188}Pt		−7150	10	−7161	7	−1.1	1	43	23 ^{190}Pt	Ors		78Ve10	
^{190}Os(t,α)^{189}Re		11796	10	11796	8	0.0	2			McM		76Hi08	
^{189}Os(n,γ)^{190}Os		7791.8	1.0	7792.26	0.19	0.5	U			BNn		79Ca02	Z
		7792.31	0.19			−0.2	1	100	78 ^{190}Os	Bdn		03Fi.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{190}Pt(p,d)^{189}Pt		−6693	11	−6687	10	0.5	1	84	80 ^{189}Pt	Ors		80Ka19	
^{190}W(β^-)^{190}Re		1270	70				3					76Ha39	
^{190}Re(β^-)^{190}Os		3090	300	3140	150	0.2	2					55At21	
		3190	300			−0.2	2					69Ha44	
		3140	210			0.0	2					64Fl02	*
^{190}Ir(β^+)^{190}Os		2000	200	1955.1	1.2	−0.2	U					60Ka14	*
^{190}Au(β^+)^{190}Pt		4442	15				2					73Jo11	
^{190}Hg(β^+)^{190}Au		2105	80	1511	23	−7.4	C					74Di.A	
^{190}Tl(β^+)^{190}Hg		7000	400	7040	50	0.1	U					75Un.A	
^{190}Tl^m(β^+)^{190}Hg		6975	300	7170#	70#	0.7	D					76Bi09	*
^{190}Bi(β^+)^{190}Pb		8700	500	9510	180	1.6	F					76Bi09	*
^{190}Bi^n(IT)^{190}Bi^m		273	1				4					01An11	
*^{190}Au−C$_{15.833}$	M−A=–32701(28) keV for mixture gs+m at 200#150 keV											Nubase	**
*^{190}Tl−C$_{15.833}$	M−A=–24270(100) keV for mixture gs+m at 130#80 keV											AHW	**
*^{190}Tl−C$_{15.833}$	M−A=–24264(28) keV for mixture gs+m at 130#80 keV											AHW	**
*^{190}Bi^m−^{133}Cs$_{1.429}$	F: contamination from ground-state not resolved											03We.A	**
*^{190}Bi(α)^{186}Tl	E(α)=6716(5), 6507(5), 6431(5) to ground-state, 215.2, 293.7 levels											91Va04	**
*^{190}Bi^m(α)^{186}Tl^m	E(α)=6819(5), 6734(5), 6456(5) to levels 0, 89.5, 373.9 above ^{186}Tl^m											91Va04	**
*^{190}Po(α)^{186}Pb	Ea=7545(15) same work as in 2000An14											97An09	**
*^{190}Re(β^-)^{190}Os	E$^-$=1600(200) from isomer at 210(60) to several levels around 1750											NDS90a	**
*^{190}Ir(β^+)^{190}Os	p+<0.00006 to 1163.19 and 955.37 levels, level at 1872.15 fed											AHW	**
*^{190}Tl^m(β^+)^{190}Hg	Systematical trends suggest ^{190}Tl^m 200 less bound											GAu	**
*^{190}Bi(β^+)^{190}Pb	F: E$^+$ =5700(300) to at least about 2000 level											AHW	**
^{191}Au−C$_{15.917}$		−36180	88	−36300	40	−1.3	1	20	20 ^{191}Au	GS2	1.0	03Li.A	*
^{191}Hg−C$_{15.917}$		−32811	51	−32843	24	−0.6	1	23	23 ^{191}Hg	GS2	1.0	03Li.A	*
^{191}Hg−^{208}Pb$_{.918}$		−11414	29	−11409	24	0.2	1	70	70 ^{191}Hg	MA6	1.0	01Sc41	
^{191}Tl−C$_{15.917}$		−28340	130	−28214	8	1.0	U			GS1	1.0	00Ra23	*
		−28234	30			0.7	U			GS2	1.0	03Li.A	
		−28192	31			−0.7	U			GS2	1.0	03Li.A	*
^{191}Pb−C$_{15.917}$		−21770	110	−21740	40	0.3	U			GS1	1.0	00Ra23	*
		−21735	42				2			GS2	1.0	03Li.A	*
^{191}Bi−^{133}Cs$_{1.436}$		121552.1	8.6	121557	8	0.6	1	86	86 ^{191}Bi	MA8	1.0	03We.A	
^{191}Pb^m(α)^{187}Hg^m		5403.4	20.				2			Ora		74Le02	
^{191}Bi(α)^{187}Tl		6780.8	5.	6778	3	−0.5	–			Lvn		85Co06	Z
		6785	10			−0.7	–			ORa		98Bi.A	
		6782	10			−0.4	–			Jya		99An36	
	ave.	6782	4			−0.8	1	64	62 ^{187}Tl			average	
^{191}Bi(α)^{187}Tl^m		6440.0	5.	6443.7	2.2	0.7	–					67Tr06	Z
		6455.0	10.			−1.1	U					74Le02	Z
		6445.9	5.			−0.4	–			Lvn		85Co06	Z
		6447	10			−0.3	U			ORa		98Bi.A	
		6458.5	20.			−0.7	U			RIa		99Ta20	
		6445	10			−0.1	U			Jya		99An36	
		6443.2	3.			0.2	–			Jya		03Ke04	
	ave.	6443.0	2.3			0.3	1	88	75 ^{187}Tl^m			average	
^{191}Bi^m(α)^{187}Tl		7022.8	5.	7018.6	2.6	−0.8	2			Lvn		85Co06	Z
		7023.4	10.			−0.5	U			ORa		98Bi.A	
		7016.2	20.			0.1	U			RIa		99Ta20	
		7017.2	3.			0.5	2			Jya		03Ke04	
^{191}Po(α)^{187}Pb		7470.8	20.	7501	11	1.5	F			GSa		93Qu03	*
		7493.2	15.			0.5	1	54	38 ^{191}Po	Jya		02An19	
^{191}Po(α)^{187}Pb^m		7487.1	15.	7490	5	0.2	U			ORa		97Ba25	
		7491.2	5.			−0.2	1	95	62 ^{191}Po	Jya		02An19	*
^{191}Po^m(α)^{187}Pb		7535	5				2			Jya		02An19	*
^{191}Ir(p,t)^{189}Ir		−5903	15	−5914	13	−0.7	1	71	71 ^{189}Ir	McM		78Lo07	
^{190}Os(n,γ)^{191}Os		5758.67	0.16	5758.72	0.11	0.3	–			ILn		91Bo35	Z
		5758.81	0.15			−0.6	–			Bdn		03Fi.A	
	ave.	5758.74	0.11			−0.2	1	100	79 ^{191}Os			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{191}Ir(d,t)^{190}Ir		−1769.3	0.4				2					95Ga04	*
^{191}Os(β^-)^{191}Ir		313.3	3.	312.7	1.1	−0.2	–					48Sa18	
		314.3	2.			−0.8	–					51Ko17	
		316.3	3.			−1.2	–					58Na15	
		314.3	3.			−0.5	–					60Fe03	
		318.3	3.			−1.9	–					63Pl01	
	ave.	315.1	1.2			−2.0	1	84	63 ^{191}Ir			average	
^{191}Au(β^+)^{191}Pt		1830	50	1890	40	1.2	1	55	54 ^{191}Au			76Vi.A	
^{191}Hg(β^+)^{191}Au		3180	70	3220	40	0.5	1	33	25 ^{191}Au			76Vi.A	
^{191}Tl^m(β^+)^{191}Hg		5140	200	4609	24	−2.7	U					75Un.A	
*^{191}Au−C$_{15.917}$	M−A=–33568(28) keV for mixture gs+m at 266.2 keV											Ens99	**
*^{191}Hg−C$_{15.917}$	M−A=–30499(28) keV for mixture gs+m at 128(22) keV											Nubase	**
*^{191}Tl−C$_{15.917}$	M−A=–26250(90) keV for mixture gs+m at 297(7) keV											Nubase	**
*^{191}Tl−C$_{15.917}$	M−A=–25964(28) keV for ^{191}Tl^m at Eexc=297(7) keV											Nubase	**
*^{191}Pb−C$_{15.917}$	Possibly contaminated by isomerism											00Ra23	**
*^{191}Pb−C$_{15.917}$	M−A=–20226(28) keV for mixture gs+m at 40(50) keV											AHW	**
*^{191}Po(α)^{187}Pb	F: probably mainly ^{189}Bi^m											97Ba25	**
*^{191}Po(α)^{187}Pb^m	E(α)=7334(10), 6960(15) to ground-state, 375(1) superseded by 2002An19											99An10	**
*^{191}Po^m(α)^{187}Pb	E(α)=7376(5), 6888(5) to ^{187}Pb^m and 494(1) above											02An19	**
*^{191}Po^m(α)^{187}Pb	E(α)=7378(10), 6888(15) superseded by 2002An19											99An10	**
*^{191}Ir(d,t)^{190}Ir	Feeds ground-state											96Ga30	**
^{192}Hg−C$_{16}$		−34440	104	−34366	17	0.7	U			GS1	1.0	00Ra23	
		−34342	30			−0.8	R			GS2	1.0	03Li.A	
^{192}Hg−^{208}Pb$_{.923}$		−12826	20	−12816	17	0.5	2			MA6	1.0	01Sc41	
^{192}Tl−C$_{16}$		−27815	121	−27780	30	0.3	U			GS1	1.0	00Ra23	*
		−27775	34				2			GS2	1.0	03Li.A	
^{192}Pb−C$_{16}$		−24280	104	−24215	14	0.6	U			GS1	1.0	00Ra23	
		−24185	30			−1.0	R			GS2	1.0	03Li.A	
^{192}Bi−C$_{16}$		−14783	128	−14540	40	1.9	B			GS1	1.0	00Ra23	*
		−14489	59			−0.9	R			GS2	1.0	03Li.A	*
^{192}Bi^m−^{133}Cs$_{1.444}$		122143.5	9.6				2			MA8	1.0	03We.A	
^{192}Os ^{35}Cl−^{190}Os ^{37}Cl		5984	3	5983.7	2.3	0.0	1	9	9 ^{192}Os	H22	2.5	70Mc03	
^{192}Pb(α)^{188}Hg		5221.0	5.				2					79To06	Z
^{192}Bi(α)^{188}Tl		6376.0	5.				3			Lvn		91Va04	*
^{192}Bi^m(α)^{188}Tl^m		6484.9	5.	6483	4	−0.4	3			Lvn		91Va04	*
^{192}Bi^m(α)^{188}Tl^n		6212.6	5.	6214	4	0.3	R					67Tr06	*
^{192}Po(α)^{188}Pb		7319.8	7.	7319	5	−0.1	3			Lvn		93Wa04	
		7364.6	35.			−1.3	U			RIa		95Mo14	
		7349.4	30.			−1.0	U			RIa		97Pu01	
		7319.8	11.			0.0	o			Jya		01Ke06	
		7318.8	8.			0.1	3			Jya		03Ke04	
^{192}Os(p,t)^{190}Os		−4835	5	−4835.0	2.1	0.0	–			Min		73Oo01	
		−4837	4			0.5	–			McM		75Th04	
	ave.	−4836	3			0.4	1	46	45 ^{192}Os			average	
^{192}Pt(p,t)^{190}Pt		−6629	7	−6630	5	−0.2	1	62	58 ^{190}Pt	Ors		80Ka19	
^{192}Os(t,α)^{191}Re		10993	10				2			McM		76Hi08	
^{191}Ir(n,γ)^{192}Ir		6198.1	0.2	6198.11	0.11	0.1	–			ILn		91Ke10	
		6198.14	0.13			−0.2	–			Bdn		03Fi.A	
	ave.	6198.13	0.11			−0.1	1	100	64 ^{192}Ir			average	
^{192}Pt(p,d)^{191}Pt		−6448	6	−6442	3	1.1	1	25	31 ^{191}Pt	Ors		80Ka19	
^{192}Pt(p,d)^{191}Pt−^{194}Pt()^{193}Pt		−307	3	−308.8	2.7	−0.6	1	81	69 ^{191}Pt	Ors		78Be09	
^{192}Ir(β^-)^{192}Pt		1456.7	4.	1459.7	1.9	0.7	–					65Jo04	
		1453.3	3.			2.1	–					77Ra17	
	ave.	1454.5	2.4			2.1	1	60	59 ^{192}Pt			average	
^{192}Au(β^+)^{192}Pt		3514	20	3516	16	0.1	2					66Ny01	
		3520	25			−0.1	2					74Di.A	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{192}Hg(β^+)^{192}Au	1745	30	765	22	−32.7	F					74Di.A	*
^{192}Tl(β^+)^{192}Hg	6380	200	6140	40	−1.2	C					75Un.A	
^{192}Tl^p(IT)^{192}Tl	200	50	180	40	−0.4	U			Lvn		91Va04	
*^{192}Tl−C$_{16}$	M−A=–25830(100) keV for mixture gs+m at 160(50) keV										Nubase	**
*^{192}Bi−C$_{16}$	M−A=–13700(110) keV for mixture gs+m at 140(40) keV										GAu	**
*^{192}Bi−C$_{16}$	M−A=–13426(31) keV for mixture gs+m at 140(40) keV										GAu	**
*^{192}Bi(α)^{188}Tl	E(α)=6245(5), 6060(5) to ground-state, 184.6 level										91Va04	**
*^{192}Bi^m(α)^{188}Tl^m	E(α)=6348(5), 6253(5), 6081(10), 6052(5) to ground-state and										91Va04	**
*	to levels 103.1, 268.8, 302.4 above ^{188}Tl^m										91Va04	**
*^{192}Bi^m(α)^{188}Tl^n	E(α)=6050(5) to level 33.6 above ^{188}Tl^n										GAu	**
*^{192}Hg(β^+)^{192}Au	F: most probably due to backscattering of 2.5 MeV Au positons										AHW	**
^{193}Au−C$_{16.083}$	−35736	96	−35850	11	−1.2	U			GS2	1.0	03Li.A	*
^{193}Hg−C$_{16.083}$	−33288	53	−33335	17	−0.9	1	10	10 ^{193}Hg	GS2	1.0	03Li.A	*
^{193}Hg−^{208}Pb$_{.928}$	−11673	29	−11668	17	0.2	1	32	32 ^{193}Hg	MA6	1.0	01Sc41	
^{193}Tl−C$_{16.083}$	−29691	171	−29330	120	2.1	o			GS1	1.0	00Ra23	*
	−29328	119				2			GS2	1.0	03Li.A	*
^{193}Pb−C$_{16.083}$	−23865	125	−23830	50	0.3	o			GS1	1.0	00Ra23	*
	−23846	66			0.3	2			GS2	1.0	03Li.A	*
^{193}Bi−C$_{16.083}$	−16980	110	−17040	10	−0.5	U			GS1	1.0	00Ra23	
	−17025	30			−0.5	R			GS2	1.0	03Li.A	
^{193}Bi−^{133}Cs$_{1.451}$	120147	11	120149	10	0.2	2			MA8	1.0	03We.A	
^{193}Bi(α)^{189}Tl	6304.5	5.				3			Lvn		85Co06	Z
^{193}Bi(α)^{189}Tl^m	6017.8	5.	6021	3	0.7	3					67Tr06	Z
	6024.6	10.			−0.3	3					74Le02	Z
	6023.7	5.			−0.5	3			Lvn		85Co06	Z
^{193}Bi^m(α)^{189}Tl	6617.4	10.	6613	5	−0.4	4					74Le02	
	6611.9	5.			0.2	4			Lvn		85Co06	Z
^{193}Po(α)^{189}Pb	7096.4	5.	7093	4	−0.6	3			Lvn		93Wa04	
	7089.2	6.			0.7	3			Jya		96En02	
^{193}Po^m(α)^{189}Pb^m	7143.3	10.	7154	4	1.0	4					77De32	
	7152.5	5.			0.3	4			Lvn		93Wa04	
	7159.7	6.			−0.9	4			Jya		96En02	
^{193}At(α)^{189}Bi	7556.9	20.	7490	6	−3.3	o			Jya		95Le15	
	7490	6				7			Jya		98En.A	
^{192}Os(n,γ)^{193}Os	5583.5	2.	5583.41	0.20	0.0	U					78Be22	
	5583.40	0.20			0.1	1	100	82 ^{193}Os			79Wa04	
	5584.01	0.16			−3.7	B			Bdn		03Fi.A	
^{193}Ir(t,α)^{192}Os−^{191}Ir()^{190}Os	−661	4	−653.2	2.1	1.9	1	28	28 ^{192}Os	LAl		82La22	
^{192}Ir(n,γ)^{193}Ir	7772.0	0.2	7771.92	0.20	−0.4	1	99	64 ^{193}Ir			85Co.B	Z
^{192}Pt(n,γ)^{193}Pt	6247	3	6255.5	1.9	2.8	1	38	37 ^{192}Pt			68Sa13	
^{193}Os(β^-)^{193}Ir	1132	5	1141.2	2.3	1.8	1	21	18 ^{193}Os			58Na15	
^{193}Pt(ε)^{193}Ir	56.6	0.3	56.79	0.30	0.6	1	99	65 ^{193}Pt			83Jo04	
^{193}Au(β^+)^{193}Pt	1355	20	1083	11	−13.6	B					76Di15	
^{193}Hg(β^+)^{193}Au	2340	20	2343	14	0.2	–					76Di15	
	2341	30			0.1	–					58Br88	*
ave.	2340	17			0.2	1	71	58 ^{193}Hg			average	
*^{193}Au−C$_{16.083}$	M−A=–33143(29) keV for mixture gs+m at 290.19 keV										Ens98	**
*^{193}Hg−C$_{16.083}$	M−A=–30937(28) keV for mixture gs+m at 140.76 keV										Ens99	**
*^{193}Tl−C$_{16.083}$	M−A=–27470(100) keV for mixture gs+m at 369(4) keV										Nubase	**
*^{193}Tl−C$_{16.083}$	M−A=–27134(28) keV for mixture gs+m at 369(4) keV										Nubase	**
*^{193}Pb−C$_{16.083}$	M−A=–22160(100) keV for mixture gs+m at 130#80 keV										Nubase	**
*^{193}Pb−C$_{16.083}$	M−A=–22147(28) keV for mixture gs+m at 130#80 keV										Nubase	**
*^{193}Hg(β^+)^{193}Au	E$^-$=1170(30) from ^{193}Hg^m at 140.76 to 290.1 level										NDS90c	**

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{194}Au−C$_{16.167}$	−34768	114	−34635	11	1.2	U			GS2	1.0	03Li.A	*
^{194}Hg−C$_{16.167}$	−34527	30	−34561	13	−1.1	1	20	20 ^{194}Hg	GS2	1.0	03Li.A	
^{194}Hg−^{208}Pb$_{.933}$	−12766	19	−12777	13	−0.6	1	50	50 ^{194}Hg	MA6	1.0	01Sc41	
^{194}Tl−C$_{16.167}$	−28825	178	−28800	150	0.1	o			GS1	1.0	00Ra23	*
	−28800	145				2			GS2	1.0	03Li.A	*
^{194}Pb−C$_{16.167}$	−25980	104	−25988	19	−0.1	U			GS1	1.0	00Ra23	
^{194}Bi−C$_{16.167}$	−17159	136	−17170	50	−0.1	o			GS1	1.0	00Ra23	*
	−17175	88			0.1	2			GS2	1.0	03Li.A	*
^{194}Bi^m−^{133}Cs$_{1.459}$	120900	54				2			MA8	1.0	03We.A	*
^{194}Pb(α)^{190}Hg	4737.9	20.	4738	17	0.0	1	67	40 ^{194}Pb			87El09	
^{194}Bi(α)^{190}Tl	5918.3	5.				3			Lvn		91Va04	*
^{194}Bi^n(α)^{190}Tl^m	6015.7	5.				3			Lvn		91Va04	*
^{194}Po(α)^{190}Pb	6991.5	10.	6987	3	−0.4	4					67Si09	Z
	6990.9	7.			−0.5	4					67Tr06	Z
	6984.4	5.			0.5	4					77De32	Z
	6986.3	6.			0.1	4			Lvn		93Wa04	
	6993.4	4.			−1.6	B			Jya		96En02	
^{194}At(α)^{190}Bi	7290.6	20.				4			Jya		95Le15	
^{194}At^m(α)^{190}Bi^m	7351.9	20.	7347	14	−0.3	4					84Ya.A	
	7341.7	20.			0.3	4			Jya		95Le15	
^{193}Ir(n,γ)^{194}Ir	6067.0	0.4	6066.79	0.11	−0.5	2					82Ra.A	
	6066.9	0.2			−0.6	2					98Ba85	
	6066.71	0.14			0.6	2			Bdn		03Fi.A	
^{194}Pt(p,d)^{193}Pt	−6142	3	−6132.9	1.7	3.0	1	33	28 ^{193}Pt	Ors		78Be09	*
^{194}Os(β^-)^{194}Ir	96.6	2.				3					64Wi07	
^{194}Ir(β^-)^{194}Pt	2254	4	2233.8	1.7	−5.0	B					76Ra33	
^{194}Ir^n(β^-)^{194}Pt	2600	70				2					68Su02	
^{194}Au(β^+)^{194}Pt	2465	20	2501	10	1.8	–					56Th11	
	2509	15			−0.5	–					60Ba17	
	2485	30			0.5	–					70Ag03	
ave.	2492	11			0.8	1	83	83 ^{194}Au			average	
^{194}Hg(ε)^{194}Au	40	20	69	14	1.5	1	47	30 ^{194}Hg			81Ho18	
*^{194}Au−C$_{16.167}$	M−A=–32192(29) keV for mixture gs+m+n at 107.4 and 475.8 keV										NDS96a	**
*^{194}Tl−C$_{16.167}$	M−A=–26700(100) keV for mixture gs+m at 300#200 keV										Nubase	**
*^{194}Tl−C$_{16.167}$	M−A=–26677(28) keV for mixture gs+m at 300#200 keV										Nubase	**
*^{194}Bi−C$_{16.167}$	M−A=–15870(100) keV for mixture gs+m+n at 110(70) and 230#80 keV										GAu	**
*^{194}Bi−C$_{16.167}$	M−A=–15885(28) keV for mixture gs+m+n at 110(70) and 230#80 keV										GAu	**
*^{194}Bi^m−^{133}Cs$_{1.459}$	Original error 16 uu increased for 3+ and 10- possible contamination										03We.A	**
*^{194}Bi(α)^{190}Tl	E(α)=5799(5), 5645(5) to ground-state, 151.3 level										91Va04	**
*^{194}Bi^n(α)^{190}Tl^m	E(α)=5892(5), 5781(5) to levels 0, 112.2 above ^{190}Tl^m										91Va04	**
*^{194}Pt(p,d)^{193}Pt	Q−Q(^{196}Pt(p,d))=–445(3)										AHW	**
^{195}Hg−C$_{16.25}$	−33283	62	−33280	25	0.1	U			GS2	1.0	03Li.A	*
^{195}Hg−^{208}Pb$_{.938}$	−11362	28	−11380	25	−0.6	1	79	79 ^{195}Hg	MA6	1.0	01Sc41	*
^{195}Tl−C$_{16.25}$	−30320	200	−30226	15	0.5	U			GS1	1.0	00Ra23	*
	−30209	40			−0.4	R			GS2	1.0	03Li.A	
	−30264	33			1.2	R			GS2	1.0	03Li.A	*
^{195}Pb−C$_{16.25}$	−25423	150	−25458	25	−0.2	o			GS1	1.0	00Ra23	*
	−25461	70			0.0	2			GS2	1.0	03Li.A	*
^{195}Bi−C$_{16.25}$	−19320	100	−19349	6	−0.3	U			GS1	1.0	00Ra23	
	−19537	128			1.5	U			GS2	1.0	03Li.A	*
^{195}Bi−^{133}Cs$_{1.466}$	119258.2	6.0				2			MA8	1.0	03We.A	
^{195}Bi(α)^{191}Tl	5832.5	5.				3			Lvn		85Co06	Z
^{195}Bi(α)^{191}Tl^m	5542.9	10.	5535	5	−0.8	3					74Le02	Z
	5533.3	5.			0.4	3			Lvn		85Co06	Z
^{195}Bi^m(α)^{191}Tl	6228.1	5.	6232	3	0.7	4					67Tr06	Z
	6238.4	10.			−0.6	4					74Le02	Z
	6233.7	5.			−0.4	4			Lvn		85Co06	Z

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{195}Po(α)^{191}Pb	6763.1	8.	6746	3	−2.1	U					67Si09	Z
	6747.4	5.			−0.2	3					67Tr06	Z
	6744.6	5.			0.3	3			Lvn		93Wa04	
	6752.8	14.			−0.4	3			Jya		96Le09	
^{195}Po^{m}(α)^{191}Pb^{m}	6850.8	10.	6842	3	−0.9	3					67Si09	
	6839.4	5.			0.5	3					67Tr06	Z
	6839.6	5.			0.5	3			Lvn		93Wa04	
	6852.8	10.			−1.1	3			Jya		96Le09	
^{195}At(α)^{191}Bi^{m}	7095.8	20.	7099	3	0.2	U			Jya		95Le15	
	7105	20			−0.3	U			RIa		99Ta20	
	7098.9	3.				3			Jya		03Ke04	*
^{195}At^{m}(α)^{191}Bi	7340.9	30.	7372	4	1.1	U					83Le.A	*
	7371.5	30.			0.0	U			Jya		95Le.A	
	7403	30			−1.0	o			RIa		99Ta20	
	7372.5	4.0				2			RIa		03Ke04	*
^{195}Rn(α)^{191}Po	7694.1	11.				2			Jya		01Ke06	
^{195}Rn^{m}(α)^{191}Po^{m}	7713.5	11.				3			Jya		01Ke06	
^{194}Ir(n,γ)^{195}Ir	7231.86	0.06				3			ILn		87Co08	Z
^{194}Pt(n,γ)^{195}Pt	6105.06	0.12	6105.04	0.12	−0.1	1	100	94 ^{194}Pt	ILn		81Ho.B	Z
	6109.17	0.13			−31.7	F			Bdn		03Fi.A	
^{195}Os(β^-)^{195}Ir	2000	500				4					57Ba08	
^{195}Ir^{m}(IT)^{195}Ir	100	5				4					NDS993	
^{195}Ir^{m}(β^-)^{195}Pt	1230	20	1207	5	−1.1	U					73Ja10	
^{195}Au(ε)^{195}Pt	226.8	1.0	226.8	1.0	0.0	1	100	100 ^{195}Au			Averag	*
^{195}Hg(β^+)^{195}Au	1510	50	1570	23	1.2	1	21	21 ^{195}Hg			71Fr03	*
^{195}Pb^{m}(IT)^{195}Pb	202.9	0.7				3			Oak		91Gr12	
^{195}Bi(β^+)^{195}Pb	4850	550	5690	24	1.5	B			Oak		91Gr12	
*^{195}Hg−C$_{16.25}$	M−A=–30914(28) keV for mixture gs+m at 176.07 keV										NDS993	**
*^{195}Hg−^{208}Pb$_{.938}$	Corrected 40(20) keV for isomeric mixture R=0.3(0.2) E=176.07 keV										01Sc41	**
*^{195}Tl−C$_{16.25}$	M−A=–28000(100) keV for mixture gs+m at 482.63 keV										NDS993	**
*^{195}Tl−C$_{16.25}$	M−A=–27708(31) keV for ^{195}Tl^{m} at Eexc=482.63 keV										NDS993	**
*^{195}Pb−C$_{16.25}$	M−A=–23580(100) keV for mixture gs+m at 202.9 keV										Ens99	**
*^{195}Pb−C$_{16.25}$	M−A=–23615(28) keV for mixture gs+m at 202.9 keV										Ens99	**
*^{195}Bi−C$_{16.25}$	M−A=–17999(28) keV for mixture gs+m at 399(6) keV										Nubase	**
*^{195}At(α)^{191}Bi^{m}	Correlated with E(α)=6313 of ^{191}Bi^{m}										03Ke04	**
*^{195}At^{m}(α)^{191}Bi	E(α)=7190(30) to 148.7(0.5) level										03Ke04	**
*^{195}At^{m}(α)^{191}Bi	Correlated with α of 12 s ^{191}Bi ground-state										95Le15	**
*^{195}At^{m}(α)^{191}Bi	E(α)=7105(30) to 148.7(0.5) level										03Ke04	**
*^{195}At^{m}(α)^{191}Bi	E(α)=7221(4) and 7075(4) to 148.7(0.5) level										03Ke04	**
*^{195}Au(ε)^{195}Pt	Average pK=0.179(0.006) to 129.78 level from the following references:										AHW	**
*	pK=0.195(0.015) to 129.78 level										65De20	**
*	pK=0.166(0.020) to 129.78 level										68Ja11	**
*	pK=0.160(0.017) to 129.78 level										73Go05	**
*	pK=0.183(0.009) to 129.78 level										80Sa11	**
*	pK=0.176(0.012) to 129.78 level										82Be.A	**
*^{195}Hg(β^+)^{195}Au	Assuming 511 γ is annihil. of β^+ to ground-state and 61.44 level										AHW	**
^{196}Hg−^{208}Pb$_{.942}$	−12178	20	−12174	3	0.2	U			MA6	1.0	01Sc41	
^{196}Tl−C$_{16.333}$	−29188	126	−29519	13	−2.6	U			GS2	1.0	03Li.A	*
^{196}Tl−^{133}Cs$_{1.474}$	109845	13				2			MA8	1.0	03We.A	*
^{196}Pb−^{208}Pb$_{.942}$	−5228	22	−5232	15	−0.2	2			MA6	1.0	01Sc41	
^{196}Pb−C$_{16.333}$	−27200	104	−27226	15	−0.2	U			GS1	1.0	00Ra23	
	−27232	30			0.2	R			GS2	1.0	03Li.A	
^{196}Bi−C$_{16.333}$	−19313	150	−19333	26	−0.1	o			GS1	1.0	00Ra23	*
	−19325	30			−0.3	2			GS2	1.0	03Li.A	
	−19361	54			0.5	2			MA8	1.0	03We.A	*

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{196}Bi(α)^{192}Tl^{p}		5260.6	5.				3			Lvn		91Va04	
^{196}Po(α)^{192}Pb		6662.2	8.	6657	3	−0.7	3					67Si09	Z
		6653.7	5.			0.6	3					67Tr06	Z
		6658.4	8.			−0.2	3					71Ho01	Z
		6656.7	5.			0.0	o			Lvn		85Va03	Z
		6656.7	5.			0.0	3			Lvn		93Wa04	
		6653.1	18.			0.2	U			Ara		95Le04	
		6657.1	10.			0.0	U			Jya		96Le09	
^{196}At(α)^{192}Bi		7202.3	7.	7200	50	−0.1	4					67Tr06	
		7187.0	25.			0.2	U			Jya		95Le15	
		7200.2	30.			−0.1	U			RIa		95Mo14	
		7191.0	7.			0.1	o			Jya		96En01	
		7195.1	5.			0.0	4			Jya		00Sm06	
^{196}At^{m}(α)^{192}Bi^{m}		7023.6	15.				3			Jya		96En01	*
^{196}Rn(α)^{192}Po		7583.1	35.	7617	9	0.9	o			RIa		95Mo14	
		7648.4	30.			−1.1	U			RIa		97Pu01	
		7616.7	9.				4			Jya		01Ke06	
^{195}Pt(n,γ)^{196}Pt		7921.96	0.20	7921.92	0.13	−0.2	–			ILn		81Ho.B	Z
		7921.92	0.17			0.0	–			Bdn		03Fi.A	
	ave.	7921.94	0.13			−0.1	1	100	94 ^{195}Pt			average	
^{196}Ir(β^-)^{196}Pt		3150	60	3210	40	1.0	2					66Vo05	
		3250	50			−0.8	2					67Mo10	
^{196}Ir^{m}(β^-)^{196}Pt		3418	20				2					65Bi04	
^{196}Au(β^+)^{196}Pt		1498	7	1507.4	3.0	1.3	1	18	17 ^{196}Au			63Ik01	
^{196}Au(ε)^{196}Pt		1490	10			1.7	U					62Wa16	
^{196}Au(β^-)^{196}Hg		685	4	687	3	0.4	1	61	31 ^{196}Au			62Li03	
*^{196}Tl−C$_{16.333}$	M−A=–26991(28) keV for mixture gs+m at 394.2 keV											NDS981	**
*^{196}Tl−^{133}Cs$_{1.474}$	Q=110268(13) uu M−A=–27103(12) keV for ^{196}Tl^{m} at Eexc=394.2 keV											Ens98	**
*^{196}Bi−C$_{16.333}$	M−A=–17850(100) keV for mixture gs+n at 270(3) keV											Nubase	**
*^{196}Bi−C$_{16.333}$	Q=120182(15) uu for ^{196}Bi^{m}−^{133}Cs$_{1.474}$, M(^{196}Bi^{m})=–17868(14) keV at											03We.A	**
*	167(3) keV; error increased for 3+ and 10- possible contamination											03We.A	**
*^{196}At^{m}(α)^{192}Bi^{m}	Correlated with E(α)=7550 of ^{200}Fr(α)											96En01	**
^{197}Hg−C$_{16.417}$		−32868	98	−32787	3	0.8	U			GS2	1.0	03Li.A	*
^{197}Hg−^{208}Pb$_{.947}$		−10664	30	−10677	4	−0.4	U			MA6	1.0	01Sc41	
^{197}Tl−C$_{16.417}$		−30450	30	−30425	18	0.8	R			GS2	1.0	03Li.A	
^{197}Pb−C$_{16.417}$		−26520	110	−26569	6	−0.4	U			GS1	1.0	00Ra23	
		−26609	30			1.3	U			GS2	1.0	03Li.A	
		−26543	30			−0.9	U			GS2	1.0	03Li.A	*
^{197}Pb^{m}−^{133}Cs$_{1.481}$		113799.6	6.0				2			MA8	1.0	03We.A	
^{197}Bi−^{208}Pb$_{.947}$		982	22	975	9	−0.3	R			MA6	1.0	01Sc41	
^{197}Bi−C$_{16.417}$		−21466	243	−21136	9	1.4	U			GS1	1.0	00Ra23	*
		−21187	31			1.7	U			GS2	1.0	03Li.A	
^{197}Bi−^{133}Cs$_{1.481}$		118870	26	118890	9	0.8	R			MA8	1.0	03We.A	*
^{197}Po−C$_{16.417}$		−14434	145	−14340	50	0.6	o			GS1	1.0	00Ra23	*
		−14305	90			−0.4	R			GS2	1.0	03Li.A	*
^{197}Au(α,^{8}He)^{193}Au		−26919	9	−26920	9	−0.1	1	92	86 ^{193}Au			89Ka04	
^{197}Bi^{m}(α)^{193}Tl		5890.8	10.	5898	5	0.7	o			Ora		72Ga27	
		5889.7	10.			0.8	3			Ora		74Le02	Z
		5899.6	5.			−0.4	3			Lvn		85Co06	Z
^{197}Po(α)^{193}Pb		6420.7	10.	6412	4	−0.9	3					67Si09	Z
		6410.1	5.			0.3	3					67Tr06	Z
		6409.4	9.			0.2	3					71Ho01	Z
^{197}Po^{m}(α)^{193}Pb^{m}		6510.1	5.	6515.8	2.6	1.1	4					67Tr06	Z
		6511.4	9.			0.5	U					71Ho01	Z
		6518.0	3.			−0.7	4					82Bo04	Z
^{197}At(α)^{193}Bi		7103.0	5.	7100	50	0.0	3					67Tr06	Z
		7100.5	5.			0.1	o			Jya		96En01	
		7104.5	5.			0.0	3			Jya		99Sm07	
^{197}At^{m}(α)^{193}Bi^{m}		6846.2	10.	6846	5	0.0	5			Lvn		86Co12	
		6846.2	5.			0.0	5			Jya		99Sm07	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{197}Rn(α)^{193}Po		7411.8	20.	7410	50	0.0	U			RIa		95Mo14	
		7410.8	7.				4			Jya		96En02	
^{197}Rn^{m}(α)^{193}Po^{m}		7523.1	30.	7509	7	−0.5	U			RIa		95Mo14	
		7508.7	7.				5			Jya		96En02	
^{196}Pt(n,γ)^{197}Pt		5846.4	0.4	5846.29	0.27	−0.3	–					78Ya07	Z
		5846.0	0.9			0.3	–			ILn		81Ho.B	Z
		5846.6	0.5			−0.6	–			BNn		83Ca04	Z
		5846.0	0.7			0.4	–			Bdn		03Fi.A	
	ave.	5846.36	0.27			−0.3	1	99	93 ^{196}Pt			average	
^{197}Au(γ,n)^{196}Au		−8080	5	−8072.4	2.9	1.5	–			McM		79Ba06	
		−8072	7			−0.1	–					79Be.A	
	ave.	−8077	4			1.2	1	52	52 ^{196}Au			average	
^{196}Hg(n,γ)^{197}Hg		6785.3	1.5	6785.6	1.5	0.2	1	97	84 ^{197}Hg	BNn		78Zg.A	Z
^{197}Pt(β^-)^{197}Au		719.0	0.6	718.7	0.6	−0.6	1	97	94 ^{197}Pt			71Pr03	
^{197}Pb^{m}(IT)^{197}Pb		319.31	0.11				3					Ens01	
*^{197}Hg−C$_{16.417}$	M−A=–30467(28) keV for mixture gs+m at 298.93 keV											NDS95b	**
*^{197}Pb−C$_{16.417}$	M−A=–24405(28) keV for ^{197}Pb^{m} at Eexc=319.31 keV											Ens01	**
*^{197}Bi−C$_{16.417}$	M−A=–19650(90) keV for mixture gs+m at 690(110) keV											Nubase	**
*^{197}Bi−^{133}Cs$_{1.481}$	Q=118887(12) uu M=–19690(11) keV corrected –16(22) keV for											03We.A	**
*	possible contamination from ^{197}Bi^{m}											03We.A	**
*^{197}Po−C$_{16.417}$	M−A=–13330(110) keV for mixture gs+m at 230#80 keV											Nubase	**
*^{197}Po−C$_{16.417}$	M−A=–13210(32) keV for mixture gs+m at 230#80 keV											Nubase	**
^{198}Hg−C$_{16.5}$		−33231.56	0.43	−33231.0	0.4	1.4	1	71	71 ^{198}Hg	ST2	1.0	02Bf02	
^{198}Pb−^{208}Pb$_{.952}$		−5748	23	−5739	16	0.4	2			MA6	1.0	01Sc41	
^{198}Pb−C$_{16.5}$		−27990	104	−27966	16	0.2	U			GS1	1.0	00Ra23	
		−27951	30			−0.5	R			GS2	1.0	03Li.A	
^{198}Bi−C$_{16.5}$		−21063	162	−20790	30	1.7	o			GS1	1.0	00Ra23	*
		−20794	30				2			GS2	1.0	03Li.A	
^{198}Bi^{n}−C$_{16.5}$		−20222	30				2			GS2	1.0	03Li.A	
^{198}Po−^{208}Pb$_{.952}$		5616	24	5616	19	0.0	1	61	61 ^{198}Po	MA6	1.0	01Sc41	
^{198}Po−C$_{16.5}$		−16600	104	−16611	19	−0.1	U			GS1	1.0	00Ra23	
^{198}Hg ^{35}Cl−^{196}Hg ^{37}Cl		3885.91	1.66	3886	3	0.1	1	57	57 ^{196}Hg	H33	2.5	80Ko25	
^{198}Po(α)^{194}Pb		6312.8	5.	6309.3	2.1	−0.7	–					67Si09	Z
		6305.7	5.			0.7	–					67Tr06	Z
		6301.2	8.			1.0	–					71Ho01	Z
		6311.1	3.			−0.6	–					82Bo04	Z
		6307.7	5.			0.3	–			Lvn		93Wa04	
	ave.	6309.3	2.1			0.0	1	100	60 ^{194}Pb			average	
^{198}At(α)^{194}Bi		6887.5	5.	6893.0	2.2	1.1	3					67Tr06	Z
		6904.9	7.			−1.7	3			Ora		75Ba.B	Z
		6893.3	3.5			−0.1	3			Lvn		92Hu04	*
		6892.5	4.			0.2	3			Jya		96En01	
^{198}At^{m}(α)^{194}Bi^{n}		6990.0	5.	6995.4	2.4	1.1	4					67Tr06	Z
		6997.5	10.			−0.2	4					80Ew03	Z
		6997.6	4.			−0.5	4			Lvn		92Hu04	
		6996.6	4.			−0.3	4			Jya		96En01	
^{198}Rn(α)^{194}Po		7344.7	10.	7349	4	0.5	5					84Ca32	
		7353.8	5.			−0.9	5			Lvn		95Bi17	
		7344.7	6.			0.8	5			Jya		96En02	
^{198}Pt(^{14}C,^{16}O)^{196}Os		6130	40				3			BNL		83Bo29	
^{198}Pt(t,α)^{197}Ir		10885	20				3			LAl		83Ci01	
^{198}Pt(p,d)^{197}Pt		−5332	3				2			Ors		78Be09	*
^{197}Au(n,γ)^{198}Au		6512.35	0.11	6512.33	0.09	−0.2	–			ILn		79Br26	Z
		6512.32	0.16			0.1	–			Bdn		03Fi.A	
	ave.	6512.34	0.09			−0.1	1	100	97 ^{197}Au			average	
^{198}Au(β^-)^{198}Hg		1372.3	0.7	1372.3	0.5	0.1	–					65Ke04	
		1372.8	1.2			−0.4	–					65Pa08	
	ave.	1372.4	0.6			−0.1	1	74	70 ^{198}Au			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{198}Tl(β^+)^{198}Hg	3460	80				2					61Gu02	
^{198}Bi^n(IT)^{198}Bi^m	248.5	0.5				3			Lvn		92Hu04	
$*^{198}$Bi−C$_{16.5}$	M−A=–19350(100) keV for mixture gs+m+n at 280(40) and 530(40) keV										Nubase	**
$*^{198}$At(α)^{194}Bi	E(α)=6755(4), 6539(10), 6360(10) to ground-state, 218, 396 levels										92Hu04	**
$*^{198}$Pt(p,d)^{197}Pt	Q−Q(^{196}Pt(p,d))=365(3,Be)										AHW	**
^{199}Hg−C$_2$ ^{35}Cl$_5$	124023.43	0.53	124016.5	0.4	−5.2	B			H34	2.5	80Ko25	
	124017.21	0.37			−1.2	1	49	43 ^{199}Hg	H48	1.5	03Ba49	
^{199}Hg−^{183}W O	23144.4	0.9	23142.4	0.9	−1.5	1	43	39 ^{183}W	H48	1.5	03Ba49	
^{199}Tl−C$_{16.583}$	−30123	30				2			GS2	1.0	03Li.A	
^{199}Pb−C$_{16.583}$	−27028	137	−27083	28	−0.4	U			GS2	1.0	03Li.A	*
^{199}Bi−C$_{16.583}$	−22328	31	−22328	13	0.0	R			GS2	1.0	03Li.A	
	−22263	30			−2.2	R			GS2	1.0	03Li.A	*
^{199}Po−C$_{16.583}$	−16250	145	−16334	25	−0.6	U			GS1	1.0	00Ra23	*
	−16327	38			−0.2	R			GS2	1.0	03Li.A	
	−16340	38			0.2	R			GS2	1.0	03Li.A	*
^{199}Bi^m(α)^{195}Tl	5598.7	6.				4					66Ma51	
^{199}Po(α)^{195}Pb	6074.1	2.				3					68Go.B	Z
^{199}Po^m(α)^{195}Pb^m	6190.7	5.	6183.2	1.9	−1.5	4					67Si09	Z
	6177.5	5.			1.1	4					67Tr06	Z
	6182.2	3.			0.3	4					68Go.B	Z
	6183.5	3.			−0.1	4					82Bo04	Z
^{199}At(α)^{195}Bi	6775.1	5.	6780	50	0.1	3					67Tr06	Z
	6781.3	3.			0.0	3			Ora		75Ba.B	Z
^{199}Rn(α)^{195}Po	7133.7	15.	7130	50	0.0	4					80Di07	
	7132.7	10.			0.0	4					82Hi14	
	7138.8	10.			−0.1	4					84Ca32	
	7112.2	15.			0.4	4			Jya		96Le09	
^{199}Rn^m(α)^{195}Po^m	7205.1	15.	7205	6	0.0	4					80Di07	
	7205.1	10.			0.0	4					82Hi14	
	7204.1	10.			0.1	4					84Ca32	
	7205.1	15.			0.0	4			Jya		96Le09	
^{199}Fr(α)^{195}At	7812.3	40.				4					99Ta20	*
^{199}Hg(p,t)^{197}Hg	−6658	8	−6667	3	−1.1	1	16	16 ^{197}Hg	Ors		82Be21	
^{198}Pt(^{18}O,^{17}F)^{199}Ir	−8240	41				3					95Zh10	
^{198}Pt(n,γ)^{199}Pt	5556.0	0.5				3			BNn		83Ca04	Z
^{198}Au(n,γ)^{199}Au	7584.27	0.15	7584.25	0.15	−0.1	1	98	72 ^{199}Au	ILn		79Br26	Z
^{198}Hg(n,γ)^{199}Hg	6665.2	0.5	6663.9	0.3	−2.6	1	48	28 ^{199}Hg	CRn		75Lo03	
^{199}Au(β^-)^{199}Hg	453.0	1.0	452.0	0.6	−1.0	1	33	28 ^{199}Au			68Be06	
^{199}Tl(β^+)^{199}Hg	1420	150	1488	28	0.5	U					75Ma05	
^{199}Pb(β^+)^{199}Tl	2870	110	2830	40	−0.4	U					70Do.A	
^{199}Bi^m(IT)^{199}Bi	667	5	667	4	0.0	3					80Br23	
	667	5			0.0	3					85St02	
$*^{199}$Pb−C$_{16.583}$	M−A=–24961(28) keV for mixture gs+m at 429.5(2.7) keV										Nubase	**
$*^{199}$Bi−C$_{16.583}$	M−A=–20071(28) keV for ^{199}Bi^m at Eexc=667(4) keV										Nubase	**
$*^{199}$Po−C$_{16.583}$	M−A=–14980(100) keV for mixture gs+m at 312.0(2.8) keV										Nubase	**
$*^{199}$Po−C$_{16.583}$	M−A=–14909(35) keV for ^{199}Po^m at Eexc=312.0(2.8) keV										Nubase	**
$*^{199}$Fr(α)^{195}At	Reassigned to E(α) to isomer										AHW	**
^{200}Hg−C ^{13}C ^{35}Cl$_5$	120707.97	1.22	120707.8	0.4	−0.1	U			H34	2.5	80Ko25	
^{200}Hg−^{208}Pb$_{.962}$	−9205	28	−9213.3	1.3	−0.3	U			MA6	1.0	01Sc41	
^{200}Pb−C$_{16.667}$	−28179	30	−28173	12	0.2	R			GS2	1.0	03Li.A	
^{200}Bi−C$_{16.667}$	−21888	57	−21868	26	0.3	R			GS2	1.0	03Li.A	*
^{200}Po−C$_{16.667}$	−18170	104	−18201	15	−0.3	U			GS1	1.0	00Ra23	
	−18204	30			0.1	R			GS2	1.0	03Li.A	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{200}Hg ^{35}Cl–^{198}Hg ^{37}Cl		4508.80	0.48	4507.1	0.4	−1.4	1	11	7 ^{200}Hg	H33	2.5	80Ko25	
^{200}Po(α)^{196}Pb		5979.8	5.	5981.3	2.0	0.3	3					67Si09	Z
		5980.0	3.			0.5	3					67Tr06	Z
		5983.4	3.			−0.6	3					70Ra14	Z
^{200}At(α)^{196}Bi		6594.9	5.	6596.4	1.4	0.3	3					67Tr06	Z
		6596.9	2.			−0.3	3			Ora		75Ba.B	Z
		6596.1	2.			0.1	3			Lvn		92Hu04	
^{200}At^{m}(α)^{196}Bi		6708.3	5.	6709.0	2.6	0.2	3			Ora		75Ba.B	Z
		6709.5	3.			−0.1	3			Lvn		92Hu04	
^{200}At^{m}(α)^{196}Bi^{m}		6542.8	5.	6542.4	1.4	−0.1	4					67Tr06	Z
		6542.9	2.			−0.2	4			Ora		75Ba.B	Z
		6542.1	2.			0.2	4			Lvn		92Hu04	
^{200}At^{m}(α)^{196}Bi^{n}		6439.5	5.	6439.1	2.3	−0.1	4					67Tr06	*
		6438.5	5.			0.1	4			Ora		75Ba.B	*
		6433.8	5.			1.1	o			Lvn		87Va09	*
		6439.2	3.			0.0	4			Lvn		92Hu04	*
^{200}Rn(α)^{196}Po		7043.5	2.5				4			Lvn		93Wa04	
		7042.1	12.	7043.5	2.6	0.1	U			Ara		95Le04	
		7039.0	10.			0.4	U			Jya		96Le09	
^{200}Fr(α)^{196}At		7653.4	30.	7620	50	−0.7	U			RIa		95Mo14	
		7620.7	9.				5			Jya		96En01	
^{200}Fr^{m}(α)^{196}At^{m}		7704.4	15.				4			Jya		96En01	*
^{198}Pt(t,p)^{200}Pt		4356	20				3					81Ci01	
^{199}Hg(n,γ)^{200}Hg		8029.1	0.3	8028.40	0.12	−2.3	B			BNn		67Sc30	Z
		8029.6	0.5			−2.4	B			CRn		75Lo03	Z
		8028.51	0.18			−0.6	–			ILn		79Br25	Z
		8028.37	0.17			0.2	–			Bdn		03Fi.A	
	ave.	8028.44	0.12			−0.3	1	97	82 ^{200}Hg			average	
^{200}Au(β^-)^{200}Hg		2220	100	2240	50	0.2	2					59Ro53	
		2200	100			0.4	2					60Gi01	
		2260	70			−0.4	2					72He36	
^{200}Au^{m}(β^-)^{200}Hg		3202	50				2					72Cu07	
^{200}Tl(β^+)^{200}Hg		2450	10	2456	6	0.6	2					57He43	
		2459	7			−0.4	2					62Va10	
*^{200}Bi–C$_{16.667}$	M−A=–20338(28) keV for mixture gs+m at 100#70 keV											Nubase	**
*^{200}At^{m}(α)^{196}Bi^{n}	E(α)=6536.7(5,Z) from ^{200}At^{n} 230.9 above ^{200}At^{m}											92Hu04	**
*^{200}At^{m}(α)^{196}Bi^{n}	E(α)=6535.8(5,Z) from ^{200}At^{n} 230.9 above ^{200}At^{m}											92Hu04	**
*^{200}At^{m}(α)^{196}Bi^{n}	E(α)=6301(5); 6535(5) from ^{200}At^{n} 230.9 above ^{200}At^{m}											92Hu04	**
*^{200}At^{m}(α)^{196}Bi^{n}	E(α)=6306(5); 6538(3) from ^{200}At^{n} 230.9 above ^{200}At^{m}											92Hu04	**
*^{200}Fr^{m}(α)^{196}At^{m}	Correlated with ^{196}At^{m} E(α)=6880(15); 2 cases only											96En01	**
^{201}Hg–^{185}Re O		22440	5	22432.7	1.4	−1.0	U			H48	1.5	03Ba49	
^{201}Hg–C$_2$ ^{35}Cl$_4$ ^{37}Cl		128995.43	0.61	128988.9	0.6	−4.3	B			H34	2.5	80Ko25	
^{201}Pb–C$_{16.75}$		−27418	198	−27115	24	1.5	U			GS2	1.0	03Li.A	*
^{201}Bi–C$_{16.75}$		−22935	30	−22991	16	−1.9	R			GS2	1.0	03Li.A	
		−22995	30			0.1	R			GS2	1.0	03Li.A	*
^{201}Po–C$_{16.75}$		−17760	190	−17740	6	0.1	U			GS1	1.0	00Ra23	*
		−17649	30			−3.0	B			GS2	1.0	03Li.A	
^{201}Po^{m}–C$_{16.75}$		−17305	30	−17285	6	0.7	U			GS2	1.0	03Li.A	
^{201}At–C$_{16.75}$		−11573	31	−11583	9	−0.3	U			GS2	1.0	03Li.A	
^{201}Hg ^{35}Cl–^{199}Hg ^{37}Cl		4972.65	0.37	4972.4	0.6	−0.2	1	38	34 ^{201}Hg	H33	2.5	80Ko25	
		4971.8	1.0			0.4	1	14	13 ^{201}Hg	H48	1.5	03Ba49	
^{201}Bi(α)^{197}Tl		4500.3	6.				4					66Ma51	*
^{201}Po(α)^{197}Pb		5793.9	5.	5798.9	1.7	1.0	4					67Tr06	Z
		5799.4	2.			−0.2	4					68Go.B	Z
		5800.4	4.			−0.4	4					70Ra14	Z
^{201}Po^{m}(α)^{197}Pb^{m}		5898.9	5.	5903.7	1.7	0.9	3					67Tr06	Z
		5904.4	2.			−0.4	3					68Go.B	Z
		5903.8	4.			0.0	3					70Ra14	Z
^{201}At(α)^{197}Bi		6470.7	3.	6473.2	1.6	0.8	4					67Tr06	Z
		6476.2	5.			−0.6	4					74Ho27	Z
		6474.0	2.			−0.3	4			Ora		75Ba.B	Z

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{201}Rn(α)^{197}Po	6860.5	2.5	6860	50	0.0	4			Lvn		93Wa04	
	6863.8	7.			−0.1	4			Ara		95Le04	
^{201}Rn^{m}(α)^{197}Po^{m}	6906.8	5.	6909.8	2.2	0.6	5					67Va17	Z
	6909.9	2.5			0.0	5			Lvn		93Wa04	
	6915.9	7.			−0.8	5			Ara		95Le04	
^{201}Fr(α)^{197}At	7538.0	15.	7520	50	−0.4	4					80Ew03	
	7510.8	7.			0.1	4			Jya		96En01	
^{201}Pt(β^-)^{201}Au	2660	50				2					63Go06	
^{201}Pb(β^+)^{201}Tl	1900	40	1924	27	0.6	R					79Do09	
*^{201}Pb−C$_{16.75}$	M−A=–25225(28) keV for mixture gs+m at 629.14 keV										Ens94	**
*^{201}Bi−C$_{16.75}$	M−A=–20573(28) keV for ^{201}Bi^{m} at Eexc=846.34 keV										NDS942	**
*^{201}Po−C$_{16.75}$	M−A=–16330(100) keV for mixture gs+m at 424.1(2.5) keV										Nubase	**
*^{201}Bi(α)^{197}Tl	E(α)=5240(6) from ^{201}Bi^{m} at 846.34										NDS942	**
^{202}Hg−C ^{13}C ^{35}Cl$_4$ ^{37}Cl	125976.01	1.32	125974.9	0.6	−0.4	1	4	4 ^{202}Hg	H34	2.5	80Ko25	
^{202}Pb−C$_{16.833}$	−27823	30	−27841	9	−0.6	–			GS2	1.0	03Li.A	*
ave.	−27839	17			−0.1	1	26	26 ^{202}Pb			average	
^{202}Bi−C$_{16.833}$	−22282	30	−22258	22	0.8	2			GS2	1.0	03Li.A	
^{202}Po−C$_{16.833}$	−19270	104	−19242	16	0.3	U			GS1	1.0	00Ra23	
	−19243	30			0.0	R			GS2	1.0	03Li.A	
^{202}Hg ^{35}Cl$_2$−^{198}Hg ^{37}Cl$_2$	9774.87	1.06	9774.2	0.7	−0.3	1	6	5 ^{202}Hg	H33	2.5	80Ko25	
^{202}Hg ^{35}Cl−^{200}Hg ^{37}Cl	5266.76	0.43	5267.1	0.6	0.3	1	29	25 ^{202}Hg	H33	2.5	80Ko25	
^{202}Po(α)^{198}Pb	5700.9	2.	5701.0	1.7	0.1	3					68Go.B	Z
	5701.6	3.			−0.2	3					70Ra14	Z
^{202}At(α)^{198}Bi	6355.8	3.	6353.7	1.4	−0.7	3					63Ho18	Z
	6351.7	3.			0.7	3					67Tr06	Z
	6353.2	5.			0.1	3					74Ho27	Z
	6353.9	2.			0.0	3			Ora		75Ba.B	Z
	6354	5			−0.1	3			Lvn		92Hu04	*
^{202}At^{m}(α)^{198}Bi^{m}	6259.9	2.	6258.9	1.2	−0.5	4					63Ho18	Z
	6256.8	3.			0.7	4					67Tr06	Z
	6257.2	5.			0.3	4					74Ho27	Z
	6259.0	2.			0.0	4			Ora		75Ba.B	*
	6260.0	5.			−0.2	4			Lvn		92Hu04	*
^{202}Rn(α)^{198}Po	6771.0	3.	6773.5	1.9	0.8	2					67Va17	Z
	6775.3	2.5			−0.7	2			Lvn		93Wa04	
	6773.4	7.			0.0	2			Ara		95Le04	
^{202}Fr(α)^{198}At	7397.7	15.	7389	5	−0.6	4					80Ew03	*
	7382.5	11.			0.6	4			Lvn		92Hu04	*
	7389.6	6.			−0.1	4			Jya		96En01	*
^{202}Fr^{m}(α)^{198}At^{m}	7382.5	11.	7387	5	0.4	5			Lvn		92Hu04	*
	7388.6	6.			−0.2	5			Jya		96En01	
^{202}Ra(α)^{198}Rn	8019.1	60.				6			Jya		96Le09	
^{202}Hg(d,^{3}He)^{201}Au−^{206}Pb()^{205}Tl	−979.9	3.1	−980	3	0.0	1	100	100 ^{201}Au			94Gr07	
^{201}Hg(n,γ)^{202}Hg	7754.9	0.5	7753.92	0.21	−2.0	B			BNn		75Br02	Z
	7756.4	0.5			−5.0	B			CRn		75Lo03	Z
	7753.93	0.22			−0.1	1	95	52 ^{201}Hg	Bdn		03Fi.A	
^{202}Au(β^-)^{202}Hg	3500	300	2950	170	−1.8	2					67Wa23	
	2700	200			1.2	2					72Bu05	
^{202}Pb(ε)^{202}Tl	55	20	50	15	−0.3	1	54	46 ^{202}Tl			54Hu61	
^{202}At^{n}(IT)^{202}At^{m}	391.7	0.2				5			Lvn		92Hu04	
*^{202}Pb−C$_{16.833}$	M−A=–23747(28) keV for ^{202}Pb^{m} at Eexc=2169.83 keV										NDS973	**
*^{202}At(α)^{198}Bi	E(α)=6228(5), 6070(10), 5929(10) to ground-state, 164, 303 levels										92Hu04	**
*^{202}At^{m}(α)^{198}Bi^{m}	Assignment to ^{202}At^{m} by ref. Recalibrated ,Z										92Hu04	**
*^{202}At^{m}(α)^{198}Bi^{m}	E(α)=6135(5); and 6277(5) from Atn(α)Bin, ^{202}At^{n}(IT)Atm=391.7(0.2)										92Hu04	**
*	and ^{198}Bi^{n}(IT)Bim=248.5(0.5)										92Hu04	**
*^{202}Fr(α)^{198}At	E(α)=7251(10) has a doublet structure										92Hu04	**
*^{202}Fr(α)^{198}At	E(α)=7237(8), is a doublet										92Hu04	**
*^{202}Fr(α)^{198}At	^{202}Fr E(α)'s in correlation with At daughters										96En01	**
*^{202}Fr^{m}(α)^{198}At^{m}	E(α)=7237(8), is a doublet										92Hu04	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{203}Pb−C$_{16.917}$		−26594	30	−26609	7	−0.5	U			GS2	1.0	03Li.A	
^{203}Po−C$_{16.917}$		−18581	30	−18580	28	0.0	2			GS2	1.0	03Li.A	
^{203}At−^{208}Pb$_{.976}$		9690	25	9730	13	1.6	–			MA6	1.0	01Sc41	
	ave.	9730	13			0.0	1	100	100 ^{203}At			average	
^{203}At−C$_{16.917}$		−13042	30	−13058	13	−0.5	R			GS2	1.0	03Li.A	
^{203}Fr−^{133}Cs$_{1.526}$		145205	17				2			MA8	1.0	03We.A	
^{203}Tl ^{35}Cl−^{201}Hg ^{37}Cl		4995.23	1.49	4992.0	1.3	−0.9	1	12	11 ^{203}Tl	H36	2.5	85De40	
^{203}Po(α)^{199}Pb		5496	5				3					68Go.B	*
^{203}At(α)^{199}Bi		6210.3	1.	6210.1	0.8	−0.2	2					63Ho18	Z
		6208.7	3.			0.5	2					67Tr06	Z
		6209.4	2.			0.4	2					68Go.B	Z
		6211.7	3.			−0.5	2			Ora		75Ba.B	
^{203}Rn(α)^{199}Po		6628.6	5.	6629.8	2.3	0.3	4					67Va17	Z
		6630.2	2.5			−0.1	4			Lvn		93Wa04	
		6630	10			0.0	U			Jya		95Uu01	
^{203}Rn^{m}(α)^{199}Po^{m}		6679.5	3.	6680.3	1.6	0.3	5					67Va17	Z
		6680.9	2.5			−0.2	5			Lvn		93Wa04	
		6683.9	7.			−0.5	5			Ara		95Le04	
		6679.8	3.			0.2	5			Jya		96Le09	
^{203}Fr(α)^{199}At		7275.6	5.	7260	50	−4.0	U					67Va20	Z
		7281.7	10.			−2.6	U					80Ew03	Z
		7263.4	10.			−0.8	U			Jya		94Le05	
^{203}Ra(α)^{199}Rn		7729.6	20.				5			Jya		96Le09	
^{203}Ra^{m}(α)^{199}Rn^{m}		7768.4	20.				5			Jya		96Le09	
^{203}Tl(p,t)^{201}Tl		−6240	15				2			Yal		71Ki01	
^{202}Hg(d,p)^{203}Hg−^{204}Hg()^{205}Hg		325	5	326	4	0.2	1	53	47 ^{205}Hg	Pit		72Mo12	
^{203}Tl(p,d)^{202}Tl		−5630	20	−5625	15	0.3	1	54	54 ^{202}Tl	Yal		71Ki01	
^{203}Au(β^-)^{203}Hg		2040	60	2126	3	1.4	U					94We02	
^{203}Hg(β^-)^{203}Tl		489.2	2.	492.1	1.2	1.4	–					54Th17	
		493.2	2.			−0.6	–					55Ma40	
		493.2	3.			−0.4	–					58Ni28	
	ave.	491.6	1.3			0.4	1	92	84 ^{203}Hg			average	
^{203}Pb(ε)^{203}Tl		980	20	975	6	−0.3	1	10	10 ^{203}Pb			65Le07	
^{203}Bi(β^+)^{203}Pb		3260	50	3247	22	−0.3	1	20	18 ^{203}Bi			58No30	
^{203}At(β^+)^{203}Po		5060	200	5144	29	0.4	U					87Se04	
*^{203}Po(α)^{199}Pb	E(α)=5383.8(3,Z) to 4(4) level											NDS	**
^{204}Hg−C ^{13}C ^{35}Cl$_3$ ^{37}Cl$_2$		131776.05	1.25	131775.9	0.4	−0.1	1	2	1 ^{204}Hg	H34	2.5	80Ko25	
^{204}Hg−C$_{17}$		−26505.90	0.39	−26506.1	0.4	−0.4	1	87	87 ^{204}Hg	ST2	1.0	02Bf02	
^{204}Pb−^{208}Pb$_{.981}$		−4047	21	−4052.09	0.17	−0.2	U			MA6	1.0	01Sc41	
^{204}Po−C$_{17}$		−19689	30	−19682	12	0.2	R			GS2	1.0	03Li.A	
^{204}At−C$_{17}$		−12748	30	−12749	26	0.0	–			GS2	1.0	03Li.A	
	ave.	−12752	27			0.1	1	94	94 ^{204}At			average	
^{204}Hg ^{35}Cl$_2$−^{200}Hg ^{37}Cl$_2$		11066.85	0.55	11068.1	0.5	0.9	1	13	7 ^{200}Hg	H33	2.5	80Ko25	
^{204}Hg ^{35}Cl−^{202}Hg ^{37}Cl		5800.67	0.53	5801.0	0.7	0.3	1	26	21 ^{202}Hg	H33	2.5	80Ko25	
^{204}Pb(α,^{8}He)^{200}Pb		−28043	13	−28040	13	0.3	2			INS		90Ka10	
^{204}Po(α)^{200}Pb		5484.6	1.5	5484.8	1.4	0.2	3					69Go23	*
		5486.3	3.			−0.5	3					70Ra14	Z
^{204}At(α)^{200}Bi		6069.9	3.	6069.8	1.5	0.0	2					63Ho18	Z
		6066.2	3.			1.2	2					67Tr06	Z
		6071.3	3.			−0.5	2			Ora		75Ba.B	
		6072.0	3.			−0.7	2					81Va27	Z
^{204}Rn(α)^{200}Po		6544.3	3.	6545.5	1.9	0.4	4					67Va17	Z
		6547.5	2.5			−0.8	4			Lvn		93Wa04	
		6537.4	7.			1.1	4			Ara		95Le04	
^{204}Fr(α)^{200}At		7170.4	5.	7171.3	2.5	0.2	4					67Va20	Z

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{204}Fr(α)^{200}At		7169.4	5.	7171.3	2.5	0.4	4					74Ho27	Z
		7170.6	5.			0.1	4			Lvn		92Hu04	*
		7179.0	6.			−1.3	4			Jya		94Le05	
		7167.8	7.			0.5	4			Ara		95Le04	
^{204}Fr^{m}(α)^{200}At		7218.8	8.	7221	4	0.3	U			Lvn		92Hu04	
^{204}Fr^{m}(α)^{200}At^{m}		7108.2	5.	7108.1	2.1	0.0	4					74Ho27	Z
		7105.5	3.			0.9	4			Bka		82Bo04	Z
		7108.4	5.			−0.1	4			Lvn		92Hu04	*
		7115.6	7.			−1.1	4			Jya		94Le05	*
		7114.7	7.			−0.9	4			Ara		95Le04	
^{204}Ra(α)^{200}Rn		7638.1	12.	7636	8	−0.2	5			Ara		95Le04	
		7638.1	25.			−0.1	o			Jya		95Le15	
		7634.0	10.			0.2	5			Jya		96Le09	
^{204}Pb(p,t)^{202}Pb		−6835	10	−6837	8	−0.2	1	66	66 ^{202}Pb	Yal		71Ki01	
^{204}Hg(d,^{3}He)^{203}Au−^{206}Pb()^{205}Tl		−1582.0	3.0	−1582.0	3.0	0.0	1	100	100 ^{203}Au			94Gr07	
^{204}Hg(d,t)^{203}Hg		−1242	5	−1235.2	1.7	1.4	1	12	11 ^{203}Hg	Ald		70An14	
^{203}Tl(n,γ)^{204}Tl		6656.0	0.3	6656.10	0.29	0.3	1	94	76 ^{203}Tl	MMn		74Co21	Z
		6654.88	0.14			8.7	B			Bdn		03Fi.A	
^{204}Pb(p,d)^{203}Pb		−6165	10	−6170	6	−0.5	–			Yal		71Ki01	
^{204}Pb(d,t)^{203}Pb		−2160	20	−2137	6	1.1	–			Ald		67Bj01	
^{204}Pb(p,d)^{203}Pb	ave.	−6171	9	−6170	6	0.1	1	51	51 ^{203}Pb			average	
^{204}Au(β^{-})^{204}Hg		4500	300	3940#	200#	−1.9	F					67Wa23	*
^{204}Tl(β^{-})^{204}Pb		764.24	0.31	763.76	0.18	−1.5	–					67Pa08	
		763.47	0.22			1.3	–					68Wo02	
	ave.	763.73	0.18			0.2	1	97	78 ^{204}Tl			average	
^{204}At(β^{+})^{204}Po		6220	160	6458	26	1.5	U					86Ve.B	
^{204}Fr^{n}(IT)^{204}Fr^{m}		276.1	0.5				5					Nubase	
*^{204}Po(α)^{200}Pb	Printing error in ref.: ^{204}Po not ^{206}Po. ,Z corrected											AHW	**
*^{204}Fr(α)^{200}At	E(α)=7031(5), 6916(8) to ground-state, 113 level											92Hu04	**
*^{204}Fr^{m}(α)^{200}At^{m}	E(α)=6969(5); and 7013(5) from ^{204}Fr^{n} 276.1 above ^{204}Fr^{m} to ^{200}At^{n}											95Bi.A	**
*	230.9 above ^{200}At^{m}											92Hu04	**
*^{204}Fr^{m}(α)^{200}At^{m}	E(α)=7020(7) from ^{204}Fr^{n} 276.1 above Frm to ^{200}At^{n} 230.9 above ^{200}At^{m}											95Bi.A	**
*^{204}Au(β^{-})^{204}Hg	F: reported 4 s activity does not exist											NDS87a	**
^{205}Tl−^{133}Cs$_{1.541}$		120129	11	120126.1	1.4	−0.3	U			MA8	1.0	03We.A	
^{205}Bi−C$_{17.083}$		−22559	30	−22611	8	−1.7	U			GS2	1.0	03Li.A	
^{205}Po−C$_{17.083}$		−18773	30	−18797	21	−0.8	2			GS2	1.0	03Li.A	
^{205}Fr−^{133}Cs$_{1.541}$		144293.8	9.7	144293	8	−0.1	2			MA8	1.0	03We.A	
^{205}Tl ^{35}Cl−^{203}Tl ^{37}Cl		5031.43	1.07	5033.4	0.6	0.7	–			H36	2.5	85De40	
		5032.88	1.01			0.4	–			H42	1.5	93Si05	
	ave.	5032.5	1.3			0.7	1	19	13 ^{205}Tl			average	
^{205}Po(α)^{201}Pb		5324.1	10.				3					67Ti04	
^{205}At(α)^{201}Bi		6016.3	4.	6019.5	1.7	0.8	3					63Ho18	Z
		6020.5	2.			−0.5	3					68Go.B	Z
		6018.9	5.			0.1	3					74Ho27	Z
^{205}Rn(α)^{201}Po		6386.6	3.	6390	50	0.0	5					67Va17	Z
		6386.6	6.			0.0	5					71Ho01	Z
		6385.7	2.5			0.0	5			Lvn		93Wa04	
^{205}Fr(α)^{201}At		7056.5	5.	7054.9	2.7	−0.3	3					67Va20	Z
		7052.2	5.			0.5	3					74Ho27	Z
		7057.3	5.			−0.5	3					81Ri04	Z
		7052.9	7.			0.3	3			Ara		95Le04	
^{205}Ra(α)^{201}Rn		7506.7	20.	7490	50	−0.4	F					87He10	*
		7496.6	25.			−0.2	o			Jya		95Le15	
		7486.4	20.				5			Jya		96Le09	
^{205}Ra^{m}(α)^{201}Rn^{m}		7501.7	10.	7517	20	1.5	B			Ara		95Le04	
		7522.1	25.			−0.2	o			Jya		95Le15	
		7517.0	20.				6			Jya		96Le09	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{204}Hg(d,p)^{205}Hg		3443	5	3444	4	0.2	1	53	53 ^{205}Hg	Ald		70An14	
^{205}Tl(d,t)^{204}Tl		−1288.7	0.6	−1288.7	0.5	0.0	1	61	57 ^{205}Tl	Mun		90Li40	
^{204}Pb(n,γ)^{205}Pb		6731.53	0.15	6731.67	0.11	1.0	–			ILn		83Hu13	Z
		6731.80	0.16			−0.8	–			Bdn		03Fi.A	
	ave.	6731.66	0.11			0.2	1	98	79 ^{204}Pb			average	
^{205}Pb(ε)^{205}Tl		41.4	1.1	50.5	0.5	8.3	B					78Pe08	
^{205}Bi(β^+)^{205}Pb		2701.4	10.	2708	7	0.7	–					62Bo25	
		2715.4	10.			−0.7	–					62Pe08	
	ave.	2708	7			0.0	1	100	100 ^{205}Bi			average	
$*^{205}$Ra(α)^{201}Rn	F: possibly mixture with ^{205}Ra^m(α)^{201}Rn^m											87He10	**
^{206}Bi−C$_{17.167}$		−21429	30	−21501	8	−2.4	U			GS2	1.0	03Li.A	
^{206}Po−C$_{17.167}$		−19471	30	−19519	9	−1.6	U			GS2	1.0	03Li.A	
^{206}At−C$_{17.167}$		−13305	30	−13333	22	−0.9	R			GS2	1.0	03Li.A	
^{206}Pb ^{35}Cl$_2$−^{202}Hg ^{37}Cl$_2$		9722.09	0.57	9722.4	1.2	0.3	1	73	70 ^{206}Pb	H36	2.5	85De40	
^{206}Pb ^{35}Cl−^{204}Pb ^{37}Cl		4370.72	1.17	4371.78	0.15	0.4	U			H36	2.5	85De40	
		4371.29	0.81			0.4	1	1	1 ^{204}Pb	H42	1.5	93Si05	
^{206}Po(α)^{202}Pb		5327.4	4.	5326.9	1.3	−0.1	2					67Ti04	Z
		5327.4	1.5			−0.3	2					69Go23	*
		5325.1	3.			0.6	2					70Ra14	Z
^{206}At(α)^{202}Bi		5888.4	2.	5888.4	1.9	0.0	3					68Go.B	*
		5888.4	5.			0.0	3					81Va27	*
^{206}Rn(α)^{202}Po		6381.8	3.	6383.8	1.6	0.7	4					67Va17	Z
		6384.6	3.			−0.2	4					71Go35	Z
		6384.8	2.5			−0.4	4			Lvn		93Wa04	
^{206}Fr(α)^{202}At		6925.9	7.	6923	4	−0.4	4					67Va20	*
		6918.9	7.			0.6	4					74Ho27	*
		6924.0	7.			−0.1	4			ORa		81Ri04	*
		6924.8	7.			−0.2	4			Lvn		92Hu04	*
^{206}Fr^n(α)^{202}At^n		7068.8	5.	7068	4	−0.2	6					81Ri04	Z
		7067.1	5.			0.2	6			Lvn		92Hu04	*
^{206}Ra(α)^{202}Rn		7416.3	5.	7415	4	−0.2	3					67Va22	Z
		7414.3	10.			0.1	3					87He10	
		7412.2	10.			0.3	o			Jya		95Le15	
		7406	15			0.6	o			Jya		95Uu01	
		7412.2	10.			0.3	3			Jya		96Le09	
^{206}Ac(α)^{202}Fr		7944.6	30.				5			Jya		98Es02	
^{206}Ac^n(α)^{202}Fr^m		7903.8	30.				6			Jya		98Es02	
^{204}Pb(α,d)^{206}Bi		−15798.	11.5	−15793	8	0.5	R			Pit		76Da20	
^{205}Tl(n,γ)^{206}Tl		6503.7	0.4	6503.8	0.4	0.3	1	93	84 ^{206}Tl	MMn		74Co21	Z
		6502.87	0.27			3.5	B			Bdn		03Fi.A	
^{205}Tl(^{3}He,d)^{206}Pb		1761.7	1.4	1760.3	0.5	−1.0	1	12	12 ^{205}Tl	Mun		90Li40	
^{205}Pb(n,γ)^{206}Pb		8086.66	0.06	8086.67	0.06	0.1	1	99	81 ^{205}Pb			96Ra16	Z
^{206}Pb(d,t)^{205}Pb		−1831.2	0.5	−1829.43	0.06	3.5	U			Mun		90Li40	
^{206}Bi(ε)^{206}Pb		3753	10	3758	8	0.5	2					74Go20	
^{206}At(β^+)^{206}Po		5687	150	5762	22	0.5	U					77Li16	
^{206}Fr^n(IT)^{206}Fr^m		531	2				7					81Ri04	
$*^{206}$Po(α)^{202}Pb	Printing error in ref.: ^{206}Po not ^{211}Po. ,Z corrected											AHW	**
$*^{206}$At(α)^{202}Bi	E(α)=5702.8(2,Z) to 72.4 level											NDS	**
$*^{206}$At(α)^{202}Bi	E(α)=5773.8(5,Z), 5702.8(5,Z) to ground-state, 72.4 level											NDS973	**
$*^{206}$Fr(α)^{202}At	E(α)=6793.1(5,Z); correction –2 for being a doublet											AHW	**
$*^{206}$Fr(α)^{202}At	E(α)=6786.3(5,Z); correction –2 for being a doublet											AHW	**
$*^{206}$Fr(α)^{202}At	E(α)=6791.3(5,Z); correction –2 for being a doublet											AHW	**
$*^{206}$Fr(α)^{202}At	E(α)=6792(5); correction –2 for being a doublet											AHW	**
$*^{206}$Fr^n(α)^{202}At^n	E(α)=6930(5) and 6792(7) combined with E(γ)'s 531, 391.7											92Hu04	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference
^{207}Pb ^{35}Cl$-^{205}$Tl ^{37}Cl		4417.32	1.40	4419.4	0.5	1.0	1	7	6 ^{205}Tl	H42	1.5	93Si05
^{206}Fr$^{x}-^{207}$Fr$_{.498}$ ^{205}Fr$_{.502}$		930	90	*			U			P24	2.5	82Au01
^{207}Po(α)^{203}Pb		5216.0	2.5	5215.8	2.5	0.0	1	96	59 ^{207}Po	Dba		70Af.A
^{207}At(α)^{203}Bi		5872.5	3.	5872	3	0.0	1	100	82 ^{203}Bi			69Go23 Z
^{207}Rn(α)^{203}Po		6256.3	3.	6251.1	1.6	−1.6	3					67Va20 Z
		6247.3	3.			1.3	3					71Go35 Z
		6250.4	2.5			0.3	3			Lvn		93Wa04
^{207}Fr(α)^{203}At		6907.8	5.	6900	50	−0.2	–					67Va20 Z
		6895.8	5.			0.0	–					74Ho27 Z
		6900.9	5.			−0.1	–					81Ri04 Z
	ave.	6901.5	2.9			−0.1	1	98	97 ^{207}Fr			average
^{207}Ra(α)^{203}Rn		7273.8	5.	7270	50	0.0	5					67Va22 Z
		7268.7	10.			0.1	5					87He10
		7276.7	12.			−0.1	5			Jya		95Uu01
^{207}Ra^{m}(α)^{203}Rn^{m}		7463.5	10.	7468	8	0.3	6					87He10
		7474.7	15.			−0.4	o			Jya		95Le15
		7475.7	15.			−0.5	6			Jya		96Le09
^{207}Ac(α)^{203}Fr		7864.3	25.	7840	50	−0.4	o			Jya		94Le05
		7844.9	25.				3			Jya		98Es02
^{205}Tl(t,p)^{207}Tl		4880	15	4874	5	−0.4	1	13	13 ^{207}Tl	Ald		69Ha11
^{206}Pb(n,γ)^{207}Pb		6737.85	0.15	6737.78	0.09	−0.5	–			MMn		81Ke11 Z
		6737.72	0.18			0.3	–			ILn		83Hu13 Z
		6737.74	0.17			0.2	–			Bdn		03Fi.A
	ave.	6737.78	0.10			0.0	1	97	89 ^{207}Pb			average
^{207}Hg(β^-)^{207}Tl		4815	150				2					81Jo.B
^{207}Tl(β^-)^{207}Pb		1431	8	1418	5	−1.6	1	46	45 ^{207}Tl			67Da10
^{207}Po(β^+)^{207}Bi		2907	10	2909	7	0.2	1	43	41 ^{207}Po			58Ar56
^{207}Rn(β^+)^{207}At		4617	70	4610	30	−0.1	R					75Ze.A
^{208}Pb$-^{133}$Cs$_{1.564}$		124532.0	5.6	124525.2	1.3	−1.2	U			MA8	1.0	03We.A
^{208}Po$-$C$_{17.333}$		−18710	31	−18754.3	1.9	−1.4	U			GS2	1.0	03Li.A
^{208}Pb ^{35}Cl$-^{206}$Pb ^{37}Cl		5136.93	0.41	5136.88	0.13	−0.1	1	4	2 ^{206}Pb	H42	1.5	93Si05
^{207}Fr$-^{208}$Fr$_{.498}$ ^{206}Fr$^{x}_{.502}$		−890	60	*			U			P24	2.5	82Au01
^{208}Po(α)^{204}Pb		5216.3	2.	5215.3	1.3	−0.5	2					69Go23 Z
		5214.0	3.			0.5	2					70Ra14 Z
		5215.1	2.			0.1	2					89Ma05
^{208}At(α)^{204}Bi		5750.6	3.	5751.0	2.2	0.2	3					69Go23 Z
		5751.6	3.			−0.2	3					81Va27 Z
^{208}Rn(α)^{204}Po		6269.3	4.	6260.7	1.7	−2.1	4					55Mo69Z
		6260.0	3.			0.2	4					71Go35 Z
		6257.5	5.			0.6	4					74Ho27
		6258.7	2.5			0.8	4			Lvn		93Wa04
^{208}Fr(α)^{204}At		6778.3	5.	6790	40	0.1	–					67Va20 Z
		6767.7	5.			0.3	–					74Ho27 Z
		6767.7	5.			0.3	–					81Ri04 Z
	ave.	6771.2	2.9			0.3	1	76	70 ^{208}Fr			average
^{208}Ra(α)^{204}Rn		7273.1	5.				5					67Va22 Z
^{208}Ac(α)^{204}Fr		7720.8	15.	7730	50	0.1	5			Jya		94Le05
		7769.7	40.			−0.9	5			JAa		96Ik01
^{208}Ac^{m}(α)^{204}Fr^{n}		7892.1	20.	7899	14	0.3	6			Dba		94An01
		7910.4	20.			−0.6	6			Jya		94Le05
		7871.7	50.			0.5	6			JAa		96Ik01
^{207}Pb(n,γ)^{208}Pb		7367.95	0.15	7367.87	0.05	−0.5	–			MMn		81Ke11 Z
		7367.96	0.10			−0.9	–					81Su.A Z
		7367.81	0.11			0.5	–			ILn		83Hu13 Z
		7367.774	0.098			1.0	–					98Be19 Z
		7367.92	0.16			−0.3	–			Bdn		03Fi.A
	ave.	7367.87	0.05			0.0	1	99	89 ^{208}Pb			average

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{208}Tl(β^-)^{208}Pb		4989.7	7.	4999.0	1.7	1.3	U					48Ma29	
		4997.7	10.			0.1	U					54El24	
^{209}Bi–^{133}Cs$_{1.571}$		128937.6	4.7	128933.7	1.6	−0.8	U			MA8	1.0	03We.A	
^{209}Fr–^{226}Ra$_{.925}$		−27584	36	−27551	16	0.9	–			MA3	1.0	92Bo28	
	ave.	−27550	16			−0.1	1	99	99 ^{209}Fr			average	
^{209}Bi ^{35}Cl–^{207}Pb ^{37}Cl		7454.13	1.51	7451.9	0.8	−0.6	U			H36	2.5	85De40	
^{208}Fr–^{209}Fr$_{.498}$ ^{207}Fr$_{.502}$		720	60	640	50	−0.5	1	12	9 ^{208}Fr	P24	2.5	82Au01	
^{209}Bi(α)^{205}Tl		3137.0	2.2	3137.2	0.8	0.1	1	12	10 ^{209}Bi			03De11	
^{209}Po(α)^{205}Pb		4974	5	4979.2	1.4	1.0	2					66Ha29	*
		4980.0	2.			−0.4	2					69Go23	*
		4979.3	2.			0.0	2					89Ma05	*
^{209}At(α)^{205}Bi		5757.2	2.	5757.1	2.0	0.0	1	100	100 ^{209}At			69Go23	Z
^{209}Rn(α)^{205}Po		6157.5	3.	6155.5	2.0	−0.6	3					71Go35	Z
		6154.2	2.5			0.5	3			Lvn		93Wa04	
^{209}Fr(α)^{205}At		6777.7	5.	6777	4	0.0	2					67Va20	Z
		6777.3	5.			0.0	2					74Ho27	Z
^{209}Ra(α)^{205}Rn		7147.0	5.	7144	4	−0.6	6					67Va22	Z
		7141	5			0.6	6			GSa		03He06	*
^{209}Ac(α)^{205}Fr		7733.3	15.	7730	50	−0.1	3					68Va04	
		7738.4	20.			−0.2	3			Dba		94An01	
		7729.2	15.			0.0	3			Jya		94Le05	
		7728.2	40.			0.0	U			JAa		96Ik01	
		7725.1	10.			0.1	3			GSa		00He17	
^{209}Th(α)^{205}Ra		8238.0	50.				6			JAa		96Ik01	
^{209}Bi(p,t)^{207}Bi		−5864.8	2.0	−5864.9	2.0	0.0	1	98	97 ^{207}Bi	MSU		76Be.B	*
^{208}Pb(d,p)^{209}Pb		1700	10	1712.7	1.3	1.3	U					67Mu16	
		1718	4			−1.3	1	11	11 ^{209}Pb	Pit		72Ko03	*
^{209}Bi(γ,n)^{208}Bi		−7460	2	−7459.8	1.9	0.1	2			McM		79Ba06	
^{209}Bi(d,t)^{208}Bi		−1201	5	−1202.5	1.9	−0.3	2			ANL		64Er06	
^{209}Pb(β^-)^{209}Bi		644.6	1.2	644.0	1.1	−0.5	1	91	87 ^{209}Pb			72Be44	
^{209}Rn(β^+)^{209}At		3928	40	3951	21	0.6	R					74Vy01	
*^{209}Po(α)^{205}Pb	E(α)=4876.8(5,Z) 80% to 2.3 level											NDS	**
*^{209}Po(α)^{205}Pb	E(α)=4882.8(2,Z) 80% to 2.3 level											NDS	**
*^{209}Po(α)^{205}Pb	E(α)=4882.6(2.0), 4622(5) to ground-state(+80% 2.3), 262.8 level											89Ma05	**
*^{209}Ra(α)^{205}Rn	E(α)=7003(10) to ground-state, 6625(5) to 387.0 level											03He06	**
*^{209}Bi(p,t)^{207}Bi	Q−Q(^{208}Pb(p,t))=–241(2,Be), Q(Pb)=–5623.82(0.20)											AHW	**
*^{208}Pb(d,p)^{209}Pb	Q−Q(^{209}Bi(d,p))=–662(4),Q(Bi)=2380.01(0.14)											AHW	**
^{210}Fr–^{226}Ra$_{.929}$		−27198	24	−27198	24	0.0	1	98	98 ^{210}Fr	MA3	1.0	92Bo28	
^{209}Fr–^{210}Fr$_{.498}$ ^{208}Fr$_{.502}$		−770	50	−765	29	0.0	U			P24	2.5	82Au01	
^{210}Pb(α)^{206}Hg		3792.4	20.				2					62Ka27	
^{210}Bi(α)^{206}Tl		5042.8	2.	5036.4	0.8	−3.2	B					60Wa14	*
		5037.3	1.1			−0.8	1	50	34 ^{210}Bi			76Tu.A	*
^{210}Po(α)^{206}Pb		5407.53	0.07	5407.45	0.07	0.0	1	100	98 ^{210}Po			73Go39	Z
^{210}At(α)^{206}Bi		5630.9	1.5	5631.2	1.0	0.2	3					69Go23	*
		5631.4	1.3			−0.2	3					81Va27	*
^{210}Rn(α)^{206}Po		6162.1	3.	6158.9	2.2	−1.0	3					55Mo69	Z
		6155.9	3.			1.0	3					71Go35	Z
^{210}Fr(α)^{206}At		6699.9	5.	6650	30	−1.0	B					67Va20	
^{210}Ra(α)^{206}Rn		7156.6	5.	7152	4	−0.9	5					67Va22	Z
		7147	5			0.9	5			GSa		03He06	*
^{210}Ac(α)^{206}Fr		7607.2	8.	7610	50	0.0	5					68Va04	
		7607.2	10.			0.0	5			GSa		00He17	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{210}Th(α)^{206}Ra		8052.7	17.				4			Jya		95Uu01	
		7962.0	50.	8053	17	1.8	B			JAa		96Ik01	*
^{209}Bi(n,γ)^{210}Bi		4604.5	0.3	4604.63	0.08	0.4	–					71Mo03	
		4604.68	0.14			−0.3	–			MMn		83Ts01	Z
		4604.63	0.10			0.0	–			Bdn		03Fi.A	
	ave.	4604.64	0.08			0.0	1	100	86 ^{209}Bi			average	
^{210}Pb(β^-)^{210}Bi		63.5	0.5	63.5	0.5	0.0	1	100	98 ^{210}Pb			67Ha03	
^{210}Bi(β^-)^{210}Po		1160.5	1.5	1161.3	0.8	0.5	–					62Da03	
		1161.5	1.5			−0.1	–					67Hs01	
	ave.	1161.0	1.1			0.3	1	52	50 ^{210}Bi			average	
^{210}At(ε)^{210}Po		3870	30	3981	8	3.7	B					63Sc15	
*^{210}Bi(α)^{206}Tl	E(α)=4685.3(2,Z), 4648.3(2,Z) to 265.83, 304.90 levels											NDS	**
*	Their ^{214}Bi(α) may be high too											AHW	**
*^{210}Bi(α)^{206}Tl	E(α)=4946(1), 4909(1) from ^{210}Bi^m at 271.31											NDS921	**
*	to 265.83, 304.90 levels											NDS909	**
*^{210}At(α)^{206}Bi	E(α)=5523.8, 5464.8, 5441.8(1.5,Z) to ground-state, 59.90, 82.82 lvls											NDS909	**
*^{210}At(α)^{206}Bi	E(α)=5524.1, 5465.3, 5442.8(1.3,Z) to ground-state, 59.90, 82.82 lvls											NDS909	**
*^{210}Ra(α)^{206}Rn	E(α)=7003(10) to ground-state, 6447(5) to 574.9 level											03He06	**
*^{210}Th(α)^{206}Ra	Low energy; may be escape											96Ik01	**
^{211}Fr−^{226}Ra$_{.934}$		−28200	25	−28196	23	0.2	1	82	81 ^{211}Fr	MA3	1.0	92Bo28	
^{207}Fr−^{211}Fr$_{.327}$ ^{205}Fr$_{.673}$		−930	100	−600	50	1.3	U			P24	2.5	82Au01	
^{208}Fr−^{211}Fr$_{.394}$ ^{206}Fr$^x_{.606}$		−260	50	*			U			P24	2.5	82Au01	
^{210}Fr−^{211}Fr$_{.498}$ ^{209}Fr$_{.502}$		580	50	617	26	0.3	U			P24	2.5	82Au01	
^{211}Bi(α)^{207}Tl		6749.5	0.7	6750.3	0.5	1.2	–					61Ry02	Z
		6751.1	0.6			−1.2	–					71Gr17	Z
	ave.	6750.4	0.5			−0.1	1	100	58 ^{211}Bi			average	
^{211}Po(α)^{207}Pb		7594.7	0.5				2					62Wa18	Z
^{211}Po^m(α)^{207}Pb		9056.8	5.				2					82Bo04	
^{211}At(α)^{207}Bi		5979.4	2.	5982.4	1.3	1.5	2					69Go23	Z
		5981.6	3.			0.3	2					82Bo04	*
		5985.9	2.			−1.7	2					85La17	Z
^{211}Rn(α)^{207}Po		5967.9	2.	5965.4	1.4	−1.2	2					55Mo69	Z
		5963.1	2.			1.2	2					71Go35	Z
^{211}Fr(α)^{207}At		6660.3	5.	6660	5	0.0	1	99	82 ^{207}At			67Va20	Z
^{211}Ra(α)^{207}Rn		7045.3	5.	7043	4	−0.5	4					67Va22	Z
		7040	5			0.5	4			GSa		03He06	*
^{211}Ac(α)^{207}Fr		7624.8	8.	7620	50	−0.1	2					68Va04	
		7616.7	10.			0.1	2			GSa		00He17	
^{211}Th(α)^{207}Ra		7942.9	14.				6			Jya		95Uu01	
^{211}Pb(β^-)^{211}Bi		1378	8	1367	6	−1.4	1	47	42 ^{211}Bi			65Co06	
*^{211}At(α)^{207}Bi	Recalibrated as in ref.											91Ry01	**
*^{211}Ra(α)^{207}Rn	Average of E(α)=6907(5) and several branches to known levels											03He06	**
^{212}Fr−^{226}Ra$_{.938}$		−27631	28	−27632	28	0.0	1	97	97 ^{212}Fr	MA3	1.0	92Bo28	
^{209}Fr−^{212}Fr$_{.563}$ ^{205}Fr$_{.437}$		−1270	70	−1205	22	0.4	U			P24	2.5	82Au01	
^{206}Fr^x−^{212}Fr$_{.139}$ ^{205}Fr$_{.861}$		340	130	*			U			P24	2.5	82Au01	
^{207}Fr−^{212}Fr$_{.163}$ ^{206}Fr$^x_{.837}$		−1150	70	*			U			P24	2.5	82Au01	
^{212}Bi(α)^{208}Tl		6207.22	0.04	6207.262	0.028	2.9	o			BIP		61Ry02	Z
		6207.09	0.08			2.1	o			BIP		69Gr28	*
		6207.262	0.028				2			BIP		72Go.A	*
^{212}Bi^m(α)^{208}Tl		6458.1	30.				3					78Ba44	
^{212}Po(α)^{208}Pb		8953.85	0.31	8954.12	0.11	1.1	–					71De52	Z
		8954.25	0.12			−0.4	–					74Hu15	Z
	ave.	8954.12	0.11			0.0	1	100	92 ^{212}Po			average	
^{212}Po^m(α)^{208}Pb		11874.6	20.	11865	12	−0.5	2					62Pe15	
		11859.3	15.			0.4	2					75Fr.B	
^{212}At(α)^{208}Bi		7829.0	9.	7824	7	−0.5	3					70Re02	
		7817.8	10.			0.6	3					96Li37	
^{212}At^m(α)^{208}Bi		8049.3	10.	8050	6	0.1	3					68Va18	
		8052.3	9.			−0.2	3					70Re02	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{212}At$^{m}(\alpha)^{208}$Bi		8049.2	10.	8050	6	0.1	3					96Li37	
^{212}Rn$(\alpha)^{208}$Po		6392.3	5.	6385.0	2.6	−1.4	3					55Mo69	Z
		6382.5	3.			0.9	3					71Go35	Z
^{212}Fr$(\alpha)^{208}$At		6531.3	3.	6528.9	1.8	−0.8	2					66Va.A	Z
		6528.0	3.			0.3	2					81Va27	
		6527.5	3.			0.5	2					82Bo04	∗
^{212}Ra$(\alpha)^{208}$Rn		7030.0	5.	7031.6	1.7	0.3	5					67Va22	Z
		7034.0	5.			−0.4	5					74Ho27	Z
		7032.2	2.			−0.3	5					82Bo04	Z
		7028	5			0.7	5			GSa		03He06	∗
^{212}Ac$(\alpha)^{208}$Fr		7521.2	8.	7520	50	0.0	2					68Va04	
		7515.1	10.			0.1	2			GSa		00He17	
^{212}Th$(\alpha)^{208}$Ra		7952.3	10.				6					80Ve01	
^{212}Pa$(\alpha)^{208}$Ac		8429.4	30.				6			JAa		97Mi03	
^{212}Pb$(\beta^-)^{212}$Bi		569.3	2.5	569.9	1.9	0.2	–					48Ma30	
		576.6	5.			−1.3	–					58Se71	
	ave.	570.8	2.2			−0.4	1	73	46 ^{212}Pb			average	
^{212}Bi$(\beta^-)^{212}$Po		2256	3	2252.1	1.7	−1.3	–					48Fe09	
		2250.5	2.5			0.6	–					48Ma30	
	ave.	2252.8	1.9			−0.3	1	80	73 ^{212}Bi			average	
∗^{212}Bi$(\alpha)^{208}$Tl	E(α)=6089.86(0.08,Z), 6050.57(0.07,Z) to ground-state, 39.857 level											NDS925	∗∗
∗^{212}Bi$(\alpha)^{208}$Tl	E(α)=6089.883(0.037,Z), 6050.837(0.028,Z) to ground-state, 39.857 lvl											72Go.A	∗∗
∗^{212}Fr$(\alpha)^{208}$At	E(α)=6341(3) (recalibrated as in ref.) to 63.70 level											91Ry01	∗∗
∗^{212}Ra$(\alpha)^{208}$Rn	E(α)=6898(5) to ground-state, 6269(5) to 635.1 level											03He06	∗∗
^{207}Fr−^{213}Fr$_{.324}$ ^{204}Fr$_{.676}$		−2540	330	−2100	60	0.5	U			P24	2.5	82Au01	
^{208}Fr−^{213}Fr$_{.279}$ ^{206}Fr$^{x}_{.721}$		−700	60	∗			U			P24	2.5	82Au01	
^{209}Fr−^{213}Fr$_{.327}$ ^{207}Fr$_{.673}$		−670	60	−700	40	−0.2	U			P24	2.5	82Au01	
^{209}Fr−^{213}Fr$_{.196}$ ^{208}Fr$_{.804}$		−980	60	−930	40	0.3	1	7	6 ^{208}Fr	P24	2.5	82Au01	
^{211}Fr−^{213}Fr$_{.330}$ ^{210}Fr$_{.670}$		−830	60	−744	26	0.6	U			P24	2.5	82Au01	
^{212}Fr−^{213}Fr$_{.498}$ ^{211}Fr$_{.502}$		270	50	317	28	0.4	U			P24	2.5	82Au01	
^{213}Bi$(\alpha)^{209}$Tl		5982.6	6.				2					64Gr11	
^{213}Po$(\alpha)^{209}$Pb		8537.1	5.	8536.1	2.6	−0.2	–					64Va20	Z
		8536.5	3.			−0.1	–					82Bo04	Z
	ave.	8536.6	2.6			−0.2	1	95	93 ^{213}Po			average	
^{213}At$(\alpha)^{209}$Bi		9254.2	12.	9254	5	0.0	2					70Bo13	
		9254.2	5.			0.0	2			Lvn		87De.A	
^{213}Rn$(\alpha)^{209}$Po		8245.1	8.	8243	5	−0.3	3					67Va20	
		8240.0	10.			0.3	3					70Va13	
		8242	10			0.1	3			GSa		00He17	∗
^{213}Fr$(\alpha)^{209}$At		6904.0	5.	6904.9	1.8	0.2	–					67Va20	Z
		6908.0	5.			−0.6	–					74Ho27	Z
		6904.6	2.			0.2	–					82Bo04	Z
	ave.	6904.9	1.8			0.0	1	100	100 ^{213}Fr			average	
^{213}Ra$(\alpha)^{209}$Rn		6860.3	5.	6861	4	0.2	4					67Va22	∗
		6862.4	5.			−0.2	4					76Ra37	∗
^{213}Ra$^{m}(\alpha)^{209}$Rn		8630.4	5.				4					76Ra37	
^{213}Ac$(\alpha)^{209}$Fr		7505.2	8.	7500	50	−0.1	2					68Va04	
		7497.0	10.			0.0	o			GSa		00He17	
		7497.0	5.			0.0	2			GSa		02He.A	
^{213}Th$(\alpha)^{209}$Ra		7841.5	10.	7840	50	−0.1	7					68Va18	
		7836.5	10.			0.0	7					80Ve01	
^{213}Pa$(\alpha)^{209}$Ac		8393.9	15.				4			GSa		00He17	
^{213}Bi$(\beta^-)^{213}$Po		1430	10	1423	5	−0.7	1	29	22 ^{213}Bi			68Va17	
∗^{213}Rn$(\alpha)^{209}$Po	E(α)=8088(10), 7550(15) to ground-state, 540.3 level											00He17	∗∗
∗^{213}Ra$(\alpha)^{209}$Rn	E(α)=6730.7, 6623.7, 6520.7(3,Z) to ground-state, 110.1, 214.7 levels											NDS918	∗∗
∗^{213}Ra$(\alpha)^{209}$Rn	E(α)=6731.9, 6624.9, 6523.9(5,Z) to ground-state, 110.1, 214.7 levels											NDS918	∗∗

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{214}Ra−^{133}Cs$_{1.609}$	152235	22	152236	10	0.0	R			MA8	1.0	03We.A	
^{214}Bi(α)^{210}Tl	5621.3	3.0				2					91Ry01	*
^{214}Po(α)^{210}Pb	7833.54	0.06	7833.46	0.06	0.0	1	100	98 ^{214}Po			71Gr17	Z
^{214}At(α)^{210}Bi	8987.2	4.				2					82Bo04	Z
^{214}At^{m}(α)^{210}Bi	9046.4	8.				2					82Ew01	
^{214}At^{n}(α)^{210}Bi	9220.8	5.				2					82Ew01	*
^{214}Rn(α)^{210}Po	9212.6	20.	9208	9	−0.2	2					70To07	
	9207.5	10.			0.1	2					70Va13	
^{214}Fr(α)^{210}At	8585.5	8.	8589	4	0.4	4					68Va18	*
	8590.9	5.			−0.5	4					70To18	*
	8583.8	10.			0.5	4					89An.A	
^{214}Fr^{m}(α)^{210}At	8711.7	8.	8712	4	0.0	4					68Va04	Z
	8711.7	5.			0.0	4					70To18	*
^{214}Ra(α)^{210}Rn	7271.7	5.	7273	3	0.4	4					67Va22	Z
	7275.6	5.			−0.4	4					74Ho27	Z
	7273.2	10.			0.0	4			GSa		00He17	*
^{214}Ac(α)^{210}Fr	7351.7	5.	7350	3	−0.3	2					68Va04	Z
	7347.6	10.			0.3	2					89An13	
	7347.6	10.			0.3	o			GSa		00He17	*
	7349.6	5.			0.1	2			GSa		02He.A	
^{214}Th(α)^{210}Ra	7828.6	10.	7826	7	−0.3	6					68Va18	
	7823.5	10.			0.3	6					80Ve01	
^{214}Pa(α)^{210}Ac	8270.9	15.				6			GSa		00He17	
^{214}Pb(β^-)^{214}Bi	1024	20	1019	11	−0.3	1	32	31 ^{214}Bi			52Be78	*
^{214}Bi(β^-)^{214}Po	3260	30	3270	11	0.3	–					56Da06	
	3275	15			−0.4	–					60Lu07	
ave.	3272	13			−0.2	1	69	69 ^{214}Bi			average	
*^{214}Bi(α)^{210}Tl	Recommended to replace the following E(α):										91Ry01	**
*	E(α)=5510.5(1.0)										34Le01	**
*	E(α)=5515.8(3.0)										60Wa14	**
*^{214}At^{n}(α)^{210}Bi	E(α)=8782(5) to 271.2 level										NDS	**
*^{214}Fr(α)^{210}At	E(α)=8425.5, 8352.5(8,Z) to ground-state, 72.7 level										NDS81c	**
*^{214}Fr(α)^{210}At	E(α)=8428.3, 8360.3(5,Z) to ground-state, 72.7 level										NDS81c	**
*^{214}Fr^{m}(α)^{210}At	E(α)=8546.8, 8477.8(5,Z) to ground-state, 72.7 level										NDS81c	**
*^{214}Ra(α)^{210}Rn	E(α)=7137(10), 6505(15) to ground-state, 641.9 level										00He17	**
*^{214}Ac(α)^{210}Fr	E(α)=7210(10), 7080(15) to ground-state, 138.6 level										00He17	**
*^{214}Pb(β^-)^{214}Bi	E$^-$=670(20) to 351.92 level, and another branch										NDS	**
^{215}Bi−^{133}Cs$_{1.617}$	154654	16				2			MA8	1.0	03We.A	
^{215}Po(α)^{211}Pb	7526.45	0.8	7526.3	0.8	−0.1	1	99	94 ^{211}Pb			71Gr17	Z
^{215}At(α)^{211}Bi	8178.5	4.				2					82Bo04	Z
^{215}Rn(α)^{211}Po	8834.7	20.	8839	8	0.2	3					69Ha32	
	8839.8	8.			−0.1	3					70Va13	
^{215}Fr(α)^{211}At	9543.0	15.	9540	7	−0.2	3					70Bo13	
	9532.7	10.			0.8	3					74No02	
	9547.1	10.			−0.6	3					84De16	
^{215}Ra(α)^{211}Rn	8862.7	5.	8864	3	0.3	3					68Va18	Z
	8865.5	5.			−0.2	3					70To18	Z
	8865.3	10.			−0.1	3			GSa		00He17	
^{215}Ac(α)^{211}Fr	7748.4	5.	7744	4	−0.8	2					68Va04	Z
	7746	10			−0.2	o			GSa		00He17	*
	7740.3	5.			0.8	2			GSa		02He.A	
^{215}Th(α)^{211}Ra	7664.9	8.	7665	6	0.1	5					68Va18	
	7667.0	10.			−0.1	5					89He03	
	7664	15			0.1	5			GSa		00He17	*
^{215}Pa(α)^{211}Ac	8238.6	15.	8240	50	0.1	3					79Sc09	
	8244.7	15.			−0.1	3			GSa		00He17	
*^{215}Ac(α)^{211}Fr	E(α)=7602(10), 7026(15), 6960(15) to ground-state, 583.2, 652.82 lvls										NDS915	**
*^{215}Th(α)^{211}Ra	E(α)=7520(15), 7387(15), 7336(15) to ground-state, 133.6, 192.4 lvls										00He17	**

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference
^{216}Bi−^{133}Cs$_{1.624}$	159852	12				2			MA8	1.0	03We.A
^{216}Po(α)^{212}Pb	6906.44	0.5	6906.3	0.5	−0.1	1	99	54 ^{212}Pb			71Gr17 Z
^{216}At(α)^{212}Bi	7949.7	3.	7950	3	0.0	1	100	100 ^{216}At			82Bo04 Z
^{216}Rn(α)^{212}Po	8199.2	10.	8200	7	0.1	2					61Ru06
	8201.2	10.			−0.1	2					70Va13
^{216}Fr(α)^{212}At	9175.3	12.				4					70Bo13
^{216}Ra(α)^{212}Rn	9525.8	8.				4					73No09
^{216}Ac(α)^{212}Fr	9243.3	8.	9235	6	−1.0	2					70To18 Z
	9223.1	10.			1.2	2			GSa		00He17
^{216}Ac^{m}(α)^{212}Fr	9280.0	5.	9279	4	−0.2	2					70To18 Z
	9284	10			−0.5	o			GSa		00He17 *
	9278.2	5.			0.2	2			GSa		02He.A
^{216}Th(α)^{212}Ra	8070.7	8.	8071	6	0.0	6					68Va18
	8071	10			0.0	6			GSa		00He17 *
^{216}Th^{m}(α)^{212}Ra	10099.4	20.	10113	12	0.6	6					83Hi08
	10107.4	40.			0.1	6					93An07
	10120.8	15.			−0.5	6			GSa		00He17
^{216}Pa(α)^{212}Ac	8013.7	20.	8097	15	1.7	B					79Sc09
	8110.5	50.			−0.3	U			JAa		98Ik01
	8097	15				3			GSa		00He17 *
*^{216}Ac^{m}(α)^{212}Fr	E(α)=9110(10), 9026(15), 8586(15) to ground-state, 82.4, 542.2 levels										00He17 **
*^{216}Th(α)^{212}Ra	E(α)=7923(10), 7302(15) to ground-state, 618.3 level										00He17 **
*^{216}Pa(α)^{212}Ac	E(α)=7948(15), 7815(15) to ground-state, 133.6 level										00He17 **
^{217}Po(α)^{213}Pb	6660.3	4.				4					77Vy02 Z
^{217}At(α)^{213}Bi	7200.3	3.	7201.3	1.2	0.4	–					60Vo05 Z
	7200.3	2.			0.5	–					62Wa28 Z
	7204.6	5.			−0.6	–					64Va20 Z
	7193.1	5.			1.6	–			Dba		77Vy02 Z
	7204.0	2.			−1.3	–			Bka		82Bo04
ave.	7201.4	1.2			−0.1	1	99	78 ^{213}Bi			average
^{217}Rn(α)^{213}Po	7887.5	4.	7887.1	2.9	−0.1	2					61Ru06 Z
	7886.9	4.			0.1	2					82Bo04 Z
^{217}Fr(α)^{213}At	8471.5	8.	8469	4	−0.3	3					70Bo13
	8468.4	5.			0.2	3			Lvn		87De.A
^{217}Ra(α)^{213}Rn	9159.1	8.	9161	6	0.2	4					70To07
	9163.2	10.			−0.2	4					70Va13
^{217}Ac(α)^{213}Fr	9831.6	10.				2					73No09
^{217}Ac^{m}(α)^{213}Fr	11843.8	17.				2					85De14
^{217}Th(α)^{213}Ra	9424.1	10.	9433	4	0.9	5					68Va18
	9424.1	20.			0.5	U					73Ha32
	9421.1	15.			0.8	U					00Ni02
	9442	15			−0.6	U			GSa		00He17 *
	9435.6	5.			−0.5	5			GSa		02He29 *
^{217}Pa(α)^{213}Ac	8486.7	10.	8489	4	0.2	3					68Va18
	8489.8	15.			−0.1	U					79Sc09
	8486.7	50.			0.0	U			JAa		98Ik01
	8490.8	15.			−0.1	U			GSa		00He17
	8489.3	5.			−0.1	3			GSa		02He29 *
^{217}Pa^{m}(α)^{213}Ac	10351	20	10349	5	−0.1	U					79Sc09
	10330.8	50.			0.4	U			JAa		98Ik01
	10346.1	15.			0.2	o			GSa		00He17
	10349.1	5.				3			GSa		02He29 *
^{217}U(α)^{213}Th	8155.6	20.				8					00Ma65
*^{217}Th(α)^{213}Ra	E(α)=9268(15), 8731(15), 8459(15) to ground-state, 546.35, 822.7 lvls										00He17 **
*^{217}Th(α)^{213}Ra	E(α)=9261(5), 8725(5), 8455(5) to ground-state, 546.35, 822.7 levels										02He29 **
*^{217}Pa(α)^{213}Ac	E(α)=8337(5), 7873(5), 7728(5), 7710(5) to gs,466.1,612.5,634.3 lvls										02He29 **
*^{217}Pa^{m}(α)^{213}Ac	Average of 5 E(α)'s to known levels										02He29 **

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{218}Po(α)^{214}Pb		6114.76	0.09	6114.68	0.09	0.0	1	100	99 ^{214}Pb			71Gr17	Z
^{218}At(α)^{214}Bi		6874	3				2					58Wa.A	*
^{218}Rn(α)^{214}Po		7265.0	5.	7262.5	1.9	−0.5	–					56As38	Z
		7262.4	2.			0.1	–					82Bo04	Z
	ave.	7262.7	1.9			−0.1	1	96	94 ^{218}Rn			average	
^{218}Fr(α)^{214}At		8014.0	2.				3					82Bo04	Z
^{218}Fr^{m}(α)^{214}At		8099.9	5.	8100	4	0.1	3					82Ew01	Z
		8100.9	5.			−0.1	3					99Sh03	
^{218}Ra(α)^{214}Rn		8549.1	8.	8546	6	−0.4	3					70To07	
		8541.0	10.			0.5	3					70Va13	
^{218}Ac(α)^{214}Fr		9377.4	15.				5					70Bo13	
^{218}Th(α)^{214}Ra		9861.5	20.	9849	9	−0.6	5					73Ha32	
		9846.1	10.			0.3	5					73No09	
^{218}Pa(α)^{214}Ac		9794.1	20.	9815	10	0.4	F					79Sc09	*
		9815	10				3			GSa		00He17	*
^{218}U(α)^{214}Th		8786.6	25.				7					92An04	
*^{218}At(α)^{214}Bi	E(α)=6696.3(3.0,Z) to 53.20 level											NDS	**
*^{218}Pa(α)^{214}Ac	E(α)=9614(20) probably pile-up with e$^-$											00He17	**
*^{218}Pa(α)^{214}Ac	E(α)=9544(10) to 91.8 level											00He17	**
^{219}At(α)^{215}Bi		6390.9	50.	6324	15	−1.3	U					53Hy83	
^{219}Rn(α)^{215}Po		6946.21	0.3	6946.1	0.3	−0.1	1	100	95 ^{215}Po			71Gr17	Z
^{219}Fr(α)^{215}At		7448.7	2.0	7448.5	1.8	−0.1	3					68Ba73	Z
		7448.2	4.			0.1	3					82Bo04	Z
^{219}Ra(α)^{215}Rn		8138.0	3.				4					94Sh02	
^{219}Ac(α)^{215}Fr		8826.5	10.				4					70Bo13	
^{219}Th(α)^{215}Ra		9514.1	20.				4					73Ha32	
^{219}Pa(α)^{215}Ac		10084.6	50.				3					87Fa.A	
^{219}U(α)^{215}Th		9860.4	40.				6					93An07	
^{210}Fr−^{220}Fr$_{.159}$ ^{208}Fr$_{.841}$		−2930	60	−2930	40	0.0	1	9	7 ^{208}Fr	P24	2.5	82Au01	
^{211}Fr−^{220}Fr$_{.240}$ ^{208}Fr$_{.761}$		−4850	70	−4890	40	−0.2	1	5	4 ^{208}Fr	P24	2.5	82Au01	
^{212}Fr−^{220}Fr$_{.321}$ ^{208}Fr$_{.679}$		−5450	60	−5410	40	0.2	1	7	4 ^{208}Fr	P24	2.5	82Au01	
^{212}Fr−^{220}Fr$_{.263}$ ^{209}Fr$_{.738}$		−3730	60	−3776	28	−0.3	U			P24	2.5	82Au01	
^{213}Fr−^{220}Fr$_{.352}$ ^{209}Fr$_{.649}$		−5170	50	−5146	12	0.2	U			P24	2.5	82Au01	
^{212}Fr−^{220}Fr$_{.193}$ ^{210}Fr$_{.808}$		−3160	60	−3050	30	0.7	U			P24	2.5	82Au01	
^{220}At(α)^{216}Bi		6053.3	6.				3					89Bu09	
^{220}Rn(α)^{216}Po		6404.75	0.10	6404.67	0.10	0.0	1	100	56 ^{216}Po			71Gr17	Z
^{220}Fr(α)^{216}At		6799.0	2.	6800.7	1.9	0.9	–					68Ba.A	*
		6811.6	5.			−2.2	–					74Ho27	*
	ave.	6800.7	1.9			0.0	1	100	100 ^{220}Fr			average	
^{220}Ra(α)^{216}Rn		7593.3	10.	7592	6	−0.1	3					61Ru06	
		7595.3	10.			−0.3	3					70Va13	
		7598.3	20.			−0.3	3			Dbb		90An19	
		7587.2	10.			0.5	3			GSa		00He17	
^{220}Ac(α)^{216}Fr		8347.1	10.	8348	4	0.1	5					70Bo13	
		8348	5			0.0	5					97Sh09	*
^{220}Th(α)^{216}Ra		8953.1	20.				5					73Ha32	
^{220}Pa(α)^{216}Ac		9829.1	50.				3					87Fa.A	
*^{220}Fr(α)^{216}At	E(α)=6675.2, 6631.0, 6570.2(2,Z) to ground-state, 45.0, 106.9 levels											NDS869	**
*^{220}Fr(α)^{216}At	E(α)=6687.5, 6642.5, 6583.5(2,Z) to ground-state, 45.0, 106.9 levels											NDS869	**
*^{220}Ac(α)^{216}Fr	E(α)=7792, 7855 to 409.3, 349.3 levels											NDS971	**
^{211}Fr−^{221}Fr$_{.159}$ ^{209}Fr$_{.841}$		−3080	60	−3099	24	−0.1	U			P24	2.5	82Au01	
^{221}Rn(α)^{217}Po		6146.8	3.				3					77Vy02	Z
^{221}Fr(α)^{217}At		6457.3	2.0	6457.8	1.4	0.2	–					62Wa28	*
		6458.5	2.0			−0.4	–					68Le07	*
	ave.	6457.9	1.4			−0.1	1	99	79 ^{217}At			average	
^{221}Ra(α)^{217}Rn		6883.7	5.	6880.4	2.0	−0.7	3					61Ru06	*
		6881.3	3.			−0.3	3					95Ch74	*

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{221}Ra(α)^{217}Rn		6878.3	3.	6880.4	2.0	0.7	3					97Li23	*
^{221}Ac(α)^{217}Fr		7786.2	10.	7780	50	−0.1	4					70Bo13	
		7782.1	5.			0.0	4			Lvn		87De.A	
		7791.3	15.			−0.2	4					92An.A	
^{221}Th(α)^{217}Ra		8628.5	5.	8626	4	−0.5	5					70To07	Z
		8626.0	10.			0.0	5					70Va13	Z
		8626.4	10.			−0.1	5			Dbb		90An19	
		8614.2	10.			1.1	5			GSa		00He17	
^{221}Pa(α)^{217}Ac		9247.7	30.				3					89Mi17	
*^{221}Fr(α)^{217}At	E(α)=6341.1(2,Z), 6125.1(3,Z) to ground-state, 217.6 level											NDS916	**
*^{221}Fr(α)^{217}At	E(α)=6341.3(2,Z), 6127.2(3,Z) to ground-state, 217.6 level											NDS916	**
*^{221}Ra(α)^{217}Rn	E(α)=6761.2, 6668.2, 6613.2, 6591.2(5,Z) to gs, 89, 152, 176 levels											NDS916	**
*^{221}Ra(α)^{217}Rn	E(α)=6610(3,Z) to 149.2 level											97Li23	**
*^{221}Ra(α)^{217}Rn	E(α)=6754, 6662, 6607(..) to ground-state, 93.02, 149.2 level											97Li23	**
^{222}Fr−^{226}Ra$_{.982}$ ^{212}Fr$_{.904}$		−7410	25	−7401	23	0.4	1	82	82 ^{222}Fr	MA3	1.0	92Bo28	
^{213}Fr−^{222}Fr$_{.096}$ ^{212}Fr$_{.904}$		−1940	60	−1921	25	0.1	U			P24	2.5	82Au01	
^{222}Rn(α)^{218}Po		5590.39	0.3	5590.3	0.3	0.0	1	100	99 ^{218}Po			71Gr17	Z
^{222}Ra(α)^{218}Rn		6680.0	5.	6679	4	−0.2	1	71	65 ^{222}Ra			56As38	Z
^{222}Ac(α)^{218}Fr		7137.5	2.				4					82Bo04	Z
^{222}Ac^{m}(α)^{218}Fr^{p}		7140.3	20.				5					72Es03	
^{222}Th(α)^{218}Ra		8127.7	10.	8127	5	−0.1	4					70To07	
		8130.7	8.			−0.5	4					70Va13	
		8126.7	15.			0.0	4					92An.A	
		8120.6	10.			0.6	4			GSa		00He17	
^{222}Pa(α)^{218}Ac^{m}		8697.0	30.	8697	13	0.0	7					70Bo13	
		8696.7	15.			0.0	7			GSa		95Ho.C	
^{213}Fr−^{223}Fr$_{.087}$ ^{212}Fr$_{.913}$		−1900	60	−1919	25	−0.1	U			P24	2.5	82Au01	
^{223}Fr(α)^{219}At		5431.6	80.	5562	3	1.6	U					55Ad10	
		5562	3				3					01Li44	
^{223}Ra(α)^{219}Rn		5978.9	0.3	5978.99	0.21	0.3	–			Orm		62Wa18	*
		5979.1	0.3			−0.4	–			BIP		71Gr17	*
	ave.	5979.00	0.21			0.0	1	100	95 ^{219}Rn			average	
^{223}Ac(α)^{219}Fr		6783.2	1.0				4					69Le.A	*
^{223}Th(α)^{219}Ra		7568	10	7567	4	−0.1	5					87El02	*
		7567.4	10.			−0.1	5			Dbb		90An19	*
		7566.1	5.			0.1	5					92Li09	*
^{223}Pa(α)^{219}Ac		8345.0	10.	8330	50	−0.4	5					70Bo13	
		8350.0	15.			−0.5	U			Dbb		90An19	
		8339.9	15.			−0.3	U			GSa		95Ho.C	
		8321.6	5.			0.1	5			Jya		99Ho28	
^{223}U(α)^{219}Th		8940.9	40.				5					91An10	
*^{223}Ra(α)^{219}Rn	E(α)=5747.0(0.4,Z), 5715.7(0.3,Z), 5606.7(0.3,Z)											62Wa18	**
*	to 126.77, 158.64, 269.48 levels											NDS018	**
*^{223}Ra(α)^{219}Rn	E(α)=5747.0(0.40,Z), 5716.23(0.29,Z), 5606.73(0.30,Z)											71Gr17	**
*	to 126.77, 158.64, 269.48 levels											NDS018	**
*^{223}Ac(α)^{219}Fr	E(α)=6661.6, 6646.7, 6563.7(1.0,Z) to ground-state, 15.0, 98.58 lvls											NDS924	**
*^{223}Th(α)^{219}Ra	E(α)=7324(10) to 113.8, 7285(10) 55% to 140.0, 26% to 152.0 level											92Li09	**
*^{223}Th(α)^{219}Ra	E(α)=7290(10) 55% to 140.0, 26% to 152.0 level											92Li09	**
*^{223}Th(α)^{219}Ra	E(α)=7318(5), 7293(5), 7281(5) to 113.8, 140.0, 152.0 levels											92Li09	**
^{223}Fr−^{224}Fr$_{.747}$ ^{220}Fr$_{.253}$		−620	70	−700	50	−0.5	U			P34	2.5	86Au02	
^{222}Fr−^{224}Fr$^{x}_{.496}$ ^{220}Fr$_{.505}$		10	70	*			U			P24	2.5	82Au01	
^{223}Fr−^{224}Fr$^{x}_{.747}$ ^{220}Fr$_{.253}$		−410	70	*			U			P24	2.5	82Au01	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{223}Fr−^{224}Fr$^{x}_{.664}$ ^{221}Fr$_{.336}$		−110	70	*			U			P24	2.5	82Au01	
^{224}Ra(α)^{220}Rn		5788.93	0.15	5788.85	0.15	0.0	1	100	56 ^{220}Rn			71Gr17	Z
^{224}Ac(α)^{220}Fr		6326.9	0.7				2					69Le.A	*
^{224}Th(α)^{220}Ra		7304.7	10.	7298	6	−0.6	4					61Ru06	
		7304.7	10.			−0.6	4					70Va13	
		7300.7	20.			−0.1	U					89An13	
		7286.4	10.			1.2	4			GSa		00He17	
^{224}Pa(α)^{220}Ac		7695.2	10.	7694	4	−0.2	6					70Bo13	*
		7692.6	10.			0.1	F			Dbb		90An19	*
		7680	15			0.9	U			GSa		95Ho.C	
		7693.3	5.			0.1	6					96Li05	*
^{224}U(α)^{220}Th		8624.3	15.	8620	12	−0.3	6					91An10	
		8612.1	20.			0.4	6					92To02	
^{224}Fr(β^-)^{224}Ra		2830	50				2					75We23	
*^{224}Ac(α)^{220}Fr	E(α)=6213.8, 6207.0, 6141.7, 6059.8(0.7,Z)											69Le.A	**
*	to ground-state, 7.1, 73.5, 156.9 levels											NDS860	**
*^{224}Pa(α)^{220}Ac	E(α)=7490(10) to 68.71 level											NDS971	**
*^{224}Pa(α)^{220}Ac	F: intensities in contradiction with ref.											96Li05	**
*^{224}Pa(α)^{220}Ac	E(α)=7488(5), 7375(5) to 68.71, 184.21 levels											NDS971	**
^{224}Fr^{x}−^{225}Fr$_{.747}$ ^{221}Fr$_{.253}$		50	80	*			U			P24	2.5	82Au01	
^{224}Fr^{x}−^{225}Fr$_{.498}$ ^{223}Fr$_{.502}$		190	80	*			U			P24	2.5	82Au01	
^{225}Ra(α)^{221}Rn		5097	5				2					00Li37	
^{225}Ac(α)^{221}Fr		5936.1	2.	5935.1	1.4	−0.5	–					67Ba51	Z
		5934.5	2.			0.3	–					67Dz02	Z
	ave.	5935.2	1.4			−0.1	1	99	80 ^{221}Fr			average	
^{225}Th(α)^{221}Ra		6920.7	3.	6921.4	2.1	0.2	4					61Ru06	*
		6922.1	3.			−0.2	4					87Li.A	*
^{225}Pa(α)^{221}Ac		7392.5	5.				5			Lvn		87De.A	
		7383.5	19.	7390	50	0.2	U					00Sa52	
^{225}U(α)^{221}Th		8012.7	20.	8014	7	0.1	6			Dbb		89An13	
		8022.9	20.			−0.4	6					89He13	
		8021.9	15.			−0.5	6					92To02	
		8013.0	20.			0.1	6					94Ye08	
		8010	10			0.4	6			GSa		00He17	*
^{225}Np(α)^{221}Pa		8786.5	20.				4					94Ye08	
^{225}Fr(β^-)^{225}Ra		1820	30				2					75We23	*
^{225}Ra(β^-)^{225}Ac		360	10	356	5	−0.4	1	23	18 ^{225}Ac			55Ma.A	
		360	30			−0.1	U					55Pe24	
*^{225}Th(α)^{221}Ra	E(α)=6800.2, 6746.2, 6503.2, 6480.2, 6443.2(3,Z)											61Ru06	**
*	to ground-state, 53.2, 299.2, 321.4, 359.0 levels											NDS90c	**
*^{225}Th(α)^{221}Ra	E(α)=6799.3, 6745.3, 6504.3, 6483.3, 6447.3(3,Z)											87Li.A	**
*	to ground-state, 53.2, 299.2, 321.4, 359.0 levels											NDS90c	**
*^{225}U(α)^{221}Th	E(α)=7868(15), 7621(15) to ground-state, 250.9 level											00He17	**
*^{225}Fr(β^-)^{225}Ra	E^-=1640(10). 28%to 225.2 level (ref.)											89An02	**
*	but lower levels also fed directly											NDS906	**
^{133}Cs−^{226}Ra$_{.588}$		−109487	9	−109489.0	1.5	−0.2	U			MA3	1.0	92Bo28	
		−109500	13			0.8	U			MA4	1.0	99Am05	
^{223}Fr−^{226}Fr$_{.493}$ ^{220}Fr$_{.507}$		−800	80	−930	100	−0.7	U			P24	2.5	82Au01	
^{225}Fr−^{226}Fr$_{.796}$ ^{221}Fr$_{.204}$		−570	100	−680	100	−0.5	U			P24	2.5	82Au01	
^{225}Fr−^{226}Fr$_{.498}$ ^{224}Fr$^{x}_{.502}$		−260	90	*			U			P24	2.5	82Au01	
^{226}Ra(α)^{222}Rn		4870.70	0.25	4870.62	0.25	0.0	1	100	99 ^{222}Rn			71Gr17	Z
^{226}Ac(α)^{222}Fr		5496.1	5.	5536	21	0.8	1	18	18 ^{222}Fr			75Va.A	Z
^{226}Th(α)^{222}Ra		6448.5	3.0	6450.9	2.2	0.8	–					56As38	*
		6454.8	3.6			−1.1	–			Dba		75Va.A	
	ave.	6451.1	2.3			−0.1	1	94	59 ^{226}Th			average	

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{226}Pa(α)^{222}Ac		6986.9	10.				5					64Mc21	
^{226}U(α)^{222}Th		7747.4	30.	7701	4	−1.5	U					73Vi10	*
		7706.6	15.			−0.4	5					90An22	
		7701.6	5.			−0.1	5			Jya		99Gr28	
		7691.4	10.			0.9	o			GSa		00He17	
		7696.5	10.			0.4	5			GSa		01Ca.B	
^{226}Np(α)^{222}Pa		8189.1	20.	8200	50	0.2	8					90Ni05	
		8205.5	20.			−0.2	8					94Ye08	
^{226}Fr(β^-)^{226}Ra		3704	100				2					87Ve.A	
^{226}Ac(β^-)^{226}Th		1115	7	1113	5	−0.3	–					68Va17	
	ave.	1115	6			−0.3	1	55	41 ^{226}Th			average	
*^{226}Th(α)^{222}Ra	E(α)=6334.6(3,Z), 6224.6(3,Z) to ground-state, 111.12 level											NDS878	**
*^{226}U(α)^{222}Th	E(α)=7430(30) to 2^+ level at 183.3(0.3)											94Ye08	**
^{225}Fr−^{227}Fr$_{.708}$ ^{220}Fr$_{.292}$		−410	130	−530	100	−0.4	U			P24	2.5	82Au01	
^{224}Fr^x−^{227}Fr$_{.493}$ ^{221}Fr$_{.507}$		−220	80	*			U			P24	2.5	82Au01	
^{227}Ac(α)^{223}Fr		5042.27	0.14				2					86Ry04	Z
^{227}Th(α)^{223}Ra		6146.60	0.10	6146.60	0.10	0.0	1	100	95 ^{223}Ra	BIP		71Gr17	*
^{227}Pa(α)^{223}Ac		6581.5	3.	6580.4	2.1	−0.4	5					63Su.A	
		6579.3	3.			0.4	5					90Sh15	*
^{227}U(α)^{223}Th		7230	30	7211	14	−0.6	6					69Ha32	*
		7206	16			0.3	6					91Ho05	
^{227}Np(α)^{223}Pa		7815.0	20.	7816	14	0.1	6					90Ni05	
		7818.0	20.			−0.1	6					94Ye08	
^{226}Ra(n,γ)^{227}Ra		4561.43	0.27				2			ILn		81Vo03	Z
^{227}Fr(β^-)^{227}Ra		2476	100				3					75We23	
^{227}Ac(β^-)^{227}Th		45.5	1.0	44.8	0.8	−0.7	–					55Be20	
		43.5	1.5			0.8	–					59No41	
	ave.	44.9	0.8			−0.1	1	99	95 ^{227}Th			average	
*^{227}Th(α)^{223}Ra	E(α)=6038.01(0.15,Z), 5977.72(0.10,Z), 5756.89(0.15,Z)											71Gr17	**
*	to ground-state, 61.424, 286.182 levels											NDS018	**
*^{227}Pa(α)^{223}Ac	E(α)=6463, 6421, 6355 (all errors 3 keV, estimated by evaluator)											90Sh15	**
*	to ground-state, 42.4, 50.7, 110.06 levels											NDS018	**
*^{227}U(α)^{223}Th	E(α)=6860(30) to 247(1) level											NDS	**
^{224}Fr^x−^{228}Fr$_{.491}$ ^{220}Fr$_{.509}$		−540	320	*			D			P24	2.5	82Au01	*
^{228}Th(α)^{224}Ra		5520.17	0.22	5520.08	0.22	0.0	1	100	56 ^{224}Ra			71Gr17	Z
^{228}Pa(α)^{224}Ac		6266.7	3.	6264.5	1.5	−0.7	3					58Hi.A	*
		6264.7	3.			−0.1	3					93Sh07	*
		6263.5	2.			0.5	3					94Ah03	*
^{228}U(α)^{224}Th		6803.6	10.				5					61Ru06	
^{228}Pu(α)^{224}U		7949.7	20.				7			Dbb		94An02	
^{228}Ra(β^-)^{228}Ac		46.7	2.	45.8	0.7	−0.4	3					61To10	
		45.7	1.			0.1	3					72He.A	
		45.7	1.0			0.1	3					95So11	
^{228}Pa(ε)^{228}Th		2109	15	2152	4	2.9	U					73Ku09	
*^{224}Fr^x−^{228}Fr$_{.491}$ ^{220}Fr	Systematical trends suggest ^{228}Fr 880 less bound											GAu	**
*^{228}Pa(α)^{224}Ac	E(α)=6119.2(3,Z), 6106.2(3,Z), 6079.2(3,Z) to 37.2, 51.9, 78.4 levels											93Sh07	**
*^{228}Pa(α)^{224}Ac	E(α)=6118(3) to 37.2 level											93Sh07	**
*^{228}Pa(α)^{224}Ac	E(α)=6117(2) to 37.1 level											94Ah03	**
^{229}Fr−^{133}Cs$_{1.722}$		201262	40				2			MA8	1.0	03We.A	
^{229}Ra−^{133}Cs$_{1.722}$		197782	21	197769	20	−0.6	1	91	91 ^{229}Ra	MA8	1.0	03We.A	
^{229}Th(α)^{225}Ra		5167.4	1.2	5167.6	1.0	0.1	–			Kum		71BaB2	*
		5168.2	2.			−0.3	–					87He28	Z
	ave.	5167.6	1.0			0.0	1	99	95 ^{225}Ra			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{229}Pa(α)^{225}Ac	5835.6	5.	5835	4	−0.2	1	71	64 ^{225}Ac			63Su.A	*
^{229}U(α)^{225}Th	6475.5	3.				5					61Ru06	Z
^{229}Np(α)^{225}Pa	7012.7	20.	7010	50	0.0	6					68Ha14	
	7015.8	23.			0.0	6					00Sa52	
^{229}Pu(α)^{225}U	7592.9	30.	7600	50	0.1	7			Dbb		94An02	
	7598.0	10.			0.0	7			GSa		01Ca.B	
^{229}Ra(β^-)^{229}Ac	1760	40	1810	30	1.2	1	64	56 ^{229}Ac			75We23	*
^{229}Ac(β^-)^{229}Th	1140	150	1170	30	0.2	U					73Ch24	*
	1090	50			1.5	1	44	44 ^{229}Ac			75We23	*
*^{229}Th(α)^{225}Ra	E(α)=4978.3(1.2,Z), 4967.3(1.2,Z), 4845.1(1.2,Z)										71Gr17	**
*	to 100.60, 111.60, 236.25 levels										71Gr17	**
*^{229}Th(α)^{225}Ra	E(α)= 4979.3(2,Z), 4968.3(2,Z), 4845.1(2,Z)										87He28	**
*	to 100.60, 111.60, 236.25 levels										NDS906	**
*	calibrated with 71BaB2 value for 4845										AHW	**
*^{229}Pa(α)^{225}Ac	E(α)=5670.2, 5630.2, 5615.2, 5580.2, 5536.2 (all 3,Z)										63Su.A	**
*	to 64.70, 105.06, 120.80, 155.65, 199.85 levels										NDS	**
*^{229}Ra(β^-)^{229}Ac	E$^-$ to ground-state										NDS	**
*^{229}Ac(β^-)^{229}Th	E$^-$ to ground-state										NDS	**
^{230}Ra−^{133}Cs$_{1.729}$	200530	13				2			MA8	1.0	03We.A	
^{230}Ra−^{226}Ra$_{1.018}$	11225	35	11189	13	−1.0	U			MA3	1.0	92Bo28	
^{230}Th(α)^{226}Ra	4770.1	1.5	4770.0	1.5	0.0	1	99	99 ^{226}Ra			66Ba14	Z
^{230}Pa(α)^{226}Ac	5439.5	0.7	5439.4	0.7	0.0	1	99	86 ^{226}Ac			66Ba14	Z
^{230}U(α)^{226}Th	5992.8	0.7				2					66Ba14	Z
^{230}Np(α)^{226}Pa	6778.1	20.				6					68Ha14	
^{230}Pu(α)^{226}U	7175.0	15.	7180	8	0.3	6					90An22	
	7180.1	17.			0.0	6			Jya		99Gr28	
	7182.2	10.			−0.2	6			GSa		01Ca.B	
^{230}Th(p,t)^{228}Th−^{232}Th()^{230}Th	−492.5	0.5	−492.5	0.5	−0.1	1	99	60 ^{230}Th			94Le22	
^{230}Th(d,t)^{229}Th	−541	6	−536.6	2.3	0.7	–					90Bu17	
	−525	6			−1.9	–			ANL		67Er02	*
ave.	−533	4			−0.9	1	28	27 ^{229}Th			average	
^{230}Ra(β^-)^{230}Ac	710	300				3					80Gi04	*
^{230}Ac(β^-)^{230}Th	2700	100	2940	300	2.4	B					80Gi04	
^{230}Pa(ε)^{230}Th	1310.3	3.	1310.5	2.8	0.1	1	90	87 ^{230}Pa			70Lo02	
^{230}Pa(β^-)^{230}U	561	15	560	5	−0.1	R					70Lo02	
*^{230}Th(d,t)^{229}Th	Q=–525(6) to ^{229}Th^m at 0.0035(0.0010)										94He08	**
*^{230}Ra(β^-)^{230}Ac	E$^-$=500(200) to 211.8 level										NDS935	**
^{231}Pa(α)^{227}Ac	5150.4	1.5	5149.9	0.8	−0.4	–					69Le.A	*
	5149.8	1.0			0.1	–					76Ba99	*
ave.	5150.0	0.8			−0.1	1	99	96 ^{227}Ac			average	
^{231}U(α)^{227}Th	5576.9	3.	5576.3	1.7	−0.2	2					94Li12	*
	5576	2			0.1	2					97Mu08	
^{231}Np(α)^{227}Pa	6368.4	8.				6					73Ja06	
^{231}Pu(α)^{227}U	6838.6	20.				7					99La14	
^{231}Pa(p,t)^{229}Pa	−4133	2	−4133.1	1.6	0.0	–					98Le15	
	−4133	3			0.0	–					91Gr13	*
ave.	−4133.0	1.7			−0.1	1	97	93 ^{229}Pa			average	
^{230}Th(n,γ)^{231}Th	5118.00	0.20	5118.02	0.20	0.1	1	98	84 ^{231}Th	ILn		87Wh01	Z
^{231}Ac(β^-)^{231}Th	2100	100				2					60Ta19	
^{231}Th(β^-)^{231}Pa	389.2	2.	391.6	1.5	1.2	1	55	51 ^{231}Pa			75Ho14	
*^{231}Pa(α)^{227}Ac	E(α)=5015.9(1.5,Z) to 46.35 level										NDS	**
*^{231}Pa(α)^{227}Ac	E(α)=4736.2(1.0,Z) to 330.04 level										NDS	**
*^{231}U(α)^{227}Th	E(α)=5471(3), 5456(3), 5404(3) to 9.3, 24.4, 77.7 levels										94Li12	**
*^{231}Pa(p,t)^{229}Pa	Q=–4145(3) to 11.6 level										98Le15	**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$C_{18}H_{16}-{}^{232}Th$		87142.4	2.	87145.2	2.1	0.6	1	18	18 ^{232}Th	M20	2.5	73Br06	
$C_{24}H_{16}-{}^{232}Th\,{}^{37}Cl\,{}^{35}Cl$		152393.4	1.8	152389.9	2.1	−0.8	1	23	23 ^{232}Th	M20	2.5	73Br06	
$^{232}Th(\alpha)^{228}Ra$		4081.6	1.4				2					89Sa01	*
$^{232}U(\alpha)^{228}Th$		5413.63	0.09				2			BIP		72Go33	*
$^{232}Pu(\alpha)^{228}U$		6716.0	10.				6					73Ja06	
$^{232}Ac(\beta^-)^{232}Th$		3700	100				2					90Be.B	
$^{232}Pa(\beta^-)^{232}U$		1344	20	1337	7	−0.3	3					63Bj01	
		1336	8			0.1	3					71Ka42	
*$^{232}Th(\alpha)^{228}Ra$	E(α)=4012.3(1.4), 3947.2(2.0) to ground-state, 63.823 level											NDS973	**
*$^{232}U(\alpha)^{228}Th$	E(α)=5320.12(0.14,Z), 5263.36(0.09,Z) to ground-state, 57.759 level											NDS973	**
$^{233}U(\alpha)^{229}Th$		4908.4	1.2	4908.5	1.2	0.2	1	94	68 ^{229}Th	Kum		68Ba25	Z
$^{233}Np(\alpha)^{229}Pa$		5628.5	50.				2					50Ma14	
$^{233}Pu(\alpha)^{229}U$		6416.3	20.				6					57Th10	
$^{233}Am(\alpha)^{229}Np^p$		6898	17				8					00Sa52	
$^{233}Cm(\alpha)^{229}Pu$		7468.5	10.				8			GSa		01Ca.B	
$^{232}Th(n,\gamma)^{233}Th$		4786.69	0.25	4786.39	0.09	−1.2	–					74Ke13	Z
		4786.34	0.10			0.5	–			Bdn		03Fi.A	
	ave.	4786.39	0.09			0.0	1	100	93 ^{233}Th			average	
$^{233}Th(\beta^-)^{233}Pa$		1245	3	1243.1	1.4	−0.6	1	22	15 ^{233}Pa			57Fr.A	*
$^{233}Pa(\beta^-)^{233}U$		568	4	570.1	2.0	0.5	–					54Br37	
		568	5			0.4	–					55On05	
		568	5			0.4	–					63Bl03	
	ave.	568.0	2.6			0.8	1	58	48 ^{233}U			average	
*$^{233}Th(\beta^-)^{233}Pa$	PrvCom to ref.											58St50	**
$^{234}U(\alpha)^{230}Th$		4857.4	1.0	4857.7	0.7	0.4	–					55Go.A	Z
		4860.4	2.			−1.3	–					67Ba43	Z
	ave.	4857.9	0.9			−0.2	1	57	36 ^{234}U			average	
$^{234}Pu(\alpha)^{230}U$		6310.1	5.				3					60Ho.A	*
$^{234}Am(\alpha)^{230}Np^p$		6572.6	20.				8					90Ha02	
$^{234}Cm(\alpha)^{230}Pu$		7365.2	10.				7			GSa		01Ca.B	
$^{234}U(d,t)^{233}U$		−579	6	−587.4	2.1	−1.4	1	12	11 ^{233}U	ANL		67Er02	
$^{234}Th(\beta^-)^{234}Pa^m$		192	2	195.1	1.0	1.5	3					55De40	
		193	2			1.0	3					63Bj02	
		198.	1.5			−1.9	3					73Go40	
$^{234}Pa^m(IT)^{234}Pa$		78	3				4					NDS	
$^{234}Np(\beta^+)^{234}U$		1812	10	1810	8	−0.2	2					67Ha04	
		1805	15			0.3	2					67Wa09	
*$^{234}Pu(\alpha)^{230}U$	With correction like in ref.											91Ry01	**
$^{235}U-C_{18}H_{18}$		−96932.8	3.8	−96920.7	2.0	1.3	U			M20	2.5	73Br06	
$C_{18}H_{20}-{}^{235}U$		112584.2	4.8	112570.7	2.0	−1.1	U			M20	2.5	73Br06	
$^{235}U(\alpha)^{231}Th$		4678	2	4678.3	0.7	0.1	–					60Ba44	
		4681	3			−0.9	–					60Vo07	
		4675.5	3.0			0.9	–					64Sc27	
		4677	3			0.4	–					66Ga03	
	ave.	4677.9	1.3			0.3	1	29	17 ^{235}U			average	
$^{235}Np(\alpha)^{231}Pa$		5197.2	2.0	5194.0	1.5	−1.6	1	56	42 ^{231}Pa	Bka		73Br12	*
$^{235}Pu(\alpha)^{231}U$		5951.5	20.				3					57Th10	
$^{235}Am(\alpha)^{231}Np^p$		6552	100				8					99Sa.D	
$^{234}U(n,\gamma)^{235}U$		5297.1	0.5	5297.49	0.23	0.8	–					72Ri08	Z
		5297.4	0.3			0.3	–					77Ko15	Z
	ave.	5297.32	0.26			0.6	1	81	50 ^{234}U			average	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference
^{235}Th(β^-)^{235}Pa	1470	80	1920	70	5.7	B					89Yu01
^{235}Pa(β^-)^{235}U	1410	50				2					68Tr07
^{235}Np(ε)^{235}U	123.5	2.	124.2	0.9	0.4	–					58Gi05
	123.6	1.			0.6	–					72Mc25
ave.	123.6	0.9			0.7	1	91	86 ^{235}Np			average
$*^{235}$Np(α)^{231}Pa	E(α)=5105.2(3), 5097.2(3), 5050.8(2,Z), 5024.8(2,Z), 4924.8(2,Z)										AHW **
*	to gs and levels at 9.21, 58.57, 84.21, 183.50										NDS018**
^{236}U(α)^{232}Th	4573.1	1.0	4573.1	0.9	0.0	1	78	69 ^{232}Th			78Ba.C
^{236}Pu(α)^{232}U	5867.15	0.08				3					84Ry02 Z
^{235}U(n,γ)^{236}U	6545	2	6545.45	0.26	0.2	U					70Ka22
	6545.1	0.5			0.7	–					74Ju.B Z
	6545.4	0.5			0.1	–					75We.A Z
ave.	6545.2	0.4			0.6	1	54	32 ^{236}U			average
^{236}Pa(β^-)^{236}U	3350	100	2900	200	−4.5	B					63Wo04
	2900	200				2					68Tr07
^{236}Np^m(IT)^{236}Np	60	50				5					NDS915
^{236}Np^m(β^-)^{236}Pu	525	10	537	6	1.2	4					56Gr11
	544	8			−0.9	4					69Le05
^{237}Np(α)^{233}Pa	4956.7	1.5	4958.3	1.2	1.0	–			Kum		68Ba25 *
	4959.9	3.			−0.5	–					69Va06
ave.	4957.3	1.3			0.7	1	77	75 ^{233}Pa			average
^{237}Pu(α)^{233}U	5747	5	5748.4	2.3	0.3	1	21	15 ^{233}U			93Dm02
^{237}Am(α)^{233}Np^p	6146.2	5.				4					75Ah05 Z
^{236}U(n,γ)^{237}U	5125.9	0.5	5125.8	0.5	−0.3	1	83	83 ^{237}U	BNn		79Vo05 Z
^{237}Pa(β^-)^{237}U	2250	100				2					74Ka05
C_{18} H_{22} − ^{238}U	121366.0	2.4	121362.5	2.0	−0.6	1	12	12 ^{238}U	M20	2.5	73Br06
C_{24} H_{20} − ^{238}U $^{35}Cl_2$	168010.8	1.4	168007.0	2.0	−1.1	1	34	34 ^{238}U	M20	2.5	73Br06
^{238}U(α)^{234}Th	4271.5	5.	4269.7	2.9	−0.3	2					57Ha08 Z
	4265.1	5.			0.9	2					60Vo07 Z
	4272.9	5.			−0.6	2					61Ko11 Z
^{238}Pu(α)^{234}U	5593.20	0.2	5593.20	0.19	0.4	1	90	76 ^{238}Pu			71Gr17 Z
^{238}Am(α)^{234}Np	6041.7	30.				3					72Ah04
^{238}Cm(α)^{234}Pu	6611.5	50.	6620	40	0.2	4					48St.A *
	6632.0	50.			−0.2	4					52Hi.A
^{238}U(n,α)^{235}Th	8700	50				2					81Wa11
^{237}Np(n,γ)^{238}Np	5488.32	0.20				2			BNn		79Io01 Z
^{238}Pa(β^-)^{238}U	3460	60				2					85Ba57 *
$*^{238}$Cm(α)^{234}Pu	PrvCom to ref.										58St50 **
$*^{238}$Pa(β^-)^{238}U	Reports result from thesis										82Gi.A **
^{239}Pu(α)^{235}U	5244.60	0.25	5244.51	0.21	−0.4	1	68	44 ^{239}Pu			79Ry.A *
^{239}Am(α)^{235}Np	5924.6	2.0	5922.4	1.4	−1.1	2			Bka		71Go01 *
	5920.2	2.0			1.1	2					75Ah05 *
^{239}Cf(α)^{235}Cm^p	7760.1	25.				10					81Mu12
^{238}U(n,γ)^{239}U	4806.55	0.30	4806.38	0.17	−0.6	2			ANL		72Bo46 Z
	4806.30	0.21			0.4	2			ILn		79Br25 Z
^{238}Pu(n,γ)^{239}Pu	5646.7	0.5	5646.2	0.3	−1.0	1	38	24 ^{238}Pu			75Ma.A Z
^{239}Np(β^-)^{239}Pu	722.5	1.0	722.5	1.0	0.0	1	98	98 ^{239}Np			59Co63
$*^{239}$Pu(α)^{235}U	E(α)=5156.59(0.25,Z) to 0.08 level										NDS **
$*^{239}$Am(α)^{235}Np	E(α)=5824.6(4,Z), 5775.6(2,Z), 5733.6(2,Z) to gs, 49.10, 91.6 levels										NDS033**
$*^{239}$Am(α)^{235}Np	E(α)=5772.7(2,Z) to 49.10 level										NDS033**

Item		Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{240}Pu(α)^{236}U		5255.88	0.15	5255.75	0.14	−0.3	1	90	59 ^{236}U			72Go33	Z
^{240}Am(α)^{236}Np^{p}		5468.9	1.0				3					70Go42	Z
^{240}Cm(α)^{236}Pu		6397.8	0.6				4			Kum		71BaB2	*
^{240}Cf(α)^{236}Cm		7718.9	10.				8					70Si19	
^{239}Pu(n,γ)^{240}Pu		6534.1	1.0	6534.20	0.23	0.1	–					70Ch.A	
		6534.3	0.4			−0.3	–					74Ju.B	Z
		6534.2	0.4			0.0	–					75We.A	Z
	ave.	6534.24	0.27			−0.1	1	73	41 ^{239}Pu			average	
^{240}U(β^-)^{240}Np^{m}		386	20	380	22	−0.3	R					53Kn23	
^{240}Np^{m}(IT)^{240}Np		20	15				3					81Hs02	
^{240}Np(β^-)^{240}Pu		2199	30	2188	15	−0.4	2					51Or.A	
^{240}Np^{m}(β^-)^{240}Pu		2210	20	2208	21	−0.1	R					59Bu20	
^{240}Am(ε)^{240}Pu		1395	35	1385	14	−0.3	R					72Ah07	
*^{240}Cm(α)^{236}Pu	E(α)=6290.5, 6247.7(0.6,Z) to ground-state, 44.63 level											NDS915	**
^{241}Pu(α)^{237}U		5139.6	3.	5140.0	0.5	0.1	–					68Ah01	*
		5139.3	1.2			0.6	–			Kum		68Ba25	*
	ave.	5139.3	1.1			0.6	1	18	17 ^{237}U			average	
^{241}Am(α)^{237}Np		5637.81	0.12	5637.82	0.12	0.1	1	100	98 ^{237}Np			71Gr17	*
^{241}Cm(α)^{237}Pu		6182.8	2.0	6185.2	0.6	1.2	U					67Ba42	*
		6185.2	0.6			0.0	–			Kum		71BaB2	*
		6185.0	2.0			0.1	–					75Ah05	*
	ave.	6185.2	0.6			0.0	1	99	94 ^{237}Pu			average	
^{241}Cf(α)^{237}Cm^{p}		7459.0	5.				9					70Si19	
^{241}Es(α)^{237}Bk^{p}		8064.1	30.	8250	20	6.2	C			GSa		85Hi.A	*
		8250.2	20.				11			GSa		96Ni09	
^{240}Pu(n,γ)^{241}Pu		5241.3	0.7	5241.521	0.030	0.3	U					75Ma.A	
		5241.52	0.03			0.0	1	100	62 ^{241}Pu	ILn		98Wh01	Z
^{241}Am(d,t)^{240}Am		−388	15	−390	14	−0.1	2			Kop		76Gr19	
^{241}Np(β^-)^{241}Pu		1360	100	1300	70	−0.6	2					59Va32	
		1250	100			0.5	2					66Qa02	
^{241}Pu(β^-)^{241}Am		20.8	0.2	20.78	0.13	−0.1	–					56Sh31	
		20.7	0.3			0.3	–					99Dr13	
		20.78	0.20			0.0	–					99Ya.A	
	ave.	20.77	0.13			0.1	1	100	98 ^{241}Am			average	
^{241}Cm(ε)^{241}Am		767.5	1.2	767.4	1.2	−0.1	1	95	95 ^{241}Cm			89Su.A	*
*^{241}Pu(α)^{237}U	E(α)=4896.6(3,Z), 4853.6(3,Z) to 159.96, 204.19 levels											NDS869	**
*^{241}Pu(α)^{237}U	E(α)=4896.3(1.2,Z), 4853.3(1.2,Z) to 159.96, 204.19 levels											NDS869	**
*^{241}Am(α)^{237}Np	E(α)=5485.56(0.12,Z), 5442.80(0.13,Z) to 59.54, 102.96 levels											NDS	**
*^{241}Cm(α)^{237}Pu	E(α)=6080.6(2,Z), 5926.6(2,Z) to ground-state, 155.45 level											NDS869	**
*^{241}Cm(α)^{237}Pu	E(α)=5939.0(0.6,Z), 5884.7(0.6,Z) to 145.54, 201.18 levels											NDS869	**
*^{241}Cm(α)^{237}Pu	E(α)=5938.7(2,Z), 5884.7(2,Z) to 145.54, 201.18 levels											NDS869	**
*^{241}Es(α)^{237}Bk^{p}	C: new data of same group (next item) is much safer											96Ni09	**
*^{241}Cm(ε)^{241}Am	Q(ε)=5.5(1.2) to 636.86 level											AHW	**
^{242}Pu(α)^{238}U		4987.3	2.0	4984.5	1.0	−1.4	–					53As.A	*
		4989.5	3.0			−1.7	U					56Ko67	*
		4982.9	1.2			1.4	–			Kum		68Ba25	*
	ave.	4984.1	1.0			0.4	1	93	54 ^{238}U			average	
^{242}Am(α)^{238}Np		5587.5	0.5	5588.50	0.25	2.0	U					79Ba67	*
		5589.9	0.8			−1.8	U					90Ho02	*
^{242}Cm(α)^{238}Pu		6215.63	0.08				2					71Gr17	Z
^{242}Cf(α)^{238}Cm		7516.9	4.				5					70Si19	Z
^{242}Es(α)^{238}Bk^{p}		7982.2	30.	8053	20	2.4	C			GSa		85Hi.A	
		8053.2	20.				11			GSa		96Ni09	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference
^{241}Pu(n,γ)^{242}Pu	6309.5	0.7	6309.7	0.7	0.3	1	96	61 ^{242}Pu			72Ma.A
^{241}Am(n,γ)^{242}Am	5537.64	0.1				2			ILn		88Sa18 Z
^{242}Np(β^-)^{242}Pu	2700	200				2					79Ha26
*^{242}Pu(α)^{238}U	E(α)=4904.6, 4860.6(2,Z) to ground-state, 44.916 level										NDS029**
*^{242}Pu(α)^{238}U	E(α)=4905.2(3,Z), 4863.2(3,Z) to ground-state, 44.916 level										NDS029**
*^{242}Pu(α)^{238}U	E(α)=4900.4(1.2,Z), 4856.1(1.2,Z) to ground-state, 44.916 level										NDS029**
*^{242}Am(α)^{238}Np	E(α)=5206.6(0.5,Z), 5141.4(0.5,Z) from ^{242}Am^m to 342.439, 407.59 lvls										NDS029**
*^{242}Am(α)^{238}Np	E(α)=5208.3(0.8,Z), 5144.3(0.9,Z) from ^{242}Am^m to 342.40, 407.58 lvls										90Ho02 **
^{243}Am(α)^{239}Np	5438.8	1.0	5438.8	1.0	0.0	1	98	96 ^{243}Am	Kum		68Ba25 *
^{243}Cm(α)^{239}Pu	6168.8	1.0				2					69Ba57 *
^{243}Bk(α)^{239}Am	6874.4	4.				3					66Ah.A Z
^{243}Cf(α)^{239}Cm^p	7178	10				5					67Fi04 *
^{243}Es(α)^{239}Bk	8072.1	10.				10					89Ha27
^{243}Es(α)^{239}Bk^p	8031.4	3.				11					89Ha27
	8027.3	20.	8031	3	0.2	U			GSa		93Ho.A
^{243}Fm(α)^{239}Cf	8689.1	25.				11					81Mu12
^{242}Pu(n,γ)^{243}Pu	5034.2	3.	5034.2	2.6	0.0	1	75	75 ^{243}Pu			76Ca25
^{243}Pu(β^-)^{243}Am	578	10	579.4	2.9	0.1	–					69Ho10
	580	10			−0.1	–					77Dr07
ave.	579	7			0.1	1	17	13 ^{243}Pu			average
*^{243}Am(α)^{239}Np	E(α)=5275.2(1.0,Z), 5233.3(1.0,Z) to 74.66, 117.84 levels										NDS **
*^{243}Cm(α)^{239}Pu	E(α)=5785.7(1.0,Z), 5742.8(1.0,Z) to 285.46, 330.13 levels										NDS **
*^{243}Cf(α)^{239}Cm^p	Unhindered E(α)=7060(10); there is a weaker E(α)=7170(10)										AHW **
^{244}Pu(α)^{240}U	4665.6	1.0				2					69Be06 Z
^{244}Cm(α)^{240}Pu	5901.74	0.05				2			BIP		71Gr17 *
^{244}Bk(α)^{240}Am	6778.8	4.				3					66Ah.B *
^{244}Cf(α)^{240}Cm	7327.1	2.	7328.9	1.8	0.9	5					67Fi04 Z
	7336.4	4.			−1.8	5					67Si08 Z
^{244}Es(α)^{240}Bk^p	7696.4	20.				7					73Es02
^{244}Pu(t,α)^{243}Np^p	12405	10				2					79Fl02
^{244}Pu(d,t)^{243}Pu	234	5	236	4	0.4	1	69	65 ^{244}Pu	ANL		76Ca25
^{243}Am(n,γ)^{244}Am^m	5277.90	0.07				2			ILn		84Vo07 Z
^{244}Am^m(IT)^{244}Am	85.0	1.0	88.6	1.7	3.6	F					84Ho02 *
^{244}Am(β^-)^{244}Cm	1427.3	1.0				3					62Va08 *
*^{244}Cm(α)^{240}Pu	E(α)=5804.77(0.05,Z), 5762.16(0.03,Z) to ground-state, 42.82 level										NDS904**
*^{244}Bk(α)^{240}Am	E(α)=6667.5(4,Z), 6625.5(3,Z) to ground-state, 42.82 level										NDS904**
*^{244}Am^m(IT)^{244}Am	F: value in Fig. 1 only, no source no error										AHW **
*^{244}Am(β^-)^{244}Cm	E$^-$=387(1) to 1040.18 level										NDS86b**
^{245}Cm(α)^{241}Pu	5623	1				2			Kum		75Ba65
^{245}Bk(α)^{241}Am	6454.7	4.	6454.5	1.4	0.0	2					74Po08 *
	6454.5	1.5			0.0	2					75Ba25 *
^{245}Cf(α)^{241}Cm	7257.5	2.0	7258.5	1.9	0.5	2					67Fi04
	7265	5			−1.3	2					96Ma72
^{245}Es(α)^{241}Bk	7909.4	3.				3					89Ha27
^{245}Es(α)^{241}Bk^p	7858.5	1.				4					89Ha27
^{245}Fm(α)^{241}Cf^p	8285.5	20.				11					67Nu01
^{245}Md^m(α)^{241}Es^p	8824.3	20.				13			GSa		96Ni09 *
^{244}Pu(d,p)^{245}Pu	2558	15	2546	14	−0.8	2			ANL		75Er.A *
^{245}Pu(β^-)^{245}Am	1257	30	1206	15	−1.7	R					68Da02
*^{245}Bk(α)^{241}Am	E(α)=6349.0, 6309.0, 6146.0, 5886.0 (all 4,Z)										91Ry01 **
*	to ground-state, 41.18, 205.88, 471.81 levels										NDS945**
*^{245}Bk(α)^{241}Am	E(α)=6347.8, 6307.8, 6146.8, 5885.8 recalibrated as in ref.										91Ry01 **
*	to ground-state, 41.18, 205.88, 471.81 levels										NDS929**
*^{245}Md^m(α)^{241}Es^p	Second E(α) 8635(20)										96Ni09 **
*^{244}Pu(d,p)^{245}Pu	Q=2252(15) to 306 level										NDS **

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference
^{246}Cm(α)^{242}Pu	5474.9	2.	5475.1	0.9	0.1	–			Kum		66Ba07 *
	5475.2	1.			−0.1	–					84Sh31 *
ave.	5475.1	0.9			0.0	1	99	99 ^{246}Cm			average
^{246}Cf(α)^{242}Cm	6861.6	1.				3					77Ba69 *
^{246}Es(α)^{242}Bk^{p}	7492.0	4.				5					89Ha27
^{246}Fm(α)^{242}Cf	8371.4	20.	8378	12	0.3	6					66Ak01
	8376.5	20.			0.1	6					67Nu01
	8386.7	20.			−0.4	6			GSa		96Ni09
^{246}Md(α)^{242}Es	8884.7	20.				12			GSa		96Ni09
^{244}Pu(t,p)^{246}Pu	2085	20	2071	15	−0.7	1	57	54 ^{246}Pu	LAl		79Br19
^{246}Cm(d,t)^{245}Cm	−196	6	−200.4	1.5	−0.7	U			ANL		67Er02
^{246}Pu(β^-)^{246}Am^{m}	374	10	371	9	−0.3	1	89	46 ^{246}Pu			56Ho23
^{246}Am^{m}(IT)^{246}Am	30	10				2					84So03
^{246}Am^{m}(β^-)^{246}Cm	2420	20	2406	15	−0.7	1	57	57 ^{246}Am^{m}			56Sm85
^{246}Bk(ε)^{246}Cm	1350	60				2					89Sc.A
*^{246}Cm(α)^{242}Pu	E(α)=5385.3(2,Z), 5342.3(2,Z) to ground-state, 44.54 level										NDS025**
*^{246}Cm(α)^{242}Pu	E(α)=5385.6(1,Z), 5342.6(1,Z) to ground-state, 44.54 level										NDS025**
*^{246}Cf(α)^{242}Cm	E(α)=6750.0(1.0,Z), 6708.2(1.0,Z) to ground-state, 42.13 level										NDS **
^{247}Cm(α)^{243}Pu	5354.6	4.	5353	3	−0.3	1	71	63 ^{247}Cm			71Fi01 *
^{247}Bk(α)^{243}Am	5889.6	5.				2					69Fr01 *
^{247}Cf(α)^{243}Cm^{p}	6399.6	5.				4					84Ah02 Z
^{247}Es(α)^{243}Bk^{p}	7443.8	1.				5					89Ha27
^{247}Fm(α)^{243}Cf	8060.8	50.	8213	18	3.0	U			Dba		67Fl15
	8213	18				6					89He03 *
^{247}Fm^{m}(α)^{243}Cf	8314.9	30.	*			F					67Fl15 *
	8260.0	30.	*			F			GSa		97He29 *
^{247}Md^{m}(α)^{243}Es^{p}	8567.0	25.	8564	16	−0.1	12					81Mu12
	8562.9	20.			0.1	12			GSa		93Ho.A
^{246}Cm(d,p)^{247}Cm	2931	8	2931	4	0.0	1	25	24 ^{247}Cm	ANL		67Er02
^{247}Cf(ε)^{247}Bk	646	6				3					56Ch.A
*^{247}Cm(α)^{243}Pu	E(α)=5267.3(4,Z), 5212.3(4,Z), 4870.3(4,Z) to gs, 58.1, 402.6 level										NDS928**
*^{247}Bk(α)^{243}Am	E(α)=5794, 5710, 5688(5,Z) to gs, 84.0, 109.2 levels										NDS928**
*^{247}Fm(α)^{243}Cf	E(α)=8060(15) summed with e$^-$										AHW **
*^{247}Fm^{m}(α)^{243}Cf	Only one case										97He29 **
*^{247}Fm^{m}(α)^{243}Cf	Not found in later work on ^{251}No decay										01He35 **
^{248}Cm(α)^{244}Pu	5161.81	0.25	5161.73	0.25	0.0	1	100	68 ^{248}Cm			77Ba69 Z
^{248}Cf(α)^{244}Cm	6361.2	5.				3					84Ah02 *
^{248}Es(α)^{244}Bk	7165.8	20.	7160#	50#	−0.3	F					84Li.A
^{248}Es(α)^{244}Bk^{p}	7020.4	5.				5					89Ha27
^{248}Fm(α)^{244}Cf	8009.4	30.	8002	11	−0.2	6					66Ak01
	7999.3	20.			0.2	6					67Nu01
	8002.3	15.			0.0	6					85He.A
^{248}Md(α)^{244}Es^{p}	8497.3	30.				9					73Es01
^{248}Cm(p,t)^{246}Cm	−2894	15	−2887	5	0.5	1	10	10 ^{248}Cm	ANL		74Fr01
^{248}Cm(d,t)^{247}Cm	49	8	44	5	−0.6	1	35	23 ^{248}Cm	ANL		67Er02
^{248}Bk^{m}(β^-)^{248}Cf	870	20				4					78Gr10
*^{248}Cf(α)^{244}Cm	E(α)=6257.8(5,Z), 6216.8(5,Z) to ground-state, 42.97 level										NDS86c**
^{249}Bk(α)^{245}Am	5520.4	2.0	5525.0	2.3	2.3	5					66Ah.A *
	5526.1	1.0			−1.1	5			Kum		71BaB2 *
^{249}Cf(α)^{245}Cm	6296.0	0.7				3			Kum		71BaB2 *
^{249}Es(α)^{245}Bk^{p}	6881.3	5.	6886.0	1.9	0.9	4					70Ah01 Z
	6886.8	2.			−0.4	4					89Ha27
^{249}Fm(α)^{245}Cf^{p}	7663.3	20.	7658	15	−0.3	4					73Es01
	7650.1	23.			0.3	4			GSa		85He06
^{249}Md(α)^{245}Es^{p}	8161.3	20.	8163	14	0.1	5					73Es01
	8157.3	20.			0.3	U			GSa		85He22
	8165	20			−0.1	5			GSa		01He35 *

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$^{249}Md^{m}(\alpha)^{245}Es^{q}$	8212.2	20.				7			GSa		01He35	
$^{248}Cm(n,\gamma)^{249}Cm$	4713.37	0.25				2			ILn		82Ho07	Z
$^{249}Bk(\beta^-)^{249}Cf$	125	2	124.0	1.4	−0.5	4					59Va02	
	123	2			0.5	4					74Gl10	
$*^{249}Bk(\alpha)^{245}Am$	E(α)=5431.8, 5412.8, 5384.8(all 2,Z) to gs, 19.20, 47.07 levels										NDS929	**
$*^{249}Bk(\alpha)^{245}Am$	E(α)=5437.1(1.0,Z) to ground-state. Energies of higher branches										71BaB2	**
*	rather different from ref, calibrated with same ground-state α										75Ba27	**
$*^{249}Cf(\alpha)^{245}Cm$	E(α)=6193.8(0.7,Z), 5813.3(1.0,Z) to ground-state, 388.18 level										NDS929	**
$*^{249}Md(\alpha)^{245}Es^{p}$	E(α)=8022(20) partly sum with conversion electrons										01He35	**
$^{250}Cf(\alpha)^{246}Cm$	6129.1	0.6	6128.44	0.19	−1.1	2			Kum		71BaB2	
	6128.44	0.2			0.4	2					86Ry04	Z
$^{250}Fm(\alpha)^{246}Cf$	7540.7	30.	7557	12	0.5	4					66Ak01	
	7561.1	30.			−0.1	4					73Es01	
	7560.1	15.			−0.2	4					77Be36	
	7556.0	35.			0.0	4					81Mu06	
$^{250}Md(\alpha)^{246}Es^{p}$	7947.4	30.	7959	17	0.4	7					73Es01	
	7964.7	20.			−0.3	7					85He22	
$^{248}Cm(t,p)^{250}Cm$	2064	10				2					73Ba72	
$^{251}Cf(\alpha)^{247}Cm$	6175.8	1.0				2			Kum		71BaB2	*
$^{251}Es(\alpha)^{247}Bk$	6593.5	5.	6596.7	2.6	0.6	3					70Ah01	*
	6597.8	3.			−0.4	3					79Ah03	*
$^{251}Fm(\alpha)^{247}Cf$	7425.1	2.0				4					73Ah02	*
$^{251}Md(\alpha)^{247}Es^{p}$	7672.5	20.				7					73Es01	
$^{251}No(\alpha)^{247}Fm^{p}$	8739.5	20.	8757	9	0.8	8			Bka		67Gh01	
	8732.4	15.			1.6	U			GSa		89He03	
	8762.9	20.			−0.3	o			GSa		97He29	
	8760.9	20.			−0.4	8			GSa		01He35	
$^{251}No^{m}(\alpha)^{247}Fm^{q}$	8619.6	30.				8			GSa		97He29	*
$^{251}Cm(\beta^-)^{251}Bk$	1420	20				4					78Lo13	
$^{251}Bk(\beta^-)^{251}Cf$	1093	10				3					84Li05	
$*^{251}Cf(\alpha)^{247}Cm$	E(α)=5680.1(1.0,Z) to 403.6(1.0) level										NDS926	**
$*^{251}Es(\alpha)^{247}Bk$	E(α)=6488.5(5,Z), 6458.5(5,Z) to ground-state, 29.9 level										NDS926	**
$*^{251}Es(\alpha)^{247}Bk$	E(α)=6492.8(3,Z), 6462.8(3,Z) to ground-state, 29.9 level										NDS926	**
$*^{251}Fm(\alpha)^{247}Cf$	E(α)=7305.7(3,Z), 6833.7(2,Z) to ground-state and 480.4 level										NDS926	**
$*^{251}No^{m}(\alpha)^{247}Fm^{q}$	Only 2 cases. See $^{255}Rf^{m}(\alpha)$										97He29	**
$*^{251}No^{m}(\alpha)^{247}Fm^{q}$	Not found in later work on ^{251}No decay										01He35	**
$^{252}Cf(\alpha)^{248}Cm$	6216.95	0.04				2					86Ry04	Z
$^{252}Es(\alpha)^{248}Bk^{p}$	6739.5	3.				4					73Fi06	*
$^{252}Fm(\alpha)^{248}Cf$	7152.7	2.				4					84Ah02	*
$^{252}No(\alpha)^{248}Fm$	8545.9	20.	8550	6	0.2	U					67Gh01	
	8551.0	6.			−0.2	7					77Be09	
	8542.8	15.			0.5	7					85He.A	
$^{252}Lr(\alpha)^{248}Md^{p}$	9163.8	20.				11			GSa		01He35	
$^{252}Es(\varepsilon)^{252}Cf$	1260	50				3					73Fi06	*
$*^{252}Es(\alpha)^{248}Bk^{p}$	E(α)=6632.1(3,Z), 6522.1(3,Z) to 0, 70.64 above $^{248}Bk^{p}$										NDS898	**
$*^{252}Fm(\alpha)^{248}Cf$	E(α)=7038.9(2,Z), 6998.1(2,Z) to ground-state, 41.53 level										NDS902	**
$*^{252}Es(\varepsilon)^{252}Cf$	pK to 969.83 level, recalculated for non-unique first forbidden or										AHW	**
*	allowed transition; unique first forbidden would give 1440(100)										AHW	**
$^{253}Cf(\alpha)^{249}Cm$	6127.3	5.	6126	4	−0.3	3					66Rg01	*
	6124.6	5.			0.3	3					68Be21	*
$^{253}Es(\alpha)^{249}Bk$	6739.24	0.05				5					71Gr17	Z

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{253}Fm(α)^{249}Cf	7199	3				4					67Ah02	*
^{253}No(α)^{249}Fm	8419	20	8421	8	0.1	5			Bka		67Gh01	*
	8419	30			0.1	5					67Mi03	*
	8430	20			−0.4	5					85He.A	*
	8420	10			0.1	5					01He.A	*
^{253}Lr(α)^{249}Md	8941.6	20.	8937	9	−0.2	6			GSa		85He22	
	8935.6	10.			0.1	6			GSa		01He35	
^{253}Lr^{m}(α)^{249}Md^{m}	8862.4	20.	8862	9	0.0	7			GSa		85He22	
	8862.4	10.			0.0	7			GSa		01He35	
*^{253}Cf(α)^{249}Cm	E(α)=5981(5,Z) to 48.74 level										NDS902	**
*^{253}Cf(α)^{249}Cm	E(α)=5978.4(5,Z), 5920.4(5,Z) to 48.74, 110.16 levels										NDS902	**
*^{253}Fm(α)^{249}Cf	E(α)=7083.2(4,Z), 6943.2(3,Z), 6846.2(3,Z), 6673.2(3,Z)										67Ah02	**
*	to ground-state and levels at 144.98, 243.13, 416.8										NDS99a	**
*^{253}No(α)^{249}Fm	E(α)=8010(20) to 280.3 level										01He.A	**
*^{253}No(α)^{249}Fm	E(α)=8010(30) to 280.3 level										01He.A	**
*^{253}No(α)^{249}Fm	E(α)=8021(20) to 280.3 level										01He.A	**
*^{253}No(α)^{249}Fm	E(α)=8011(10) to 280.3 level										01He.A	**
^{254}Cf(α)^{250}Cm	5926.9	5.				3					68Be21	Z
^{254}Es(α)^{250}Bk	6615.7	1.5				6					72BaD2	*
^{254}Es(α)^{250}Bk^{n}	6531.6	1.5				7					72BaD2	Z
^{254}Es^{m}(α)^{250}Bk	6699.9	2.0				5					73Ah04	*
^{254}Fm(α)^{250}Cf	7306.8	5.	7307.5	1.9	0.2	3			Bka		64As01	Z
	7307.6	2.			−0.1	3					84Ah02	*
^{254}No(α)^{250}Fm	8229.8	20.	8226	13	−0.2	5					67Gh01	
	8240.0	30.			−0.5	5					67Mi03	
	8215.6	20.			0.5	5					85He22	
^{254}Lr(α)^{250}Md^{p}	8595.6	20.	8596	14	0.0	9					85He22	
	8595.6	20.			0.0	9					01Ga20	
^{254}Es^{m}(β^{-})^{254}Fm	1172	2				4					62Un01	
*^{254}Es(α)^{250}Bk	E(α)=6415.4(1.5,Z) to 97.493 level										NDS898	**
*^{254}Es^{m}(α)^{250}Bk	E(α)=6558.9(2,Z), 6383.9(2,Z) to 35.587, 211.822 levels										NDS898	**
*^{254}Fm(α)^{250}Cf	E(α)=7192.3(2,Z), 7150.3(2,Z) to ground-state, 42.721 level										NDS019	**
^{255}Es(α)^{251}Bk	6439.3	3.0	6436.3	1.3	−1.0	4					66Rg01	*
	6435.6	1.5			0.5	4			Kum		71BaB2	*
^{255}Fm(α)^{251}Cf	7237.0	4.	7239.7	1.8	0.7	3					64As01	*
	7240.4	2.			−0.3	3					75Ah01	*
^{255}Md(α)^{251}Es	7901.8	5.	7905.9	2.6	0.8	4					70Fi12	*
	7910.7	5.			−1.0	4					71Ho16	*
	7905.4	4.			0.1	4			ARa		00Ah02	*
^{255}No(α)^{251}Fm	8442	6				5					71Di03	*
	8422	20	8442	6	1.0	U			GSa		98Ho13	*
^{255}Lr(α)^{251}Md^{p}	8563.6	18.	8555	15	−0.5	9					76Be.A	*
	8442.7	50.			2.3	F			Bka		95Gh04	*
	8532.6	30.			0.8	9					01Ga20	*
^{255}Rf(α)^{251}No	9042	20	9058	9	0.8	9			Bka		69Gh01	*
	9053	15			0.3	o			GSa		85He06	*
	9064	20			−0.3	o			GSa		97He29	*
	9062	10			−0.4	9			GSa		01He35	*
^{255}Rf^{m}(α)^{251}No^{m}	8864.3	15.				9			GSa		97He29	*
*^{255}Es(α)^{251}Bk	E(α)=6303(3,Z) to 35.7(0.3) level										NDS902	**
*^{255}Es(α)^{251}Bk	E(α)=6299.3(1.5,Z) to 35.7(0.3) level										NDS	**
*^{255}Fm(α)^{251}Cf	E(α)=7121.5, 7018.5(4,Z) to ground-state, 106.30 level										NDS902	**
*^{255}Fm(α)^{251}Cf	E(α)=7126.8, 7021.8(2,Z) to ground-state, 106.30 level										NDS902	**
*^{255}Md(α)^{251}Es	E(α)=7323.5(5,Z) to 461.40 level										NDS99a	**
*^{255}Md(α)^{251}Es	E(α)=7332.3(5,Z) to 461.40 level										NDS99a	**
*^{255}Md(α)^{251}Es	E(α)=7327(4) to 461.40 level										NDS99a	**
*^{255}No(α)^{251}Fm	E(α)=8312(9), 8121(6) to gs and 191(2)										NDS99a	**
*^{255}Lr(α)^{251}Md^{p}	E(α)=8429(18); and a more intense 8370(18) branch										76Be.A	**
*^{255}Lr(α)^{251}Md^{p}	One case in a questionable ^{279}Ea decay chain										AHW	**

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
$*^{255}$Lr(α)^{251}Md^{p}	E(α)=8400(30); and a more intense 8360(30) branch										76Be.A	**
$*^{255}$Rf(α)^{251}No	E(α)=8700(20) to 203 level										01He35	**
$*^{255}$Rf(α)^{251}No	E(α)=8766(15), 8715(15) to 142, 203 levels,										01He35	**
$*^{255}$Rf(α)^{251}No	E(α)=8905(20), 8739(20) to ground-state, 203 level										01He35	**
$*^{255}$Rf(α)^{251}No	E(α)=8722(10) to 203(3) level										01He35	**
$*^{255}$Rf^{m}(α)^{251}No^{m}	Tentative assignment; correlateds with ^{251}No^{m}										97He29	**
*	not found in later work on ^{251}No decay										01He35	**
^{256}Fm(α)^{252}Cf	7027.3	5.				3					68Ho13	Z
^{256}Md(α)^{252}Es	7896.6	16.				4					93Mo18	
^{256}No(α)^{252}Fm	8578.3	12.	8581	5	0.3	5					81Be03	
	8582.3	6.			−0.1	5					90Ho03	
^{256}Lr(α)^{252}Md^{p}	8787.6	20.	8777	13	−0.5	4					71Es01	
	8761.1	25.			0.6	4					76Be.A	
	8777.4	20.			0.0	4					76Di.A	
^{256}Rf(α)^{252}No	8952.1	23.	8930	20	−1.0	o			GSa		85He06	
	8929.8	20.				8			GSa		97He29	
^{256}Db(α)^{252}Lr^{p}	9157.4	20.				13			Gsa		01He35	
^{256}Lr^{p}(IT)^{256}Lr	100	70				5					AHW	*
$*^{256}$Lr^{p}(IT)^{256}Lr	L X−rays following α rays seen by ref.										77Be36	**
^{257}Fm(α)^{253}Cf	6862.7	2.	6863.5	1.4	0.4	4			Bka		67As02	*
	6864.4	2.			−0.4	4					82Ah01	*
^{257}Md(α)^{253}Es	7557.6	1.				6					93Mo18	*
^{257}No(α)^{253}Fm	8451.8	30.	8466	21	0.5	5					70Es02	
	8480	30			−0.5	5			GSa		96Ho13	*
^{257}Lr(α)^{253}Md^{p}	9020.8	20.	9009	9	−0.6	4					71Es01	
	9001.3	12.			0.7	4					76Be.A	
	9014.0	15.			−0.4	4			GSa		97He29	
^{257}Rf(α)^{253}No	9044.0	15.				6			GSa		97He29	
^{257}Rf(α)^{253}No^{m}	8913.0	15.	8915	11	0.2	7			ORb		73Be33	
	8918.1	15.			−0.2	7			GSa		97He29	
^{257}Rf^{m}(α)^{253}No	9142.5	20.	9157	7	0.7	U			Bka		69Gh01	
	9158.8	15.			−0.1	o			ORb		73Be33	
	9155.8	8.			0.2	6			ORb		90Be.A	
	9163.9	15.			−0.4	6			GSa		97He29	
^{257}Db(α)^{253}Lr	9112.1	20.	9230	15	5.9	F			GSa		85He22	
	9230	15				7			GSa		01He35	*
^{257}Db^{m}(α)^{253}Lr^{m}	9305.1	20.	9308	10	0.2	o			GSa		85He22	
	9308.2	10.				8			GSa		01He35	
$*^{257}$Fm(α)^{253}Cf	E(α)=6518.5(2,Z) to 241.01 level										NDS99a	**
$*^{257}$Fm(α)^{253}Cf	E(α)=6756.5(3,Z), 6520.5(2,Z) to gs, 241.01 level										NDS99a	**
$*^{257}$Md(α)^{253}Es	E(α)=7440(2), 7074(1) to ground-state, 371.4 level										93Mo18	**
$*^{257}$No(α)^{253}Fm	E(α)=8340(20); one event only; may be summing with e^{-}										AHW	**
$*^{257}$Db(α)^{253}Lr	E(α)=9074(10) partly sum with conversion e^{-}										01He35	**
^{258}Md(α)^{254}Es	7266.8	5.	7271.3	1.9	0.9	7					70Fi12	*
	7272	2			−0.4	7					93Mo18	*
^{258}Lr(α)^{254}Md	8870	50	8900	20	0.6	F					76Be.A	*
	8900	20				5					88Gr30	*
^{258}Db(α)^{254}Lr^{p}	9445.7	15.	9446	12	0.0	11					85He22	
	9531.0	50.			−1.7	U			GSa		97Ho14	
	9446.8	20.			0.0	11					01Ga20	
$*^{258}$Md(α)^{254}Es	E(α)=6713(5) to 447.9 level										93Mo18	**
$*^{258}$Md(α)^{254}Es	E(α)=6763(4), 6718(2) to 403.8, 447.9 levels										93Mo18	**
$*^{258}$Lr(α)^{254}Md	E(α)=8648(10) is concident with X(L) not X(K) $->$ E(γ)=90(50)										AHW	**
$*^{258}$Lr(α)^{254}Md	E(α)=8752 found as sum energies α-rays and conversion electrons										AHW	**
$*^{258}$Lr(α)^{254}Md	Mass assignment confirmed										92Gr02	**

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{259}No(α)^{255}Fm^{p}	7617.8	10.	7635	4	1.7	5					73Si40	*
	7638.2	4.			−0.7	5					93Mo18	*
^{259}Lr(α)^{255}Md^{p}	8582.8	20.	8574	9	−0.4	6					71Es01	
	8571.6	10.			0.2	6					92Ha22	
	8577.7	29.			−0.1	U					92Kr01	
^{259}Rf(α)^{255}No^{p}	8999.2	20.	9021	12	1.1	7					69Gh01	
	9030	20			−0.4	7					81Be03	*
	9034.7	20.			−0.7	7			GSa		98Ho13	
^{259}Db(α)^{255}Lr	9618.8	20.				10					01Ga20	
^{259}Sg(α)^{255}Rf	9834	30				10					85Mu11	*
*^{259}No(α)^{255}Fm^{p}	Favored E(α); highest seen 7685(10)										73Si40	**
*^{259}No(α)^{255}Fm^{p}	Or E(favored)=7551(4) if Coriolis mixed										NDS902	**
*^{259}Rf(α)^{255}No^{p}	E(α)=8870(20); partly sum E(α)=8770(20) with e^{-}										AHW	**
*^{259}Sg(α)^{255}Rf	E(α)=9620(30) probably to 9/2 63(10) above 7/2 ground-state										AHW	**
*^{259}Sg(α)^{255}Rf	E(α)=9030(50) maybe unhindered to ^{255}Rf^{p} Nm level at 660(60)										AHW	**
^{260}Lr(α)^{256}Md^{p}	8155.0	20.				6					71Es01	
^{260}Db(α)^{256}Lr^{p}	9283.1	20.	9278	10	−0.2	6					70Gh02	
	9262.8	17.			0.9	6					77Be36	
	9289.2	20.			−0.5	6			GSa		95Ho04	*
	9285.1	20.			−0.3	6			GSa		02Ho11	*
^{260}Sg(α)^{256}Rf	9923.0	30.				9					85Mu11	
*^{260}Db(α)^{256}Lr^{p}	Event #2. Also event #3 E(α)=9200										95Ho04	**
*^{260}Db(α)^{256}Lr^{p}	Two events E(α)=9156 and 9129										02Ho11	**
^{261}Rf(α)^{257}No	8652.8	20.	8650	19	−0.1	o			GSa		96Ho13	
	8632.6	50.			0.3	6			PSa		01Tu.B	
	8652.8	20.			−0.1	6			GSa		02Ho11	
^{261}Rf^{m}(α)^{257}No^{p}	8409.1	20.	8409	15	0.0	8			Bka		70Gh01	
	8388.8	30.			0.7	8			GSa		98Tu01	*
	8429.5	30.			−0.7	8			Dba		00La34	
^{261}Db(α)^{257}Lr^{p}	9069.2	20.				6					71Gh01	
^{261}Sg(α)^{257}Rf^{p}	9709.0	30.	9703	17	−0.2	8					85Mu11	
	9700.0	20.			0.1	8					95Ho03	
^{261}Bh(α)^{257}Db	10562.1	25.				8					89Mu09	
*^{261}Rf^{m}(α)^{257}No^{p}	In addition 60% E(α)=8380(30)										98Tu01	**
^{262}Db(α)^{258}Lr^{p}	8794.5	20.	8805	12	0.5	7					71Gh01	
	8815.8	20.			−0.5	7					88Gr30	
	8804.7	20.			0.0	7			GSa		99Dr09	
^{262}Bh(α)^{258}Db	10216.2	25.	10300	25	3.4	B					89Mu09	*
	10300.0	25.				12			GSa		97Ho14	
^{262}Bh^{m}(α)^{258}Db	10531.1	25.	10610	50	1.5	B					89Mu09	*
	10605.3	25.				12			GSa		97Ho14	
*^{262}Bh(α)^{258}Db	B: not highest line, see ref.										97Ho14	**
*^{262}Bh^{m}(α)^{258}Db	B: not highest line, see ref.										97Ho14	**
^{263}Rf(α)^{259}No^{p}	8022	40	8022	29	0.0	7					93Gr.C	
	8022	40			0.0	7					99Ga.A	
^{263}Db(α)^{259}Lr^{p}	8484.3	27.				8					92Kr01	
^{263}Sg(α)^{259}Rf^{q}	9200.2	40.	9180	30	−0.4	11					74Gh04	
	9149.2	60.			0.6	11					94Gr08	
^{263}Sg^{m}(α)^{259}Rf^{p}	9393.1	40.	9391	18	0.0	9					74Gh04	
	9391.1	20.			0.0	9			GSa		98Ho13	

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference
^{264}Bh(α)^{260}Db^{p}	9767.3	20.				8			GSa		95Ho04 *
^{264}Hs(α)^{260}Sg	10870	210	10591	20	−1.3	U					87Mu15 *
	10590.5	20.				10					95Ho.B
*^{264}Bh(α)^{260}Db^{p}	Three more events in ref. E(α)=9365, 9514 and 9113										02Ho11 **
*^{264}Hs(α)^{260}Sg	Q(α)=11000(+100–300) from T(1/2), one event only										87Mu15**
^{265}Sg(α)^{261}Rf	8904.7	30.	9080	50	3.5	F			GSa		96Ho13 *
	9077.3	30.				7			GSa		98Tu01
^{265}Sg(α)^{261}Rf^{p}	8945.3	60.	8980	30	0.5	F			Dba		94La22 *
	8975.7	30.				8			GSa		98Tu01 *
^{265}Hs(α)^{261}Sg	10586.2	15.				9			GSa		99He11
^{265}Hs(α)^{261}Sg^{p}	10524.2	25.	10459	15	−2.6	o			GSa		87Mu15
	10468.3	20.			−0.5	o			GSa		95Ho03
	10459.2	15.				10			GSa		99He11
^{265}Hs^{m}(α)^{261}Sg	10890.8	15.				9			GSa		99He11
^{265}Hs^{m}(α)^{261}Sg^{q}	10712.0	20.	10734	15	1.1	o			GSa		95Ho03
	10733.4	15.				10			GSa		99He11
*^{265}Sg(α)^{261}Rf	F: this event is distrusted, see ref.										02Ho11 **
*^{265}Sg(α)^{261}Rf^{p}	Average but probably due to several groups, see ref.										98Tu01 **
*^{265}Sg(α)^{261}Rf^{p}	Strongest group; may be unhindered one. There is a 100 higher E(α)										98Tu01 **
^{266}Sg(α)^{262}Rf	8762.0	50.	8880	30	2.4	F			Dba		94La22 *
	8904.1	40.			−0.5	6			GSa		98Tu01
	8853.4	50.			0.6	6			GSa		02Tu05
^{266}Bh(α)^{262}Db^{p}	9432	50				9			Bka		00Wi15
^{266}Hs(α)^{262}Sg	10335.9	20.				8			GSa		01Ho06
^{266}Mt(α)^{262}Bh	10995.7	25.				13			GSa		97Ho14
^{266}Mt^{n}(α)^{262}Bh^{m}	11269.7	50.	11920	50	13.0	F			GSa		84Mu07 *
	11168.1	30.			25.0	F					89Mu16
	11918.6	50.				13			GSa		97Ho14 *
*^{266}Sg(α)^{262}Rf	Average of two groups										02Tu05 **
*^{266}Mt^{n}(α)^{262}Bh^{m}	One E(α) only; may be gs										AHW **
*^{266}Mt^{n}(α)^{262}Bh^{m}	One E(α)=11739, one 11306; several smaller										AHW **
^{267}Bh(α)^{263}Db^{p}	8965	30	8970	26	0.2	10			Bka		00Wi15
	8985	50			−0.3	10			Bka		02Tu05
^{267}Hs(α)^{263}Sg^{m}	9970	40	10020	18	1.2	10			Dba		95La20
	10032.6	20.			−0.6	10			GSa		98Ho13
^{267}Ea(α)^{263}Hs^{p}	11776.5	50.				13					95Gh04
^{268}Mt(α)^{264}Bh^{p}	10395.5	20.	10432	20	1.8	o			GSa		95Ho04 *
	10432.1	20.				10			GSa		02Ho11 *
*^{268}Mt(α)^{264}Bh^{p}	Two events E(α)=10221 coinc. E(γ)=93 and 10259; event #3 E(α)=10097										95Ho04 **
*	could be decay of an isomer with lifetime=171 ms										02Ho11 **
*^{268}Mt(α)^{264}Bh^{p}	Average of event 1995Ho04 E(α)=10259 and present 10294										02Ho11 **
^{269}Hs(α)^{265}Sg^{p}	9369.6	30.	9330	16	−1.3	9			GSa		96Ho13 *
	9288.4	50.			0.8	9					01Tu.B *
	9318.7	20.			0.5	9			GSa		02Ho11
^{269}Ea(α)^{265}Hs^{m}	11280.1	20.				10					95Ho03
*^{269}Hs(α)^{265}Sg^{p}	Event number 2 only; first event rejected, see ref.										02Ho11 **
*^{269}Hs(α)^{265}Sg^{p}	Three events E(α)=9180, 9110, 8880										01Tu.B **
^{270}Hs(α)^{266}Sg	9298.0	30.				7					01Tu.B *
^{270}Ea(α)^{266}Hs	11196	50				9			GSa		01Ho06
^{270}Ea^{m}(α)^{266}Hs	12333	50				9			Gsa		01Ho06
*^{270}Hs(α)^{266}Sg	Also E(α)=8970										01Tu.B **

Item	Input value		Adjusted value		v_i	Dg	Sig	Main flux	Lab	F	Reference	
^{271}Ea(α)^{267}Hs	10869.8	20.				11			GSa		98Ho13	
^{271}Ea^{m}(α)^{267}Hs	10899.2	20.				11			GSa		98Ho13	
^{272}Eb(α)^{268}Mt^{p}	10981.9	20.	11192	20	10.5	B			GSa		95Ho04	*
	11192.0	30.				12			GSa		02Ho11	*
*^{272}Eb(α)^{268}Mt^{p}	B: one event only; E(K) in coinc. may explain discrepancy										GAu	**
*^{272}Eb(α)^{268}Mt^{p}	Two events Ea=11008 and 11046										02Ho11	**
^{273}Ea(α)^{269}Hs	9875.0	20.	11370	50	74.6	F			GSa		96Ho13	*
	11519.1	60.			−3.0	B			Dba		96La12	
	11367.9	20.				10			GSa		02Ho11	
*^{273}Ea(α)^{269}Hs	F: this event is distrusted, see ref.										02Ho11	**
^{277}Ec(α)^{273}Ea	11622.2	30.				11			GSa		96Ho13	
	11821.0	30.	11620	30	−6.6	F			GSa		96Ho13	*
^{277}Ec(α)^{273}Ea^{p}	11334.0	20.				12			GSa		02Ho11	
*^{277}Ec(α)^{273}Ea	F: this event is distrusted, see ref.										02Ho11	**
^{281}Ea(α)^{277}Hs	8957.8	180.				4			Dba		99Og10	
^{284}Ec(α)^{280}Ea	9302.3	50.				9			Dba		01Og01	
^{285}Ec(α)^{281}Ea	8793.7	50.				5			Dba		99Og10	
^{287}Ee(α)^{283}Ec	10435.8	20.				13			Dba		99Og07	
^{288}Ee(α)^{284}Ec	9968.8	50.				10			Dba		01Og01	
^{289}Ee(α)^{285}Ec	9846.6	50.				6			Dba		99Og10	
^{292}Eg(α)^{288}Ee	10707.0	50.				11			Dba		01Og01	