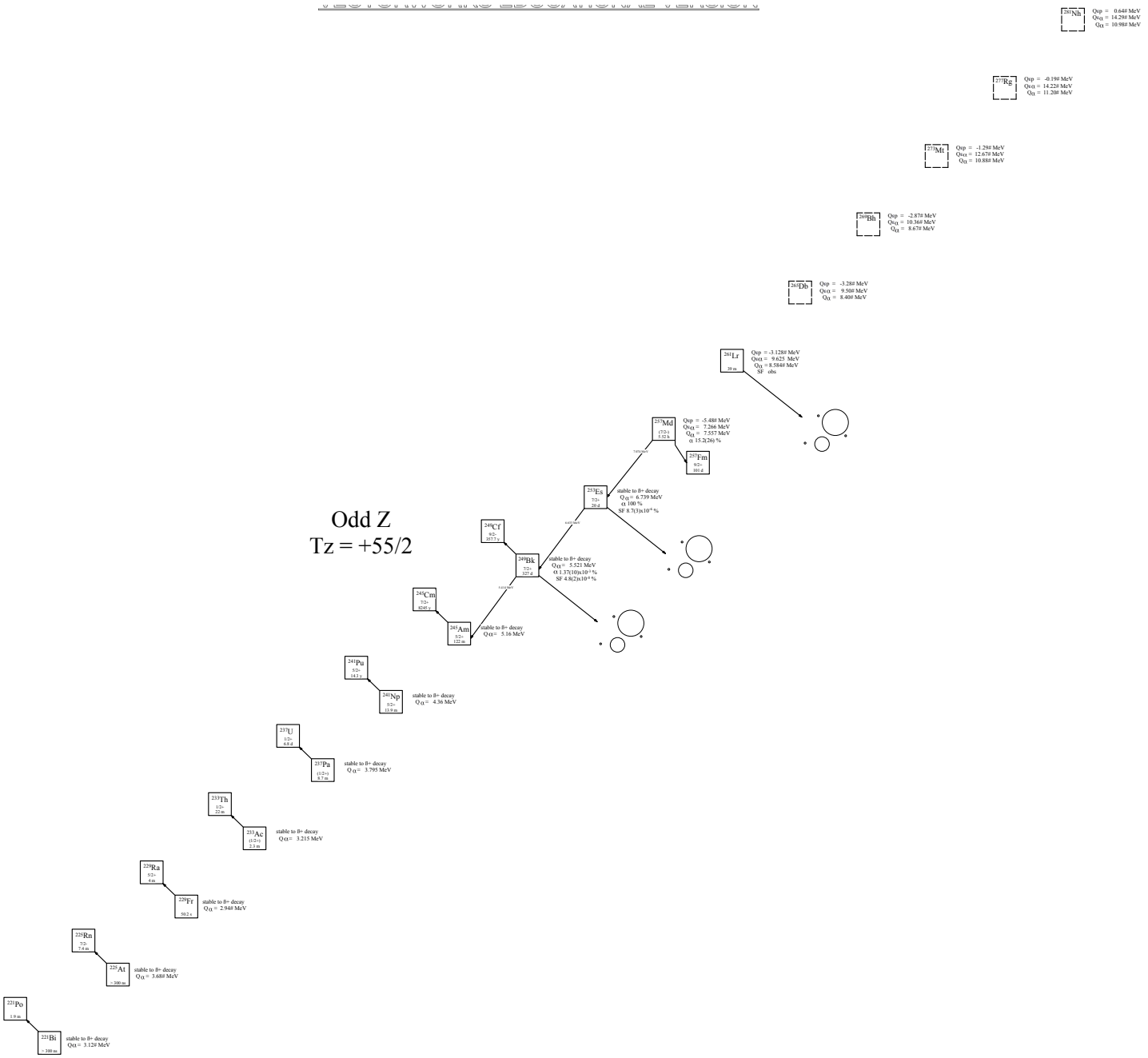

Fig. 1: Known experimental values for heavy particle emission of the odd-Z T_z= +55/2 nuclei.

Last updated 4/8/2025

Table 1
Observed and predicted β-delayed particle emission from the odd-Z, T_z = +55/2 nuclei. Unless otherwise stated, all Q-values are taken from [2021Wa16] or deduced from values therein. J^π values for XX are taken from ENSDF.

Nuclide	J^π	$T_{1/2}$	Q_ε	Q_{β^-}	$Q_{\beta^- \alpha}$	Experimental
^{221}Bi		obs		4.43(30)#	9.70(42)#	[**2010Al24**]
^{225}At		obs	-4.28(42)#	3.77(30)#	8.28(30)#	[**2010Al24**]
^{229}Fr		50.2(20) s	-3.694(14)	3.106(16)	6.889(12)	[**1992Bo05**]
^{233}Ac	$(1/2^+)$	2.3(3) m	-3.026(16)	2.576(13)	6.501(20)	[**1983Ch31**]
^{237}Pa	$(1/2^+)$	8.7(2) m	-2.427(21)	2.137(13)	6.551(13)	[**1974Ka05**]
^{241}Np	$5/2^+$	13.9(2) m	-1.88(22)#	1.36(10)	6.69(10)	[**1981Pa20**]
^{245}Am	$5/2^+$	122.8(5) m*	-1.278(14)	0.896(2)	6.700(2)	[**1968Da02, 1983Po15**]
^{249}Bk	$7/2^+$	327.2(3) d	-0.904(3)	0.124(1)	6.597(2)	[**2014Ch47**]
				$Q_{\varepsilon p}$	$Q_{\varepsilon \alpha}$	
^{253}Es	$7/2^+$	20.03(1) d	-0.291(4)	—	—	[**1956Jo09**]
^{257}Md	$(7/2^-)$	5.523(50) h	0.402(5)	-5.48(10)#	7.266(5)	[**1993Mo18**]
^{261}Lr		39(12) m	1.10(28)#	-4.28(37)#	8.54(20)#	[**1991HeZT**]
^{265}Db			1.69(42)#	-3.28(49)#	9.50(30)#	
^{269}Bh			1.79(53)#	-2.87(65)#	10.36(52)#	
^{273}Mt			3.02(57)#	-1.29(68)#	12.67(56)#	
^{277}Rg			3.32(61)#	-0.19(71)#	14.22(60)#	
^{281}Nh			3.86(50)#	0.64(61)#	14.29(49)#	

* Weighted average of 2.05(1) h [1968Da02] and 122.5(8) m [1983Po15].

Table 2
Particle separation, Q-values, and measured values for direct particle emission of the odd-Z, T_z = +55/2 nuclei. Unless otherwise stated, all S and Q-values are taken from [2021Wa16] or deduced from values therein.

Nuclide	S_p	Q_α	BR_α	BR_{SF}	Experimental
^{221}Bi	7.22(50)#	3.12(50)#			
^{225}At	6.90(36)#	3.68(42)#			
^{229}Fr	6.864(18)	2.94(30)#			
^{233}Ac	6.478(16)	3.215(14)			
^{237}Pa	6.017(19)	3.795(18)			
^{241}Np	5.69(10)	4.36(10)			
^{245}Am	5.195(3)	5.16(10)			
^{249}Bk	4.835(3)	5.521(1)	$1.37(10)\times10^{-3}$%	$4.8(2)\times10^{-8}$%	[**2013Ah03, 1969Mi08**, 2024Du12, 2014Ch47, 1999Po35, 1994Po30, 1993Po20, 1985Po26, 1975Ba27, 1972Ko53, 1971Bb10, 1969Ba57, 1966Ah02, 1957Ea01, 1956Ch77, 1954Di11]
^{253}Es	4.313(3)	6.739	100%	$8.7(3)\times10^{-6}$%	[**2005Ah03, 1975Ah01, 1971Gr17, 1965Me02**, 2005AhZZ, 1987Po22, 1982Po13, 1976Fl03, 1972HaWR, 1971Ba49, 1971BaZB, 1966Rg01, 1963Le17, 1960As06, 1960As08, 1954Fi14]
^{257}Md	3.781(3)	7.557(1)	15.2(26)%		[**1993Mo18**, 1986HaYZ, 1971Ho16, 1970Fi12. 1965Si14]
^{261}Lr	3.34(28)#	8.14(20)#		obs	[**1991HeZT**, 1989HuZU]
^{265}Db	2.98(42)#	8.40(10)#			
^{269}Bh	2.61(60)#	8.67(30)#			
^{273}Mt	1.51(66)#	10.88(20)#			
^{277}Rg	1.42(72)#	11.20(20)#			
^{281}Nh	1.13(66)#	10.98(56)#			

Table 3
direct α emission from ^{249}Bk*, J^{π} = 7/2^{+}, $T_{1/2}$ = 327.2(3) d**, BR_{α} = 1.37(10)$\times10^{-3}$%***.

E_{α}(c.m.)	E_{α}(lab)	I_{α}(rel)	I_{α}(abs)	J^{π}_{f}***	$E_{daughter}$(^{243}Pu)***	coincident γ-rays (keV)***	R_0 (fm)	HF
5.046(4)	4.965(4)	≈0.014%	≈1.4$\times10^{-5}$%	11/2^{+}	0.4755		1.48944(52)	≈61
5.124(2)	5.042(2)	0.17(1)%	1.6(2)$\times10^{-4}$	9/2^{+}	0.3959	348.8, 376.7, 395.9	1.48944(52)	$20.3^{+2.6}_{-2.1}$
5.193(2)	5.110(2)	3.87(7)%	3.7(3)$\times10^{-3}$%	7/2^{+}	0.3274	280.4, 308.3, 327.5	1.48944(52)	$2.2^{+0.6}_{-0.4}$
5.229(2)	5.145(2)	0.026(7)%	2.5(7)$\times10^{-5}$%	(9/2^{-})	0.2927		1.48944(52)	550^{+230}_{-130}
5.290(2)	5.205(2)	0.069(10)%	6.6(1)$\times10^{-5}$%	(7/2^{-})	0.2317		1.48944(52)	510^{+100}_{-70}
5.335(2)	5.249(2)	0.129(14)%	1.2(2)$\times10^{-4}$%	(5/2^{-})	0.1870		1.48944(52)	520^{+80}_{-60}
5.367(2)	5.281(2)	0.129(14)%	1.2(2)$\times10^{-4}$%	(3/2^{-})	0.1545		1.48944(52)	5840^{+130}_{-100}
5.388(2)	5.301(2)	0.066(10)%	6.3(1)$\times10^{-5}$%	(13/2^{+})	0.1345		1.48944(52)	$2.2^{+5}_{-3}\times10^{3}$
5.398(2)	5.311(2)	0.043(14)%	4.1(1)$\times10^{-5}$%	(9/2^{-}	0.1247		1.48944(52)	$3.8^{+2.0}_{-1.0}\times10^{3}$
5.433(2)	5.346(2)	3.73(2)%	3.6(3)$\times10^{-3}$%	(11/2^{+})	0.0877		1.48944(52)	75(6)
5.451(2)	5.363(2)	0.11(1)%	1.1(1)$\times10^{-4}$%	(7/2^{-})	0.0704		1.48944(52)	$1.2^{+0.5}_{-0.4}\times10^{3}$
5.474(2)	5.386(2)	25.7(3)%	0.025(2)%	9/2^{+}	0.0471		1.48944(52)	19.1(14)
5.502(2)	5.414(2)	100.0(6)%	0.095(7)%	7/2^{+}	0.0192		1.48944(52)	7.2(5)
5.522(2)	5.433(2)	9.43(15)%	9.0(7)$\times10^{-3}$%	5/2^{+}	0.0	——	1.48944(52)	100(8)

* All values from [2013Ah03], except where noted
** [2014Ch47]
*** [1969Mi08].
@ [2023Ne07].

Table 4
direct α emission from ^{253}Es*, J^{π} = 7/2$^+$, $T_{1/2}$ = 20.03(1) d**, BR_{α} = 100%. (1 of 2)

E_{α}(c.m.)	E_{α}(lab)	I_{α}(rel)	I_{α}(abs)	J_f^{π}@	$E_{daughter}$ (^{249}Bk)@	coincident γ-rays (keV)***	HF@@
5.512(2)***	5.425(2)	1.0(1)×10^{-6}%	9.0(9)×10^{-7}%***	(15/2$^-$)	1.2275	41.8, 52.0, 62.1, 73.4, 93.8, 114.0, 135.5, 998.3	69^{+8}_{-6}
5.517(2)***	5.429(2)	8.7(5)×10^{-6}%	7.8(5)×10^{-6}%***	(7/2$^+$)	1.2230	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 73.8, 82.6, 93.8, 95.9, 98.1, 137.7, 291.3, 306.6, 335.2, 346.4, 347.3, 349.6, 387.2, 389.2, 429.0, 794.0, 833.8, 1181.3, 1223.0	8.5(6)
5.589(2)***	5.500(2)	6.0(4)×10^{-6}%	5.4(4)×10^{-6}%***	(5/2$^-$)	1.1506	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 73.8, 82.6, 93.8, 95.9, 98.1, 137.7, 291.3, 306.6, 335.2, 346.4, 347.3, 349.6, 387.2, 389.2, 429.0, 1150.7	23.6(25)
5.596(2)***	5.507(2)	2.0(2)×10^{-6}%	1.8(2)×10^{-6}%***	11/2$^+$	1.1438	41.8, 52.0, 93.8, 1050.0, 1102.0	111^{+14}_{-11}
5.606(2)***	5.517(2)	3.3(2)×10^{-6}%	3.0(2)×10^{-6}%***	(13/2$^-$)	1.1339	41.8, 52.0, 93.8, 1040.2	76(5)
5.664(2)***	5.575(2)	7.7(5)×10^{-6}%	6.9(4)×10^{-6}%***	9/2$^+$	1.0751	41.8, 52.0, 93.8, 981.3, 1075.1	74(4)
5.684(2)***	5.594(2)	8.5(6)×10^{-6}%	7.6(5)×10^{-6}%***	(11/2$^-$)	1.0558	41.8, 52.0, 62.1, 93.8, 114.0, 899.9, 962.1, 1014.4	88(6)
5.751(2)***	5.661(2)	1.4(8)×10^{-5}%	1.3(1)×10^{-5}%***	(9/2$^-$)	0.9881	41.8, 52.0, 93.8, 894.5, 946.3	124(10)
5.805(2)***	5.713(2)	4.3(2)×10^{-6}%	3.9(2)×10^{-6}%***		0.9346*	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 73.8, 82.6, 93.8, 95.9, 98.1, 137.7, 244.0, 261.7, 283.7, 291.3, 306.6, 335.2, 346.4, 347.3, 349.6, 387.2, 389.2, 429.0, 590.1, 633.0, 664.0, 672.8, 852.1	830(40)
5.807(2)***	5.716(2)	7.1(3)×10^{-5}%	6.4(3)×10^{-5}%***	(7/2$^-$)	0.9322	41.8, 52.0, 93.8, 164.4, 726.1, 767.9, 838.5, 890.5, 932.2	52.3(25)
5.828(2)***	5.736(2)	6.9(6)×10^{-6}%	6.2(5)×10^{-6}%***	(13/2$^-$)	0.9112	41.8, 52.0, 62.1,93.8, 114.0, 755.3, 817.4	710(60)
5.840(2)***	5.747(2)	≈1.2×10^{-5}%	≈1.1×10^{-5}%***	(3/2$^-$)	0.8996	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 73.8, 82.6, 93.8, 95.9, 98.1, 137.7, 227.0, 244.0, 283.7, 291.3, 306.6, 335.2, 346.4, 347.3, 349.6, 387.2, 389.2, 429.0, 590.1, 633.0, 664.0,672.8, 860.3, 890.5	$\approx 460^{+100}_{-70}$
5.903(2)***	5.810(2)	4.5(4)×10^{-6}%	4.1(3)×10^{-6}%***	(11/2$^-$)	0.8361	41.8, 52.0, 93.8, 742.4, 794.2, 836.1	2.8(2))×10^3
5.970(2)***	5.876(2)	≈3.9×10^{-6}%	≈3.5×10^{-6}%***	(9/2$^+$)	0.7692	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 62.1, 66.9, 73.4, 73.8, 78.6, 82.6, 93.8, 95.9, 98.1, 114.0, 122.0, 135.5, 137.7, 145.4, 162.7, 189.4, 227.1, 258.9, 270.5, 291.3, 294.1, 312.7, 319.2, 335.2, 337.3, 340.2, 346.4, 381.2, 387.2, 392.4, 404.4, 429.0, 433.2, 448.3, 475.0, 500.4	≈7.6×10^3
5.972(2)***	5.877(2)	4.1(2)×10^{-5}%	3.6(2)×10^{-5}%***		0.7679	41.8, 726.1, 767.9	750(40)
6.016(2)***	5.921(2)	3.8(3)×10^{-6}%	3.4(3)×10^{-6}%***	(9/2$^-$)	0.7232	30.8, 43.0, 73.8, 82.6, 640.6	1.37(12)×10^4
6.028(2)***	5.933(2)	≈4.0×10^{-6}%	3.6×10^{-6})%***		0.7112	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 62.1, 66.9, 73.8, 82.6, 93.8, 95.9, 98.1, 114.0 , 122.0, 137.7, 162.7, 192.0, 236.1, 270.5, 282.2, 291.3, 319.2, 335.2, 337.3, 346.4, 381.2, 387.2, 392.4, 425.4, 429.0, 433.2, 436.8,475.0, 477.4	≈1.5×10^4
6.030(4)	5.935(4)	≈4.5×10^{-5})%	≈4.0×10^{-5}%	(5/2$^-$)	0.7091	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 66.9, 73.8, 82.6, 87.5, 93.8, 95.9, 98.1, 102.8, 122.0, 137.7, 162.7, 185.3, 402.0, 421.4, 425.4, 436.8, 469.0, 477.4, 524.1, 567.1, 571.0, 626.5, 669.5, 700.3	≈1.4×10^3
6.036(2)***	5.941(2)	7.3(1)×10^{-6}%	6.6(1)×10^{-6}%***		0.7034	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 62.1, 66.9, 73.8, 82.6, 93.8, 95.9, 98.1, 114.0 , 122.0, 137.7, 162.7, 228.4, 270.5, 274.5, 291.3, 306.6, 314.2, 319.2, 337.3, 335.2, 346.4, 347.3, 349.6, 381.2, 387.2, 389.2, 392.4, 429.0, 433.2, 475.0, 661.6, 703.6	9.0(2)×10^3
6.039(3)	5.944(3)	1.7(6)×10^{-4}%	1.5(5)×10^{-4}%	(15/2+)	0.7019	41.8, 52.0, 62.1, 73.4, 93.8, 114.0, 135.5, 472.6, 545.9, 608.2	400^{+0200}_{-100}
6.067(2)***	5.971(2)	≈1.6(15)×10^{-5}%	≈1.5×10^{-5}%***(5/2-)		0.6728	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 73.8, 82.6, 93.8, 95.9, 98.1, 137.7, 244.0, 283.7, 291.3, 306.6, 335.2, 346.4, 347.3, 349.6, 387.2, 389.2, 429.0, 590.1, 633.0, 664.0, 672.8	$\approx 5.8^{+1.5}_{-1.0}\times 10^3$
≈6.070	≈5.974	≈6.7×10^{-5}%	6.0×10^{-5}%	(13/2+)	0.6711	30.8, 41.8, 43.0, 52.0, 62.1, 73.4, 73.8, 82.6, 93.8, 114.0, 135.5, 152.2, 425.4, 436.8, 441.8, 477.4, 515.5, 577.6	≈ 1.5×10^3

* All values from [1975Ah01], except where noted.
** [1956Jo09].
*** [2005Ah03]. E_{α} and I_{α} deduced from decay scheme of this reference.
@ Ensdf
@@ R_0 (fm) = 1.49492(49).

Table 5
direct α emission from ^{253}Es*, J^{π} = 7/2$^+$, $T_{1/2}$ = 20.03(1) d**, BR_{α} = 100%. (2 of 2)

E_{α}(c.m.)	E_{α}(lab)	I_{α}(rel)	I_{α}(abs)	J_f^{π}[@]	$E_{daughter}$ (^{249}Bk)[@]	coincident γ-rays (keV)***	HF[@@]
6.078(2)***	5.982(2)	$3.3(3)\times10^{-6}$%	$3.0(3)\times10^{-6}$%***	(3/2-)	0.6615	30.8, 283.7, 368.8 , 621.9, 652.8	$3.3^{+0.4}_{-0.3}\times10^{4}$
6.097(2)***	6.000(2)	$5.2(5)\times10^{-6}$%	$4.7(4)\times10^{-6}$%***	(1/2-)	0.6431	30.8, 603.4, 634.3	$2.6(2)\times10^{4}$
6.116(3)	6.019(3)	$2.0(6)\times10^{-4}$%	$1.8(5)\times10^{-4}$%	(5/2+)	0.6249	30.8, 30.9, 41.8, 43.0, 73.8, 82.6, 203.1, 235.1, 306.6, 347.3, 349.6, 389.2, 421.4, 624.3	850^{+330}_{-190}
6.134(3)	6.037(3)	$3.2(8)\times10^{-4}$%	$2.9(7)\times10^{-4}$%	(7/2-)	0.6067	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 66.9, 73.8, 82.6, 87.5, 93.8, 95.9, 98.1, 122.0, 137.7, 162.7 185.3, 402.0, 421.4, 425.4, 436.8, 469.0, 477.4, 524.1, 567.1	660^{+210}_{-140}
6.143(3)	6.046(3)	$4.5(10)\times10^{-4}$%	$4.0(9)\times10^{-4}$%	(13/2$^+$)	0.5978	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 62.1, 73.4, 73.8, 82.6 93.8, 95.9, 98.1, 114.0, 135.5, 137.7, 168.8, 291.3, 335.2, 346.4, 368.8, 387.2, 429.0, 441.8, 503.9, 555.8	530^{+160}_{-100}
≈6.169	≈6.071	$\leq5.6\times10^{-5}$)%	$\leq5.0\times10^{-5}$%	(1/2$^-$)	0.5692	30.8, 158.6, 191.6, 368.8 , 402.0, 529.7, 560.4	$\geq 1.2\times10^{4}$
6.182(3)	6.084(3)	$2.8(6)\times10^{-4}$%	$2.5(5)\times10^{-4}$%	(3/2$^-$)	0.5582	30.8, 30.9, 41.8, 43.0, 73.8, 82.6, 306.6, 136.8, 168.8, 180.5, 347.3, 349.6, 368.8, 389.2, 421.4, 475.4, 518.6, 549.4	$1.4^{+0.3}_{-0.2}\times10^{3}$
6.198(2)	6.100(2)	$3.8(2)\times10^{-3}$%	$3.4(2)\times10^{-3}$%	(11/2$^+$)	0.5421	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 62.1, 66.9, 73.4, 73.8, 78.6, 82.6, 93.8, 95.9, 98.1, 114.0, 122.0, 135.5, 137.7, 145.4, 162.7, 189.4, 258.9, 312.7, 404.4, 448.3, 500.4	120(7)
6.220(2)	6.122(2)	$8.7(9)\times10^{-4}$%	$7.8(8)\times10^{-4}$%	(9/2$^+$)	0.5192	30.8, 41.8, 43.0, 52.0, 73.8, 82.6, 93.8, 425.4, 436.8, 477.4	680^{+80}_{-70}
6.265(2)	6.166(2)	0.017(1)%	0.015(2)%	(9/2$^+$)	0.4750	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 62.1, 66.9, 73.8, 82.6, 93.8, 95.9, 98.1, 114.0 , 122.0, 137.7, 162.7 , 270.5, 319.2, 337.3, 381.2, 392.4, 433.2, 475.0	59^{+9}_{-7}
6.266(2)	6.167(2)	$\approx1\times10^{-5}$%	$\approx9\times10^{-6}$%	(17/2$^-$)	0.4736	30.8, 30.9, 41.8, 43.0, 55.1, 66.9, 73.8, 78.6, 82.6, 90.0, 93.8, 95.9, 98.1, 100.5, 122.0, 137.7, 145.4, 162.7, 168.6, 189.4, 190.5	$1.0^{+0.3}_{-0.2}\times10^{5}$
6.311(2)	6.211(2)	0.043(2)%	0.039(2)%	(7/2$^+$)	0.4289	30.8, 30.9, 41.8, 43.0, 52.0, 55.1, 73.8, 82.6, 93.8, 95.9, 98.1, 137.7, 291.3, 335.2, 346.4, 387.2, 429.0	39(2)
6.317(3)	6.217(3)	$\approx1.7\times10^{-3}$)%	$\approx1.5\times10^{-3}$%	(5/2$^+$)	0.4214	421.4	$\approx1.1\times10^{3}$
6.330(3)	6.230(3)	$1.3(5)\times10^{-4}$%	$1.2(4)\times10^{-4}$%	(3/2$^+$)	0.4107	402.0	$1.6^{+0.8}_{-0.4}\times10^{4}$
6.350(2)	6.250(2)	0.050(2)%	0.045(2)%	(5/2$^+$)	0.3892	30.8, 30.9, 41.8, 43.0, 73.8, 82.6, 306.6, 347.3, 349.6, 389.2	52.6(24)
6.371(2)***	6.270(2)	$4.0(2)\times10^{-4}$%	$3.6(2)\times10^{-4}$%***		0.3688***	368.8	$6.2(5)\times10^{3}$
6.367(2)	6.266(2)	$8.9(9)\times10^{-4}$%	$8.0(8)\times10^{-4}$%	(15/2$^-$)	0.3732	30.8, 30.9, 41.8, 43.0, 55.1, 66.9, 73.8, 78.6, 82.6, 90.0, 93.8, 95.9, 98.1, 122.0, 137.7, 145.4, 162.7, 168.6, 189.4	$3.5^{+0.4}_{-0.3}\times10^{3}$
6.427(3)	6.325(3)	$4.5(11)\times10^{-4}$%	$4.0(10)\times10^{-4}$%	(17/2$^+$)	0.3119	41.8, 52.0, 62.1, 73.4, 82.6, 93.8, 114.0, 135.5, 156.1	$1.4^{+0.5}_{-0.3}\times10^{4}$
6.456(2)	6.354(2)	$9.1(5)\times10^{-3}$%	$8.2(4)\times10^{-3}$%		0.2831	30.8, 30.9, 41.8, 43.0, 55.1, 66.9, 73.8, 78.6, 82.6, 93.8, 95.9, 98.1, 122.0, 137.7, 145.4, 162.7, 189.4	940(50)
6.511(2)	6.408(2)	0.014(1)%	0.013(1)%	(15/2$^+$)	0.2292	41.8, 52.0, 62.1, 73.4, 93.8, 114.0, 135.5	$1.07(8)\times10^{3}$
6.535(2)	6.432(2)	0.068(3)%	0.061(3)%	(11/2$^-$)	0.2045	30.8, 30.9, 41.8, 43.0, 55.1, 66.9, 73.8, 82.6, 95.9, 98.1, 122.0, 137.7, 162.7	297(15)
6.584(2)	6.480(2)	0.095(3)%	0.085(3)%	13/2$^+$	0.1559	41.8, 52.0, 62.1, 93.8, 114.0	359(14)
6.602(2)	6.498(2)	0.29(1)%	0.26(1)%	9/2$^-$	0.1377	30.8, 30.9, 41.8, 43.0, 55.1, 73.8, 82.6, 95.9, 98.1, 137.7	143(6)
6.645(2)	6.540(2)	0.95(2)%	0.85(2)%	11/2$^+$	0.0938	41.8, 52.0, 93.8	69(2)
6.657(2)	6.552(2)	0.79(2)%	0.71(2)%	7/2$^-$	0.0825	30.8, 43.0, 73.8, 82.6	93(3)
6.698(2)	6.592(2)	7.3(1)%	6.6(1)%	9/2$^+$	0.0418[@]	41.8	15.4(3)
6.700	6.594	0.8%	0.7%	5/2$^-$	0.0396[@]	30.8	150
6.730	6.624	0.9%	0.8%	3/2$^-$	0.0088[@]		180
6.740(2)	6.633(2)	100%	89.8(2)%	7/2$^+$	0.0	——	1.74(4)

* All values from [1975Ah01], except where noted.
** [1956Jo09].
*** [2005Ah03]. E_{α} and I_{α} deduced from decay scheme of this reference.
[@] [2024Ne04].
[@@] R_0 (fm) = 1.49492(49).

Table 6
direct α emission from ^{257}Md*, J^{π} = (7/2$^-$), $T_{1/2}$ = 5.523(50) h*, BR_{α} = 15.2(26)%.

E_{α}(c.m.)	E_{α}(lab)	I_{α}(rel)	I_{α}(abs)	J_f^{π}***	$E_{daughter}$(^{253}Es)	coincident γ-rays (keV)	R_0 (fm)	HF
7.125(6)	7.014(6)	≈3.5%	≈3.4%	9/2$^-$	0.435	388.5	1.488(14)	≈22
7.186(1)	7.074(1)	100%	96.5%	7/2$^-$	0.3714	325.1, 371.4	1.488(14)	$1.4^{+0.6}_{-0.5}$
7.375(2)	7.260(2)	0.021(5)%	0.020(5)%	7/2$^-$	0.1813	181.3	1.488(14)	$3.8^{+2.1}_{-21.5}\times10^4$
7.418(2)	7.303(2)	0.026(5)%	0.025(5)%	5/2$^-$	0.139		1.488(14)	$4.5^{+2.5}_{-1.7}\times10^4$
7.452(3)	7.336(3)	0.014(1)%	0.014(1)%	3/2$^-$	0.106		1.488(14)	$1.1^{+0.5}_{-0.4}\times10^5$
7.477(7)	7.361(7)	0.010(10)%	0.010(10)%	11/2$^+$	0.080		1.488(14)	$1.9(19)\times10^5$
7.418(6)	7.303(6)	0.036(2)%	0.035(2)%	9/2$^+$	0.0463		1.488(14)	$7.4^{+3.5}_{-2.5}\times10^4$
7.558(2)	7.440(2)	0.038(6)%	0.037(6)%	7/2$^+$	0.0	—	1.488(14)	$1.1^{+0.6}_{-0.4}\times10^5$

* All values from [1993Mo18].

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