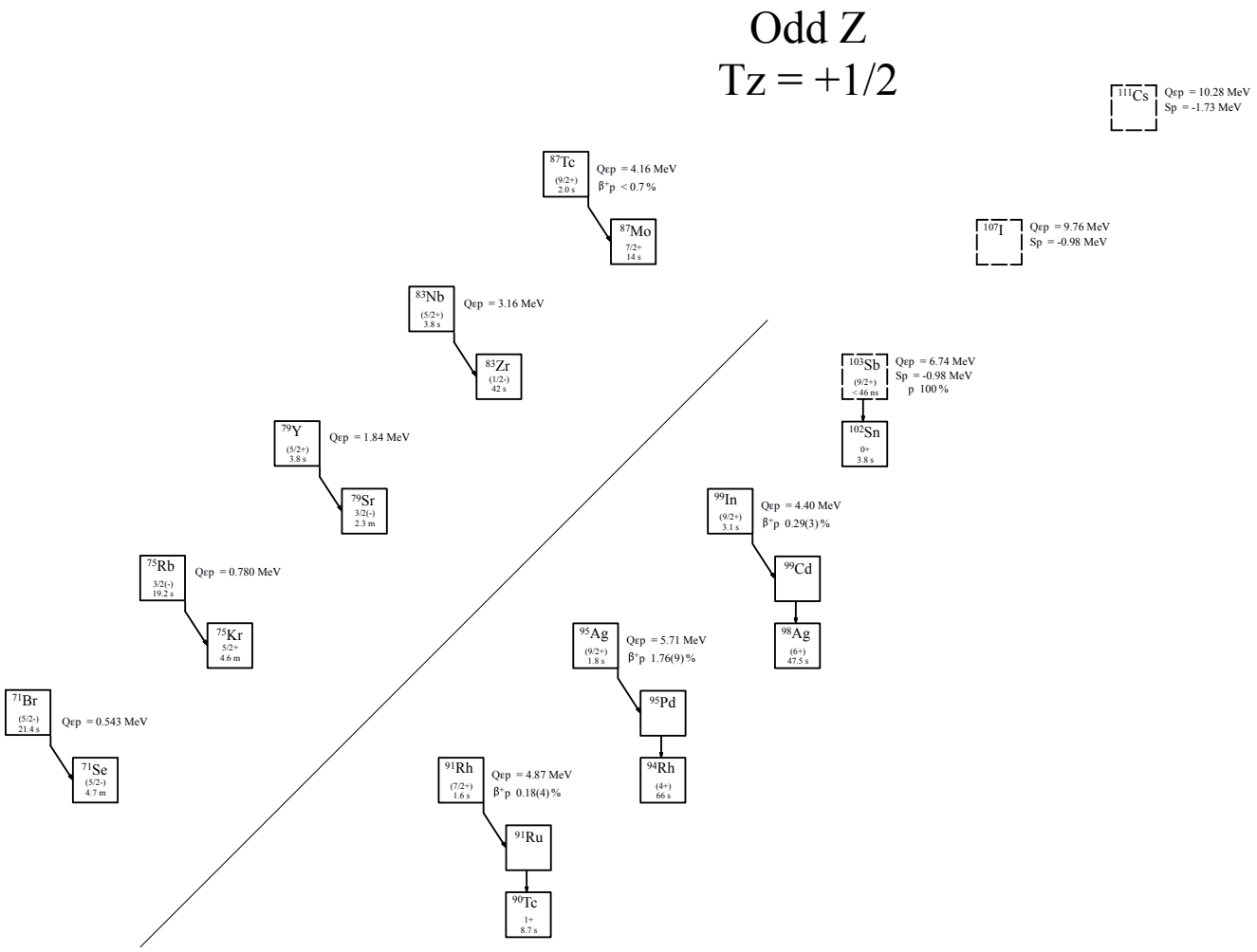

Fig. 1: Known experimental values for heavy particle emission of the odd-Z T_z= +1/2 nuclei.

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Table 1
Observed and predicted β-delayed particle emission from the odd-Z, T_z = +1/2 nuclei. Unless otherwise stated, all Q-values are taken from [2021Wa16] or deduced from values therein. J^πvalues for ^{71}Br, ^{75}Rb, ^{79}Y, ^{83}Nb, are taken from ENSDF.

Nuclide	J^π	$T_{1/2}$	Q_ε	$Q_{\varepsilon p}$	$BR_{\beta p}$	$Q_{\varepsilon 2p}$	$Q_{\varepsilon\alpha}$	Experimental
^{71}Br	$(5/2^-)$	21.4(6) s	6.644(6)	0.543(6)		-3.979(5)	3.747(6)	[**1982Ha32**]
^{75}Rb	$3/2^{(-)}$	19.2(10) s*	7.105(8)	0.780(6)		-3.570(7)	3.503(3)	[**1983Ke08, 1977Da04**]
^{79}Y	$(5/2^+)$	14.9(6)	7.680(80)	1.840(80)		-2.209(80)	4.099(80)	[**1992Mu12**]
^{83}Nb	$(5/2^+)$	3.8(2)	8.30(16)	3.16(16)		-0.66(16)	5.45(16)	[**2009St04**]
^{87}Tc	$(9/2^+)$	2.0(3) s	9.195(5)	4.155(7)	<0.7%	0.907(7)	5.797(7)	[**2019Pa16**, 2001Ki13, 2000StZU]
^{91}Rh	$(7/2^+)$	1.60(2) s	9.67(30)#	4.87(30)#	0.18(4)%**	1.87(30)#	5.89(30)#	[**2019Pa16**, 2012Lo08]
^{95}Ag	$(9/2^+)$	1.80(7) s	10.06(40)#	5.71(40)#	1.76(9)%	2.73(40)#	5.90(40)#	[**2019Pa16**, 2012Lo08, 1994Sc35]
^{99}In	$(9/2^+)$	3.11(6) s	8.56(30)#	4.40(30)#	0.29(3)%	1.85(30)#	6.16(30)#	[**2020Pa25, 2019Pa16**, 2012Lo08]
^{103}Sb		< 46 ns	10.42(32)#	6.74(30)#		4.59(30)#	10.84(30)#	[**2017Su26**, 2013Su23, 1995Ry03]
^{107}I			11.23(32)#	9.76(30)#		9.33(30)#	15.24(32)#	
^{111}Cs			11.62(23)#	10.28(21)#		10.24(20)#	15.34(22)#	

* Weighted average of 21.4(10) s [1983Ke08] and 17.0(10) s [1977Da04].
** Decay from combination of ground state and $(1/2^-)$ isomer.

Table 2
Particle separation and emission from the odd-Z, T_z = +1/2 nuclei. Unless otherwise stated, all Q-values and separation energies are taken from [2021Wa16] or deduced from values therein.

Nuclide	S_p	BR_{1p}	S_{2p}	Q_α	Experimental
^{71}Br	1.861(6)	——	7.970(30)	-2.340(5)	
^{75}Rb	2.1758(23)	——	8.151(7)	-3.141(6)	
^{79}Y	1.920(80)	——	7.550(80)	-3.010(80)	
^{83}Nb	1.29(16)	——	6.48(16)	-2.23(18)	
^{87}Tc	0.868(5)	——	5.988(6)	-2.50(16)	
^{91}Rh	0.98(30)#	——	5.75(30)#	-3.30(30)#	
^{95}Ag	1.09(40)#	——	5.47(40)#	-3.76(50)#	
^{99}In	1.03(30)#	——	5.05(30)#	-3.90(50)#	
^{103}Sb	-0.98(32)#	100 %	2.70(30)#	2.28(42)#	[**2017Su26**, 2013Su23, 1995Ry03]
^{107}I	-1.50(32)#		-0.010(300)#	4.82(42)#	
^{111}Cs	-1.73(22)#		-0.20(20)#	4.11(36)#	

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