^{23}Al εp decay:XUNDL-10 2025Go00

Parent: ^{23}Al: E=0; $J^{\pi}=5/2^{+}$; $T_{1/2}$=452 ms *4*; Q(εp)=4640.5 *4*; %εp decay=100
^{23}Al-J^{π}: From Adopted Levels of ^{23}Al in ENSDF database.
^{23}Al-$T_{1/2}$: From decay time distribution (2025Go00).
^{23}Al-Q(εp): from 2021Wa16.
Compiled (unevaluated) dataset from 2025Go00: Phys Rev C xxx, xx43xx (2025).
Compiled by L. J. Sun (FRIB, MSU), November 25, 2024.
2025Go00: ^{23}Al εp decay – measured E_{γ}, I_{γ}, E_p, I_p, pγ-coin, γγ-coin, decay-time distribution using the Gaseous Detector with Germanium Tagging system. Normalized I_p relative to I_p (839 keV (lab)) of 2011Sa15.

^{22}Na Levels

E(level)†	J^{π}†
0	3^{+}
583.05 *5*	1^{+}
890.89 *5*	4^{+}

† From ^{22}Na Adopted Levels in ENSDF database.

γ(^{22}Na)

E_{γ}†	E_i(level)	J_i^{π}	E_f	J_f^{π}
583.04	583.05	1^{+}	0	3^{+}
890.87	890.89	4^{+}	0	3^{+}

† From Adopted E_{γ} of ^{22}Na in ENSDF database.

Delayed Protons (^{22}Na)

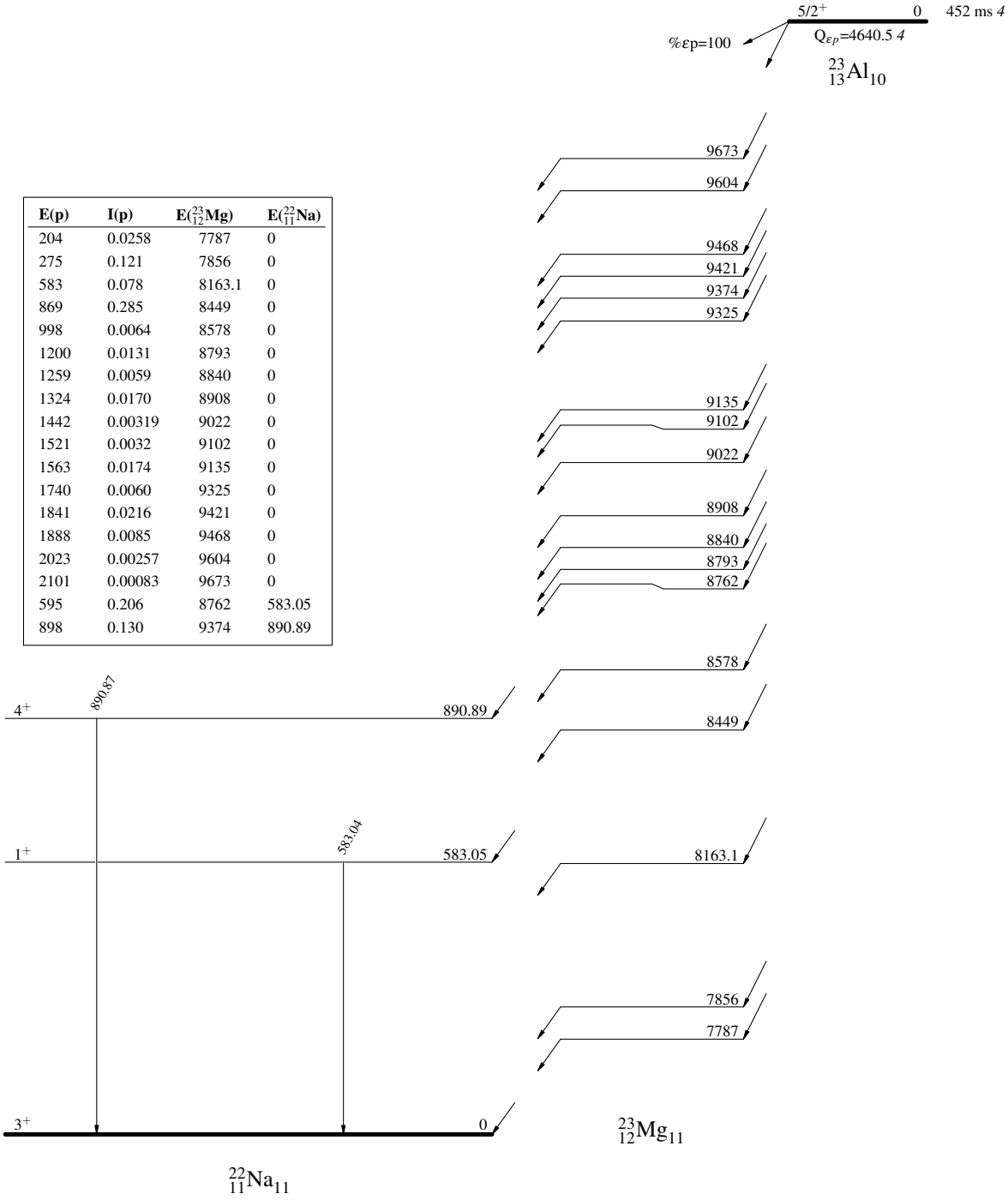
E(p)†	E(^{22}Na)	I(p)	E(^{23}Mg)	E(p)†	E(^{22}Na)	I(p)	E(^{23}Mg)
204‡ *20*	0	0.0258 *34*	7787	1324# *3*	0	0.0170 *10*	8908
275‡ *20*	0	0.121 *9*	7856	1442# *4*	0	0.00319 *32*	9022
583‡ *20*	0	0.078 *7*	8163.1	1521# *5*	0	0.0032 *6*	9102
595‡ *20*	583.05	0.206 *15*	8762	1563# *4*	0	0.0174 *11*	9135
869‡ *20*	0	0.285 *23*	8449	1740# *4*	0	0.0060 *5*	9325
898‡ *20*	890.89	0.130 *15*	9374	1841# *4*	0	0.0216 *12*	9421
998# *2*	0	0.0064 *5*	8578	1888# *5*	0	0.0085 *7*	9468
1200# *3*	0	0.0131 *8*	8793	2023# *5*	0	0.00257 *31*	9604
1259# *3*	0	0.0059 *5*	8840	2101# *7*	0	8.3×10^{-4} *21*	9673

† Center-of-mass energy.
‡ From 2025Go00.
# From 2011Ki26.

^{23}Al εp decay:XUNDL-10 2025Go00

Decay Scheme

I(p) Intensities: Relative I(p)



E(p)	I(p)	E($^{23}_{12}$Mg)	E($^{22}_{11}$Na)
204	0.0258	7787	0
275	0.121	7856	0
583	0.078	8163.1	0
869	0.285	8449	0
998	0.0064	8578	0
1200	0.0131	8793	0
1259	0.0059	8840	0
1324	0.0170	8908	0
1442	0.00319	9022	0
1521	0.0032	9102	0
1563	0.0174	9135	0
1740	0.0060	9325	0
1841	0.0216	9421	0
1888	0.0085	9468	0
2023	0.00257	9604	0
2101	0.00083	9673	0
595	0.206	8762	583.05
898	0.130	9374	890.89