^{92}Mo(^{54}Fe,p4n):P data 1998Da03,1999Ry04,2001Se03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 187,1 (2023)	12-Oct-2022

1998Da03: first observation of ^{141}Ho p radioactivity, deformation deduced, ^{92}Mo(^{54}Fe,p4n) E=285-305 MeV (ANL).
1999Ry04: observation of isomer, ^{92}Mo(^{54}Fe,p4n), E=315 MeV (ORNL).
2001Se03: ^{92}Mo(^{54}Fe,p4n) in both direct and inverse kinematics, E(cm)=184-186 MeV. High statistics work.
2008Ka16, 2007KaZO, 2005Bi24, 2003BaZZ, 2002Kr04: ^{92}Mo(^{54}Fe,p4n) E=290, 400 MeV (ORNL HRIBF), measured E(p) from $7/2^-$ g.s. and $1/2^+$ isomer to ^{140}Dy g.s. and first 2^+ excited state.

^{141}Ho Levels

E(level)†	J^π†	$T_{1/2}$†	Comments
0.0	$(7/2^-)$	4.1 ms *1*	%p=100 Configuration=π([523]7/2$^-$) (1998Da03). $T_{1/2}$: weighted average of 4.2 ms *4* (1998Da03), 3.9 ms *5* (1999Ry04), and 4.1 ms *1* (2008Ka16). Proton decay of J^π(p)=7/2$^-$, $T_{1/2}$(p)=4.1 ms *1* g.s. 1) to 0^+ g.s. in ^{140}Dy: E(p)(0^+ g.s.)=1169 keV *8*, Q(p)=1190 keV *8* (1998Da03), B(p)=0.991 *2*. 2) fine structure − proton decay to first 2^+ state in ^{140}Dy: E(p)(2^+)=968 keV *10* (2008Ka16, 201 keV *6* smaller than E(p)(0^+ g.s.)), B(p)=0.009 *2* (2008Ka16). $\sigma\approx$250 nb at 76 MeV and 88 MeV of excitation energy (1998Da03); $\sigma\approx$130 nb at 95 MeV of excitation energy (1999Ry04); 1.4 μb at 300 MeV of excitation energy (2008Ka16). In the high-statistics work of 2001Se03, fine structure − proton decay to 2^+ state in ^{140}Dy was not observed and a limit of 1% was set for the 2^+ branching ratio.
66 *12*	$(1/2^+)$	7.3 μs *3*	%p=100 Configuration=π([411]1/2$^+$) (1999Ry04). E(level): from energy difference in Q(p)′s to g.s. $T_{1/2}$: weighted average of 8 μs *3* (1999Ry04), 6.5 μs *+9−7* (2001Se03), and 7.4 μs *3* (2008Ka16). Proton decay of J^π(p)=1/2$^+$, $T_{1/2}$(p)=7.3 μs *3* isomer: 1) to 0^+ g.s. in ^{140}Dy: E(p)(0^+ g.s.)=1234 keV *8* (weighted average of 1230 keV *20* (1999Ry04) and 1235 keV *9* (2001Se03)), Q(p)=1256 keV *8*, B(p)=0.983 *5*. 2) fine structure − proton decay to first 2^+ state in ^{140}Dy: E(p)(2^+)=1030 keV *14* (2008Ka16, 204 keV *11* smaller than E(p)(0^+ g.s.)), B(p)=0.017 *5* (2008Ka16). $\sigma\approx$30 nb at 95 MeV of excitation energy (1999Ry04); 240 nb at 290 MeV of excitation energy (2008Ka16).

† From Adopted Levels.