Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 156, 70 (2019)	31-Jan-2019

Q(β^-)=−3970 *SY*; S(n)=6730 *SY*; S(p)=1140 *SY*; Q(α)=10180 *50* 2017Wa10
Estimated uncertainties (2017Wa10): ΔQ(β^-)=180, ΔS(n)=490, ΔS(p)=210.
S(2n)=14580 *290*, S(2p)=4670 *420*, Q(εp)=1940 *410* (syst, 2017Wa10).
Other Q(α)=10.30 MeV *11* from Eα=10.15 MeV *11* (from unweighted average of Eα=10.03 MeV *7* (2004Mo42) and 10.26 MeV *7* (2012Mo25)).
2004Mo42, 2007Mo43, 2012Mo25: ^{270}Mt produced as granddaughter of ^{278}Nh, which was formed in ^{209}Bi(^{70}Zn,n) E=349 MeV reaction at RIKEN. See ^{278}Nh Adopted Levels for details of three correlated decay chains observed.

For theoretical studies, consult Nuclear Science References (NSR) database at NNDC, BNL for 29 primary references dealing with the half-lives and other aspects of nuclear structure in this mass region.

^{270}Mt Levels

Cross Reference (XREF) Flags

A ^{274}Rg α decay (12 ms)

E(level)	$T_{1/2}$	XREF	Comments
0	0.48 s *+66−18*	A	%α≈100 E(level): the observed α activity is assumed to correspond to the ground state of ^{270}Mt. J^π: 4^+,7^+ from Ω(proton)=$1/2^+$, Ω(neutron)=$3/2^+$ (1997Mo25, theory). $T_{1/2}$: from mean lifetime=0.69 s *+95−26* (2015Mo25 review article, based on observation of three correlated decay chains in experiments at RIKEN: 2004Mo42, 2007Mo43 and 2012Mo25). Eα=10.03 MeV *7* (2004Mo42), 10.26 MeV *7* (2012Mo25) from α decay of ^{270}Mt. Unweighted average=10.15 MeV *11* (evaluator).