

²⁴⁸Cm SF decay 2000Ur01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 108,2173 (2007)	1-Oct-2006

Parent: ²⁴⁸Cm: E=0; J^π=0⁺; T_{1/2}=3.40×10⁵ y 4; %SF decay=?

Measured γ,γγ,γγ(θ), and γ(lin pol) using the Eurogam-2 array of Compton-suppressed HPGE detectors.

¹³⁷Te Levels

E(level) [†]	J ^π	E(level) [†]	J ^π	E(level) [†]	J ^π	E(level) [†]	J ^π
0.0 [‡]	(7/2 ⁻)	1141.1 [‡]	(15/2 ⁻)	1996.3 [#]	(21/2 ⁻)	3075.1 [‡]	(27/2 ⁻)
608.2 [‡]	(11/2 ⁻)	1477.4 [#]	(17/2 ⁻)	2490.0 [‡]	(23/2 ⁻)	3272.9 [#]	(29/2 ⁻)
1100.8 [#]	(13/2 ⁻)	1723.8 [‡]	(19/2 ⁻)	2731.7 [#]	(25/2 ⁻)	3627.3 [‡]	(31/2 ⁻)

[†] From least-squares adjustment to Eγ's, assuming Δ(Eγ)=0.5 keV.

[‡] Band(A): Yrast cascade-1, Excitations are interpreted as due to νf_{7/2}³ valence neutrons and core vibrations coupled to these.

[#] Band(a): Yrast cascade-2 Excitations are interpreted as due to ν[h_{9/2}f_{7/2}²] valence neutrons and core vibrations coupled to these.

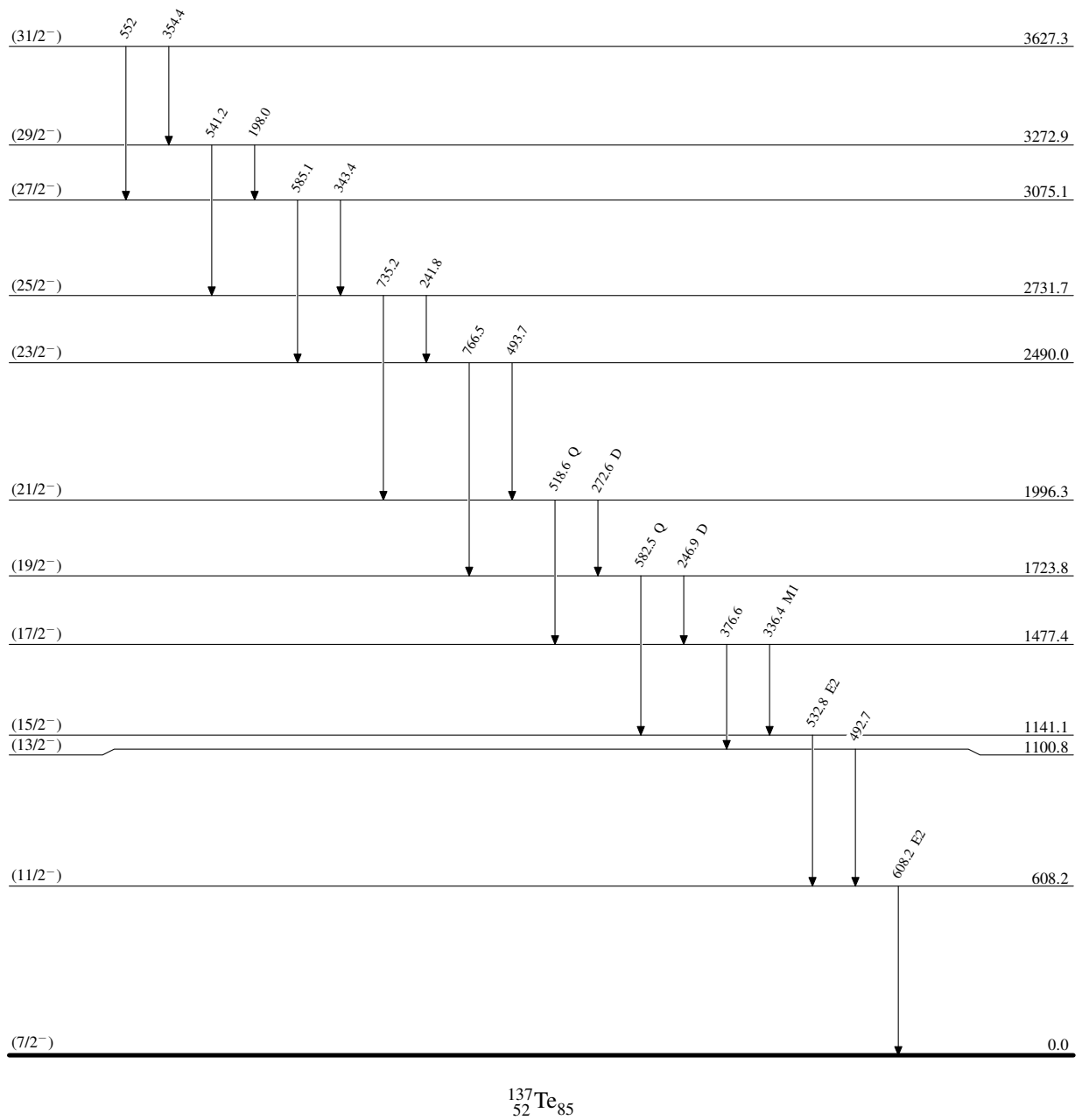
γ(¹³⁷Te)

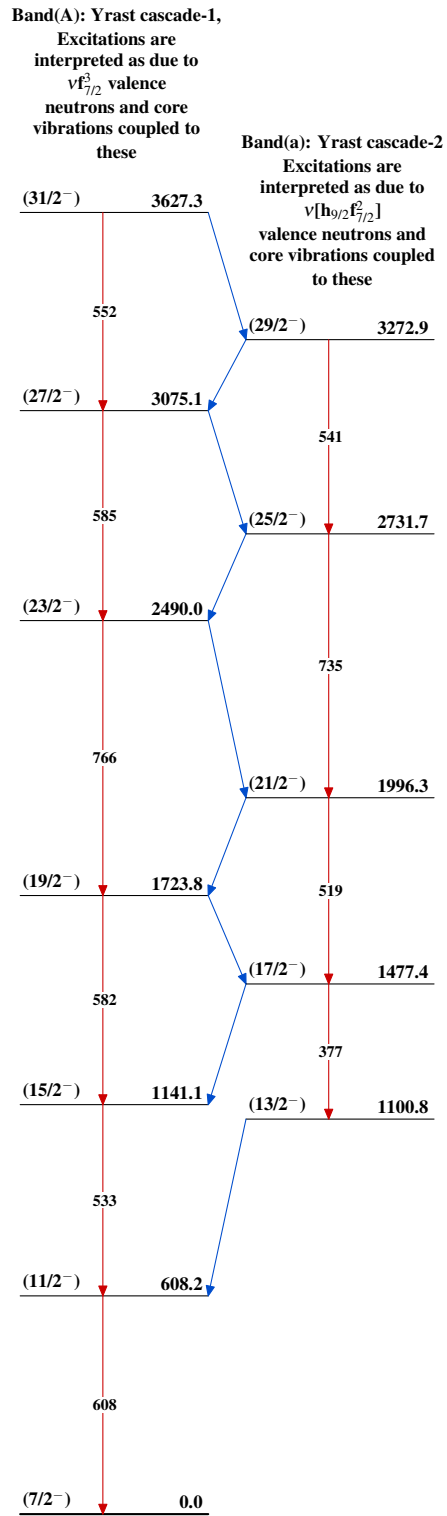
E _γ	E _i (level)	J _i ^π	E _f	J _f ^π	Mult. [†]	Comments
198.0	3272.9	(29/2 ⁻)	3075.1	(27/2 ⁻)		
241.8	2731.7	(25/2 ⁻)	2490.0	(23/2 ⁻)		
246.9	1723.8	(19/2 ⁻)	1477.4	(17/2 ⁻)	D	
272.6	1996.3	(21/2 ⁻)	1723.8	(19/2 ⁻)	D	
336.4	1477.4	(17/2 ⁻)	1141.1	(15/2 ⁻)	M1	pol=-0.15 7.
343.4	3075.1	(27/2 ⁻)	2731.7	(25/2 ⁻)		
354.4	3627.3	(31/2 ⁻)	3272.9	(29/2 ⁻)		
376.6	1477.4	(17/2 ⁻)	1100.8	(13/2 ⁻)		
492.7	1100.8	(13/2 ⁻)	608.2	(11/2 ⁻)		
493.7	2490.0	(23/2 ⁻)	1996.3	(21/2 ⁻)		
518.6	1996.3	(21/2 ⁻)	1477.4	(17/2 ⁻)	Q	
532.8	1141.1	(15/2 ⁻)	608.2	(11/2 ⁻)	E2	pol=+0.22 7.
541.2	3272.9	(29/2 ⁻)	2731.7	(25/2 ⁻)		
552	3627.3	(31/2 ⁻)	3075.1	(27/2 ⁻)		
582.5	1723.8	(19/2 ⁻)	1141.1	(15/2 ⁻)	Q	
585.1	3075.1	(27/2 ⁻)	2490.0	(23/2 ⁻)		
608.2	608.2	(11/2 ⁻)	0.0	(7/2 ⁻)	E2	pol=+0.19 6.
735.2	2731.7	(25/2 ⁻)	1996.3	(21/2 ⁻)		
766.5	2490.0	(23/2 ⁻)	1723.8	(19/2 ⁻)		

[†] From γγ(θ),γ(lin pol) Q=stretched quadrupole, D=stretched dipole.

^{248}Cm SF decay 2000Ur01

Level Scheme

 $^{137}_{52}\text{Te}_{85}$

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