

¹⁴³Nd(d,2nγ) **1980Pr02**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 113, 715 (2012)	31-May-2011

E=13.5 MeV.
Measured: γ rays.

¹⁴³Pm Levels

E(level)	J ^π †	E(level)	J ^π †	E(level)	J ^π †	E(level)	J ^π †
0.0	5/2 ⁺	1456.4	9/2 ⁺	1950.7	13/2 ⁻	2929.8	19/2 ⁻
272.0	7/2 ⁺	1558.7		2060.2	13/2 ⁻	(3013.2)	21/2 ⁻
959.7	11/2 ⁻	1566.0	(9/2) ⁺	2287.9	17/2 ⁺	3075.6	19/2 ⁻
1056.5	3/2 ⁺	1663.4	11/2 ⁺	2436.9	15/2 ⁻	3389.7	(21/2 ⁻)
1286.5		1898.3	15/2 ⁺	2881.9	17/2 ⁻	3524.1	

† From Adopted Levels.

γ(¹⁴³Pm)

E _γ †	I _γ †	E _i (level)	J _i ^π	E _f	J _f ^π	Comments
(83.4)		(3013.2)	21/2 ⁻	2929.8	19/2 ⁻	E _γ : from (α,2nγ).
134.4	7	3524.1		3389.7	(21/2 ⁻)	
145.6	7	3075.6	19/2 ⁻	2929.8	19/2 ⁻	
193.6	5	3075.6	19/2 ⁻	2881.9	17/2 ⁻	
^x 206.9	11					
234.9	233	1898.3	15/2 ⁺	1663.4	11/2 ⁺	
272.0	1000	272.0	7/2 ⁺	0.0	5/2 ⁺	
287.3	34	1950.7	13/2 ⁻	1663.4	11/2 ⁺	
376.5‡	34‡	2436.9	15/2 ⁻	2060.2	13/2 ⁻	
376.5‡	34‡	3389.7	(21/2 ⁻)	3013.2?	21/2 ⁻	
389.0	120	2287.9	17/2 ⁺	1898.3	15/2 ⁺	
396.8	38	2060.2	13/2 ⁻	1663.4	11/2 ⁺	
^x 608.9	22					
642.5	55	2929.8	19/2 ⁻	2287.9	17/2 ⁺	
687.7	241	959.7	11/2 ⁻	272.0	7/2 ⁺	
^x 728.5	163					
^x 835.0	125					
959.8	54	959.7	11/2 ⁻	0.0	5/2 ⁺	
983.6	38	2881.9	17/2 ⁻	1898.3	15/2 ⁺	
1014.5	237	1286.5		272.0	7/2 ⁺	
1056.5	42	1056.5	3/2 ⁺	0.0	5/2 ⁺	
1286.7‡	20‡	1286.5		0.0	5/2 ⁺	
1286.7‡	20‡	1558.7		272.0	7/2 ⁺	
1293.8	56	1566.0	(9/2) ⁺	272.0	7/2 ⁺	
^x 1342.4	30					
1391.4	400	1663.4	11/2 ⁺	272.0	7/2 ⁺	
1456.4	78	1456.4	9/2 ⁺	0.0	5/2 ⁺	
1477.2	45	2436.9	15/2 ⁻	959.7	11/2 ⁻	

† ΔE=0.1-0.3 keV, ΔI_γ=5-30%.
‡ Multiply placed with undivided intensity.
^x γ ray not placed in level scheme.

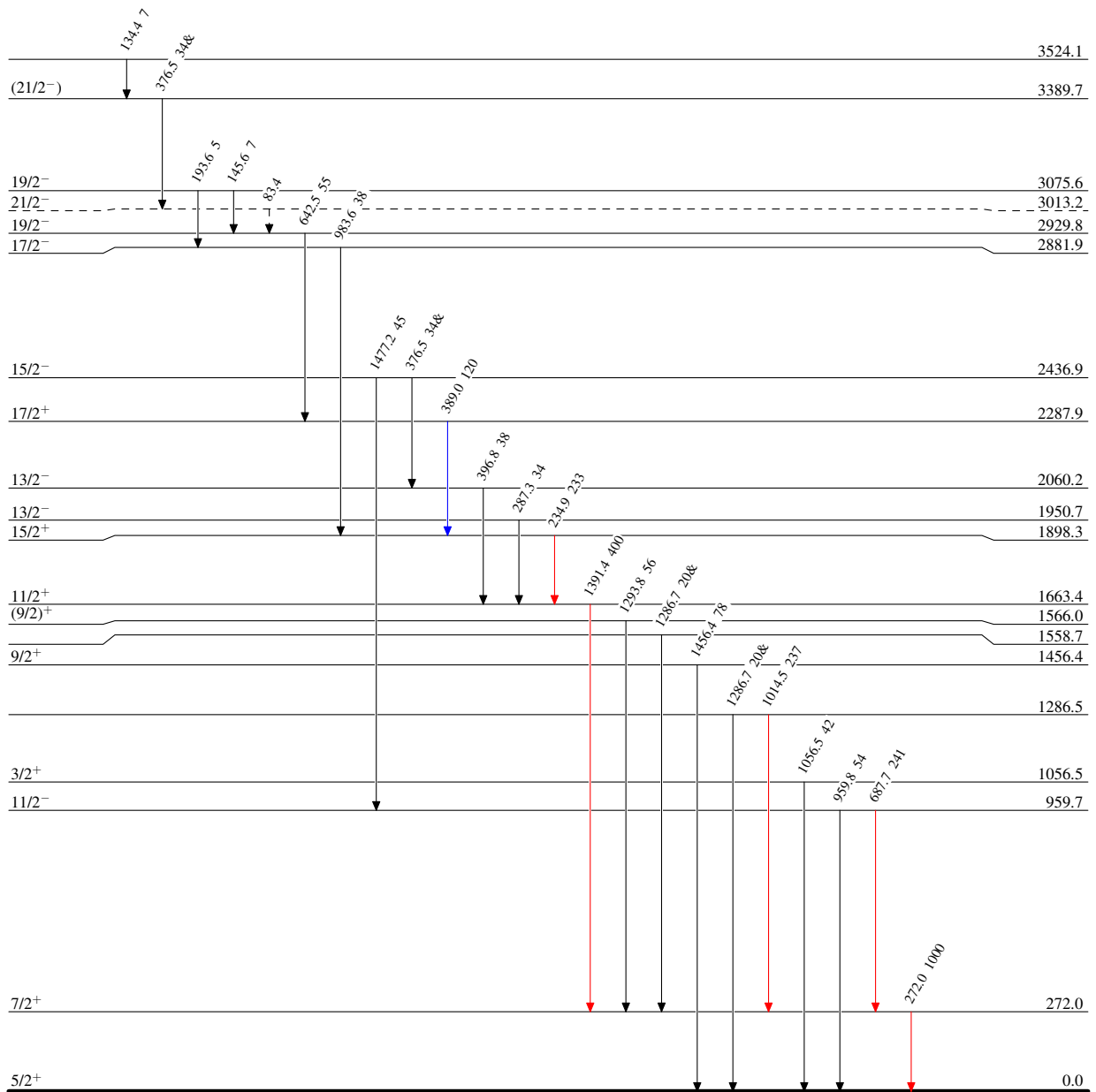
$^{143}\text{Nd}(d,2n\gamma)$ 1980Pr02

Level Scheme

Intensities: Type not specified
& Multiply placed: undivided intensity given

Legend

- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$
- - - - -→ γ Decay (Uncertain)

 $^{143}_{61}\text{Pm}_{82}$