

$^{142}\text{Nd}(^3\text{He},2n\gamma), ^{143}\text{Nd}(^3\text{He},3n\gamma)$ **1983KoZU**

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

E=20-27 MeV.

Measured: γ rays, $\gamma\gamma$ coincidence, $\gamma(\theta)$, $\gamma(t)$, ce.

Preliminary level scheme.

^{143}Sm Levels

E(level)	J^π^\dagger	$T_{1/2}^\dagger$	E(level)	J^π^\dagger	E(level)	J^π^\dagger
0.0	$3/2^+$		1747		2510	$15/2^{(+)}$
107.7	$1/2^+$		1877		2587	$17/2^{(+)}$
754.0	$11/2^-$	66 s 2	1891		2794	$23/2^{(-)}$
1107.3	$5/2^+$		2283		3061	$7/2^+, 9/2^+$
1310.4	$7/2^-$		2328	$13/2^{(-)}$	3089	
1369.3	$7/2^+$		2330		3119	
1538	$(5/2)^+$		2397		3276	
1659			2452		3299	
1715	$(3/2)^+$		2459	$13/2^{(+)}$		

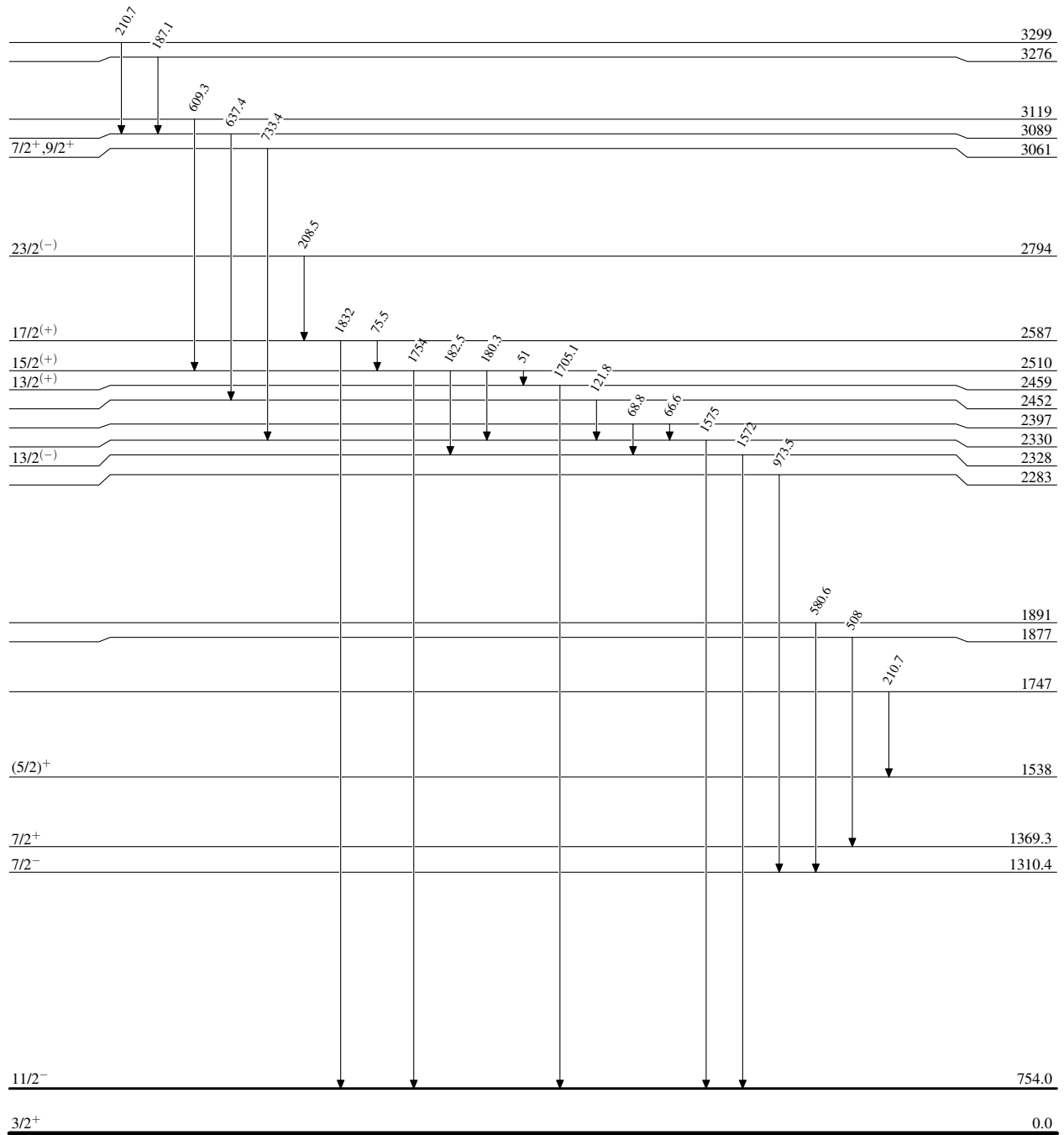
† From Adopted Levels.

$\gamma(^{143}\text{Sm})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
51	2510	$15/2^{(+)}$	2459	$13/2^{(+)}$	607.7	1715	$(3/2)^+$	1107.3	$5/2^+$
66.6	2397		2330		609.3	3119		2510	$15/2^{(+)}$
68.8	2397		2328	$13/2^{(-)}$	637.4	3089		2452	
75.5	2587	$17/2^{(+)}$	2510	$15/2^{(+)}$	733.4	3061	$7/2^+, 9/2^+$	2330	
107.7	107.7	$1/2^+$	0.0	$3/2^+$	754.0	754.0	$11/2^-$	0.0	$3/2^+$
121.8	2452		2330		973.5	2283		1310.4	$7/2^-$
180.3	2510	$15/2^{(+)}$	2330		999.6	1107.3	$5/2^+$	107.7	$1/2^+$
182.5	2510	$15/2^{(+)}$	2328	$13/2^{(-)}$	1107.3	1107.3	$5/2^+$	0.0	$3/2^+$
187.1	3276		3089		1369.1	1369.3	$7/2^+$	0.0	$3/2^+$
203.1	1310.4	$7/2^-$	1107.3	$5/2^+$	1430.6	1538	$(5/2)^+$	107.7	$1/2^+$
208.5	2794	$23/2^{(-)}$	2587	$17/2^{(+)}$	1572	2328	$13/2^{(-)}$	754.0	$11/2^-$
210.7	1747		1538	$(5/2)^+$	1575	2330		754.0	$11/2^-$
210.7	3299		3089		1607.3	1715	$(3/2)^+$	107.7	$1/2^+$
508	1877		1369.3	$7/2^+$	1705.1	2459	$13/2^{(+)}$	754.0	$11/2^-$
551.6	1659		1107.3	$5/2^+$	1715.0	1715	$(3/2)^+$	0.0	$3/2^+$
556.4	1310.4	$7/2^-$	754.0	$11/2^-$	1754	2510	$15/2^{(+)}$	754.0	$11/2^-$
580.6	1891		1310.4	$7/2^-$	1832	2587	$17/2^{(+)}$	754.0	$11/2^-$

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Level Scheme



$^{143}_{62}\text{Sm}_{81}$

$^{142}\text{Nd}(^3\text{He},2n\gamma), ^{143}\text{Nd}(^3\text{He},3n\gamma)$ **1983KoZU**Level Scheme (continued)