

$^{100}\text{Mo}(^{28}\text{Si},\text{p}4\text{n}\gamma)$  [2005Si31](#),[2004Si26](#)

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Full Evaluation	Jun Chen	NDS 174, 1 (2021)	15-Apr-2021

[2005Si31](#) (also [2004Si26](#)): E=130 MeV  $^{28}\text{Si}$  beam was produced from the 15-UD pelletron accelerator at the Nuclear Science Centre (NSC), New Delhi. Target was a 3 mg/cm<sup>2</sup> foil of enriched  $^{100}\text{Mo}$  on a 15 mg/cm<sup>2</sup> Pb foil.  $\gamma$  rays were detected with the INGA array of eight Compton-suppressed clover detectors with each consisting of four HPGe crystals. Measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin,  $\gamma\gamma(\text{DCO})$ . Deduced levels, J,  $\pi$ , band structures, configurations,  $\gamma$ -ray multipolarities. Comparisons with Total Routhian Surface (TRS) calculations.

 $^{123}\text{Cs}$  Levels

E(level) <sup>†</sup>	J <sup>π</sup> <sup>‡</sup>	T <sub>1/2</sub> <sup>#</sup>	Comments
0.0 <sup>b</sup>	1/2 <sup>+</sup>		
30.5 <sup>a</sup> 6	3/2 <sup>+</sup>		
94.5 <sup>b</sup> 6	5/2 <sup>+</sup>		
156.3 <sup>d</sup> 10	11/2 <sup>-</sup>	1.7 s 2	
231.5 <sup>a</sup> 6	7/2 <sup>+</sup>		
328.1 <sup>@</sup> 7	9/2 <sup>+</sup>	114 ns 5	E(level): <a href="#">2004Si26</a> in $^{100}\text{Mo}(^{28}\text{Si},4\text{n}\gamma)$ and <a href="#">2004Si27</a> in $^{64}\text{Ni}(^{64}\text{Ni},4\text{n}\gamma)$ propose the 328-keV level (proposed as a separate level by <a href="#">2000Gi12</a> in $^{123}\text{Ba}$ $\varepsilon$ decay) to be the isomeric (9/2 <sup>+</sup> ) bandhead (proposed at 231.7+x by <a href="#">2000Gi12</a> ), based on the intensity balance of the feeding and de-exciting $\gamma$ transitions (96.5 $\gamma$ and 233.5 $\gamma$ de-exciting the 328-keV level are seen in <a href="#">2004Si26</a> with a thick target but not seen in <a href="#">2004Si27</a> with a thin target due to $^{123}\text{Cs}$ nuclei recoiling into vacuum after reaction and decaying out of the detectors, supporting the 328-keV level being an isomer).
477.0 <sup>d</sup> 10	15/2 <sup>-</sup>		
597.0 <sup>&amp;</sup> 8	11/2 <sup>+</sup>		
659.6 <sup>a</sup> 8	11/2 <sup>+</sup>		
900.6 <sup>@</sup> 8	13/2 <sup>+</sup>		
999.2 <sup>d</sup> 10	19/2 <sup>-</sup>		
1159.7 <sup>c</sup> 10	17/2 <sup>-</sup>		
1237.4 <sup>&amp;</sup> 8	15/2 <sup>+</sup>		
1260.0 <sup>a</sup> 8	15/2 <sup>+</sup>		
1593.9 <sup>e</sup> 10	19/2 <sup>-</sup>		
1605.3 <sup>@</sup> 8	17/2 <sup>+</sup>		
1684.8 <sup>d</sup> 10	23/2 <sup>-</sup>		
1730.1 <sup>c</sup> 10	21/2 <sup>-</sup>		
1994.9 <sup>&amp;</sup> 8	19/2 <sup>+</sup>		
2003.9 <sup>a</sup> 8	19/2 <sup>+</sup>		
2197.0 <sup>e</sup> 10	23/2 <sup>-</sup>		
2410.4 <sup>@</sup> 9	21/2 <sup>+</sup>		
2436.8 <sup>c</sup> 10	25/2 <sup>-</sup>		
2446.4 10	(21/2 <sup>+</sup> )		
2485.3 <sup>d</sup> 10	27/2 <sup>-</sup>		
2706.8 11	(23/2 <sup>+</sup> )		
2821.6 <sup>&amp;</sup> 9	23/2 <sup>+</sup>		
2844.0 <sup>a</sup> 9	23/2 <sup>+</sup>		
2917.8 <sup>e</sup> 11	27/2 <sup>-</sup>		
2973.8 <sup>f</sup> 10	25/2 <sup>(+)</sup>		
3045.7 9	25/2 <sup>(+)</sup>		
3227.7 <sup>c</sup> 11	29/2 <sup>-</sup>		

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$^{100}\text{Mo}(^{28}\text{Si},\text{p}4\text{n}\gamma)$  **2005Si31,2004Si26 (continued)**

$^{123}\text{Cs}$  Levels (continued)

E(level) <sup>†</sup>	J <sup>π</sup> <sup>‡</sup>	E(level) <sup>†</sup>	J <sup>π</sup> <sup>‡</sup>	E(level) <sup>†</sup>	J <sup>π</sup> <sup>‡</sup>	E(level) <sup>†</sup>	J <sup>π</sup> <sup>‡</sup>
3305.2 <sup>g</sup> 10	27/2 <sup>+</sup>	4046.0 <sup>h</sup> 11	31/2 <sup>(+)</sup>	4864.0 <sup>h</sup> 12	35/2 <sup>(+)</sup>	6239.5 <sup>d</sup> 15	43/2 <sup>-</sup>
3330.0 <sup>h</sup> 10	27/2 <sup>(+)</sup>	4055.9 <sup>c</sup> 11	33/2 <sup>-</sup>	4934.1 <sup>c</sup> 12	37/2 <sup>-</sup>	6672.0 <sup>h</sup> 16	43/2 <sup>(+)</sup>
3353.8 <sup>d</sup> 11	31/2 <sup>-</sup>	4258.5 <sup>d</sup> 12	35/2 <sup>-</sup>	5213.5 <sup>d</sup> 14	39/2 <sup>-</sup>	7352.5 <sup>d</sup> 17	47/2 <sup>-</sup>
3618.3 <sup>f</sup> 10	29/2 <sup>(+)</sup>	4409.1 <sup>f</sup> 11	33/2 <sup>(+)</sup>	5597.0 <sup>e</sup> 15	39/2 <sup>-</sup>	7648.0 <sup>h</sup> 17	47/2 <sup>(+)</sup>
3728.7 <sup>e</sup> 11	31/2 <sup>-</sup>	4620.6 <sup>e</sup> 13	35/2 <sup>-</sup>	5753.0 <sup>h</sup> 14	39/2 <sup>(+)</sup>	8701.2 <sup>h</sup> 19	51/2 <sup>(+)</sup>
3995.6 <sup>g</sup> 11	31/2 <sup>(+)</sup>	4835.0 <sup>g</sup> 12	35/2 <sup>(+)</sup>	5906.2 <sup>c</sup> 14	41/2 <sup>-</sup>	9889.5 <sup>h</sup> 20	55/2 <sup>(+)</sup>

<sup>†</sup> From least-squares fit  $\gamma$ -ray energies.

<sup>‡</sup> Proposed by 2005Si31 based on measured  $\gamma\gamma$ (DCO) and band assignments.

# From Adopted Levels.

@ Band(A):  $\pi 9/2[404]$ ,  $\alpha=+1/2$ .

& Band(a):  $\pi 9/2[404]$ ,  $\alpha=-1/2$ .

<sup>a</sup> Band(B):  $\pi 3/2[422]$ ,  $\alpha=-1/2$ .

<sup>b</sup> Band(C):  $\pi 1/2[420]$ ,  $\alpha=+1/2$ .

<sup>c</sup> Band(D):  $\pi 1/2[550]$ ,  $\alpha=+1/2$ .

<sup>d</sup> Band(d):  $\pi 1/2[550]$ ,  $\alpha=-1/2$ .

<sup>e</sup> Band(E):  $\gamma$ -vibrational band built on favored signature partner  $\pi 1/2[550]$ ,  $\alpha=-1/2$ .

<sup>f</sup> Band(F): Band based on 25/2<sup>(+)</sup>. Configuration= $(\pi 1/2[550], \alpha=-1/2) \otimes (\nu 7/2[404] \text{ or } 5/2[402], \alpha=-1/2) \otimes (\nu 7/2[523], \alpha=-1/2)$ ,

<sup>g</sup> Band(f): Band based on 27/2<sup>+</sup>. Configuration= $(\pi 1/2[550], \alpha=-1/2) \otimes (\nu 7/2[404] \text{ or } 5/2[402], \alpha=-1/2) \otimes (\nu 7/2[523], \alpha=-1/2)$ .

<sup>h</sup> Band(G):  $(\pi 3/2[422], \alpha=-1/2) \otimes (\pi 1/2[550], \alpha=-1/2) \otimes (\pi 1/2[550], \alpha=+1/2)$ . Upper portion of this band is a five-quasiparticle structure involving  $(\nu 7/2[523], \alpha=-1/2) \otimes (\nu 7/2[523], \alpha=+1/2)$  (2005Si31).

$\gamma(^{123}\text{Cs})$

R(DCO) values were extracted using an asymmetric matrix made by sorting data with 141° detectors on one axis and 81° detectors on the other axis (2005Si31).

All DCO values correspond to gates on  $\Delta J=2$ , quadrupole transitions. Typical values of the DCO ratio are 1.0 and 0.5 for  $\Delta J=2$ , stretched quadrupole and  $\Delta J=1$ , dipole transitions, respectively. See 2004Si27 in  $^{64}\text{Ni}(^{64}\text{Ni},4\text{n}\text{p}\gamma)$  of the same group.

$E_\gamma$ <sup>†</sup>	$I_\gamma$ <sup>‡</sup>	$E_i$ (level)	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult.#	Comments
30.5 7		30.5	3/2 <sup>+</sup>	0.0	1/2 <sup>+</sup>		
61.7		156.3	11/2 <sup>-</sup>	94.5	5/2 <sup>+</sup>	[E3]	$E_\gamma$ : rounded value from Adopted Gammas; not seen in 2005Si31.
64.0 7		94.5	5/2 <sup>+</sup>	30.5	3/2 <sup>+</sup>		
94.5 7		94.5	5/2 <sup>+</sup>	0.0	1/2 <sup>+</sup>		
96.5 7		328.1	9/2 <sup>+</sup>	231.5	7/2 <sup>+</sup>		
137.0 5	7.3 7	231.5	7/2 <sup>+</sup>	94.5	5/2 <sup>+</sup>		
201.0 5	20.9 11	231.5	7/2 <sup>+</sup>	30.5	3/2 <sup>+</sup>	E2	DCO=1.21 19
202.0 7		3045.7	25/2 <sup>(+)</sup>	2844.0	23/2 <sup>+</sup>		
223.9 7	2.0 4	3045.7	25/2 <sup>(+)</sup>	2821.6	23/2 <sup>+</sup>	M1	DCO=0.58 10
233.5 7		328.1	9/2 <sup>+</sup>	94.5	5/2 <sup>+</sup>		
259.5 7	2.8 6	3305.2	27/2 <sup>+</sup>	3045.7	25/2 <sup>(+)</sup>	M1	DCO=0.60 8
268.9 5	14.1 7	597.0	11/2 <sup>+</sup>	328.1	9/2 <sup>+</sup>	M1	DCO=0.78 15
284.5 7	2.5 5	3330.0	27/2 <sup>(+)</sup>	3045.7	25/2 <sup>(+)</sup>	M1	DCO=0.68 12
288.5 7	0.9 2	3618.3	29/2 <sup>(+)</sup>	3330.0	27/2 <sup>(+)</sup>		
303.5 5	9.6 10	900.6	13/2 <sup>+</sup>	597.0	11/2 <sup>+</sup>	M1	DCO=0.62 8

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$^{100}\text{Mo}(^{28}\text{Si},\text{p}4\text{n}\gamma)$  **2005Si31,2004Si26** (continued) $\gamma(^{123}\text{Cs})$  (continued)

$E_\gamma$ †	$I_\gamma$ ‡	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult. #	Comments
313.0 7	2.4 5	3618.3	29/2 <sup>(+)</sup>	3305.2	27/2 <sup>+</sup>		
320.6 5	100.0	477.0	15/2 <sup>-</sup>	156.3	11/2 <sup>-</sup>	E2	DCO=1.06 8
331.3 7	0.9 2	3305.2	27/2 <sup>+</sup>	2973.8	25/2 <sup>(+)</sup>	M1	DCO=0.60 12
336.9 5	8.6 9	1237.4	15/2 <sup>+</sup>	900.6	13/2 <sup>+</sup>	M1	DCO=0.60 7
356.0 7	0.5 1	3330.0	27/2 <sup>(+)</sup>	2973.8	25/2 <sup>(+)</sup>	M1	DCO=0.60 12
368.0 5	5.8 6	1605.3	17/2 <sup>+</sup>	1237.4	15/2 <sup>+</sup>	M1	DCO=0.65 8
377.3 7	2.6 5	3995.6	31/2 <sup>(+)</sup>	3618.3	29/2 <sup>(+)</sup>	M1	DCO=0.51 10
389.5 7	2.6 5	1994.9	19/2 <sup>+</sup>	1605.3	17/2 <sup>+</sup>	M1	DCO=0.63 8
398.4 7	2.4 5	2003.9	19/2 <sup>+</sup>	1605.3	17/2 <sup>+</sup>	M1	DCO=0.61 9
406.5 7	1.0 2	2410.4	21/2 <sup>+</sup>	2003.9	19/2 <sup>+</sup>		
411.0 7	1.4 3	2821.6	23/2 <sup>+</sup>	2410.4	21/2 <sup>+</sup>		
413.4 7	1.7 4	4409.1	33/2 <sup>(+)</sup>	3995.6	31/2 <sup>(+)</sup>	M1	DCO=0.46 12
415.4 7	0.6 2	2410.4	21/2 <sup>+</sup>	1994.9	19/2 <sup>+</sup>		
426.0 7	0.6 2	4835.0	35/2 <sup>(+)</sup>	4409.1	33/2 <sup>(+)</sup>		
428.2 5	6.6 7	659.6	11/2 <sup>+</sup>	231.5	7/2 <sup>+</sup>	E2	DCO=1.14 16
433.5 7	1.0 2	2844.0	23/2 <sup>+</sup>	2410.4	21/2 <sup>+</sup>		
434.1 7	2.5 5	1593.9	19/2 <sup>-</sup>	1159.7	17/2 <sup>-</sup>	M1	DCO=0.56 8
466.9 7	1.7 4	2197.0	23/2 <sup>-</sup>	1730.1	21/2 <sup>-</sup>		
522.3 5	78.8 40	999.2	19/2 <sup>-</sup>	477.0	15/2 <sup>-</sup>	E2	DCO=1.02 8
570.3 7	2.8 6	1730.1	21/2 <sup>-</sup>	1159.7	17/2 <sup>-</sup>	E2	DCO=0.75 24
572.4 7	2.6 5	900.6	13/2 <sup>+</sup>	328.1	9/2 <sup>+</sup>	E2	DCO=1.02 12
599.5 7	0.8 2	3045.7	25/2 <sup>(+)</sup>	2446.4	(21/2 <sup>+</sup> )		
600.6 5	3.8 4	1260.0	15/2 <sup>+</sup>	659.6	11/2 <sup>+</sup>	E2	DCO=1.12 15
603.0 7	1.7 4	2197.0	23/2 <sup>-</sup>	1593.9	19/2 <sup>-</sup>		
623.5 7	1.6 3	3330.0	27/2 <sup>(+)</sup>	2706.8	(23/2 <sup>+</sup> )	E2	DCO=0.83 20
640.5 5	3.8 4	1237.4	15/2 <sup>+</sup>	597.0	11/2 <sup>+</sup>	E2	DCO=0.88 15
644.5 7	2.5 5	3618.3	29/2 <sup>(+)</sup>	2973.8	25/2 <sup>(+)</sup>	E2	DCO=0.87 20
675.8 7	1.7 4	4934.1	37/2 <sup>-</sup>	4258.5	35/2 <sup>-</sup>		
682.7 5	12.9 7	1159.7	17/2 <sup>-</sup>	477.0	15/2 <sup>-</sup>	M1	DCO=0.47 9
685.5 5	49.9 25	1684.8	23/2 <sup>-</sup>	999.2	19/2 <sup>-</sup>	E2	DCO=0.94 10
690.3 7	1.8 4	3995.6	31/2 <sup>(+)</sup>	3305.2	27/2 <sup>+</sup>		
701.5 7	1.7 4	4055.9	33/2 <sup>-</sup>	3353.8	31/2 <sup>-</sup>	M1	DCO=0.57 12
704.5 5	3.9 4	1605.3	17/2 <sup>+</sup>	900.6	13/2 <sup>+</sup>	E2	DCO=0.89 15
706.6 5	4.1 4	2436.8	25/2 <sup>-</sup>	1730.1	21/2 <sup>-</sup>	E2	DCO=1.04 15
716.0 5	3.4 4	4046.0	31/2 <sup>(+)</sup>	3330.0	27/2 <sup>(+)</sup>	E2	DCO=0.95 10
720.9 7	2.8 6	2917.8	27/2 <sup>-</sup>	2197.0	23/2 <sup>-</sup>	E2	DCO=0.82 20
730.9 5	8.6 9	1730.1	21/2 <sup>-</sup>	999.2	19/2 <sup>-</sup>	M1	DCO=0.45 9
734.9 7	1.6 3	1994.9	19/2 <sup>+</sup>	1260.0	15/2 <sup>+</sup>	E2	DCO=0.94 18
742.9 7	2.2 5	3227.7	29/2 <sup>-</sup>	2485.3	27/2 <sup>-</sup>	M1	DCO=0.47 7
744.0 7	1.5 3	2003.9	19/2 <sup>+</sup>	1260.0	15/2 <sup>+</sup>	E2	DCO=1.12 18
751.9 5	4.3 4	2436.8	25/2 <sup>-</sup>	1684.8	23/2 <sup>-</sup>	M1	DCO=0.45 8
757.5 5	3.6 4	1994.9	19/2 <sup>+</sup>	1237.4	15/2 <sup>+</sup>	E2	DCO=1.24 20
766.4 7	0.7 2	2003.9	19/2 <sup>+</sup>	1237.4	15/2 <sup>+</sup>		
790.8 5	3.8 4	3227.7	29/2 <sup>-</sup>	2436.8	25/2 <sup>-</sup>	E2	DCO=0.93 15
790.8 7	1.4 3	4409.1	33/2 <sup>(+)</sup>	3618.3	29/2 <sup>(+)</sup>		
800.5 5	23.3 12	2485.3	27/2 <sup>-</sup>	1684.8	23/2 <sup>-</sup>	E2	DCO=0.93 10
804.9 7	2.4 5	2410.4	21/2 <sup>+</sup>	1605.3	17/2 <sup>+</sup>	E2	DCO=1.02 21
811.1 7	1.7 4	3728.7	31/2 <sup>-</sup>	2917.8	27/2 <sup>-</sup>		
818.0 7	2.0 4	2821.6	23/2 <sup>+</sup>	2003.9	19/2 <sup>+</sup>		
818.0 5	3.5 4	4864.0	35/2 <sup>(+)</sup>	4046.0	31/2 <sup>(+)</sup>	E2	DCO=1.06 20
826.5 7	2.5 5	2821.6	23/2 <sup>+</sup>	1994.9	19/2 <sup>+</sup>		
828.5 7	1.6 3	4055.9	33/2 <sup>-</sup>	3227.7	29/2 <sup>-</sup>		
839.4 7	1.9 4	4835.0	35/2 <sup>(+)</sup>	3995.6	31/2 <sup>(+)</sup>		
839.8 7	1.6 3	2844.0	23/2 <sup>+</sup>	2003.9	19/2 <sup>+</sup>		

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$^{100}\text{Mo}(^{28}\text{Si,p4n}\gamma)$  **2005Si31,2004Si26** (continued) $\gamma(^{123}\text{Cs})$  (continued)

$E_\gamma$ †	$I_\gamma$ ‡	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult. #	Comments
849.8 7	1.0 2	2844.0	23/2 <sup>+</sup>	1994.9	19/2 <sup>+</sup>		
868.4 5	10.8 6	3353.8	31/2 <sup>-</sup>	2485.3	27/2 <sup>-</sup>	E2	DCO=0.86 15
878.0 7	1.1 2	4934.1	37/2 <sup>-</sup>	4055.9	33/2 <sup>-</sup>		
889.0 7	2.4 5	5753.0	39/2 <sup>(+)</sup>	4864.0	35/2 <sup>(+)</sup>	E2	DCO=0.96 15
891.9 7	1.4 3	4620.6	35/2 <sup>-</sup>	3728.7	31/2 <sup>-</sup>		
904.8 5	5.0 5	4258.5	35/2 <sup>-</sup>	3353.8	31/2 <sup>-</sup>	E2	DCO=0.87 15
919.0 7	1.8 4	6672.0	43/2 <sup>(+)</sup>	5753.0	39/2 <sup>(+)</sup>	E2	DCO=0.92 25
955.0 7	2.9 6	5213.5	39/2 <sup>-</sup>	4258.5	35/2 <sup>-</sup>	E2	DCO=0.84 15
972.1 7	0.5 1	5906.2	41/2 <sup>-</sup>	4934.1	37/2 <sup>-</sup>		
976.0 7	1.5 3	7648.0	47/2 <sup>(+)</sup>	6672.0	43/2 <sup>(+)</sup>		
976.4 7	0.8 2	5597.0	39/2 <sup>-</sup>	4620.6	35/2 <sup>-</sup>		
1022.2 7	2.1 4	2706.8	(23/2 <sup>+</sup> )	1684.8	23/2 <sup>-</sup>		
1026.0 7	1.5 3	6239.5	43/2 <sup>-</sup>	5213.5	39/2 <sup>-</sup>		
1053.2 7	0.7 2	8701.2	51/2 <sup>(+)</sup>	7648.0	47/2 <sup>(+)</sup>		
1113.0 7	1.0 2	7352.5	47/2 <sup>-</sup>	6239.5	43/2 <sup>-</sup>		
1116.9 5	5.2 5	1593.9	19/2 <sup>-</sup>	477.0	15/2 <sup>-</sup>		
1133.1 7	1.5 3	3618.3	29/2 <sup>(+)</sup>	2485.3	27/2 <sup>-</sup>	E1	DCO=0.62 8
1188.2 7	0.4 1	9889.5	55/2 <sup>(+)</sup>	8701.2	51/2 <sup>(+)</sup>		
1198.0 7	2.0 4	2197.0	23/2 <sup>-</sup>	999.2	19/2 <sup>-</sup>	E2	DCO=1.18 25
1233.0 7	1.4 3	2917.8	27/2 <sup>-</sup>	1684.8	23/2 <sup>-</sup>	E2	DCO=0.80 25
1243.2 7	1.5 3	3728.7	31/2 <sup>-</sup>	2485.3	27/2 <sup>-</sup>	E2	DCO=0.77 25
1288.7 5	4.5 5	2973.8	25/2 <sup>(+)</sup>	1684.8	23/2 <sup>-</sup>	E1	DCO=0.57 7
1360.9 7	2.5 5	3045.7	25/2 <sup>(+)</sup>	1684.8	23/2 <sup>-</sup>	E1	DCO=0.70 12
1447.3 7	1.4 3	2446.4	(21/2 <sup>+</sup> )	999.2	19/2 <sup>-</sup>		

† From a general comment by [2005Si31](#) that the uncertainty is 0.5 keV for strong transitions and increases to 0.7 keV for weaker ones ( $I_\gamma < 3.0$ , relative to  $I_\gamma = 100$  for 320.6 $\gamma$ ).

‡ Quoted values are original values in [2005Si31](#) scaled down by a factor of 10. From a general comment by [2005Si31](#) that uncertainty in values range from 5-20%, the following uncertainties have been assigned (by the evaluator): 5% for  $I_\gamma \geq 10$ , 10% for  $I_\gamma \geq 3$ , and 20% for  $I_\gamma < 3$ , relative to  $I_\gamma = 100$  for 320.6 $\gamma$ .

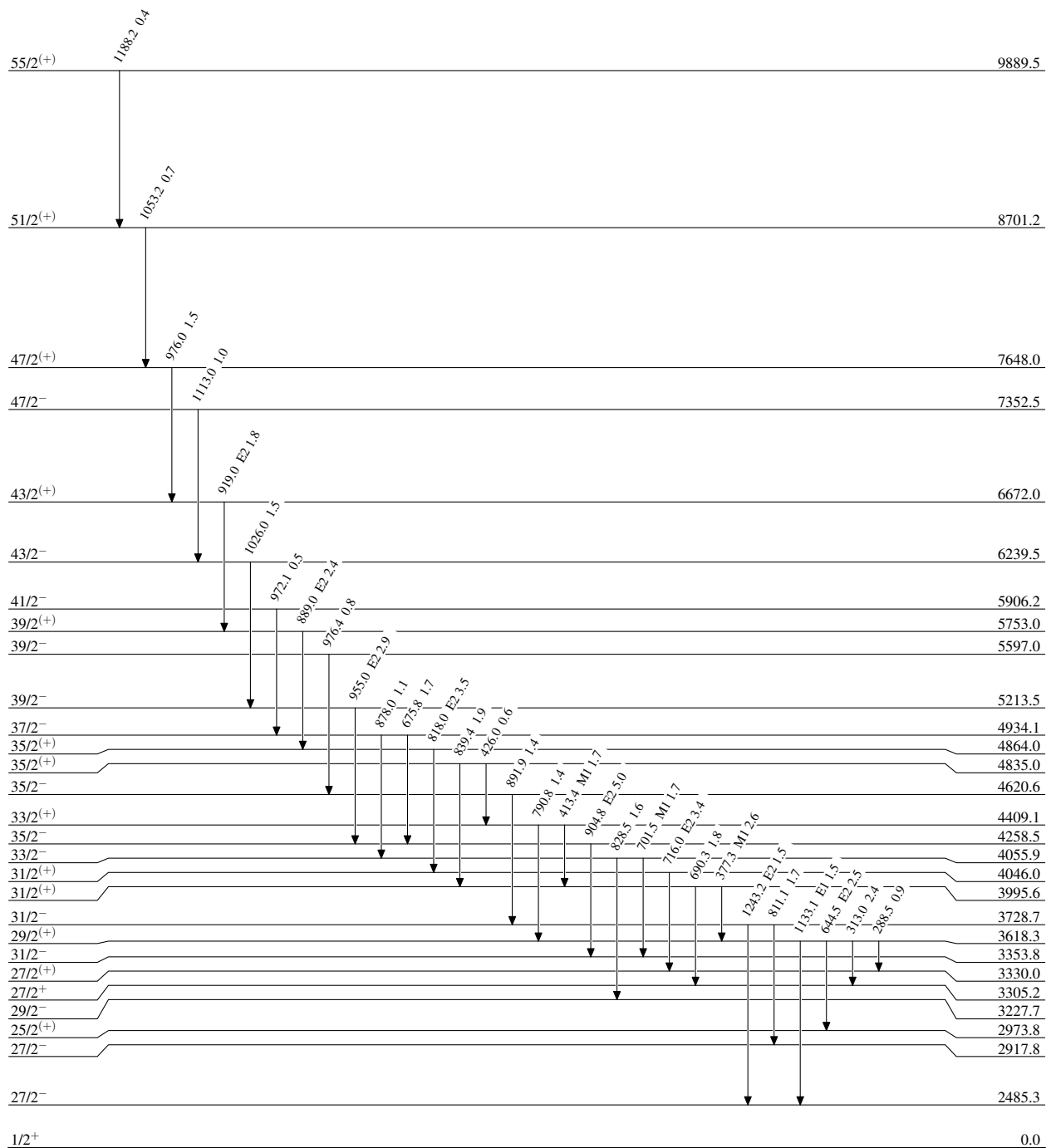
# From [2005Si31](#) based on measured  $\gamma\gamma(\text{DCO})$  and level scheme, unless otherwise noted. When considered in Adopted Gammas, D for E1 or M1 and Q for E2 will be used since there is no experimental evidence for electric or magnetic character, which cannot be determined by  $\gamma\gamma(\text{DCO})$ .

$^{100}\text{Mo}(\text{p},\text{Si},\text{p}4\text{n}\gamma)$  2005Si31,2004Si26

Level Scheme  
 Intensities: Relative  $I_\gamma$

Legend

$\longrightarrow$   $I_\gamma < 2\% \times I_\gamma^{\text{max}}$   
 $\longrightarrow$   $I_\gamma < 10\% \times I_\gamma^{\text{max}}$   
 $\longrightarrow$   $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

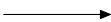


 $^{123}_{55}\text{Cs}_{68}$

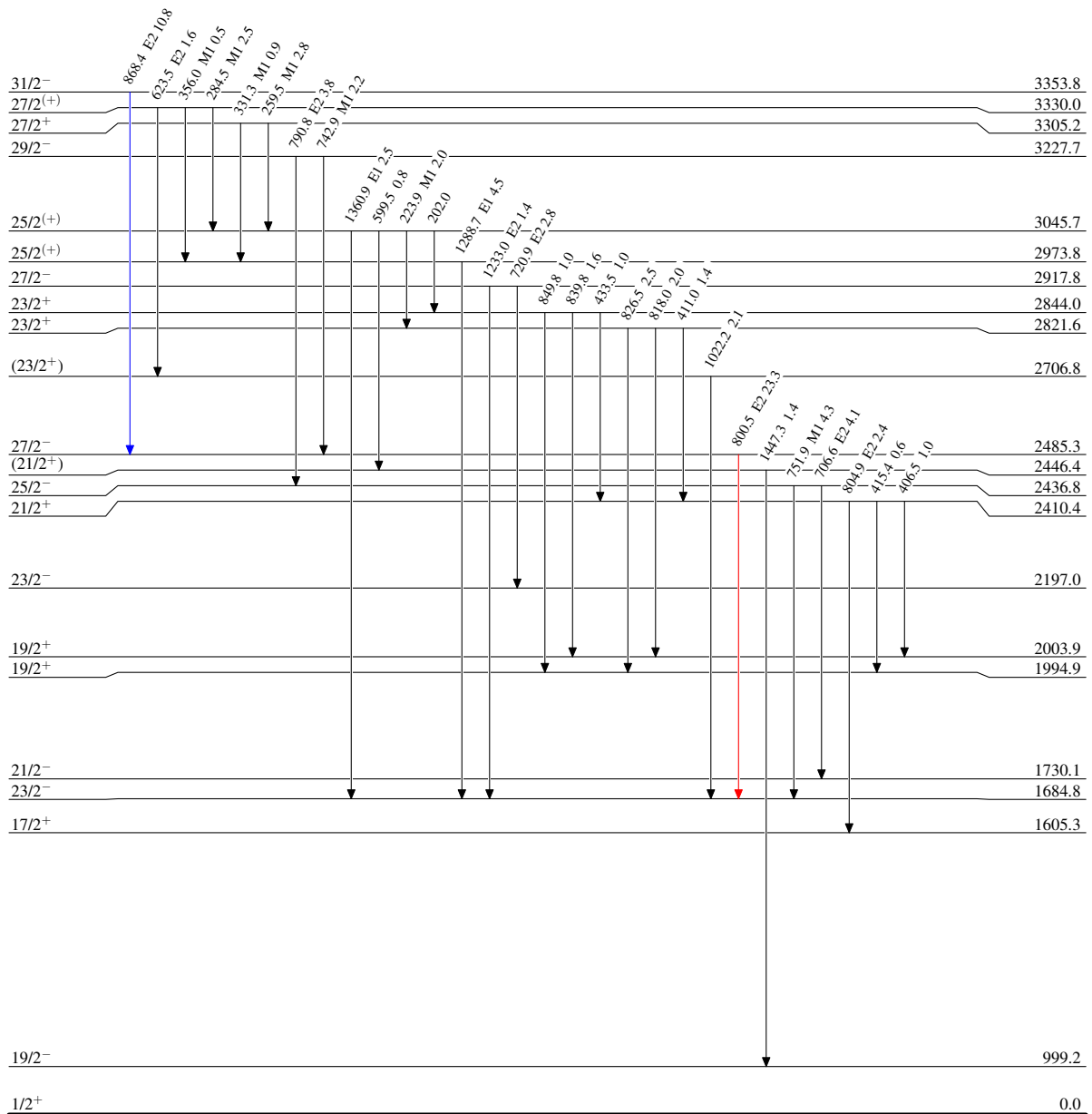
$^{100}\text{Mo}(^{28}\text{Si}, p4n\gamma)$  2005Si31,2004Si26

## Level Scheme (continued)

Intensities: Relative  $I_\gamma$ 

Legend

-   $I_\gamma < 2\% \times I_\gamma^{\max}$   
  $I_\gamma < 10\% \times I_\gamma^{\max}$   
  $I_\gamma > 10\% \times I_\gamma^{\max}$



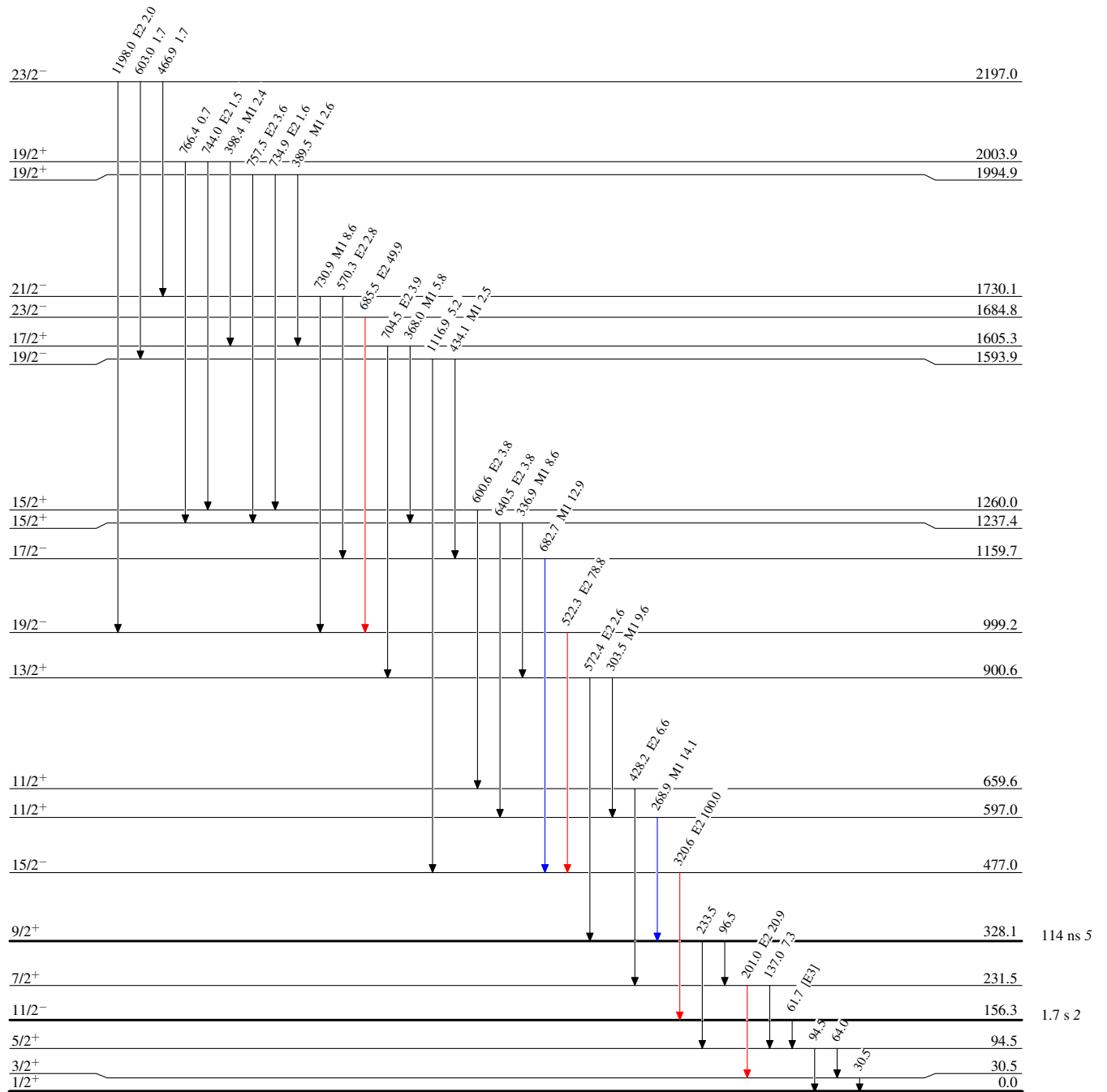
$^{100}\text{Mo}(^{28}\text{Si},\text{p}4\text{n}\gamma)$  2005Si31,2004Si26

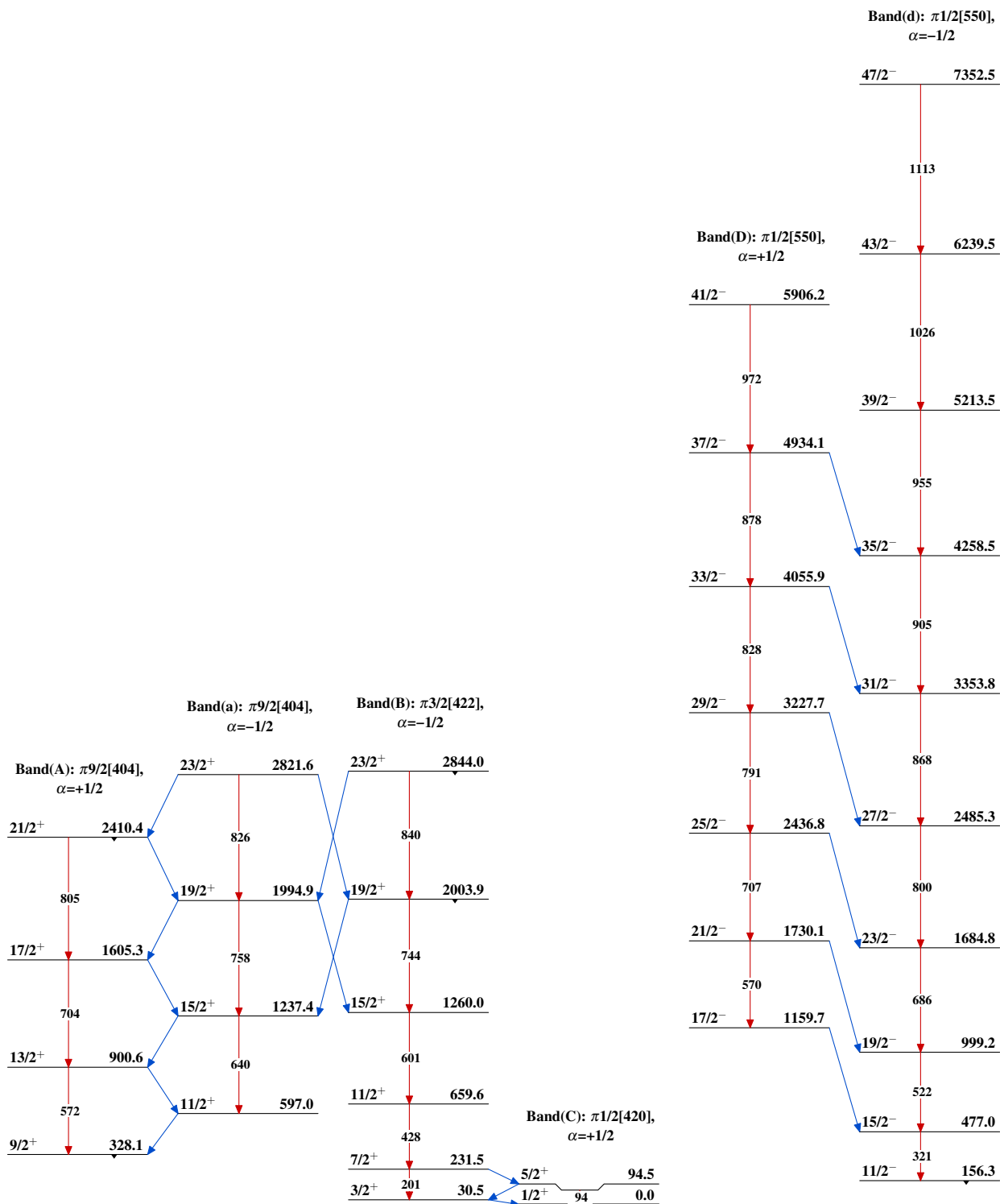
## Level Scheme (continued)

Intensities: Relative  $I_\gamma$ 

## Legend

- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

 $^{123}_{55}\text{Cs}_{68}$

$^{100}\text{Mo}(^{28}\text{Si},\text{p}4\text{n}\gamma)$  2005Si31,2004Si26 $^{123}_{55}\text{Cs}_{68}$



$^{100}\text{Mo}(\text{Si}, \text{p}4\text{n}\gamma)$  2005Si31, 2004Si26 (continued)