

(HI,xn $\gamma$ ) 1993Wi19

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. Hashizume	NDS 112, 1647 (2011)	1-Oct-2009

1993Wi19:  $^{48}\text{Ca}(^{82}\text{Se},3n\gamma)$  E=275 MeV; OSIRIS multi detector system, DSAM;  $\gamma, \gamma\gamma$  coin,  $\gamma(t)$ : Other experimental details are not given by authors, because of a short note.

The level scheme is that given by authors.

 $^{127}\text{Xe}$  Levels

E(B),J(B) Band built on the 3403-keV level, but spin and parity of the base level has not been established. Tentative  $J^\pi$  values for these band members are based on similarity with the  $^{125}\text{Xe}$  level scheme and an assumed configuration= $(\pi h_{11/2})^2(\nu h_{11/2})$ , by authors.

E(level) <sup>†</sup>	$J^\pi$ <sup>‡</sup>
0.0	1/2 <sup>+</sup>
125.0@ 10	3/2 <sup>+</sup>
297.0 14	9/2 <sup>-</sup>
309.0# 16	(11/2 <sup>-</sup> )
342.0& 14	7/2 <sup>+</sup>
530.0@ 14	7/2 <sup>+</sup>
646.0& 15	(9/2 <sup>+</sup> )
828.0# 16	(15/2 <sup>-</sup> )
938.0& 15	(11/2 <sup>+</sup> )
1081.0@ 15	11/2 <sup>+</sup>
1283.0& 15	13/2 <sup>+</sup> <sup>b</sup>
1509.0# 17	(19/2 <sup>-</sup> )
1622.0& 15	
1752.0@ 15	15/2 <sup>+</sup>
2017.0 16	
2171.0 17	
2306.6 <sup>a</sup> 7	(15/2 <sup>-</sup> ,17/2,19/2 <sup>+</sup> )
2307.1 <sup>a</sup> 9	
2313.0# 20	(23/2 <sup>-</sup> )
2395.0 16	
2498.0@ 16	
2665.0 16	
2717.0 16	
2779.0 17	
2969.0 16	
3202.0# 22	(27/2 <sup>-</sup> ) <sup>b</sup>
3276.0 16	
3283.0 16	
3403.0 16	
3621.0 19	(27/2)
4089.0 21	(29/2)
4137.0# 24	(31/2 <sup>-</sup> ) <sup>b</sup>
4412.0 21	(31/2)
4887.0 22	(33/2)
5099# 3	(35/2 <sup>-</sup> ) <sup>b</sup>
5299.0 22	(35/2)

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**(HL,xn $\gamma$ ) 1993Wi19 (continued)** $^{127}\text{Xe}$  Levels (continued)

E(level) <sup>†</sup>	J $\pi$ <sup>‡</sup>	Comments
6123 <sup>#</sup> 3	(39/2 <sup>-</sup> ) <sup>b</sup>	
6305.0 25	(39/2)	
7200 <sup>#</sup> 3	(43/2 <sup>-</sup> ) <sup>b</sup>	
7311 3		
7353 3	(43/2)	
7779 3	(45/2)	
8336 <sup>#</sup> 4	(47/2 <sup>-</sup> ) <sup>b</sup>	
8395 4		
8814 3	(49/2)	
9523 <sup>#</sup> 4	(51/2 <sup>-</sup> ) <sup>b</sup>	
x+0		Additional information 1.
x+574.0 15		
x+775.0 10		
x+1304.0 13		
x+1676.0 13		

<sup>†</sup> From a least-squares fit to E $\gamma$ 's, unless otherwise noted.

<sup>‡</sup> From Adopted Levels, unless otherwise noted.

<sup>#</sup> Negative-parity yrast band.

@ Positive-parity band-1.

& Positive-parity band-2.

<sup>a</sup> From Adopted Levels.

<sup>b</sup> Given from a band assignment by authors.

 $\gamma(^{127}\text{Xe})$ 

E $\gamma$ <sup>†</sup>	E <sub>i</sub> (level)	J $\pi$ <sub>i</sub>	E <sub>f</sub>	J $\pi$ <sub>f</sub>
12	309.0	(11/2 <sup>-</sup> )	297.0	9/2 <sup>-</sup>
120	3403.0		3283.0	
125	125.0	3/2 <sup>+</sup>	0.0	1/2 <sup>+</sup>
127	3403.0		3276.0	
172	297.0	9/2 <sup>-</sup>	125.0	3/2 <sup>+</sup>
201 <sup>‡</sup>	x+775.0		x+574.0	
217	342.0	7/2 <sup>+</sup>	125.0	3/2 <sup>+</sup>
218	3621.0	(27/2)	3403.0	
252	2969.0		2717.0	
292	938.0	(11/2) <sup>+</sup>	646.0	(9/2) <sup>+</sup>
304	646.0	(9/2) <sup>+</sup>	342.0	7/2 <sup>+</sup>
307	3276.0		2969.0	
314	3283.0		2969.0	
323	4412.0	(31/2)	4089.0	(29/2)
339	1622.0		1283.0	13/2 <sup>+</sup>
345	1283.0	13/2 <sup>+</sup>	938.0	(11/2) <sup>+</sup>
358	2665.0		2306.6	(15/2 <sup>-</sup> ,17/2,19/2 <sup>+</sup> )
372 <sup>‡</sup>	x+1676.0		x+1304.0	
395	2017.0		1622.0	
405	530.0	7/2 <sup>+</sup>	125.0	3/2 <sup>+</sup>
412	5299.0	(35/2)	4887.0	(33/2)
426	7779	(45/2)	7353	(43/2)
434	3403.0		2969.0	

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**(HL,xn $\gamma$ ) 1993Wi19 (continued)** $\gamma(^{127}\text{Xe})$  (continued)

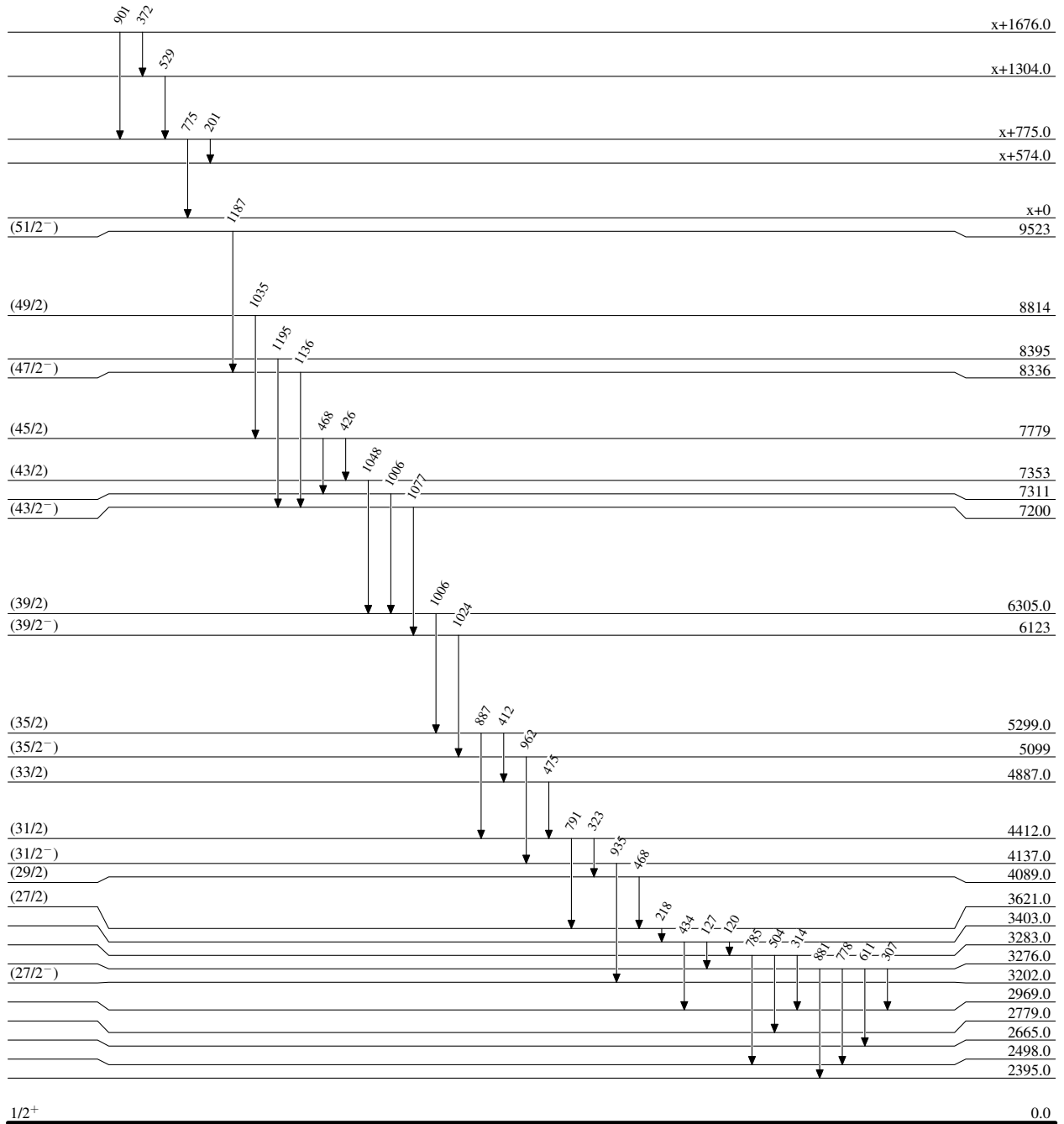
$E_\gamma^\dagger$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	$E_\gamma^\dagger$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
468	4089.0	(29/2)	3621.0	(27/2)	791	4412.0	(31/2)	3621.0	(27/2)
468	7779	(45/2)	7311		798	2306.6	(15/2 <sup>-</sup> ,17/2,19/2 <sup>+</sup> )	1509.0	(19/2 <sup>-</sup> )
472	2779.0		2307.1		804	2313.0	(23/2 <sup>-</sup> )	1509.0	(19/2 <sup>-</sup> )
475	4887.0	(33/2)	4412.0	(31/2)	881	3276.0		2395.0	
494	2665.0		2171.0		887	5299.0	(35/2)	4412.0	(31/2)
504	3283.0		2779.0		889	3202.0	(27/2 <sup>-</sup> )	2313.0	(23/2 <sup>-</sup> )
519	828.0	(15/2 <sup>-</sup> )	309.0	(11/2 <sup>-</sup> )	901 $\ddagger$	x+1676.0		x+775.0	
529 $\ddagger$	x+1304.0		x+775.0		935	4137.0	(31/2 <sup>-</sup> )	3202.0	(27/2 <sup>-</sup> )
551	1081.0	11/2 <sup>+</sup>	530.0	7/2 <sup>+</sup>	952	2969.0		2017.0	
555	2306.6	(15/2 <sup>-</sup> ,17/2,19/2 <sup>+</sup> )	1752.0	15/2 <sup>+</sup>	962	5099	(35/2 <sup>-</sup> )	4137.0	(31/2 <sup>-</sup> )
596	938.0	(11/2 <sup>+</sup> )	342.0	7/2 <sup>+</sup>	965	2717.0		1752.0	15/2 <sup>+</sup>
611	3276.0		2665.0		1006	6305.0	(39/2)	5299.0	(35/2)
637	1283.0	13/2 <sup>+</sup>	646.0	(9/2 <sup>+</sup> )	1006	7311		6305.0	(39/2)
671	1752.0	15/2 <sup>+</sup>	1081.0	11/2 <sup>+</sup>	1024	6123	(39/2 <sup>-</sup> )	5099	(35/2 <sup>-</sup> )
681	1509.0	(19/2 <sup>-</sup> )	828.0	(15/2 <sup>-</sup> )	1035	8814	(49/2)	7779	(45/2)
684	1622.0		938.0	(11/2 <sup>+</sup> )	1048	7353	(43/2)	6305.0	(39/2)
685	2307.1		1622.0		1077	7200	(43/2 <sup>-</sup> )	6123	(39/2 <sup>-</sup> )
734	2017.0		1283.0	13/2 <sup>+</sup>	1095	2717.0		1622.0	
746	2498.0		1752.0	15/2 <sup>+</sup>	1136	8336	(47/2 <sup>-</sup> )	7200	(43/2 <sup>-</sup> )
773	2395.0		1622.0		1187	9523	(51/2 <sup>-</sup> )	8336	(47/2 <sup>-</sup> )
775 $\ddagger$	x+775.0		x+0		1195	8395		7200	(43/2 <sup>-</sup> )
778	3276.0		2498.0		1343	2171.0		828.0	(15/2 <sup>-</sup> )
785	3283.0		2498.0						

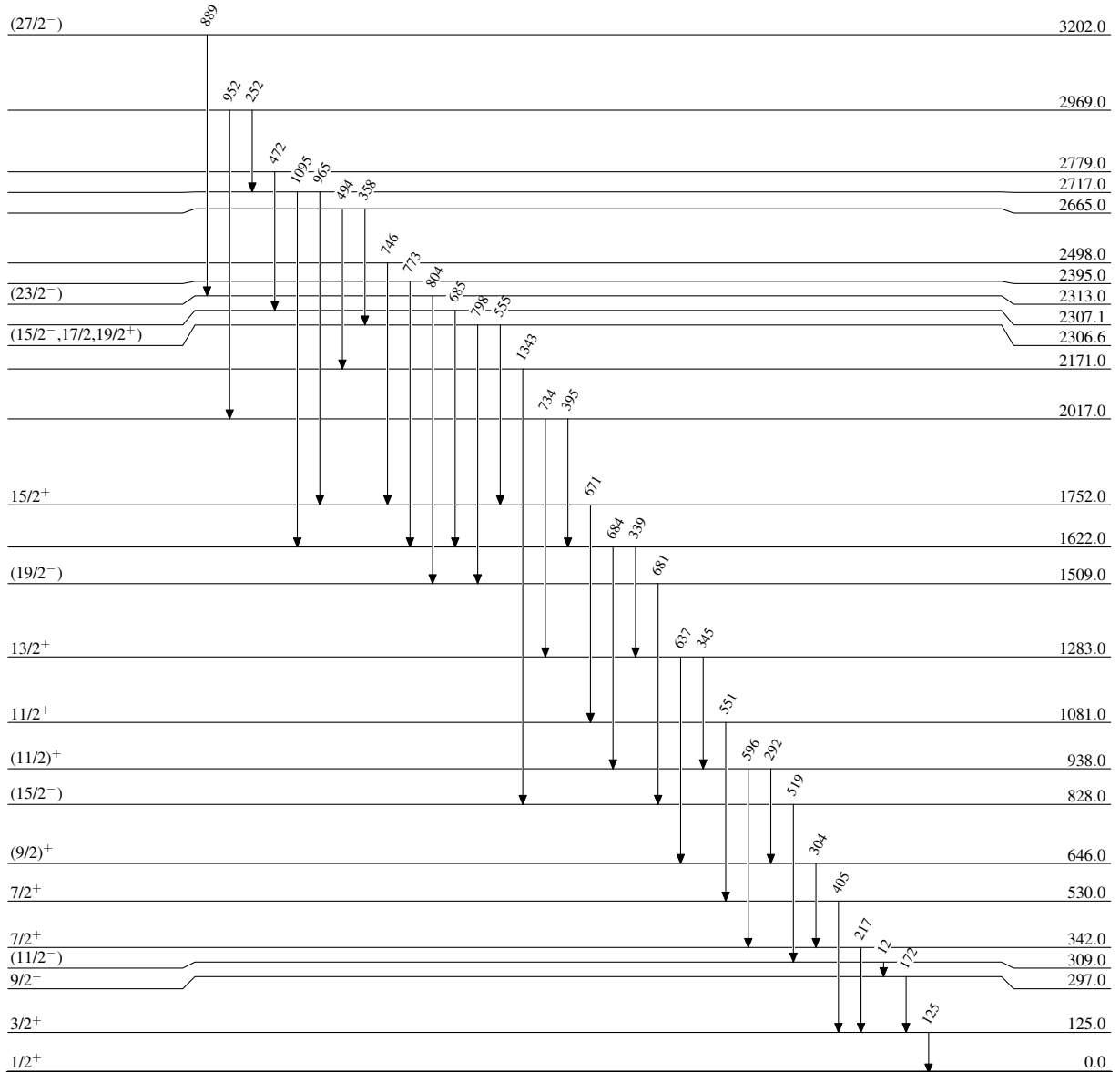
$\dagger$  The overall resolution for  $\gamma$ 's is 6 keV at 1 MeV (authors).

$\ddagger$  Coincident with members of the band built on the 309 level.

(HL,xn $\gamma$ ) 1993Wi19

## Level Scheme

 $^{127}_{54}\text{Xe}_{73}$

**(HI,xn $\gamma$ ) 1993Wi19**Level Scheme (continued) $^{127}_{54}\text{Xe}_{73}$