

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 113,2391 (2012)	1-Sep-2012

Q(β^-)=-9.0×10³ syst; S(n)=9642 17; S(p)=3.1×10³ syst; Q(α)=2506 14 2012Wa38
 Note: Current evaluation has used the following Q record -9.0E+3 SY9642 16 3.1×10³ syst 2506 14 2011AuZZ.
 Δ Q(β^-)=300 2011AuZZ.
 Identification: on-line ms of cerium(p,spallation) 1969Ha03, 1971Ho07, 1972Ho18.
 Q(¹¹⁵Xe)-S(p)(¹¹⁵I)=6200 130 from β^+ /p (1972Ho18) (β^+)(p) coin.
 (p)(γ) coin: I γ (γ^\pm)=28 4, I γ (709 γ ,¹¹⁴Te)=58 7 (1972Ho18).
 Measured (p)(709 γ ,¹¹⁴Te) coin indicates 58% 7 proton branching to first excited (2⁺) state in ¹¹⁴Te, 42% decay to (0⁺) g.s.
 β^- strength function (1975Ho03) theory: (1985Ar18,1984Al19).

¹¹⁵Xe Levels

Cross Reference (XREF) Flags

A (HL,xny)

E(level) [‡]	J ^π [†]	T _{1/2}	XREF	Comments
0.0	(5/2 ⁺)	18 s 4	A	$\%e+\%\beta^+=100$; $\%\beta^+p=0.34$ 6(1971Ho07); $\%\alpha=0.0003$ 1 J ^π : from comparison between measured and calculated absolute (β^+)-delayed p intensity and p γ (709 γ , ¹¹⁴ Te) coin (1972Ho18,1972Ho19). T _{1/2} : 18 s 4 (1971Ho07) proton counting. Others: 19 s 5 (1969Ha03), 12 s 2 (1973LiZB) K x ray (iodine) counting. $\beta^+p/\beta^+\alpha$ ratio=1100 300 (1979Ew02) on-line ms.
208.0 ^a 9	7/2 ⁺		A	
220.0 ^{&} 9	5/2 ⁺		A	
240.7 [#] 22	11/2 ⁻		A	
569.0 ^{&} 10	9/2 ⁺		A	
655.2 [#] 22	15/2 ⁻		A	
709.0 ^a 14	11/2 ⁺		A	
1125.0 ^{&} 15	13/2 ⁺		A	
1284.0 ^a 17	15/2 ⁺		A	
1289.9 [#] 22	19/2 ⁻		A	
1548.2 22			A	
1725.0 ^{&} 18	17/2 ⁺		A	
1944.0 ^a 20	19/2 ⁺		A	
2057.2 [#] 22	23/2 ⁻		A	
2263.7 22			A	
2329.1 [@] 20	21/2 ⁺		A	
2397.0 ^{&} 20	21/2 ⁺		A	
2543.7 22			A	
2681.0 ^a 22	23/2 ⁺		A	
2893.2 [@] 22	25/2 ⁺		A	
2911.1 [#] 22	27/2 ⁻		A	
3029.1 ^{&} 23	25/2 ⁺		A	
3470.2 [@] 24	29/2 ⁺		A	
3829.7 [#] 23	31/2 ⁻		A	
4193 [@] 3	33/2 ⁺		A	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{115}Xe Levels (continued)

E(level) [‡]	J ^π [†]	XREF	E(level) [‡]	J ^π [†]	XREF	E(level) [‡]	J ^π [†]	XREF
4781.9 [#] 23	35/2 ⁻	A	6103 [@] 3	41/2 ⁺	A	8835.9 [#] 23	(51/2 ⁻)	A
5083 [@] 3	37/2 ⁺	A	6731.1 [#] 23	(43/2 ⁻)	A	9973.2 [#] 24	(55/2 ⁻)	A
5724.3 [#] 23	39/2 ⁻	A	7752.1 [#] 23	(47/2 ⁻)	A	11182.6 [#] 24	(59/2 ⁻)	A

[†] Values without comments are based on band structure combined with γ multipolarity deduced from DCO ratios.

[‡] From least-squares fit to γ energies.

[#] Band(A): $\nu h_{11/2}$ band, $\alpha=-1/2$.

[@] Band(B): $\nu h_{11/2}\pi(h_{11/2}g_{7/2})$, $\alpha=+1/2$.

[&] Band(C): $\nu g_{7/2}$ band, $\alpha=+1/2$.

^a Band(D): $\nu g_{7/2}$ band, $\alpha=-1/2$.

 $\gamma(^{115}\text{Xe})$

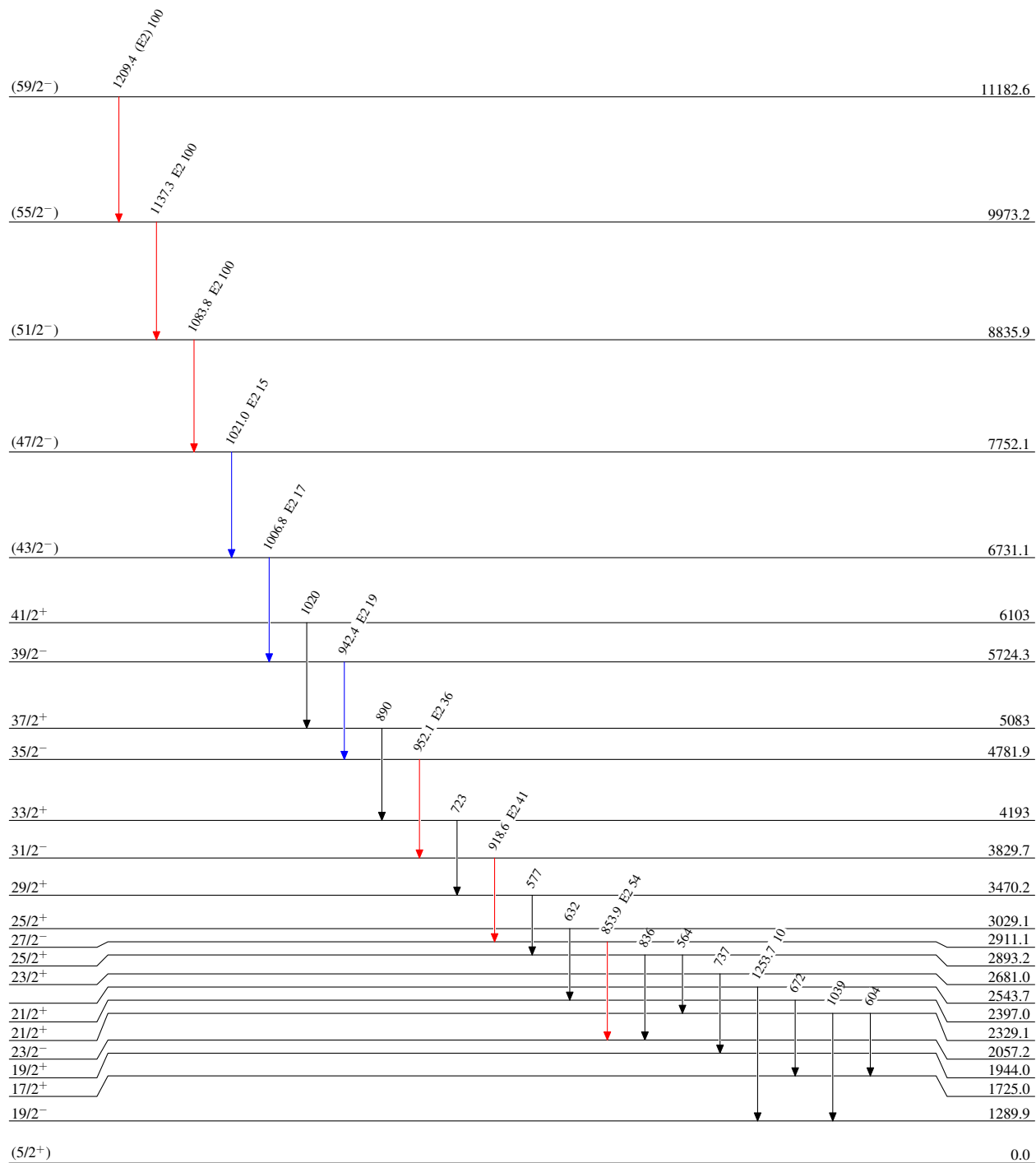
E_i (level)	J _i ^π	E_γ	I_γ	E_f	J _f ^π	Mult.	Comments
208.0	7/2 ⁺	208 <i>l</i>		0.0	(5/2 ⁺)		
220.0	5/2 ⁺	220 <i>l</i>		0.0	(5/2 ⁺)		
569.0	9/2 ⁺	349 <i>l</i>		220.0	5/2 ⁺		
		361 <i>l</i>		208.0	7/2 ⁺		
655.2	15/2 ⁻	414.6 3	100	240.7	11/2 ⁻	E2	Mult.: DCO=1.03 6.
709.0	11/2 ⁺	501 <i>l</i>		208.0	7/2 ⁺		
1125.0	13/2 ⁺	556 <i>l</i>		569.0	9/2 ⁺		
1284.0	15/2 ⁺	575 <i>l</i>		709.0	11/2 ⁺		
1289.9	19/2 ⁻	634.7 3	90 9	655.2	15/2 ⁻	E2	Mult.: DCO=0.96 7.
1548.2		893.0 3	11 1	655.2	15/2 ⁻		
1725.0	17/2 ⁺	600 <i>l</i>		1125.0	13/2 ⁺		
1944.0	19/2 ⁺	660 <i>l</i>		1284.0	15/2 ⁺		
2057.2	23/2 ⁻	767.3 3	79 8	1289.9	19/2 ⁻	E2	
2263.7		973.7 3	17 2	1289.9	19/2 ⁻		
2329.1	21/2 ⁺	604 <i>l</i>		1725.0	17/2 ⁺		
		1039 <i>l</i>		1289.9	19/2 ⁻		
2397.0	21/2 ⁺	672 <i>l</i>		1725.0	17/2 ⁺		
2543.7		1253.7 3	10 1	1289.9	19/2 ⁻		
2681.0	23/2 ⁺	737 <i>l</i>		1944.0	19/2 ⁺		
2893.2	25/2 ⁺	564 <i>l</i>		2329.1	21/2 ⁺		
		836 <i>l</i>		2057.2	23/2 ⁻		
2911.1	27/2 ⁻	853.9 3	54 5	2057.2	23/2 ⁻	E2	
3029.1	25/2 ⁺	632 <i>l</i>		2397.0	21/2 ⁺		
3470.2	29/2 ⁺	577 <i>l</i>		2893.2	25/2 ⁺		
3829.7	31/2 ⁻	918.6 3	41 4	2911.1	27/2 ⁻	E2	
4193	33/2 ⁺	723 <i>l</i>		3470.2	29/2 ⁺		
4781.9	35/2 ⁻	952.1 3	36 3	3829.7	31/2 ⁻	E2	
5083	37/2 ⁺	890 <i>l</i>		4193	33/2 ⁺		
5724.3	39/2 ⁻	942.4 3	19 2	4781.9	35/2 ⁻	E2	
6103	41/2 ⁺	1020 <i>l</i>		5083	37/2 ⁺		
6731.1	(43/2 ⁻)	1006.8 3	17 2	5724.3	39/2 ⁻	E2	
7752.1	(47/2 ⁻)	1021.0 3	15 2	6731.1	(43/2 ⁻)	E2	
8835.9	(51/2 ⁻)	1083.8 3	100	7752.1	(47/2 ⁻)	E2	
9973.2	(55/2 ⁻)	1137.3 3	100	8835.9	(51/2 ⁻)	E2	
11182.6	(59/2 ⁻)	1209.4 3	100	9973.2	(55/2 ⁻)	(E2)	

Adopted Levels, Gammas**Level Scheme**

Intensities: Type not specified

Legend

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

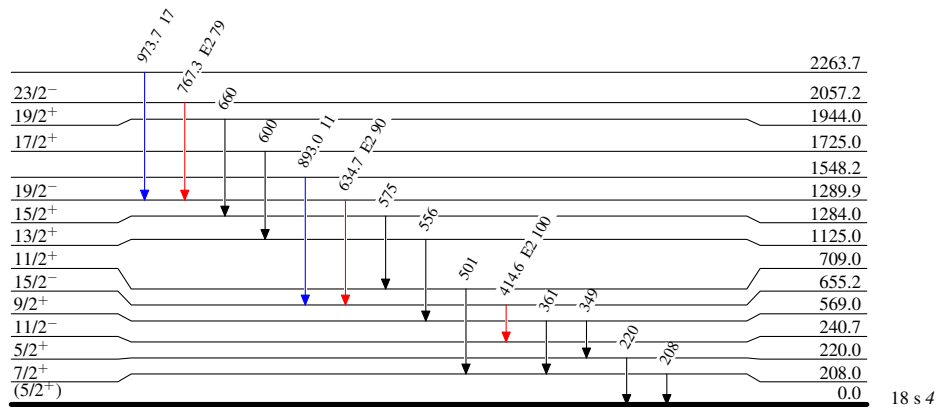
 $^{115}_{54}\text{Xe}_{61}$

Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified

Legend

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



18 s 4

 $^{115}_{54}\text{Xe}_{61}$

Adopted Levels, Gammas