Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin, C. D. Nesaraja	NDS 186, 261 (2022)	31-Dec-2021

Q(β^-)=664.3 *4*; S(n)=5537.64 *10*; S(p)=4776.07 *19*; Q(α)=5588.50 *25* 2021Wa16
S(2n)=12185 *14*, S(2p)=11426 *17* (2021Wa16).

For references on theory, refer to the NSR file at the Web site given in the abstract.

For neutron resonances see 2014Fr03, 2015No03 and references therein.

^{242}Am Levels

Cross Reference (XREF) Flags

A	^{241}Am(d,p)	E	^{241}Am(n,γ) E=th:secondary γ's
B	^{243}Am(d,t)	F	^{241}Am(n,γ):resonances 0-320 eV
C	Coulomb excitation	G	^{241}Am(n,γ):resonances 0-149 eV
D	^{241}Am(n,γ) E=th:primary γ's	H	^{242}Am IT decay (141 y)

E(level)[p]	J$^\pi$[q]	T$_{1/2}$	XREF	Comments
0.0[†]	1$^-$	16.01 h *2*	AB DE H	%β^-=83.0 *3*; %ε=17.0 *3*; %α<10×10^{-5} μ=+0.3854 *17*; Q=−2.44 *3* μ: Atomic beam magnetic resonance (2019StZV, 1966Ar04). Q: Atomic beam magnetic resonance (2021StZZ, 1966Ar04). %β^-,%ε: Weighted average from %β^-/ε=5.1 *1* (1959Ho02), 4.8 *1* (1969Ga17), %ε=18 *1* (1969Al20), and %β^-=82.7 *3* (1972Ga35) with the constraint that %β^-+%ε=100. Others: 1959Ba22 report %ε=16.4 *8* but associate it with the 141-y isomer, 1960As05 report %ε=16 but do not quote an uncertainty. %α: From 1969Al20 for Eα in the range 5000 to 5300. J$^\pi$: From 1961Ma27 (atomic-beam resonance). The experimental magnetic moment agrees with the theoretical one for the configuration K=0,(π 5/2[523]-ν 5/2[622]). T$_{1/2}$: From 1953Ke38. Others: 16.02 h *2* (2005Ma90. Value is from author's thesis quoted from their reference 2), 16.07 h *4* (1969Al20, 16.1 h *1* (1982Wi05). Note that in the work of 1953Ke38 the authors state in the abstract that the uncertainty is at the 99% confidence level; however, in the text the uncertainty is stated to be the standard deviation. In the work of 1969Al20 the authors quote an uncertainty of 0.04 h based on a weighted average of five measurements given in their Table 2. The uncertainty is apparently a misprint since a weighted average of those values gives an uncertainty of 0.14 h.
44.093[†] *3*	0$^-$		E	J$^\pi$: M1 γ to 1$^-$.
48.603[#] *9*	5$^-$	141 y *2*	ABC E H	%α=0.450 *10*; %IT=99.550 *10*; %SF<4.7×10^{-9} μ=+1.00 *5*; Q=+6.7 *4* μ: Laser Resonance Spectroscopy with Radioactive Detection (2019StZV,1988Be30). Q: Atomic beam magnetic resonance (2021StZZ,1988Be30). J$^\pi$: E4γ to 1$^-$. %α,%IT: %α is from the adopted half-life and the partial α half-life. %IT is then 100−%α since %SF is negligible for this calculation and no β^- has been observed. %SF: From the partial half-life T$_{1/2}$(SF)>3.0×10^{12} y (1986Ze06). This partial half-life is recommended by 2000Ho27. μ: 1988Be30 calculated the magnetic moment as μ=−1.1 for the (π 5/2[523]+ν 5/2[622]) configuration, in disagreement with the measured value. T$_{1/2}$: Recommended by 1979Ze05 from their results from two methods, 139.7 *18* and 141.9 *17*. Other: 152 y *7* (1959Ba22).

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Adopted Levels, Gammas (continued)

^{242}Am Levels (continued)

E(level)[p]	Jπ[q]	XREF	Comments
			$T_{1/2}(\alpha)=3.10\times10^4$ y *8*, a weighted average of 2.85×10^4 y *16* (1959Ba22) and 3.12×10^4 y *5* (1979Ze05). 1959Ba22 report $T_{1/2}=3.20\times10^4$ y *16*. The evaluators have recalculated the author's value using the most recent values of the standards used by the author. $T_{1/2}(SF)=9.5\times10^{11}$ y *35* (1967Ca04), $>3.0\times10^{12}$ y (1986Ze06), 2000Ho27 adopt the limit value.
52.714† *7*	3^-[w]	AB DE	Jπ: E2 γ to 1^-.
75.820† *3*	2^-[w]	AB DE	Jπ: M1 γ to 1^-.
99.285 *9*	$0^+,1^+,2^+$	E	Jπ: E1 γ to 1^-. An (M1+E2) γ from $1^+,2^+$ rules out 0^+ weakly.
100.1@ *7*	6^-[r]	BC	
114‡	6^-[w]	ABC	
148†	5^-[w]	AB	XREF: A(149)B(148).
149.707† *7*	4^-[w]	AB DE	XREF: A(149)B(148). Jπ: M1 γ to 3^-.
168.387 *9*	$1^-,2^-,3^-$	E	Jπ: M1+E2 γ to 2^-.
172&	7^-[r]	BC	
181.4[b] *10*	(5^+)[r]	C	
181.4+x[b]	(7^+)[r]	C	
190.6# *5*	7^-[w]	ABC	
197.5 *7*	[v]	D	
200.581 *9*	$3^-,4^-$	E	Jπ: M1+E2 γ from 4^-. γ to 2^-.
230.527[e] *3*	1^+[u]	DE	Jπ: E1 γ's to 0^- and 2^- members of the gs band. Iγ(154γ)/Iγ(186γ) and the non-observation of feeding to the 1^- member of the gs band agree with the Alaga rule for K=0 but not for K=1.
244.381[f] *8*	3^-	AB DE	Jπ: M1+E2 γ to 4^- for the 244.381 level, and M1+E2 γ to 1^- for the 296.401 level, along with a connecting M1(+E2) γ, uniquely establish $J^\pi=3^-$ and 2^- for the 244 and 296 levels, respectively.
247+x[a]	(8^+)[r]	C	
254.3@	8^-[r]	C	
263†	$(6^-$ & $7^-)$[w]	B	Jπ: In (d,t), 1976Gr19 treat this as a single level with $J^\pi=6^-$, while 1976KaZL consider it a doublet consisting of the 6^- and 7^- members of the band.
269.854[e] *10*	3^+[u]	DE	Jπ: Fit to a $K^\pi=0^+$ band. See 1988Sa18 for details.
274.330[g] *5*	1^-[u]	E	Jπ: M1+E2 γ to 2^-. M1 γ to 1^-. Doubly placed M1 γ to 0^-.
276‡	8^-[r]	C	
283.3 *2*	[v]	D	
289.028[f] *13*	4^-	AB E	Jπ: M1+E2 γ to 5^-. E2 γ to 2^-.
292.831[h] *8*	2^-[w]	AB DE	Jπ: M1+E2 γ's to 2^- and 3^-.
296.401[g] *8*	2^-	E	Jπ: See argument for the 244.381 level.
306.9 *4*	[v]	D	
311.832 *10*	$1^+,2^+$	E	Jπ: E2 γ to 3^+. M1+E2γ to 1^+.
323.4+x[b]	(9^+)[r]	C	
327.884[h] *9*	3^-	AB DE	Jπ: M1+E2 γ's to 2^- and 4^-.
330.740[g] *8*	3^-[u]	E	Jπ: γ's to 1^- and 3^-.
330.837 *9*	$2^-,3^-$	E	Jπ: M1+E2 γ to 2^-. γ from 3^+.
341.593[e] *14*	0^+[u]	E	Jπ: γ's to 1^+ and 1^-. E2 γ from 2^+.
342[f]	5^-[w]	AB	
342.805 *10*	$2^-,3^-$	E	Jπ: E2 γ to 4^-. Doubly placed γ to $1^+,2^+$.
347&	9^-[r]	C	
355.715[j] *10*	2^+[u]	E	Jπ: E1+M2 γ's to 3^-. I(27.8γ)/I(62.9γ) consistent with the Alaga rule for J=2, but not for J=3.

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Adopted Levels, Gammas (continued)

^{242}Am Levels (continued)

E(level)[p]	Jπ[q]	XREF	Comments
363.434 *11*	2+,3+	DE	Jπ: M1+E2 γ to 1+,2+. M1+E2 γ from 3+.
364.658[e] *11*	2+	E	Jπ: E2 γ to 0+.
369.207 *17*	1−,2−	DE	Jπ: M1+E2 γ to 1−.
372.490[g] *9*	4−[u]	E	Jπ: M1+E2 γ's to 3−.
373.3[#] *7*	9−[r]	C	
373.686[h] *9*	4−[w]	AB E	Jπ: M1+E2 γ to 3−.
376.947[j] *8*	3+[u]	DE	Jπ: E1+M2 γ to 3−.
388.112[i] *9*	3+[u]	E	Jπ: E1 γ to 2−.
397.147 *10*	2−,3−,4−	E	Jπ: M1+E2 γ to 3−.
400.521[k] *9*	1−[u]	DE	Jπ: M1+E2 γ to 2−.
405.880 *9*	2−,3,4[u]	E	Jπ: γ to 3−. Doubly placed γ's to 3+ and 4−.
405.933[j] *9*	4+[u]	E	
409[f]	(6−)[w]	B	
409+x[a]	(10+)[r]	C	
417.746[e] *15*	(4)+[w]	DE	Jπ: M1+E2 γ to 3+. The intense 5119.7-keV primary gamma in ^{241}Am(thermal n,γ) reaction is assigned to feed this level, rather than the 418.12-keV level, since the 1+, 2+ and 3+ members of the (π 5/2[642]-ν 5/2[622]) band are populated by strong primary gammas; whereas, the 3+ level of the (π 5/2[642]+ν 1/2[631]) rotational band is not populated (the 418.12-keV level is the 4+ member).
418.084[i] *11*	4+[u]	E	Jπ: γ's to 3−, 3+, and 4−.
419.085[k] *9*	2−[u]	E	Jπ: M1 γ to 3−.
420.651 *13*	2+,3+,4+	E	Jπ: M1+E2 γ to 3+.
428.6 *4*	[v]	D	
434[h]	(5−)[w]	AB	
442.385[j] *8*	5+[u]	E	Jπ: γ's to 3+, 4+, and 4−.
446.702[k] *10*	3−[u]	E	Jπ: E1 γ to 2+.
448.9[@]	10−[r]	C	
455.688 *14*	1−,2−,3−	E	Jπ: M1+E2 γ from 2−,3−. M1+E2 γ from 1−,2−.
457.090[i] *11*	5+[u]	E	Jπ: E1 γ to 4−.
464.362 *9*	3−,4−	DE	Jπ: M1+E2 γ to 4−. E1+M2 γ to 3+.
479[‡]	10−[r]	C	
483.640[k] *11*	4−[u]	E	Jπ: γ's to 2− and 5−.
486[f]	(7−)[w]	B	
495.721 *11*	3+	E	Jπ: E1+M2 γ to 4−. γ to 2−.
500[h]	(6−)[w]	B	
501.569 *13*	(3)−	E	Jπ: M1+E2 γ to 2−. (M1+E2) γ to 4−.
502.04 *3*	1+,2+	DE	Jπ: M1+E2 to 1+. γ to 0+.
505.4+x[b]	(11+)[r]	C	
506.648 *16*	2+	E	Jπ: M1+E2 γ to 3+. γ to 1−.
506.964 *13*	(3)+	E	Jπ: M1+E2 γ to 2+. M1+E2 to (4)+.
528.545 *21*	3+	DE	Jπ: M1+E2 γ to 2+. γ to 5+.
533.815 *12*	2−	E	Jπ: M1+E2 γ to 1−. M1+E2 γ to 3−,4−.
544.756 *12*	2−,3−	E	Jπ: M1 γ to 3−,4−. γ to 1−.
559.790 *13*	2−	E	Jπ: M1+E2 γ to 3−. Doubly placed M1 γ to 1−.
561[&]	11−[r]	C	
568.215 *9*	4−	E	Jπ: E1 γ's to 3+ and 5+.
574.089 *11*	(2,3,4)−	E	Jπ: M1+E2 γ to 2−,3−,4−. M1 γ from (3)−.
581[h]	(7−)[tw]	B	
581?[f]	(8−)[t]	B	
583.4 *10*	[v]	D	

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Adopted Levels, Gammas (continued)

^{242}Am Levels (continued)

E(level)[p]	Jπ[q]	XREF	Comments
596.2[#] *9*	11$^-$[r]	C	
596.425 *10*	2$^-$,3$^-$,4$^-$	E	Jπ: M1 γ to 3$^-$.
603+x?[d]		C	
603.889 *12*	(3,4)$^+$	E	Jπ: M1+E2 γ to (4)$^+$. M1+E2 γ to 3$^+$.
608		B	
611+x[a]	(12$^+$)[r]	C	
612.758 *12*	2$^-$	DE	Jπ: M1+E2 γ to 3$^-$. E1+M2 γ to 1$^+$.
621.527 *14*	1$^-$,2$^-$	DE	Jπ: M1+E2 γ to 2$^-$. γ to 1$^+$.
626		B	
628.523 *12*	3$^-$,4$^-$,5$^-$	E	Jπ: M1+E2 γ to 4$^-$. Doubly placed M1+E2 γ to 4$^-$.
630.291 *15*	2$^-$,3$^-$,4$^-$	DE	Jπ: M1+E2 γ to 3$^-$.
640.2 *3*	[v]	D	
644.3 *5*	[v]	D	
651.3 *5*	[v]	D	
658		B	
660.6 *4*	[v]	D	
664.1 *5*	[v]	D	
670.0 *7*	[v]	D	
672.248 *10*	(2,3,4)$^-$	E	Jπ: M1 γ from (3)$^-$.
675.482 *12*	(2,3,4)$^+$	E	Jπ: M1+E2 γ to (3)$^+$.
677[h]	(8$^-$)[w]	B	
681.894 *12*	3$^-$	DE	Jπ: M1 γ to 4$^-$. M1+E2 γ from 2$^-$.
682.7[@]	12$^-$[r]	C	
689.3 *5*	[v]	DE	
692+x?[c]		C	
697		B	
700.2 *5*	[v]	D	
704.030 *14*	1$^-$,2$^-$,3$^-$	E	Jπ: M1+E2 γ to 1$^-$,2$^-$.
710.389 *11*	1$^-$,2$^-$,3$^-$	E	Jπ: M1+E2 γ to 1$^-$,2$^-$.
712.442 *13*	2$^-$,3$^-$,4$^-$	E	Jπ: M1+E2 γ to 3$^-$,4$^-$,5$^-$. E2 γ to 2$^-$.
715.3 *3*	[v]	D	
721.3 *3*	[v]	D	
722[‡]	12$^-$[r]	C	
724.4 *3*	[v]	D	
727.4+x[b]	(13$^+$)[r]	C	
731.225 *14*	3$^+$,4$^+$,5$^+$	E	Jπ: M1+E2 γ to 4$^+$.
734.8 *5*	[v]	D	
744.7 *5*	[v]	D	
759.4 *4*	[v]	D	
766.9 *3*	[v]	D	
779.6 *3*	[v]	D	
790		A	
794+x?[d]		C	
795.7 *4*	[v]	D	
796[h]	(9$^-$)	B	Jπ: 1976KaZL from their (d,t) data tentatively assign the 796 level as the 9$^-$ member of the K^π=2$^-$ (π 5/2[523]-ν 1/2[631]) band.
802.4 *4*	[v]	D	
814[&]	13$^-$[r]	C	
818.1 *3*	[v]	D	
821		AB	
823.2 *3*	[v]	D	

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Adopted Levels, Gammas (continued)

^{242}Am Levels (continued)

E(level)[p]	Jπ[q]	XREF	Comments
833		B	
846		B	
851.9 *3*	*v*	D	
852+x[a]	(14+)[r]	C	
858.0[#] *10*	13−[r]	C	
864.5 *7*	*v*	D	
873.996[l] *12*	2−[uw]	AB DE	Jπ: M1+E2 γ to 1−. M1+E2 γ to 3−.
883.8 *4*	*v*	D	
896.6 *3*	*v*	D	
902.494[m] *11*	(3)−[uw]	AB E	Jπ: M1 γ to π=−.
904+x	*r*	C	
906.499[l] *19*	(3)−[u]	DE	Jπ: Doubly placed M1+E2 and E2 γ's to π=−.
916		AB	
919.5 *4*	*v*	D	
930.4 *3*	*v*	D	
934.6 *4*	*v*	D	
935		AB	
949.660[l] *14*	(4−)[u]	E	Jπ: (E2) γ to (3−).
951		A	
954.1[@]	14−[r]	C	
968.7 *3*	*v*	D	
974.9[n] *5*	(3+)[w]	AB D	
978.3 *3*	*v*	D	
988.6+x[b]	(15+)[r]	C	
994		AB	
1002[‡]	14−[r]	C	
1002.618[l] *23*	(5−)[u]	E	Jπ: M1 γ to 4−.
1011[o]	(2+)[sw]	AB	XREF: A(1012).
1011?[n]	(4+)[sw]	AB	XREF: A(1012).
1024+x[d]		C	
1029	*s*	B	
1049[o]	(3+)[w]	B	
1066[n]	(5+)[w]	AB	
1073		B	
1088		B	
1097[o]	(4+)[w]	B	
1103[&]	15−[r]	C	
1119		AB	
1132+x[a]	(16+)[r]	C	
1142		AB	
1151[n]	(6+)[w]	B	
1151+x[c]		C	
1156.1[#] *11*	15−[r]	C	
1161.97 *3*	1−,2−,3−,4−	E	Jπ: M1 γ to 2−,3−.
1162		B	
1170		AB	
1187		B	
1192		B	
1199		B	
1210		B	
1227		B	
1243		B	

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Adopted Levels, Gammas (continued)

^{242}Am Levels (continued)

E(level)[p]	Jπ[q]	$T_{1/2}$	XREF	Comments
1260.9[@]	16−[r]		C	
1262			B	
1287			B	
1287+x[d]	[r]		C	
1287.6+x?[b]	(17+)		C	
1300			B	
1316[‡]	16−[r]		BC	XREF: B(?).
1325			B	
1343			B	
1362			B	
1380			B	
1406			B	
1417			B	
1426[&]	17−[r]		C	
1434+x[c]			C	
1443			B	
1453+x?[a]	(18+)[r]		C	
1455			B	
1467			B	
1482			B	
1482.8[#] *12*	17−[r]		C	
1507			B	
1519			B	
1562			B	
1587+x?[d]			C	
1599.0[@]	18−[r]		C	
1652[‡]	18−[r]		C	
2200 *80*	(2+,3−)	13.9 ms *2*		%SF≈100; %IT=?; %α<0.005 μ=−1.14 *8* Q=35.5 *16* Possible IT branch of this isomeric state was deduced from observation of a 2200γ, tentatively assigned to the 13.9-ms isomeric state in ^{242}Am. This branch is not considered as well established. Note that for $J^\pi=2^+$ the 2200γ to the 1− gs would have B(E1)(W.u.)=1.2×10^{-15}×BR where BR is the branching ratio, and for $J^\pi=3^-$ the 2200γ would have B(E2)(W,u.)=8.7×10^{-12}×BR. Alpha decay from this isomeric level has not been observed: (Iα/SF) ≤ 0.1 (no α observed; 1965Le22, 1983WeZT); (Iα/SF) ≤ 0.015 (No 8500α observed; 1973Be05); (Iα/SF) ≤ 0.00005 (1985AcZZ). Other measurement: 1963Fl08. See 1992Ma34 for a detailed review of all experiments done in search for α and γ decays from this isomeric state. $T_{1/2}$: The adopted value is a weighted average of the listed values excluding those of 1966Br23 and 1975Va21 which are outliers by Chauvenet's criteria. The measured half-lives and production methods are 13 ms *8*: ^{238}U(80-110-MeV ^{16}O,x) (1962Po09). 12.6 ms *11*: ^{238}U(39.6-MeV α,p), 14 ms *2*: ^{242}Pu(19.8-MeV d,2n) 1963Fl08. 13.5 ms *12*: ^{238}U(92-119-MeV ^{16}O,x),^{238}U(117-MeV ^{20}Ne,x), ^{238}U(150-MeV ^{22}Ne,x) (1963Pe27). 14.0 ms *4*: ^{242}Pu(7-12-MeV d,2n) (1965Fl04). 13.1 ms *10*: ^{243}Am(14-MeV n,2n) (1965Li05). 16.7 ms *15*: ^{242}Pu(12-MeV d,2n) (1966Br23). 14.0 ms *7*: ^{243}Am(8-14.4-MeV n,2n) (1967Fl03). 14.0 ms *2*: ^{242}Pu(12.5-MeV d,2n) (1968Er01). 10.2 ms *9*: ^{241}Am(thermal n,γ) (1975Va21). 13.9 ms *5*: ^{242}Pu(17-MeV ^{3}H,3n) (1976We03). 16 ms *7*:

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Adopted Levels, Gammas (continued)

^{242}Am Levels (continued)

E(level)[p]	J$^{\pi}$[q]	$T_{1/2}$	XREF	Comments

^{243}Am+^{26}Mg (1981VaZQ) Other $T_{1/2}$ measurements: 1973Be04,1981Ga25,1981Lu06.
μ: Laser Resonance Spectroscopy with Radioactive Detection (2020StZV, 1996Ba52).
Q: Optical Isotope-Shift measurement (1998Ba04).
J$^{\pi}$: from the measurement of hyperfine structure splitting, 1996Ba52 deduced J=2 or 3. See also 1992Ba67, 1992Ba72. The probable proton and neutron orbitals suggest 2^+ or 3^- which would be consistent with deexciting 2200γ, if it decays to the 1^- ^{242}Am g.s.
Among the p and n state combinations suggested by 1996Ba52, if the 2200γ decays to the ^{242}Am g.s., the 2^+ (π 5/2[523]-ν 9/2[734]) and 3^- (π 5/2[523]-ν 11/2[615]) could be possible configurations. For other proposed spin and configurations, see 1966Ma48, 1967Ga04, 1967Vi01, 1971Br39.
Intrinsic quadrupole moment and $\beta(2)$ deformation parameter of 14-ms ^{242}Am isomer were deduced by 1998Ba04 from their optical isotope-shift measurements; $\beta(2)$=0.691, Q(20)=35.6 were obtained. These results were compared by 1998Ba04 with theoretical calculations. The authors pointed out that the small differences in $\beta(2)$ and Q(20) for isomeric states of ^{240}Am and ^{242}Am, $\Delta\beta(2)$=0.0076 *14*, ΔQ(20)=0.63 *8*, indicate the stability of nuclear deformation in the second potential minimum.
Isotope shift (14-ms ^{242}Am, relative to ^{241}Am)=2.83 *9* (1998Ba04).
Earlier measurements of optical isotope shift were reported in 1996Ba52, 1993Ba79, 1987Me22.
E(level): from observed 2200γ, if it decays to ^{242}Am g.s. No ce′s corresponding to 150-400γ were identified (1976Be55). The level energy was also deduced from fits to excitation functions and threshold energies: E(level)=2.6 *3* MeV (1967Fl03, reanalyzed by 1971Ba30); 3.3 *2* MeV (1970Ga04); 2.9 *3* MeV (1971Br39); 2.3 *2* MeV (1973Br04, reanalyzed available data).
Anisotropy of SF fragments was measured by 1992Ba72 and 1985Vo17.
Isomeric state fission probability was deduced by 1993Ku16 from fission fragment distribution.

† Band(A): $K^{\pi}=0^-$ (π 5/2[523]-ν 5/2[622]).
‡ Band(B): $K^{\pi}=5^-$ (π 5/2[523]+ν 5/2[622]). α=0.
# Band(b): $K^{\pi}=5^-$ (π 5/2[523]+ν 5/2[622]). α=1.
@ Band(C): $K^{\pi}=6^-$ (π 5/2[523]+ν 7/2[624]). α=0.
& Band(c): $K^{\pi}=6^-$ (π 5/2[523]+ν 7/2[624]). α=1.
[a] Band(D): $K^{\pi}=(5^+)$ (π 5/2[642]+ν 5/2[622]). α=0 (?).
[b] Band(d): $K^{\pi}=(5^+)$ (π 5/2[642]+ν 5/2[622]). α=1 (?).
[c] Band(E): Unspecified sequence.
[d] Band(e): Unspecified sequence.
[e] Band(F): $K^{\pi}=0^+$ (π 5/2[642]-ν 5/2[622]).
[f] Band(G): $K^{\pi}=3^-$ (π 5/2[523]+ν 1/2[631]).
[g] Band(H): $K^{\pi}=1^-$ (π 5/2[523]-ν 7/2[624]).
[h] Band(I): $K^{\pi}=2^-$ (π 5/2[523]-ν 1/2[631]).
[i] Band(J): $K^{\pi}=3^+$ (π 5/2[642]+ν 1/2[631]).
[j] Band(K): $K^{\pi}=2^+$ (π 5/2[642]-ν 1/2[631]).
[k] Band(L): $K^{\pi}=1^-$ (π 3/2[521]-ν 5/2[622])+(π 3/2[521]-ν 1/2[631])+ (π 5/2[523]-ν 1/2[631]).
[l] Band(M): $K^{\pi}=2^-$ (π 5/2[523]-ν 1/2[620]).
[m] Band(N): $K^{\pi}=3^-$ (π 5/2[523]+ν 1/2[620]).
[n] Band(O): $K^{\pi}=3^+$ (π 5/2[523]+ν 1/2[501]).
[o] Band(P): $K^{\pi}=2^+$ (π 5/2[523]-ν 1/2[501]).
[p] Energies given with more than one decimal digit are from ^{241}Am(n,γ) E=Th: Secondary γ′s based on the author′s least-squares adjustment to the Eγ data. The evaluators′ least-squares adjustment is consistent with that of the authors. Other excitation energies are from the sources indicated by the XREF entries.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{242}Am Levels (continued)

[q] The spin assignments are based on two general arguments, assignments to bands, and γ specific arguments. The source of the band arguments is noted. The γ specific arguments are those of the evaluators. For the non-band related assignments, most agree with those of 2007Sa03. Note, however, that in the (n,γ) level scheme of this author, which is based on the Eγ and mult data of 1988Sa18, a number of transitions are doubly placed, some with an assigned mult. Since the assignments are based on subshell conversion intensity ratios, mults for doubly placed transitions can be adopted for both placements. 2007Sa03 assume that transitions of unknown multipolarity, or those that experimentally could be M1 or E2, are not pure E2. That is, pairs of levels connected by such transitions differ by at most one unit of spin. This policy may account for some of the differences between their assignments and those adopted here.

[r] Assigned by 2010Ha24 in Coulomb Excitation to band structures based on observation of cascade transitions in gated spectra, energy spacing, and inertial parameters. For the band built on the 141-y isomer, the authors extend the band established in (d,p), (d,t).

[s] The peak at 1011 is assigned in (d,t) by 1976Gr19 as a doublet consisting of the 2^+ member of the $K^\pi=2^+$ band and the 4^+ member of the $K^\pi=3^+$ band. 1976KaZL assign just the 2^+ member of the $K^\pi=2^+$ band to this peak. They assign the 4^+ member of the $K^\pi=3^+$ band to the 1029 level.

[t] 1976KaZL propose that the 581-keV level may be a doublet, and tentatively assign the possible second component as the 8^- member of the $K^\pi=3^-$ band.

[u] Fit to a band as proposed by 1988Sa18 in (n,γ) based on energy spacings, rotational parameters, and decay patterns. Additional explicit arguments are given where available.

[v] Fed by primary transition in (n,γ) from the 2^-, 3^- capturing state. The probable spins thus lie in the range J=1 to J=4.

[w] From (d,p) and/or (d,t) data based on a comparison of observed and theoretical cross section patterns and on rotational band parameters. Additional explicit arguments are given where available.

Adopted Levels, Gammas (continued)

γ(^{242}Am)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	Comments
44.093	0⁻	44.092 *3*	100	0.0	1⁻	M1		68.5 *10*	α(L)=51.5 *7*; α(M)=12.58 *18* α(N)=3.44 *5*; α(O)=0.866 *12*; α(P)=0.1658 *23*; α(Q)=0.01062 *15*
48.603	5⁻	48.63 *5*	100	0.0	1⁻	E4		7.01×10^5 *11*	B(E4)(W.u.)=6.00×10^{-6} *14* α(L)=3.31×10^5 *5*; α(M)=2.65×10^5 *4* α(N)=8.40×10^4 *13*; α(O)=1.908×10^4 *30*; α(P)=1891 *30*; α(Q)=2.86 *4* Mult.: From subshell ratios in IT decay.
52.714	3⁻	52.770 *36*	100	0.0	1⁻	E2		358 *5*	α(L)=259 *4*; α(M)=72.7 *10* α(N)=20.11 *29*; α(O)=4.79 *7*; α(P)=0.754 *11*; α(Q)=0.001783 *26*
75.820	2⁻	75.823[b] *4*	100[b]	0.0	1⁻	M1		13.99 *20*	α(L)=10.51 *15*; α(M)=2.57 *4* α(N)=0.702 *10*; α(O)=0.1768 *25*; α(P)=0.0338 *5*; α(Q)=0.002162 *30*
99.285	0⁺,1⁺,2⁺	99.269 *15*	100	0.0	1⁻	E1		0.1386 *19*	α(L)=0.1040 *15*; α(M)=0.0257 *4* α(N)=0.00693 *10*; α(O)=0.001673 *23*; α(P)=0.000280 *4*; α(Q)=1.046×10^{-5} *15*
149.707	4⁻	73.864 *11*	0.96 *CA*	75.820	2⁻	E2		71.5 *10*	α(L)=51.8 *7*; α(M)=14.55 *20* α(N)=4.02 *6*; α(O)=0.960 *13*; α(P)=0.1521 *21*; α(Q)=0.000434 *6*
		96.994 *2*	100 *4*	52.714	3⁻	M1		6.84 *10*	α(L)=5.14 *7*; α(M)=1.254 *18* α(N)=0.343 *5*; α(O)=0.0864 *12*; α(P)=0.01652 *23*; α(Q)=0.001055 *15*
168.387	1⁻,2⁻,3⁻	69.101 *8*	30 *11*	99.285	0⁺,1⁺,2⁺	(E1)		0.356 *5*	α(L)=0.267 *4*; α(M)=0.0664 *9* α(N)=0.01790 *25*; α(O)=0.00427 *6*; α(P)=0.000682 *10*; α(Q)=2.257×10^{-5} *32*
		92.568 *26*	100 *32*	75.820	2⁻	M1+E2		16 *8*	α(L)=12 *6*; α(M)=3.2 *18* α(N)=0.9 *5*; α(O)=0.22 *12*; α(P)=0.036 *17*; α(Q)=7.E−4 *5*
181.4	(5⁺)	132.8[#] *5*	100	48.603	5⁻	(E1)		0.268 *4*	α(K)=0.2029 *33*; α(L)=0.0492 *8*; α(M)=0.01209 *21* α(N)=0.00327 *6*; α(O)=0.000796 *14*; α(P)=0.0001366 *23*; α(Q)=5.59×10^{-6} *9*
190.6	7⁻	90[#]		100.1	6⁻				
		142.0[#] *5*		48.603	5⁻				
200.581	3⁻,4⁻	32.195[b] *2*	≤101[b]	168.387	1⁻,2⁻,3⁻				I_γ: Iγ≤87 *14*.
		124.755 *22*	100 *16*	75.820	2⁻				
		147.870[b] *22*	≤46[b]	52.714	3⁻	M1+E2	1.26 *+16−14*	5.6 *4*	α(K)=3.0 *4*; α(L)=1.87 *4*; α(M)=0.503 *14* α(N)=0.139 *4*; α(O)=0.0337 *9*; α(P)=0.00574 *11*; α(Q)=0.000141 *16* I_γ: Iγ≤41 *5*.

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ ‡	I_γ &	E_f	J_f^π	Mult. @	δ @	α †	Comments
230.527	1+	154.708 *2*	100.0 *8*	75.820	2−	E1		0.1892 *26*	α(K)=0.1447 *20*; α(L)=0.0334 *5*; α(M)=0.00820 *11* α(N)=0.002220 *31*; α(O)=0.000542 *8*; α(P)=9.42×10^{-5} *13*; α(Q)=4.03×10^{-6} *6*
		186.433 *2*	91.2 *9*	44.093	0−	E1		0.1230 *17*	α(K)=0.0951 *13*; α(L)=0.02100 *29*; α(M)=0.00514 *7* α(N)=0.001392 *19*; α(O)=0.000341 *5*; α(P)=6.01×10^{-5} *8*; α(Q)=2.70×10^{-6} *4*
244.381	3−	94.671 *6*	18.0 *18*	149.707	4−	M1+E2	0.71 *11*	12.3 *11*	α(L)=9.1 *8*; α(M)=2.41 *23* α(N)=0.66 *6*; α(O)=0.162 *15*; α(P)=0.0277 *21*; α(Q)=0.00081 *7*
		191.667 *5*	96.3 *11*	52.714	3−	M1		4.57 *6*	α(K)=3.60 *5*; α(L)=0.729 *10*; α(M)=0.1778 *25* α(N)=0.0486 *7*; α(O)=0.01223 *17*; α(P)=0.002340 *33*; α(Q)=0.0001487 *21*
		195.778 *6*	100.0 *10*	48.603	5−	E2		0.994 *14*	α(K)=0.1522 *21*; α(L)=0.611 *9*; α(M)=0.1706 *24* α(N)=0.0472 *7*; α(O)=0.01131 *16*; α(P)=0.001854 *26*; α(Q)=1.455×10^{-5} *20*
254.3	8−	82#		172	7−				
		154.2# *5*		100.1	6−				
269.854	3+	39.42 *6*	100	230.527	1+	(E2)		1470 *23*	α(L)=1067 *17*; α(M)=299 *5* α(N)=82.5 *13*; α(O)=19.65 *31*; α(P)=3.08 *5*; α(Q)=0.00631 *10*
274.330	1−	198.498 *12*	23.9 *9*	75.820	2−	M1+E2	0.73 *6*	3.03 *13*	α(K)=2.18 *12*; α(L)=0.631 *9*; α(M)=0.1609 *23* α(N)=0.0442 *6*; α(O)=0.01093 *15*; α(P)=0.001990 *31*; α(Q)=9.3×10^{-5} *5*
		230.242 *7*	<40	44.093	0−	M1		2.73 *4*	α(K)=2.150 *30*; α(L)=0.435 *6*; α(M)=0.1059 *15* α(N)=0.0289 *4*; α(O)=0.00729 *10*; α(P)=0.001394 *20*; α(Q)=8.85×10^{-5} *12*
		274.331 *6*	100.0 *10*	0.0	1−	M1		1.674 *23*	α(K)=1.320 *18*; α(L)=0.266 *4*; α(M)=0.0648 *9* α(N)=0.01771 *25*; α(O)=0.00446 *6*; α(P)=0.000852 *12*; α(Q)=5.41×10^{-5} *8*
276	8−	162.3# *5*	100	114	6−				
289.028	4−	88.44 *5*	≈2.9	200.581	3−,4−	M1+E2	1.17 *+17−12*	21.4 *14*	α(L)=15.6 *10*; α(M)=4.29 *30* α(N)=1.18 *8*; α(O)=0.285 *20*; α(P)=0.0469 *29*; α(Q)=0.00070 *8*
		213.37 *8*	100 *36*	75.820	2−	E2		0.720 *10*	α(K)=0.1356 *19*; α(L)=0.424 *6*; α(M)=0.1181 *17* α(N)=0.0326 *5*; α(O)=0.00784 *11*; α(P)=0.001290 *18*; α(Q)=1.145×10^{-5} *16*
		240.443 *32*	54 *7*	48.603	5−	M1+E2	1.33 *13*	1.17 *10*	α(K)=0.76 *9*; α(L)=0.304 *7*; α(M)=0.0796 *16* α(N)=0.0219 *4*; α(O)=0.00537 *11*; α(P)=0.000949 *25*; α(Q)=3.36×10^{-5} *34*
292.831	2−	48.514 *30*	1.8 *1*	244.381	3−				
		217.043 *28*	100 *9*	75.820	2−	M1+E2	1.01 *14*	1.93 *19*	α(K)=1.32 *18*; α(L)=0.453 *11*; α(M)=0.1174 *20*

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Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	Comments
									α(N)=0.0323 *5*; α(O)=0.00794 *15*; α(P)=0.00142 *4*; α(Q)=5.7×10^{-5} *7*
292.831	2$^-$	240.115 *14*	98 *9*	52.714	3$^-$	M1+E2	1.03 *+11−10*	1.42 *10*	α(K)=0.99 *9*; α(L)=0.321 *8*; α(M)=0.0827 *16* α(N)=0.0227 *4*; α(O)=0.00561 *12*; α(P)=0.001009 *27*; α(Q)=4.2×10^{-5} *4*
296.401	2$^-$	52.05 *7*	0.5 *CA*	244.381	3$^-$	M1(+E2)	0.7 *9*	1.5×10^2 *13*	α(L)=1.1×10^2 *10*; α(M)=31 *27* α(N)=8 *8*; α(O)=2.0 *18*; α(P)=0.33 *27*; α(Q)=0.0050 *18*
		220.600 *24*	65 *4*	75.820	2$^-$	M1		3.08 *4*	α(K)=2.424 *34*; α(L)=0.490 *7*; α(M)=0.1195 *17* α(N)=0.0327 *5*; α(O)=0.00822 *12*; α(P)=0.001572 *22*; α(Q)=9.99×10^{-5} *14*
		243.690[b] *11*	≤70[b]	52.714	3$^-$	M1+E2	0.71 *6*	1.70 *8*	α(K)=1.26 *7*; α(L)=0.328 *7*; α(M)=0.0827 *14* α(N)=0.0227 *4*; α(O)=0.00564 *10*; α(P)=0.001040 *22*; α(Q)=5.28×10^{-5} *27* I$_\gamma$: Iγ≤66 *4*.
		296.412 *25*	100 *8*	0.0	1$^-$	M1+E2	0.89 *+10−9*	0.86 *6*	α(K)=0.63 *5*; α(L)=0.169 *6*; α(M)=0.0427 *13* α(N)=0.01172 *35*; α(O)=0.00291 *9*; α(P)=0.000535 *20*; α(Q)=2.65×10^{-5} *21*
311.832	1$^+$,2$^+$	41.997 *34*	6.0 *CA*	269.854	3$^+$	E2		1081 *16*	α(L)=784 *11*; α(M)=219.6 *32* α(N)=60.7 *9*; α(O)=14.45 *21*; α(P)=2.264 *33*; α(Q)=0.00479 *7*
		81.312 *15*	100 *15*	230.527	1$^+$	M1+E2	0.78 *9*	24.2 *19*	α(L)=17.8 *14*; α(M)=4.8 *4* α(N)=1.32 *11*; α(O)=0.320 *26*; α(P)=0.054 *4*; α(Q)=0.00121 *8*
		212.536[b] *14*	≤217[b]	99.285	0$^+$,1$^+$,2$^+$	(M1+E2)	2.54 *+11−10*	1.090 *30*	α(K)=0.479 *25*; α(L)=0.446 *6*; α(M)=0.1218 *17* α(N)=0.0336 *5*; α(O)=0.00813 *11*; α(P)=0.001370 *20*; α(Q)=2.49×10^{-5} *10* I$_\gamma$: Iγ≤206 *11*.
323.4+x	(9$^+$)	142.0[#] *5*	100	181.4+x	(7$^+$)				
327.884	3$^-$	35.049 *11*		292.831	2$^-$				
		178.11 *7*	56 *10*	149.707	4$^-$	M1+E2	2.7 *+4−3*	1.94 *12*	α(K)=0.68 *12*; α(L)=0.916 *13*; α(M)=0.252 *4* α(N)=0.0697 *10*; α(O)=0.01680 *24*; α(P)=0.00279 *4*; α(Q)=3.9×10^{-5} *5*
		252.049 *15*	100 *18*	75.820	2$^-$	M1+E2	3.73 *10*	0.513 *9*	α(K)=0.210 *6*; α(L)=0.2212 *31*; α(M)=0.0605 *9* α(N)=0.01671 *23*; α(O)=0.00404 *6*; α(P)=0.000681 *10*; α(Q)=1.147×10^{-5} *27*
330.740	3$^-$	37.910 *5*	52 *12*	292.831	2$^-$				
		41.71[b] *5*	≤12.8[b]	289.028	4$^-$	M1+E2	0.199 *+10−11*	120 *4*	α(L)=89.1 *32*; α(M)=22.9 *9* α(N)=6.29 *25*; α(O)=1.55 *6*; α(P)=0.277 *9*; α(Q)=0.01223 *18* I$_\gamma$: Iγ<11.6 *12*.
		56.421 *18*		274.330	1$^-$				

$^{242}_{95}Am_{147}$-11

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	Comments
330.740	3⁻	86.316[b] *30*	<72[b]	244.381	3⁻				I_γ: Iγ<53 *19*.
		278.000 *18*	100 *7*	52.714	3⁻				
330.837	2⁻,3⁻	34.441[c] *13*	1.5 *CA*	296.401	2⁻	M1+E2	0.042 *29*	147 *9*	α(L)=110 *7*; α(M)=27.0 *18* α(N)=7.4 *5*; α(O)=1.86 *12*; α(P)=0.353 *19*; α(Q)=0.02203 *31*
		38.005 *5*	100 *24*	292.831	2⁻	M1+E2	0.116 *+20−24*	128 *8*	α(L)=96 *6*; α(M)=24.0 *17* α(N)=6.6 *5*; α(O)=1.64 *11*; α(P)=0.302 *17*; α(Q)=0.01635 *23*
		56.577 *38*	24 *9*	274.330	1⁻	E2		256 *4*	α(L)=185.3 *27*; α(M)=52.0 *7* α(N)=14.38 *21*; α(O)=3.43 *5*; α(P)=0.540 *8*; α(Q)=0.001324 *19*
341.593	0⁺	111.100 *18*	70 *10*	230.527	1⁺	(M1)		4.62 *6*	α(L)=3.47 *5*; α(M)=0.847 *12* α(N)=0.2315 *32*; α(O)=0.0583 *8*; α(P)=0.01115 *16*; α(Q)=0.000711 *10*
		341.528 *22*	100 *12*	0.0	1⁻				
342.805	2⁻,3⁻	30.973[b] *1*	≤320[b]	311.832	1⁺,2⁺				I_γ: Iγ≤281 *39*.
		46.42 *5*		296.401	2⁻	M1+E2	0.0606 *+34−31*		
		193.128 *31*	100 *17*	149.707	4⁻	E2		1.047 *15*	α(K)=0.1548 *22*; α(L)=0.648 *9*; α(M)=0.1809 *25* α(N)=0.0500 *7*; α(O)=0.01199 *17*; α(P)=0.001964 *28*; α(Q)=1.512×10^{-5} *21*
347	9⁻	92[#]		254.3	8⁻				
		174.4 *5*		172	7⁻				
355.715	2⁺	27.82 *6*	40 *CA*	327.884	3⁻	E1+M2	0.0049 *+9−8*	4.58 *31*	α(L)=3.36 *22*; α(M)=0.90 *7* α(N)=0.244 *19*; α(O)=0.057 *5*; α(P)=0.0080 *8*; α(Q)=0.00024 *4*
		62.876 *15*	16.2 *15*	292.831	2⁻	(E1+M2)	0.076 *+6−7*	4.7 *7*	α(L)=3.4 *5*; α(M)=0.96 *15* α(N)=0.27 *4*; α(O)=0.067 *11*; α(P)=0.0120 *19*; α(Q)=0.00062 *10*
		111.27 *5*	100 *9*	244.381	3⁻	E1+M2	0.045 *4*	0.228 *23*	α(L)=0.168 *17*; α(M)=0.044 *5* α(N)=0.0122 *13*; α(O)=0.00302 *33*; α(P)=0.00053 *6*; α(Q)=2.61×10^{-5} *33*
363.434	2⁺,3⁺	51.619 *35*	100	311.832	1⁺,2⁺	M1+E2	0.455 *+31−32*	104 *7*	α(L)=76 *5*; α(M)=20.4 *15* α(N)=5.6 *4*; α(O)=1.37 *10*; α(P)=0.230 *15*; α(Q)=0.00587 *12*
364.658	2⁺	23.12 *7*	0.2	341.593	0⁺	E2		1.25×10^4 *3*	
		94.804 *5*	100 *11*	269.854	3⁺	M1+E2	1.25 *+17−14*	16.3 *9*	α(L)=11.9 *6*; α(M)=3.26 *19* α(N)=0.90 *5*; α(O)=0.217 *12*; α(P)=0.0357 *18*; α(Q)=0.00054 *6*
		134.20 *7*	63 *19*	230.527	1⁺	M1(+E2)	0.13 *14*	12.4 *4*	α(K)=9.7 *5*; α(L)=2.03 *7*; α(M)=0.498 *22* α(N)=0.136 *6*; α(O)=0.0343 *14*; α(P)=0.00653 *19*; α(Q)=0.000406 *20*
369.207	1⁻,2⁻	72.806 *30*	100 *CA*	296.401	2⁻	(E2)		76.5 *11*	α(L)=55.4 *8*; α(M)=15.59 *22*

$^{242}_{95}Am_{147}$-12

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	Comments
									α(N)=4.31 *6*; α(O)=1.028 *15*; α(P)=0.1628 *23*; α(Q)=0.000461 *6*
369.207	1⁻,2⁻	94.874[b] *22*	≤9000[b]	274.330	1⁻	M1+E2	1.4 *+4−3*	17.0 *17*	α(L)=12.4 *12*; α(M)=3.4 *4* α(N)=0.94 *10*; α(O)=0.227 *24*; α(P)=0.0372 *34*; α(Q)=0.00049 *11* I_γ: Iγ≤7.2+10^3 *18*.
372.490	4⁻	41.71[b] *5*	<19.2[b]	330.740	3⁻	M1+E2	0.199 *+10−11*	120 *4*	α(L)=89.1 *32*; α(M)=22.9 *9* α(N)=6.29 *25*; α(O)=1.55 *6*; α(P)=0.277 *9*; α(Q)=0.01223 *18* I_γ: Iγ<17.4 *18*.
		76.092 *14*	54 *16*	296.401	2⁻	(E2)		62.1 *9*	α(L)=45.0 *6*; α(M)=12.64 *18* α(N)=3.50 *5*; α(O)=0.834 *12*; α(P)=0.1322 *19*; α(Q)=0.000385 *5*
		171.951 *25*	51 *8*	200.581	3⁻,4⁻	(M1)		6.20 *9*	α(K)=4.88 *7*; α(L)=0.992 *14*; α(M)=0.2420 *34* α(N)=0.0661 *9*; α(O)=0.01665 *23*; α(P)=0.00319 *4*; α(Q)=0.0002026 *28*
		222.75 *9*	43 *16*	149.707	4⁻				
		296.732 *34*	100 *12*	75.820	2⁻				
		319.75 *6*	75 *16*	52.714	3⁻	M1+E2	1.14 *+26−18*	0.58 *9*	α(K)=0.42 *8*; α(L)=0.123 *9*; α(M)=0.0313 *19* α(N)=0.0086 *5*; α(O)=0.00213 *14*; α(P)=0.000388 *29*; α(Q)=1.77×10^{-5} *30*
373.3	9⁻	97[#]		276	8⁻				
		182.7[#] *5*		190.6	7⁻				
373.686	4⁻	45.91[b] *6*	≤23[b]	327.884	3⁻	M1+E2	0.141 *+9−10*	73.3 *20*	α(L)=54.7 *15*; α(M)=13.7 *4* α(N)=3.76 *11*; α(O)=0.937 *26*; α(P)=0.173 *4*; α(Q)=0.00931 *14* I_γ: Iγ≤≈23.
		80.905 *19*	100 *30*	292.831	2⁻	E2		46.4 *7*	α(L)=33.6 *5*; α(M)=9.46 *13* α(N)=2.62 *4*; α(O)=0.624 *9*; α(P)=0.0991 *14*; α(Q)=0.000300 *4*
376.947	3⁺	46.128[a] *33*		330.837	2⁻,3⁻				
		49.03 *5*		327.884	3⁻				
		84.124 *20*	36.3 *11*	292.831	2⁻	(E1+M2)	0.113 *6*	2.80 *28*	α(L)=2.02 *20*; α(M)=0.57 *6* α(N)=0.159 *16*; α(O)=0.040 *4*; α(P)=0.0071 *7*; α(Q)=0.00038 *4*
		132.565 *4*	100.0 *10*	244.381	3⁻	E1+M2	0.0104 *+24−32*	0.277 *6*	α(K)=0.208 *4*; α(L)=0.0518 *14*; α(M)=0.0128 *4* α(N)=0.00347 *11*; α(O)=0.000845 *26*; α(P)=0.000146 *5*; α(Q)=6.08×10^{-6} *26*
388.112	3⁺	95.44 *6*	100 *CA*	292.831	2⁻	E1		0.1534 *22*	α(L)=0.1152 *16*; α(M)=0.0284 *4* α(N)=0.00768 *11*; α(O)=0.001852 *26*; α(P)=0.000308 *4*; α(Q)=1.138×10^{-5} *16*
		143.789 *28*	26 *6*	244.381	3⁻	E1+M2	0.185 *+20−30*	2.0 *5*	α(K)=1.20 *30*; α(L)=0.56 *15*; α(M)=0.15 *4*

$^{242}_{95}Am_{147}$-13

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	Comments
									α(N)=0.042 *12*; α(O)=0.0106 *29*; α(P)=0.0019 *5*; α(Q)=1.08×10^{-4} *30*
397.147	2$^-$,3$^-$,4$^-$	33.713 *2*	100 *14*	363.434	2$^+$,3$^+$				
		69.253 *11*	17 *7*	327.884	3$^-$	M1+E2	0.41 *+9−10*	30 *4*	α(L)=21.8 *32*; α(M)=5.7 *9* α(N)=1.57 *26*; α(O)=0.38 *6*; α(P)=0.067 *9*; α(Q)=0.00249 *13*
400.521	1$^-$	31.306 *36*		369.207	1$^-$,2$^-$				
		35.84 *8*		364.658	2$^+$				
		69.781 *6*	31 *10*	330.740	3$^-$	(E2)		93.6 *13*	α(L)=67.8 *10*; α(M)=19.07 *27* α(N)=5.27 *7*; α(O)=1.258 *18*; α(P)=0.1990 *28*; α(Q)=0.000548 *8*
		324.84 *6*	100 *20*	75.820	2$^-$	M1+E2	1.17 *+30−22*	0.54 *9*	α(K)=0.39 *8*; α(L)=0.116 *9*; α(M)=0.0295 *20* α(N)=0.0081 *6*; α(O)=0.00201 *15*; α(P)=0.000365 *31*; α(Q)=1.65×10^{-5} *32*
405.880	2$^-$,3,4	28.937[a] *25*		376.947	3$^+$				
		32.195[b] *2*	≤158[b]	373.686	4$^-$				I_γ: Iγ≤136 *22*.
		77.988[b] *23*	≤37[b]	327.884	3$^-$				I_γ: Iγ≤26 *11*.
		161.459 *18*	100 *15*	244.381	3$^-$				
405.933	4$^+$	33.443 *2*	100 *18*	372.490	4$^-$	E1		2.375 *33*	α(L)=1.766 *25*; α(M)=0.455 *6* α(N)=0.1218 *17*; α(O)=0.0280 *4*; α(P)=0.00390 *5*; α(Q)=9.81×10^{-5} *14*
		50.27 *4*	0.07 *CA*	355.715	2$^+$	(E2)		452 *7*	α(L)=328 *5*; α(M)=91.9 *13* α(N)=25.4 *4*; α(O)=6.05 *9*; α(P)=0.951 *14*; α(Q)=0.002197 *32*
409+x	(10$^+$)	162.1[#] *5*	100	247+x	(8$^+$)				
417.746	(4)$^+$	147.870[b] *22*	100[b]	269.854	3$^+$	M1+E2	1.26 *+16−14*	5.6 *4*	α(K)=3.0 *4*; α(L)=1.87 *4*; α(M)=0.503 *14* α(N)=0.139 *4*; α(O)=0.0337 *9*; α(P)=0.00574 *11*; α(Q)=0.000141 *16*
418.084	4$^+$	29.94 *6*		388.112	3$^+$				
		90.178 *22*	100 *28*	327.884	3$^-$	E1+M2	0.175 *+25−29*	4.7 *13*	α(L)=3.4 *10*; α(M)=0.95 *27* α(N)=0.27 *8*; α(O)=0.067 *19*; α(P)=0.0120 *35*; α(Q)=6.5×10^{-4} *19*
		129.056 *29*	71 *24*	289.028	4$^-$	E1+M2	1.2 *+9−4*	46 *17*	α(K)=26 *10*; α(L)=14 *5*; α(M)=4.0 *15* α(N)=1.1 *4*; α(O)=0.28 *11*; α(P)=0.051 *19*; α(Q)=0.0029 *11*
		173.60 *16*	41 *27*	244.381	3$^-$	E1+M2	0.15 *+5−9*	0.7 *5*	α(K)=0.48 *31*; α(L)=0.19 *14*; α(M)=0.05 *4* α(N)=0.014 *10*; α(O)=0.0035 *26*; α(P)=6.E−4 *5*; α(Q)=3.6×10^{-5} *27*
419.085	2$^-$	30.973[b] *1*	≤290[b]	388.112	3$^+$				I_γ: Iγ≤255 *35*.
		46.598 *16*	0.56 *CA*	372.490	4$^-$				
		88.322 *31*	45 *20*	330.740	3$^-$				
		91.229 *24*	57 *18*	327.884	3$^-$	M1+E2	0.43 *9*	11.0 *10*	α(L)=8.2 *7*; α(M)=2.10 *22*

$^{242}_{95}Am_{147}$-14

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	Comments
									α(N)=0.58 *6*; α(O)=0.142 *14*; α(P)=0.0255 *21*; α(Q)=0.00109 *6*
419.085	2⁻	366.351 *33*	100 *19*	52.714	3⁻	M1		0.753 *11*	α(K)=0.595 *8*; α(L)=0.1192 *17*; α(M)=0.0290 *4* α(N)=0.00793 *11*; α(O)=0.001996 *28*; α(P)=0.000382 *5*; α(Q)=2.420×10^{-5} *34*
420.651	2⁺,3⁺,4⁺	32.526[b] *21*	≤1.8[b]	388.112	3⁺	M1+E2	0.33 *5*	5.2×10^2 *10*	α(L)=3.8×10^2 *7*; α(M)=103 *21* α(N)=28 *6*; α(O)=6.8 *13*; α(P)=1.14 *21*; α(Q)=0.0250 *5* I_γ: Iγ≤≈1.8.
		43.728 *23*	11 *CA*	376.947	3⁺				
		57.236 *28*	100 *9*	363.434	2⁺,3⁺	M1+E2	2.4 *+14−6*	211 *19*	α(L)=153 *13*; α(M)=43 *4* α(N)=11.8 *11*; α(O)=2.82 *25*; α(P)=0.45 *4*; α(Q)=0.00180 *32*
442.385	5⁺	36.453 *3*	49 *10*	405.933	4⁺	M1(+E2)	0.5 *7*	5×10^2 *8*	α(L)=4×10^2 *6*; α(M)=1.1×10^2 *16* α(N)=3.E1 4; α(O)=7 *11*; α(P)=1.1 *16*; α(Q)=0.017 *4*
		65.408 *28*	14 *5*	376.947	3⁺				
		68.701 *3*	100 *7*	373.686	4⁻				
446.702	3⁻	28.937[a] *25*		417.746	(4)⁺				
		46.128[a] *33*		400.521	1⁻				
		74.248 *23*	3.5 *CA*	372.490	4⁻				
		90.985 *4*	77 *7*	355.715	2⁺	E1		0.1738 *24*	α(L)=0.1304 *18*; α(M)=0.0322 *5* α(N)=0.00870 *12*; α(O)=0.002095 *29*; α(P)=0.000347 *5*; α(Q)=1.260×10^{-5} *18*
		296.996 *25*	100 *14*	149.707	4⁻				
448.9	10⁻	194.6[#] *5*	100	254.3	8⁻				
455.688	1⁻,2⁻,3⁻	124.947 *21*	100 *24*	330.740	3⁻				
		159.283[b] *24*	≤178[b]	296.401	2⁻				I_γ: Iγ≤170 *8*.
457.090	5⁺	38.996 *9*	≈5.7	418.084	4⁺				I_γ: Calculated value.
		68.997 *17*	48 *14*	388.112	3⁺				
		83.399 *17*	100 *20*	373.686	4⁻				
		168.125 *30*	31 *8*	289.028	4⁻	E1		0.1561 *22*	α(K)=0.1200 *17*; α(L)=0.0271 *4*; α(M)=0.00665 *9* α(N)=0.001801 *25*; α(O)=0.000440 *6*; α(P)=7.70×10^{-5} *11*; α(Q)=3.37×10^{-6} *5*
464.362	3⁻,4⁻	76.258 *13*	5.0 *22*	388.112	3⁺	E1+M2	0.113 *+23−29*	4.2 *18*	α(L)=3.1 *13*; α(M)=0.9 *4* α(N)=0.24 *10*; α(O)=0.061 *25*; α(P)=0.011 *5*; α(Q)=5.8×10^{-4} *25*
		133.595 *28*	8.1 *19*	330.740	3⁻				
		175.314 *34*	6.3 *14*	289.028	4⁻	M1+E2	1.62 *+33−24*	2.73 *30*	α(K)=1.40 *31*; α(L)=0.972 *14*; α(M)=0.263 *5* α(N)=0.0724 *14*; α(O)=0.01756 *30*; α(P)=0.00299 *4*; α(Q)=6.7×10^{-5} *12*

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	Comments
464.362	3⁻,4⁻	194.510 *5*	100.0 *10*	269.854	3⁺	E1+M2	0.292 *+11−12*	1.53 *11*	α(K)=1.00 *7*; α(L)=0.390 *28*; α(M)=0.104 *8* α(N)=0.0290 *21*; α(O)=0.0073 *5*; α(P)=0.00135 *10*; α(Q)=7.7×10^{-5} *6*
		295.960 *14*	23.6 *10*	168.387	1⁻,2⁻,3⁻				
		314.71 *7*	9.1 *21*	149.707	4⁻	M1+E2	2.5 *+9−5*	0.32 *6*	α(K)=0.19 *5*; α(L)=0.102 *6*; α(M)=0.0271 *13* α(N)=0.00746 *35*; α(O)=0.00182 *9*; α(P)=0.000316 *20*; α(Q)=8.8×10^{-6} *20*
479	10⁻	133[#]		347	9⁻				
		202.9[#] *5*		276	8⁻				
483.640	4⁻	64.54 *3*		419.085	2⁻				
		65.557 *3*	32 *4*	418.084	4⁺	E1+M2	0.028 *+3−4*	0.89 *13*	α(L)=0.65 *9*; α(M)=0.175 *26* α(N)=0.049 *7*; α(O)=0.0119 *19*; α(P)=0.00203 *33*; α(Q)=9.2×10^{-5} *18*
		435.038 *22*	100 *5*	48.603	5⁻				
495.721	3⁺	76.668 *22*	24 *11*	419.085	2⁻				
		89.799 *24*	60 *20*	405.880	2⁻,3,4	M1+E2	1.5 *+9−4*	22.3 *32*	α(L)=16.2 *23*; α(M)=4.5 *7* α(N)=1.24 *19*; α(O)=0.30 *4*; α(P)=0.048 *6*; α(Q)=5.4×10^{-4} *18*
		122.031 *7*	100 *12*	373.686	4⁻	E1+M2	0.017 *+6−12*	0.094 *11*	α(L)=0.070 *8*; α(M)=0.0175 *22* α(N)=0.0047 *6*; α(O)=0.00116 *16*; α(P)=0.000199 *29*; α(Q)=8.5×10^{-6} *16*
501.569	(3)⁻	45.91[b] *6*	≤5.2[b]	455.688	1⁻,2⁻,3⁻	M1+E2	0.141 *+9−10*	73.3 *20*	α(L)=54.7 *15*; α(M)=13.7 *4* α(N)=3.76 *11*; α(O)=0.937 *26*; α(P)=0.173 *4*; α(Q)=0.00931 *14* I_γ: Iγ≈5.2 for this doubly placed transition.
		82.484[b] *17*	≤46[b]	419.085	2⁻	M1+E2	4.6 *15*	41.0 *16*	α(L)=29.7 *12*; α(M)=8.33 *35* α(N)=2.30 *10*; α(O)=0.550 *23*; α(P)=0.0876 *34*; α(Q)=0.00034 *7* I_γ: Iγ≤37 *9*.
		212.536[b] *14*	≤100[b]	289.028	4⁻	(M1+E2)	2.54 *+11−10*	1.090 *30*	α(K)=0.479 *25*; α(L)=0.446 *6*; α(M)=0.1218 *17* α(N)=0.0336 *5*; α(O)=0.00813 *11*; α(P)=0.001370 *20*; α(Q)=2.49×10^{-5} *10* I_γ: Iγ≤95 *5* for this doubly placed transition.
502.04	1⁺,2⁺	160.34 *5*	43 *15*	341.593	0⁺				
		271.54 *4*	100 *14*	230.527	1⁺	M1+E2	0.54 *19*	1.40 *17*	α(K)=1.07 *15*; α(L)=0.248 *15*; α(M)=0.0615 *29* α(N)=0.0168 *8*; α(O)=0.00421 *21*; α(P)=0.00079 *5*; α(Q)=4.4×10^{-5} *6*
505.4+x	(11⁺)	182.0[#] *5*	100	323.4+x	(9⁺)				
506.648	2⁺	87.592 *29*	58 *37*	419.085	2⁻	E1+M2	0.096 *+18−21*	1.8 *6*	α(L)=1.3 *5*; α(M)=0.36 *13* α(N)=0.10 *4*; α(O)=0.025 *9*; α(P)=0.0045 *17*; α(Q)=2.4×10^{-4} *9*
		106.100[b] *25*	≤398[b]	400.521	1⁻	E1+M2	0.167 *+20−22*	2.2 *5*	α(L)=1.6 *4*; α(M)=0.44 *10* α(N)=0.122 *29*; α(O)=0.031 *7*; α(P)=0.0055 *13*;

$^{242}_{95}Am_{147}$-16

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	Comments
									α(Q)=0.00030 *7* I_γ: Iγ≤346 *52*.
506.648	2^+	236.789 *30*	100 *10*	269.854	3^+	M1+E2	0.48 *+14−16*	2.14 *19*	α(K)=1.64 *18*; α(L)=0.378 *13*; α(M)=0.0938 *24* α(N)=0.0257 *6*; α(O)=0.00642 *18*; α(P)=0.00120 *5*; α(Q)=6.8×10^{-5} *7*
506.964	$(3)^+$	86.316[b] *30*	≤100[b]	420.651	$2^+,3^+,4^+$				I_γ: Iγ≤73 *27*.
		89.216 *20*	100 *16*	417.746	$(4)^+$	M1+E2	0.58 *8*	13.9 *11*	α(L)=10.2 *8*; α(M)=2.70 *23* α(N)=0.74 *6*; α(O)=0.182 *15*; α(P)=0.0315 *22*; α(Q)=0.00106 *6*
		142.306 *25*	70 *8*	364.658	2^+	M1+E2	1.30 *+15−13*	6.2 *4*	α(K)=3.2 *4*; α(L)=2.19 *5*; α(M)=0.591 *16* α(N)=0.163 *5*; α(O)=0.0396 *10*; α(P)=0.00671 *14*; α(Q)=0.000154 *16*
		151.27 *4*	82 *15*	355.715	2^+				
528.545	3^+	26.92 *6*		501.569	$(3)^-$				
		86.173 *31*	100 *37*	442.385	5^+				Mult.: Mult=(M1+E2) from ce data. Placement in the level scheme requires ΔJ=2, Δπ=no.
		163.93 *5*	52 *17*	364.658	2^+	M1+E2	1.2 *+5−3*	4.1 *8*	α(K)=2.4 *8*; α(L)=1.245 *33*; α(M)=0.332 *15* α(N)=0.091 *4*; α(O)=0.0223 *9*; α(P)=0.00385 *7*; α(Q)=1.10×10^{-4} *32*
		165.08 *4*	57 *17*	363.434	$2^+,3^+$	M1+E2	1.6 *+5−3*	3.4 *5*	α(K)=1.7 *5*; α(L)=1.234 *24*; α(M)=0.334 *10* α(N)=0.0922 *27*; α(O)=0.0223 *6*; α(P)=0.00378 *6*; α(Q)=8.1×10^{-5} *20*
533.815	2^-	69.448 *11*	46 *15*	464.362	$3^-,4^-$	M1+E2	0.33 *+9−10*	26 *4*	α(L)=19.1 *29*; α(M)=4.9 *8* α(N)=1.35 *23*; α(O)=0.33 *5*; α(P)=0.059 *8*; α(Q)=0.00257 *12*
		133.293 *28*	100 *31*	400.521	1^-	M1+E2	2.3 *+11−5*	6.0 *6*	α(K)=1.7 *8*; α(L)=3.12 *11*; α(M)=0.87 *4* α(N)=0.239 *10*; α(O)=0.0575 *23*; α(P)=0.00943 *30*; α(Q)=1.07×10^{-4} *30*
544.756	$2^-,3^-$	43.17[b] *5*	≤14[b]	501.569	$(3)^-$				I_γ: Iγ≤≈14.
		80.400 *33*	46 *11*	464.362	$3^-,4^-$	M1		11.80 *17*	α(L)=8.86 *12*; α(M)=2.163 *30* α(N)=0.592 *8*; α(O)=0.1490 *21*; α(P)=0.0285 *4*; α(Q)=0.001821 *26*
		89.070 *20*	100 *29*	455.688	$1^-,2^-,3^-$	M1+E2	0.26 *+8−11*	10.1 *9*	α(L)=7.5 *6*; α(M)=1.89 *18* α(N)=0.52 *5*; α(O)=0.129 *12*; α(P)=0.0238 *18*; α(Q)=0.00128 *5*
		144.254[b] *17*	≤80[b]	400.521	1^-				I_γ: Iγ≤71 *9*.
		201.98 *7*	47 *15*	342.805	$2^-,3^-$	M1+E2	1.9 *+8−4*	1.55 *30*	α(K)=0.79 *29*; α(L)=0.555 *12*; α(M)=0.1501 *21* α(N)=0.0414 *6*; α(O)=0.01004 *15*; α(P)=0.00171 *4*; α(Q)=3.8×10^{-5} *11*
559.790	2^-	113.122 *34*	100 *13*	446.702	3^-	M1+E2	0.95 *+17−15*	6.9 *5*	α(L)=5.07 *32*; α(M)=1.36 *10*

$^{242}_{95}Am_{147}$-17

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	Comments
									α(N)=0.375 *28*; α(O)=0.091 *6*; α(P)=0.0155 *9*; α(Q)=0.00039 *5*
559.790	2⁻	140.714 *16*	67 *11*	419.085	2⁻				
		159.283[b] *24*	≤228[b]	400.521	1⁻				I_γ: Iγ≤217 *11*.
561	11⁻	112[#]		448.9	10⁻				
		214.4[#] *5*		347	9⁻				
568.215	4⁻	84.601 *20*	3.8 *12*	483.640	4⁻				
		125.832 *4*	69.4 *7*	442.385	5⁺	E1		0.0752 *11*	
		150.10 *5*	7.6 *13*	418.084	4⁺	E1+M2	0.427 *15*	7.2 *4*	α(K)=4.34 *26*; α(L)=2.06 *12*; α(M)=0.560 *34* α(N)=0.157 *9*; α(O)=0.0393 *24*; α(P)=0.0072 *4*; α(Q)=0.000409 *25*
		191.234 *33*	100 *10*	376.947	3⁺	E1		0.1161 *16*	α(K)=0.0898 *13*; α(L)=0.01973 *28*; α(M)=0.00482 *7* α(N)=0.001308 *18*; α(O)=0.000321 *4*; α(P)=5.65×10⁻⁵ *8*; α(Q)=2.56×10⁻⁶ *4*
574.089	(2,3,4)⁻	29.351 *19*	70 *CA*	544.756	2⁻,3⁻				
		176.97 *5*	100 *28*	397.147	2⁻,3⁻,4⁻	M1+E2	0.46 *+19−23*	5.0 *5*	α(K)=3.7 *5*; α(L)=0.920 *13*; α(M)=0.230 *6* α(N)=0.0631 *18*; α(O)=0.01572 *35*; α(P)=0.00292 *4*; α(Q)=0.000157 *21*
596.2	11⁻	147[#]		448.9	10⁻				
		222.9[#] *5*		373.3	9⁻				
596.425	2⁻,3⁻,4⁻	94.874[b] *22*	≤104[b]	501.569	(3)⁻	M1+E2	1.4 *+4−3*	17.0 *17*	α(L)=12.4 *12*; α(M)=3.4 *4* α(N)=0.94 *10*; α(O)=0.227 *24*; α(P)=0.0372 *34*; α(Q)=0.00049 *11* I_γ: Iγ≤83 *21*.
		149.713 *11*	96 *10*	446.702	3⁻	M1+E2	0.20 *5*	8.94 *18*	α(K)=6.95 *17*; α(L)=1.492 *23*; α(M)=0.367 *6* α(N)=0.1003 *18*; α(O)=0.0252 *4*; α(P)=0.00478 *7*; α(Q)=0.000291 *7*
		199.291 *20*	100 *15*	397.147	2⁻,3⁻,4⁻	M1		4.09 *6*	α(K)=3.22 *5*; α(L)=0.653 *9*; α(M)=0.1592 *22* α(N)=0.0435 *6*; α(O)=0.01095 *15*; α(P)=0.002095 *29*; α(Q)=0.0001331 *19*
603+x?		356[#c]		247+x	(8⁺)				
		422[#c]		181.4+x	(7⁺)				
603.889	(3,4)⁺	185.786 *25*	55 *11*	418.084	4⁺	M1+E2	5.6 *+24−11*	1.33 *6*	α(K)=0.28 *6*; α(L)=0.766 *11*; α(M)=0.2133 *30* α(N)=0.0589 *8*; α(O)=0.01415 *20*; α(P)=0.002325 *33*; α(Q)=2.14×10⁻⁵ *24*
		186.127 *34*	100 *40*	417.746	(4)⁺	M1+E2	2.44 *27*	1.75 *12*	α(K)=0.70 *12*; α(L)=0.764 *11*; α(M)=0.2095 *30* α(N)=0.0578 *8*; α(O)=0.01396 *20*; α(P)=0.002334 *34*; α(Q)=3.8×10⁻⁵ *5*
		334.061 *32*	44 *10*	269.854	3⁺	M1+E2	0.70 *+16−1*	0.70 *8*	α(K)=0.54 *7*; α(L)=0.127 *8*; α(M)=0.0315 *18* α(N)=0.0086 *5*; α(O)=0.00215 *13*; α(P)=0.000403 *27*; α(Q)=2.22×10⁻⁵ *27*

$^{242}_{95}Am_{147}$-18

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ ‡	I_γ &	E_f	J_f^π	Mult. @	δ @	α †	Comments
611+x	(12$^+$)	202.2 *5*	100	409+x	(10$^+$)				
612.758	2$^-$	53.00 *b* *5*	≤54 *b*	559.790	2$^-$	M1+E2	0.06 *+3−2*	41.0 *15*	α(L)=30.8 *11*; α(M)=7.55 *30* α(N)=2.07 *8*; α(O)=0.519 *20*; α(P)=0.0988 *32*; α(Q)=0.00616 *9* I_γ: Iγ≤45 *9*.
		78.945 *19*	30 *10*	533.815	2$^-$	E2		52.1 *7*	α(L)=37.8 *5*; α(M)=10.62 *15* α(N)=2.94 *4*; α(O)=0.701 *10*; α(P)=0.1112 *16*; α(Q)=0.000332 *5*
		106.100 *b* *25*	≤210 *b*	506.648	2$^+$	E1+M2	0.167 *+20−22*	2.2 *5*	α(L)=1.6 *4*; α(M)=0.44 *10* α(N)=0.122 *29*; α(O)=0.031 *7*; α(P)=0.0055 *13*; α(Q)=0.00030 *7* I_γ: Iγ≤182 28.
		193.677 *23*	90 *27*	419.085	2$^-$	E2		1.036 *15*	α(K)=0.1542 *22*; α(L)=0.640 *9*; α(M)=0.1787 *25* α(N)=0.0494 *7*; α(O)=0.01185 *17*; α(P)=0.001941 *27*; α(Q)=1.500×10^{-5} *21*
		316.377 *25*	78 *8*	296.401	2$^-$	M1+E2	4.77 *11*	0.230 *4*	α(K)=0.1060 *22*; α(L)=0.0909 *13*; α(M)=0.02469 *35* α(N)=0.00681 *10*; α(O)=0.001650 *23*; α(P)=0.000281 *4*; α(Q)=5.55×10^{-6} *10*
		319.91 *6*	45 *11*	292.831	2$^-$	M1+E2		0.6 *5*	α(K)=0.5 *4*; α(L)=0.13 *5*; α(M)=0.033 *10* α(N)=0.0089 *26*; α(O)=0.0022 *7*; α(P)=4.1×10^{-4} *15*; α(Q)=2.0×10^{-5} *16*
		368.24 *6*	54 *12*	244.381	3$^-$	M1+E2		0.43 *31*	α(K)=0.32 *27*; α(L)=0.084 *34*; α(M)=0.021 *8* α(N)=0.0058 *21*; α(O)=0.0014 *5*; α(P)=2.6×10^{-4} *11*; α(Q)=1.3×10^{-5} *10*
		382.234 *30*	100 *10*	230.527	1$^+$	E1+M2	0.05 *4*	0.030 *10*	α(K)=0.024 *7*; α(L)=0.0049 *22*; α(M)=0.0012 *6* α(N)=3.3×10^{-4} *16*; α(O)=8.E−5 *4*; α(P)=1.5×10^{-5} *8*; α(Q)=8.E−7 *4* Mult.: 1988Sa18 report mult=E1 or E2. Placement in the level scheme requires Δπ=yes.
621.527	1$^-$,2$^-$	25.12 *5*	0.08 *CA*	596.425	2$^-$,3$^-$,4$^-$				
		87.726 *31*	43 *18*	533.815	2$^-$	M1+E2	0.34 *+8−9*	11.5 *11*	α(L)=8.5 *8*; α(M)=2.17 *22* α(N)=0.60 *6*; α(O)=0.148 *15*; α(P)=0.0269 *22*; α(Q)=0.00129 *6*
		165.79 *6*	42 *10*	455.688	1$^-$,2$^-$,3$^-$	M1+E2	0.67 *+29−27*	5.3 *9*	α(K)=3.8 *9*; α(L)=1.149 *31*; α(M)=0.294 *15* α(N)=0.081 *4*; α(O)=0.0200 *9*; α(P)=0.00361 *7*; α(Q)=0.000163 *35*
		390.92 *4*	100 *13*	230.527	1$^+$				
628.523	3$^-$,4$^-$,5$^-$	144.890 *29*	88 *15*	483.640	4$^-$	M1+E2	0.32 *4*	9.45 *20*	α(K)=7.20 *20*; α(L)=1.680 *28*; α(M)=0.417 *8* α(N)=0.1143 *22*; α(O)=0.0286 *5*; α(P)=0.00535 *8*; α(Q)=0.000303 *8*
		254.840 *b* *16*	≤118 *b*	373.686	4$^-$	M1+E2	0.70 *+10−9*	1.50 *10*	α(K)=1.12 *9*; α(L)=0.286 *9*; α(M)=0.0720 *17* α(N)=0.0197 *5*; α(O)=0.00491 *13*; α(P)=0.000908

$^{242}_{95}Am_{147}$-19

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	$I_{(\gamma+ce)}$	Comments
										29; α(Q)=4.7×10^{-5} *4* I_γ: Iγ≤109 *9*.
628.523	3$^-$,4$^-$,5$^-$	256.007 *33*	100 *19*	372.490	4$^-$	M1+E2	1.42 *+31−22*	0.92 *13*		α(K)=0.60 *12*; α(L)=0.241 *11*; α(M)=0.0631 *21* α(N)=0.0173 *6*; α(O)=0.00425 *15*; α(P)=0.00075 *4*; α(Q)=2.6×10^{-5} *5*
630.291	2$^-$,3$^-$,4$^-$	33.80 *5*	0.8 *CA*	596.425	2$^-$,3$^-$,4$^-$					
		96.433 *27*	97 *35*	533.815	2$^-$	E2		20.36 *29*		α(L)=14.75 *21*; α(M)=4.15 *6* α(N)=1.147 *16*; α(O)=0.274 *4*; α(P)=0.0437 *6*; α(Q)=0.0001515 *21*
		183.48 *5*	100 *19*	446.702	3$^-$	M1+E2		3.2 *19*		α(K)=2.1 *20*; α(L)=0.816 *14*; α(M)=0.214 *13* α(N)=0.059 *4*; α(O)=0.0144 *6*; α(P)=0.00255 *11*; α(Q)=9.E−5 *8*
672.248	(2,3,4)$^-$	75.823[b] *4*	≤349[b]	596.425	2$^-$,3$^-$,4$^-$	M1		13.99 *20*		α(L)=10.51 *15*; α(M)=2.57 *4* α(N)=0.702 *10*; α(O)=0.1768 *25*; α(P)=0.0338 *5*; α(Q)=0.002162 *30*
		98.161 *5*	62 *7*	574.089	(2,3,4)$^-$	M1		6.61 *9*		α(L)=4.96 *7*; α(M)=1.211 *17* α(N)=0.331 *5*; α(O)=0.0834 *12*; α(P)=0.01596 *22*; α(Q)=0.001019 *14*
		275.087 *16*	100 *6*	397.147	2$^-$,3$^-$,4$^-$	M1		1.661 *23*		α(K)=1.310 *18*; α(L)=0.264 *4*; α(M)=0.0643 *9* α(N)=0.01757 *25*; α(O)=0.00442 *6*; α(P)=0.000846 *12*; α(Q)=5.37×10^{-5} *8*
675.482	(2,3,4)$^+$	71.593 *7*	41 *2*	603.889	(3,4)$^+$	M1+E2	0.141 *+10−11*	17.84 *31*		α(L)=13.36 *23*; α(M)=3.30 *6* α(N)=0.905 *17*; α(O)=0.227 *4*; α(P)=0.0426 *7*; α(Q)=0.00252 *4*
		168.519 *8*	77 *9*	506.964	(3)$^+$	M1+E2		4.2 *24*		α(K)=2.7 *25*; α(L)=1.11 *6*; α(M)=0.29 *4* α(N)=0.080 *10*; α(O)=0.0197 *21*; α(P)=0.00345 *9*; α(Q)=1.2×10^{-4} *10*
		254.840[b] *16*	≤66[b]	420.651	2$^+$,3$^+$,4$^+$	M1+E2	0.70 *+10−9*	1.50 *10*		α(K)=1.12 *9*; α(L)=0.286 *9*; α(M)=0.0720 *17* α(N)=0.0197 *5*; α(O)=0.00491 *13*; α(P)=0.000908 *29*; α(Q)=4.7×10^{-5} *4*
		278.319 *16*	100 *6*	397.147	2$^-$,3$^-$,4$^-$	(E1)		0.0499 *7*		I_γ: Iγ≤61 *5*. α(K)=0.0393 *5*; α(L)=0.00804 *11*; α(M)=0.001956 *27* α(N)=0.000531 *7*; α(O)=0.0001310 *18*; α(P)=2.362×10^{-5} *33*; α(Q)=1.170×10^{-6} *16*
681.894	3$^-$	77.988[b] *23*	≤30[b]	603.889	(3,4)$^+$					I_γ: Iγ≤21 9.
		113.699 *11*	100 *7*	568.215	4$^-$	M1		4.32 *6*		α(L)=3.25 *5*; α(M)=0.792 *11*

$^{242}_{95}Am_{147}$-20

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	$I_{(\gamma+ce)}$	Comments
										α(N)=0.2166 *30*; α(O)=0.0545 *8*; α(P)=0.01043 *15*; α(Q)=0.000665 *9*
681.894	3⁻	137.159 *27*	30 *6*	544.756	2⁻,3⁻	M1+E2	5.27 *14*	4.47 *6*	6	ce(K)/(γ+ce)=0.0898 *32*; ce(L)/(γ+ce)=0.528 *6*; ce(M)/(γ+ce)=0.1477 *25* ce(N)/(γ+ce)=0.0409 *7*; ce(O)/(γ+ce)=0.00978 *18*; ce(P)/(γ+ce)=0.001584 *29*; ce(Q)/(γ+ce)=1.008×10^{-5} *22* α(K)=0.491 *18*; α(L)=2.89 *4*; α(M)=0.809 *11* α(N)=0.2237 *31*; α(O)=0.0536 *8*; α(P)=0.00867 *12*; α(Q)=5.52×10^{-5} *10*
682.7	12⁻	233.8[#] *5*	100	448.9	10⁻					
692+x?		369[#c]		323.4+x	(9⁺)					
		445[#c]		247+x	(8⁺)					
704.030	1⁻,2⁻,3⁻	82.484[b] *17*	≤46[b]	621.527	1⁻,2⁻	M1+E2	4.6 *15*	41.0 *16*		α(L)=29.7 *12*; α(M)=8.33 *35* α(N)=2.30 *10*; α(O)=0.550 *23*; α(P)=0.0876 *34*; α(Q)=0.00034 *7* I_γ: Iγ≤37 *9*.
		144.254[b] *17*	≤50[b]	559.790	2⁻					I_γ: Iγ≤44 *6*.
		202.421[b] *39*	≤48[b]	501.569	(3)⁻	E2		0.876 *12*		α(K)=0.1458 *20*; α(L)=0.530 *7*; α(M)=0.1478 *21* α(N)=0.0409 *6*; α(O)=0.00981 *14*; α(P)=0.001610 *23*; α(Q)=1.324×10^{-5} *19* I_γ: Iγ≤38 *10*.
		376.155 *32*	100 *25*	327.884	3⁻	M1+E2	3.9 *+10−6*	0.152 *13*		α(K)=0.084 *11*; α(L)=0.0498 *16*; α(M)=0.0133 *4* α(N)=0.00367 *10*; α(O)=0.000894 *26*; α(P)=0.000155 *5*; α(Q)=4.0×10^{-6} *4*
710.389	1⁻,2⁻,3⁻	38.145 *10*		672.248	(2,3,4)⁻					
		81.864 *32*	33 *18*	628.523	3⁻,4⁻,5⁻	M1		11.19 *16*		α(L)=8.41 *12*; α(M)=2.053 *29* α(N)=0.561 *8*; α(O)=0.1414 *20*; α(P)=0.0270 *4*; α(Q)=0.001728 *24*
		88.869 *19*	100 *35*	621.527	1⁻,2⁻	M1+E2	0.30 *+10−12*	10.6 *12*		α(L)=7.9 *8*; α(M)=1.99 *25* α(N)=0.54 *7*; α(O)=0.135 *16*; α(P)=0.0248 *24*; α(Q)=0.00127 *7*
		136.299 *23*	34 *13*	574.089	(2,3,4)⁻	M1(+E2)	0.14 *16*	11.8 *5*		α(K)=9.2 *6*; α(L)=1.95 *7*; α(M)=0.477 *25* α(N)=0.131 *7*; α(O)=0.0328 *16*; α(P)=0.00625 *20*; α(Q)=0.000388 *23*
712.442	2⁻,3⁻,4⁻	83.926 *12*	56 *11*	628.523	3⁻,4⁻,5⁻	M1+E2	1.3 *+4−3*	28 *4*		α(L)=20.7 *26*; α(M)=5.7 *8* α(N)=1.58 *22*; α(O)=0.38 *5*; α(P)=0.062 *8*; α(Q)=0.00076 *17*

$^{242}_{95}Am_{147}$-21

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	δ[@]	α[†]	Comments
712.442	2⁻,3⁻,4⁻	138.352 *12*	53 *6*	574.089	(2,3,4)⁻	M1+E2	1.5 *+5−3*	6.3 *8*	α(K)=2.9 *10*; α(L)=2.51 *11*; α(M)=0.69 *4* α(N)=0.189 *11*; α(O)=0.0457 *24*; α(P)=0.00766 *29*; α(Q)=0.00015 *4*
		293.34 *6*	83 *8*	419.085	2⁻	E2		0.2413 *34*	α(K)=0.0815 *11*; α(L)=0.1165 *16*; α(M)=0.0321 *4* α(N)=0.00885 *12*; α(O)=0.002134 *30*; α(P)=0.000358 *5*; α(Q)=5.04×10^{-6} *7*
		384.531 *27*	100 *10*	327.884	3⁻				
722	12⁻	126[#]		596.2	11⁻				
		242.5[#] *5*		479	10⁻				
727.4+x	(13⁺)	222.0[#] *5*		505.4+x	(11⁺)				
731.225	3⁺,4⁺,5⁺	102.698 *5*	53 *10*	628.523	3⁻,4⁻,5⁻	E1+M2	0.122 *+13−15*	1.40 *29*	α(L)=1.02 *21*; α(M)=0.28 *6* α(N)=0.079 *17*; α(O)=0.020 *4*; α(P)=0.0036 *8*; α(Q)=0.00019 *4*
		134.86 *4*	100 *22*	596.425	2⁻,3⁻,4⁻				
		313.20 *7*	55 *13*	418.084	4⁺	M1+E2	2.2 *+8−4*	0.36 *7*	α(K)=0.22 *6*; α(L)=0.106 *7*; α(M)=0.0282 *15* α(N)=0.0078 *4*; α(O)=0.00190 *11*; α(P)=0.000332 *23*; α(Q)=1.00×10^{-5} *24*
794+x?		385[#c]		409+x	(10⁺)				
		471[#c]		323.4+x	(9⁺)				
814	13⁻	131[#]		682.7	12⁻				
		252.8[#] *5*		561	11⁻				
852+x	(14⁺)	241.1[#] *5*	100	611+x	(12⁺)				
858.0	13⁻	136[#]		722	12⁻				
		261.8[#] *5*		596.2	11⁻				
873.996	2⁻	192.108[b] *6*	≤63[b]	681.894	3⁻	M1+E2	4.1 *+13−7*	1.26 *8*	α(K)=0.35 *8*; α(L)=0.666 *9*; α(M)=0.1846 *26* α(N)=0.0510 *7*; α(O)=0.01226 *17*; α(P)=0.002027 *29*; α(Q)=2.28×10^{-5} *31* I_γ: Iγ≤60.5 *25*.
		243.690[b] *11*	≤32[b]	630.291	2⁻,3⁻,4⁻	M1+E2	0.71 *6*	1.70 *8*	α(K)=1.26 *7*; α(L)=0.328 *7*; α(M)=0.0827 *14* α(N)=0.0227 *4*; α(O)=0.00564 *10*; α(P)=0.001040 *22*; α(Q)=5.28×10^{-5} *27* I_γ: Iγ≤30.5 *16*.
		314.33 *7*	24 *4*	559.790	2⁻	E2		0.1946 *27*	α(K)=0.0723 *10*; α(L)=0.0892 *13*; α(M)=0.02447 *34* α(N)=0.00675 *9*; α(O)=0.001631 *23*; α(P)=0.000275 *4*; α(Q)=4.26×10^{-6} *6*
		585.21 *16*	46 *15*	289.028	4⁻				
		599.55 *12*	39 *14*	274.330	1⁻	M1+E2	2.84 *34*	0.055 *5*	α(K)=0.038 *4*; α(L)=0.0122 *6*; α(M)=0.00315 *14* α(N)=0.00086 *4*; α(O)=0.000213 *10*; α(P)=3.86×10^{-5} *20*; α(Q)=1.62×10^{-6} *15*
		629.64 *8*	100 *34*	244.381	3⁻				

$^{242}_{95}Am_{147}$-22

Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ ‡	I_γ &	E_f	J_f^π	Mult. @	δ @	α †	Comments
902.494	(3)$^-$	192.108[b] *6*	≤68[b]	710.389	1$^-$,2$^-$,3$^-$	M1+E2	4.1 *+13−7*	1.26 *8*	α(K)=0.35 *8*; α(L)=0.666 *9*; α(M)=0.1846 *26* α(N)=0.0510 *7*; α(O)=0.01226 *17*; α(P)=0.002027 *29*; α(Q)=2.28×10^{-5} *31* I$_\gamma$: Iγ≤65.2 *27*.
		230.242 *7*	≤97	672.248	(2,3,4)$^-$	M1		2.73 *4*	α(K)=2.150 *30*; α(L)=0.435 *6*; α(M)=0.1059 *15* α(N)=0.0289 *4*; α(O)=0.00729 *10*; α(P)=0.001394 *20*; α(Q)=8.85×10^{-5} *12* I$_\gamma$: Iγ≤95.3 *20*.
		328.409 *19*	37 *3*	574.089	(2,3,4)$^-$	M1		1.017 *14*	α(K)=0.803 *11*; α(L)=0.1613 *23*; α(M)=0.0393 *5* α(N)=0.01073 *15*; α(O)=0.00270 *4*; α(P)=0.000517 *7*; α(Q)=3.28×10^{-5} *5*
		658.11 *6*	100 *16*	244.381	3$^-$				
904+x		399[#c]		505.4+x	(11$^+$)				
		495[#c]		409+x	(10$^+$)				
906.499	(3)$^-$	32.526[b] *21*	≤1.0[b]	873.996	2$^-$	M1+E2	0.33 *5*	5.2×10^2 *10*	α(L)=3.8×10^2 *7*; α(M)=103 *21* α(N)=28 *6*; α(O)=6.8 *13*; α(P)=1.14 *21*; α(Q)=0.0250 *5* I$_\gamma$: Iγ≤≈1.0.
		202.421[b] *39*	≤85[b]	704.030	1$^-$,2$^-$,3$^-$	E2		0.876 *12*	α(K)=0.1458 *20*; α(L)=0.530 *7*; α(M)=0.1478 *21* α(N)=0.0409 *6*; α(O)=0.00981 *14*; α(P)=0.001610 *23*; α(Q)=1.324×10^{-5} *19* I$_\gamma$: Iγ≤68 *17*.
		450.69 *6*	100 *21*	455.688	1$^-$,2$^-$,3$^-$	M1+E2	0.86 *+35−27*	0.28 *6*	α(K)=0.21 *5*; α(L)=0.049 *7*; α(M)=0.0122 *17* α(N)=0.0033 *5*; α(O)=0.00084 *12*; α(P)=0.000157 *24*; α(Q)=8.7×10^{-6} *20*
949.660	(4$^-$)	43.17[b] *5*	≤15[b]	906.499	(3)$^-$				I$_\gamma$: Iγ≤≈15.
		75.664 *7*	100 *18*	873.996	2$^-$	(E2)		63.7 *9*	α(L)=46.2 *6*; α(M)=12.98 *18* α(N)=3.59 *5*; α(O)=0.857 *12*; α(P)=0.1358 *19*; α(Q)=0.000394 *6*
954.1	14$^-$	140[#]		814	13$^-$				
		271.4[#] *5*		682.7	12$^-$				
988.6+x	(15$^+$)	261.2[#] *5*	100	727.4+x	(13$^+$)				
1002	14$^-$	144[#]		858.0	13$^-$				
		188[#]		814	13$^-$				
		280.5[#] *5*		722	12$^-$				
1002.618	(5$^-$)	53.00[b] *5*	≤75[b]	949.660	(4$^-$)	M1+E2	0.06 *+3−2*	41.0 *15*	α(L)=30.8 *11*; α(M)=7.55 *30* α(N)=2.07 *8*; α(O)=0.519 *20*; α(P)=0.0988 *32*; α(Q)=0.00616 *9* I$_\gamma$: Iγ≤63 *12*.
		96.115 *16*	100 *20*	906.499	(3)$^-$	(E2)		20.67 *29*	α(L)=14.97 *21*; α(M)=4.21 *6*

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Adopted Levels, Gammas (continued)

γ(^{242}Am) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[&]	E_f	J_f^π	Mult.[@]	α[†]	Comments
								α(N)=1.165 *16*; α(O)=0.278 *4*; α(P)=0.0444 *6*; α(Q)=0.0001534 *21*
1024+x		413[#]		611+x	(12$^+$)			
		519[#]		505.4+x	(11$^+$)			
1103	15$^-$	149[#]		954.1	14$^-$			
		289.4[#] *5*		814	13$^-$			
1132+x	(16$^+$)	280[#]		852+x	(14$^+$)			
1151+x		424[#]		727.4+x	(13$^+$)			
		540[#]		611+x	(12$^+$)			
1156.1	15$^-$	154[#c]		1002	14$^-$			
		298.1[#] *5*		858.0	13$^-$			
1161.97	1$^-$,2$^-$,3$^-$,4$^-$	255.467 *38*	98 *22*	906.499	(3)$^-$	E2	0.380 *5*	α(K)=0.1028 *14*; α(L)=0.2016 *28*; α(M)=0.0558 *8* α(N)=0.01542 *22*; α(O)=0.00371 *5*; α(P)=0.000618 *9*; α(Q)=7.11×10^{-6} *10*
		451.60 *13*	79 *21*	710.389	1$^-$,2$^-$,3$^-$	E2	0.07133 *99*	α(K)=0.0382 *5*; α(L)=0.02427 *34*; α(M)=0.00651 *9* α(N)=0.001792 *25*; α(O)=0.000436 *6*; α(P)=7.57×10^{-5} *11*; α(Q)=1.875×10^{-6} *26*
		617.207 *40*	100 *10*	544.756	2$^-$,3$^-$	M1	0.1829 *26*	α(K)=0.1448 *20*; α(L)=0.0287 *4*; α(M)=0.00697 *10* α(N)=0.001905 *27*; α(O)=0.000479 *7*; α(P)=9.17×10^{-5} *13*; α(Q)=5.82×10^{-6} *8*
1260.9	16$^-$	306.8[#] *5*	100	954.1	14$^-$			
1287+x		435[#]		852+x	(14$^+$)			
		560[#]		727.4+x	(13$^+$)			
1287.6+x?	(17$^+$)	299[#]	100	988.6+x	(15$^+$)			
1316	16$^-$	314.2[#] *5*	100	1002	14$^-$			
1426	17$^-$	323.1[#] *5*	100	1103	15$^-$			
1434+x		445[#]		988.6+x	(15$^+$)			
		581[#c]		852+x	(14$^+$)			
1453+x?	(18$^+$)	321[#]	100	1132+x	(16$^+$)			
1482.8	17$^-$	326.7[#] *5*	100	1156.1	15$^-$			
1587+x?		455[#c]	100	1132+x	(16$^+$)			
1599.0	18$^-$	338.1[#] *5*	100	1260.9	16$^-$			
1652	18$^-$	335.2[#] *5*	100	1316	16$^-$			
2200	(2$^+$,3$^-$)	2200[c] *80*	100	0.0	1$^-$			E_γ: From ^{241}Am(n,γ) (1979Va25).

[†] Additional information 1.

$^{242}_{95}Am_{147}$-24

Adopted Levels, Gammas (continued)

$\gamma(^{242}Am)$ (continued)

‡ From (n,γ) except where noted otherwise.
# From Coulomb excitation.
@ From conversion coefficient and subshell ratio measurements in (n,γ).
& Relative photon intensities deexciting each level, taken from (n,γ).
[a] Multiply placed.
[b] Multiply placed with undivided intensity.
[c] Placement of transition in the level scheme is uncertain.

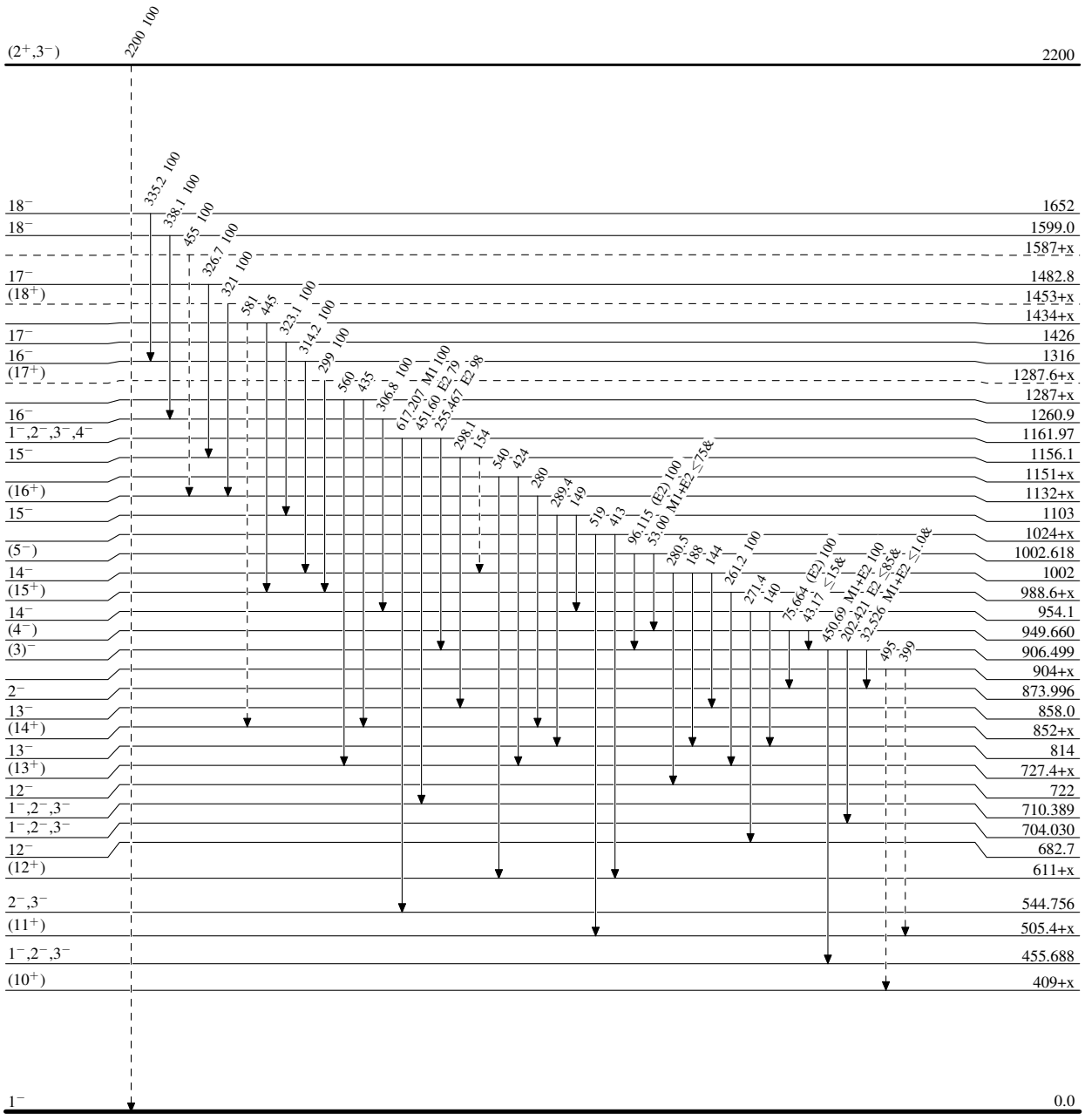
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

γ Decay (Uncertain)



$^{242}_{95}Am_{147}$

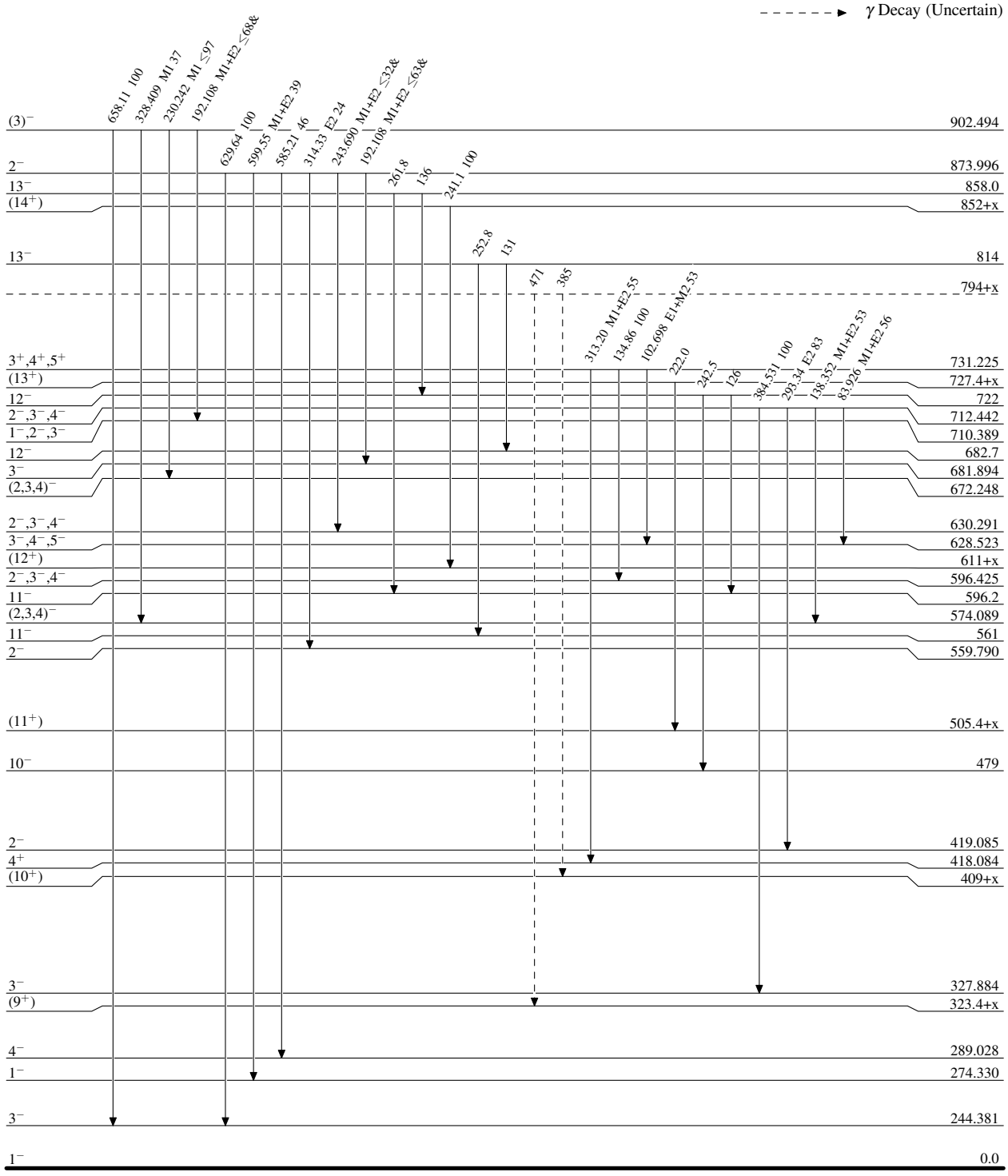
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

- - - - - - ► γ Decay (Uncertain)



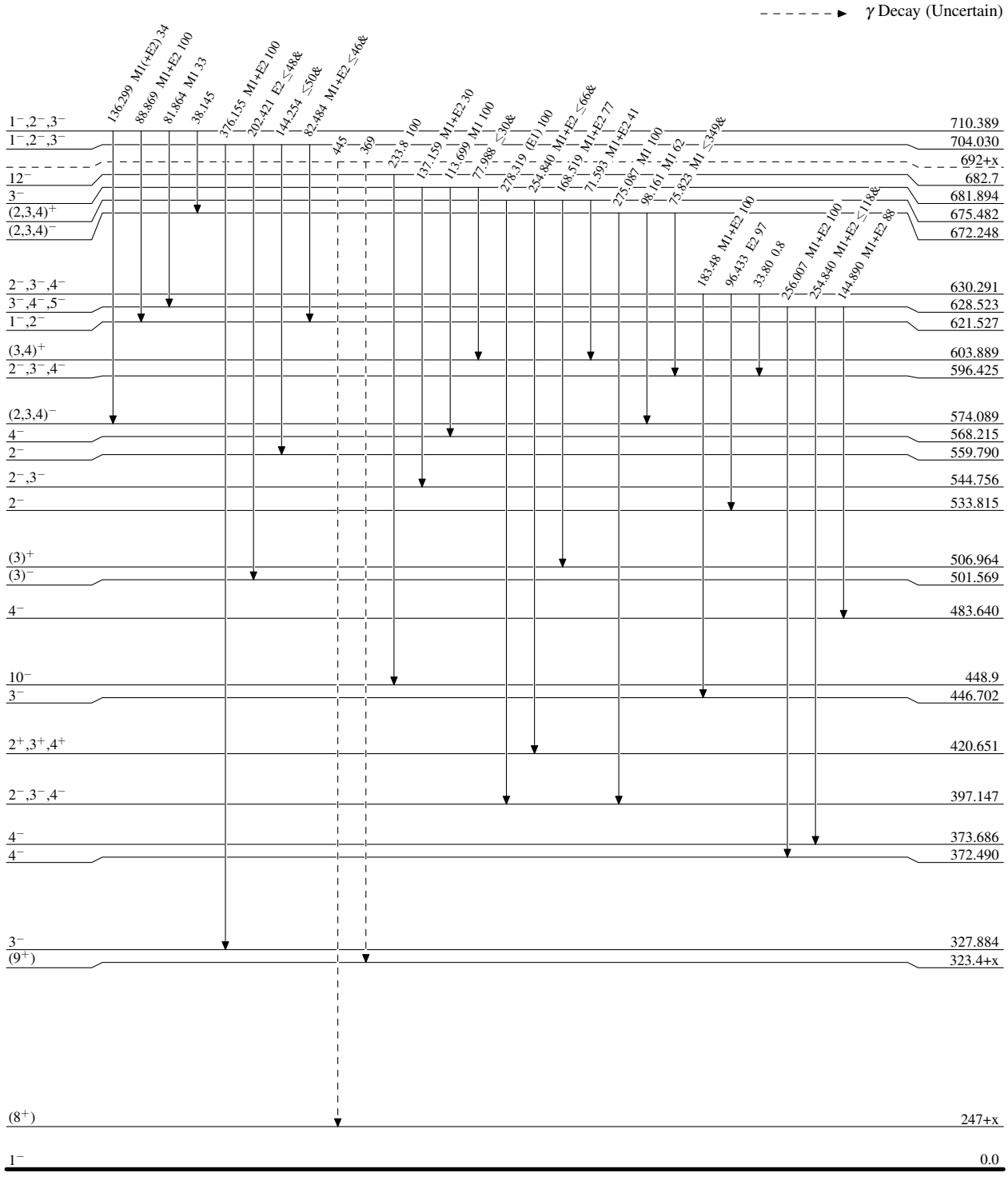
$^{242}_{95}Am_{147}$

Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given



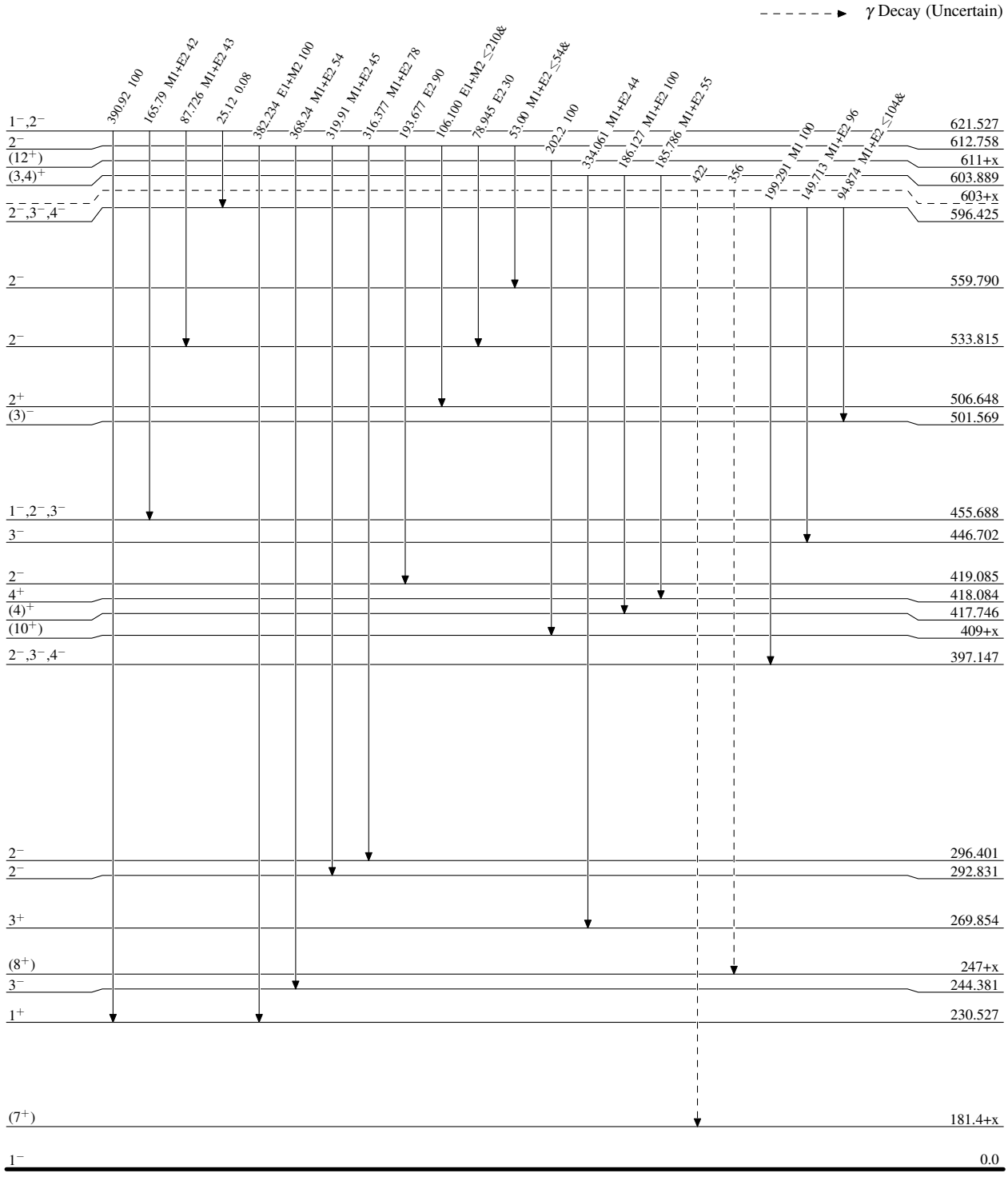
$^{242}_{95}Am_{147}$

Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

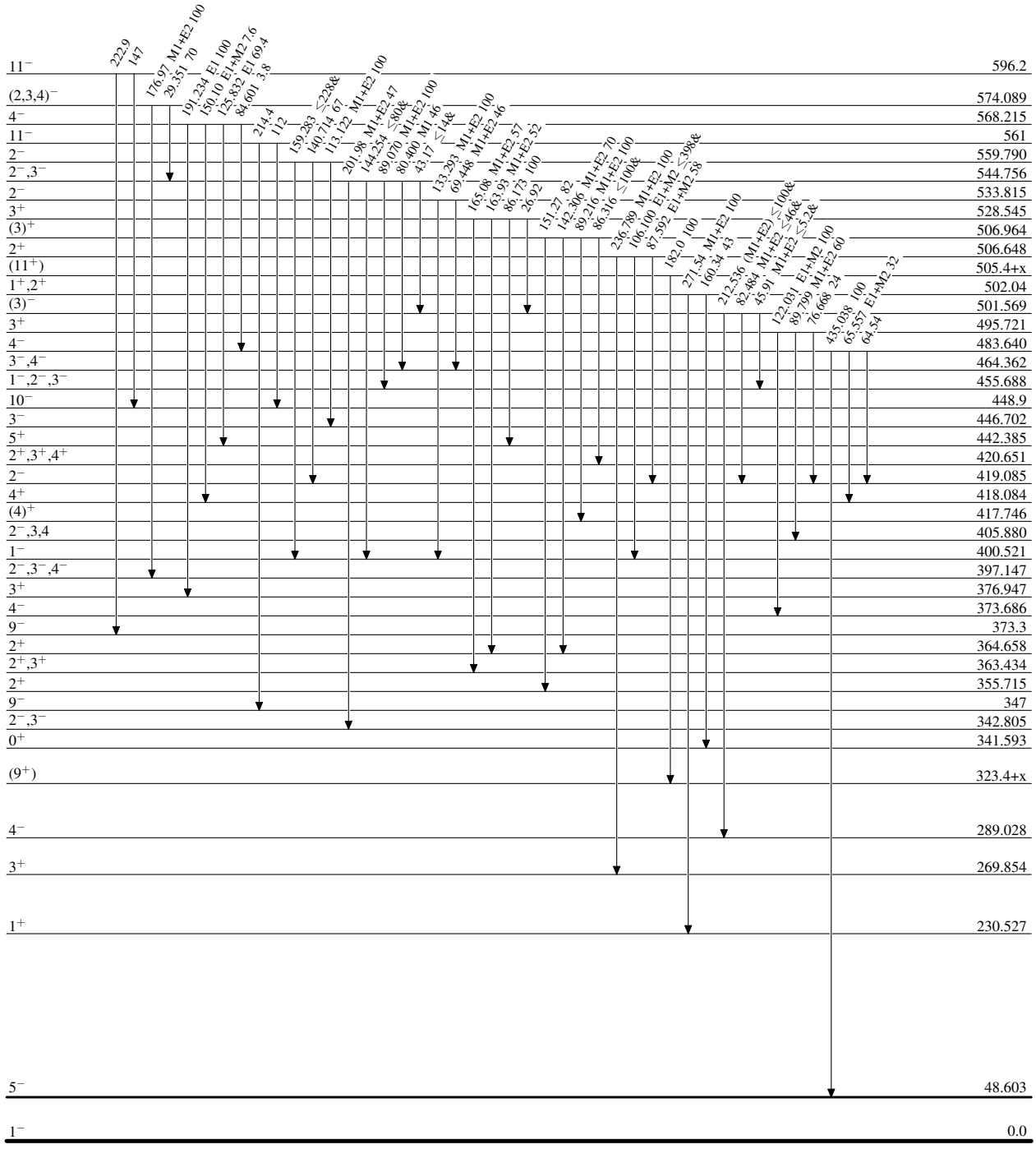


$^{242}_{95}Am_{147}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

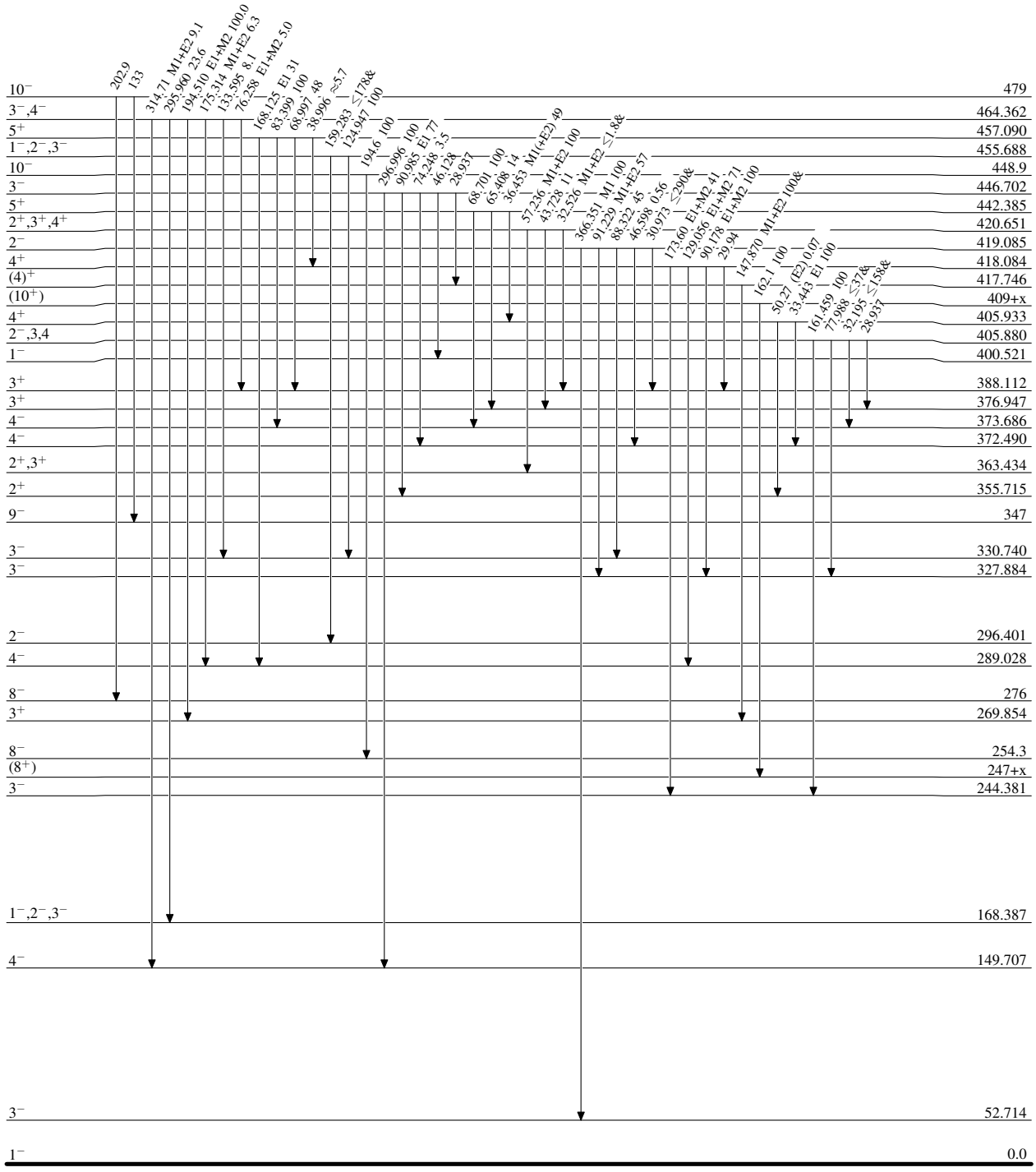


$^{242}_{95}Am_{147}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

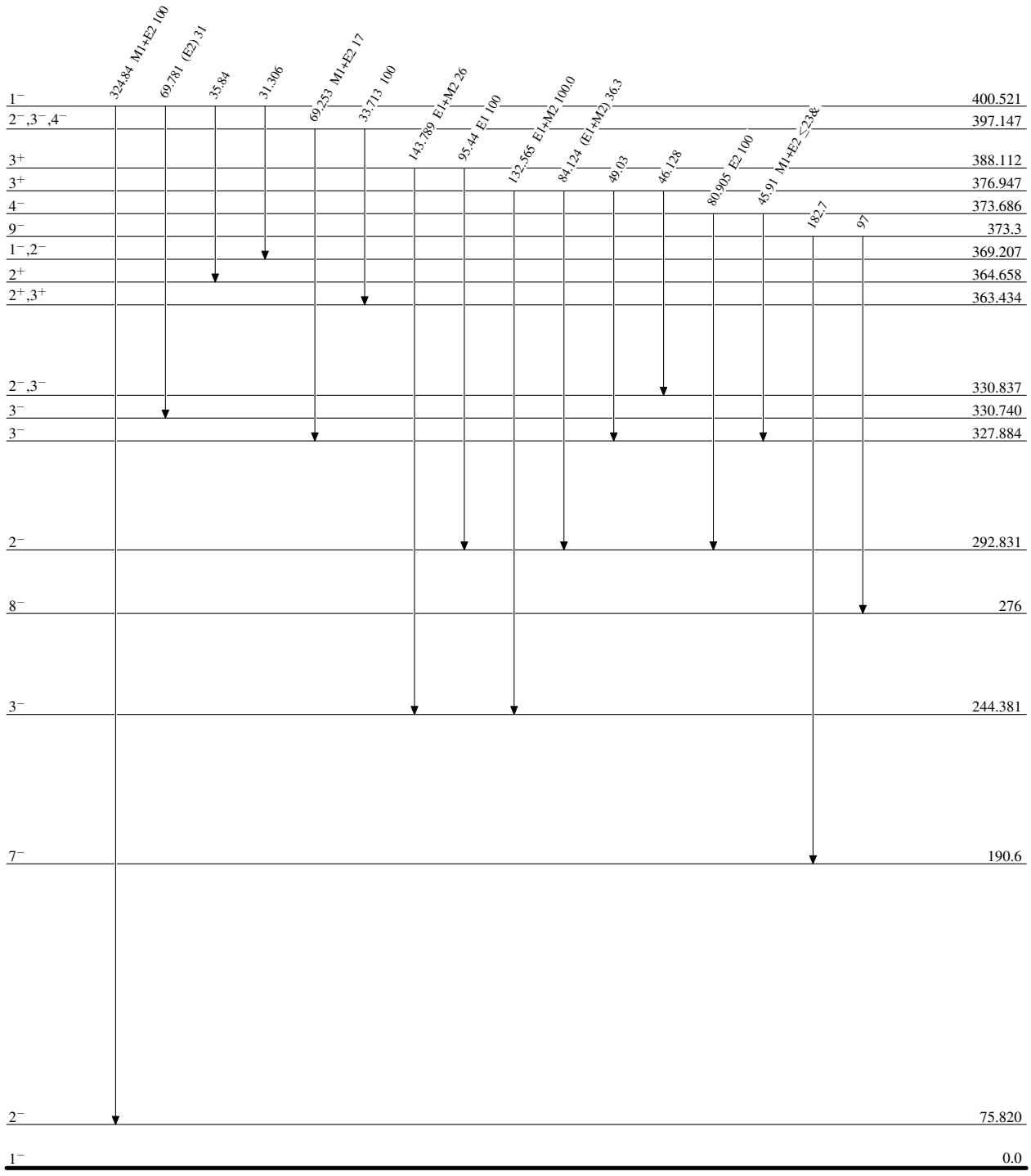


$^{242}_{95}Am_{147}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

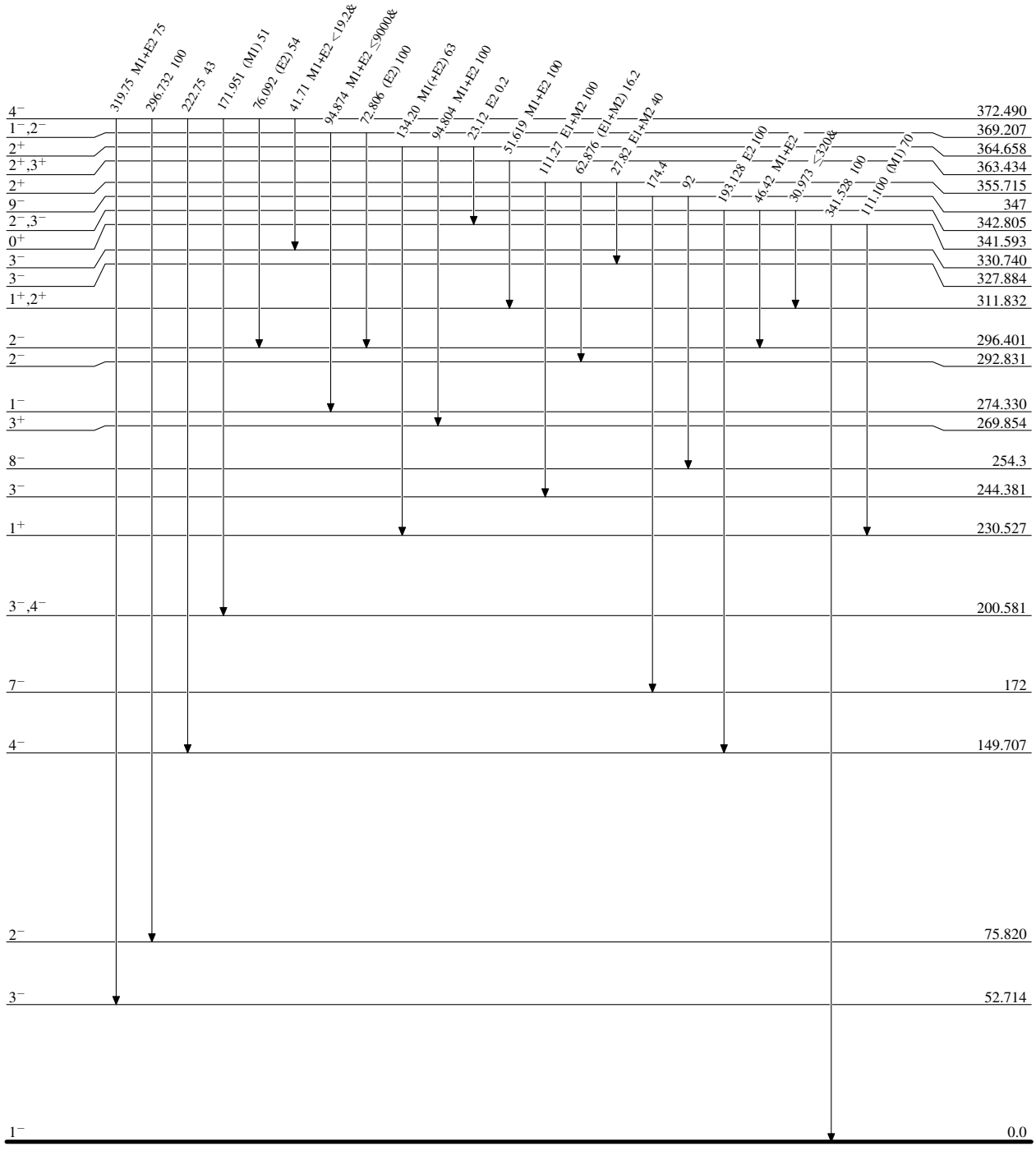


$^{242}_{95}Am_{147}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given



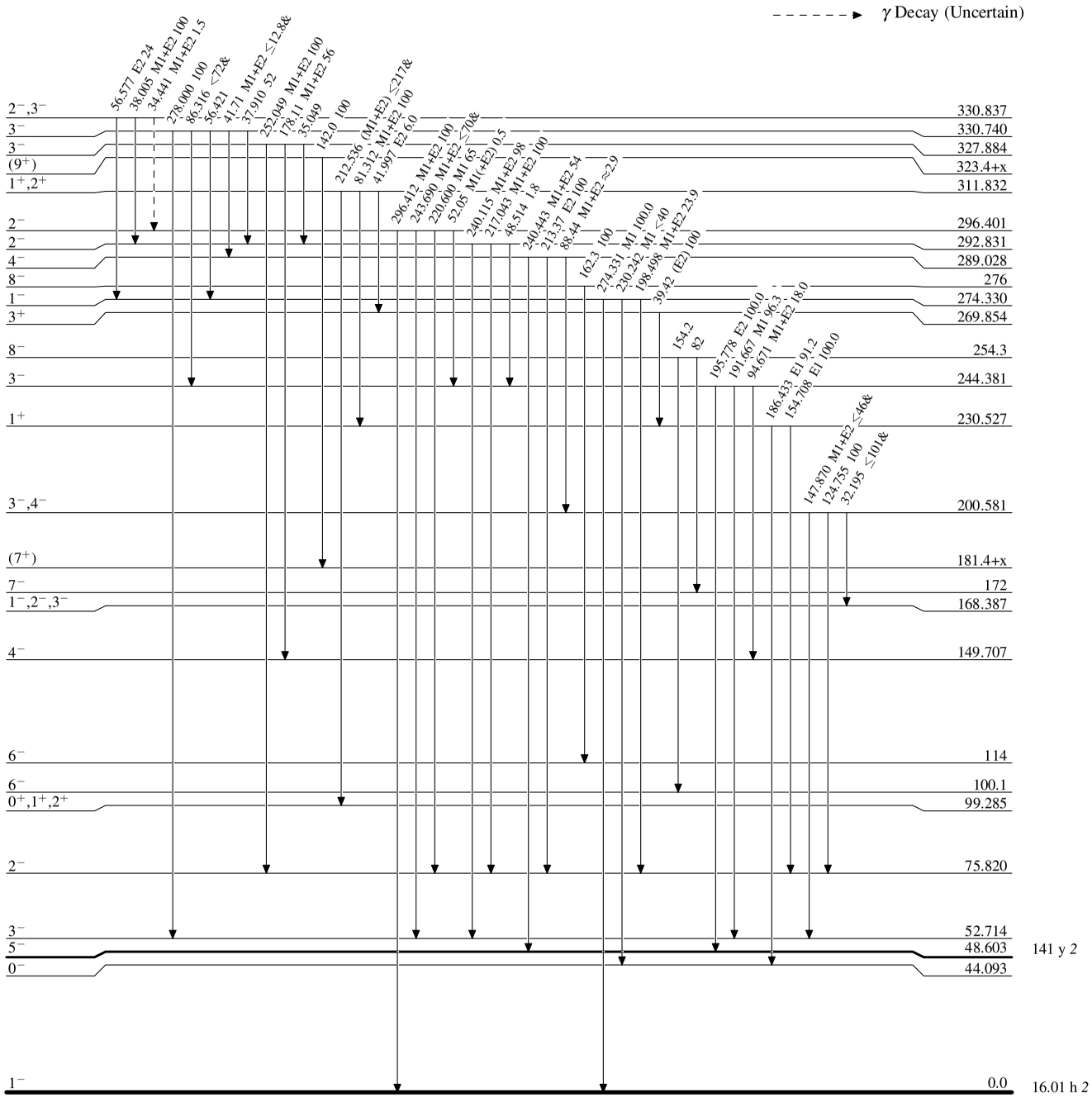
$^{242}_{95}Am_{147}$

Adopted Levels, Gammas

Level Scheme (continued)

Legend

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

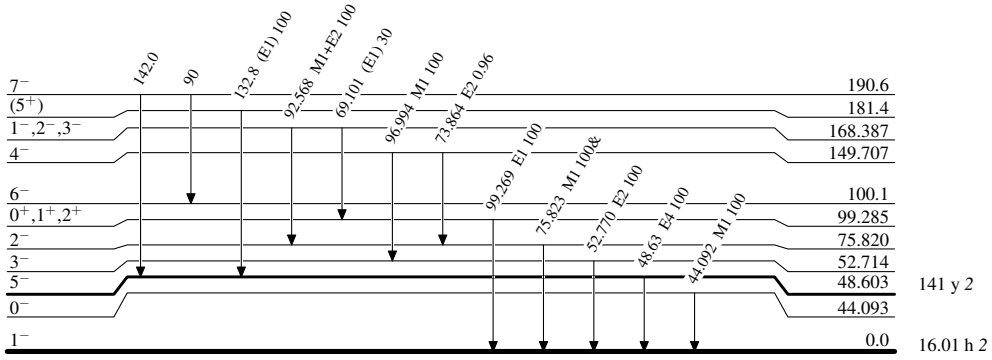


$^{242}_{95}Am_{147}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given



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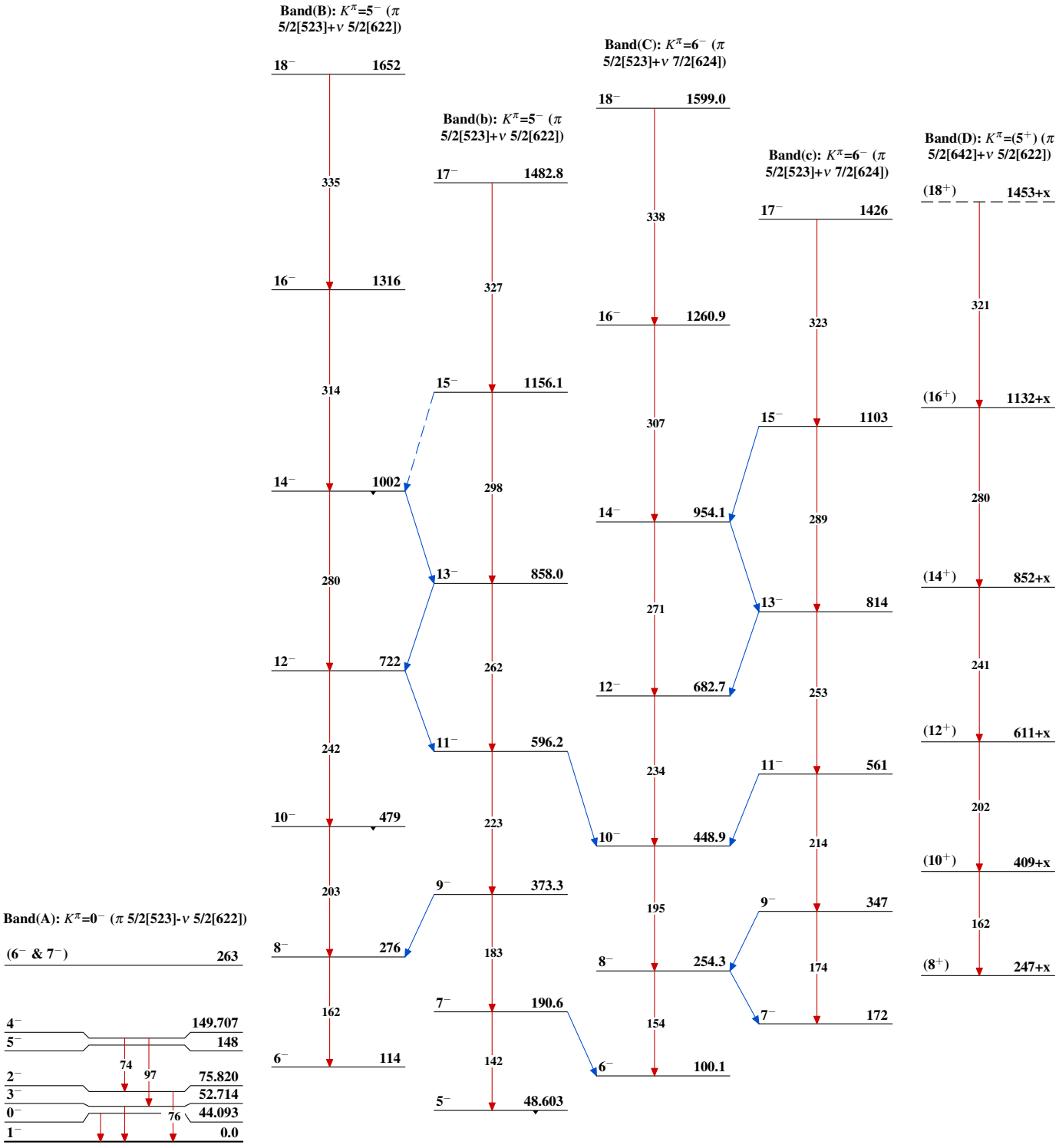
Adopted Levels, Gammas



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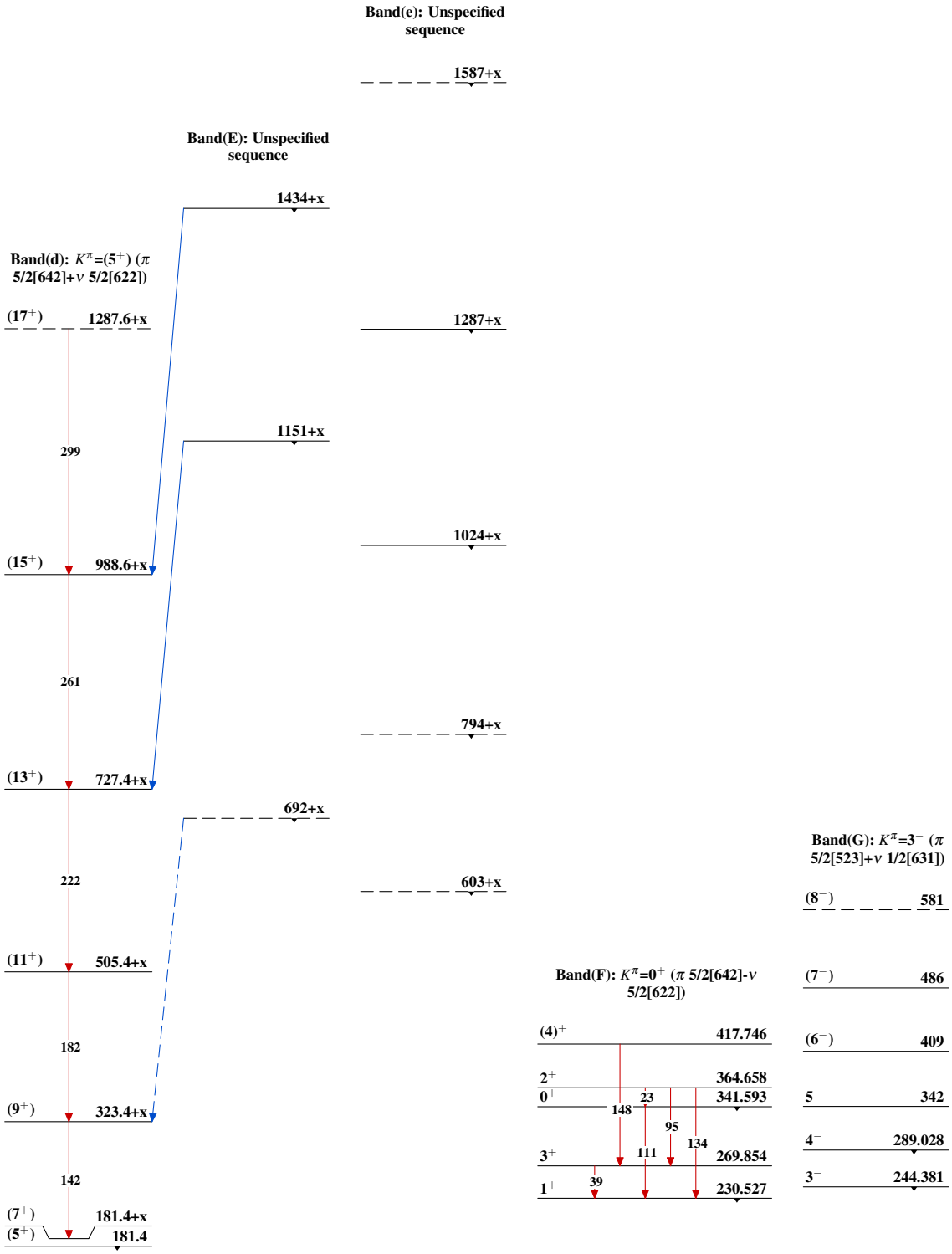
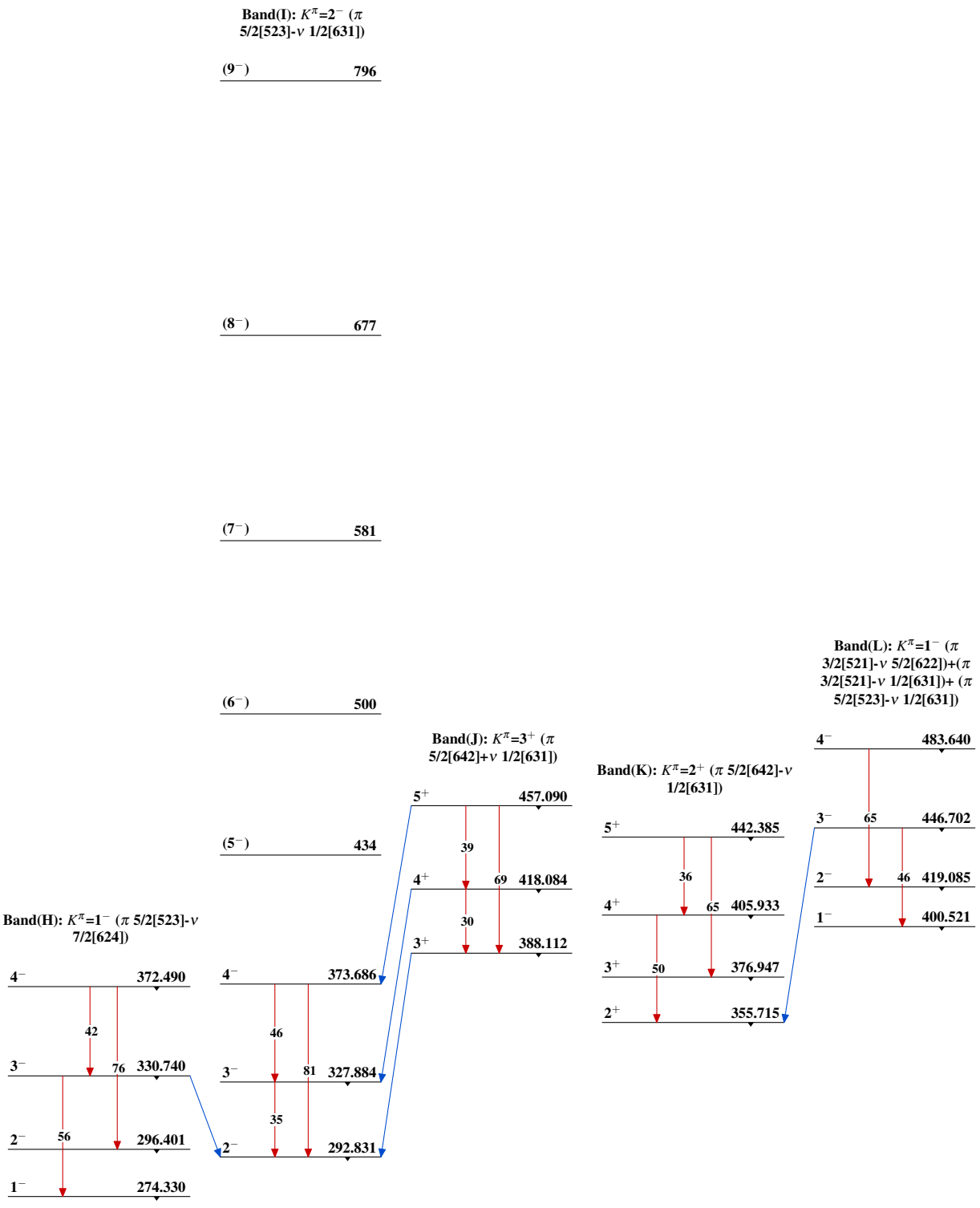
Adopted Levels, Gammas (continued)



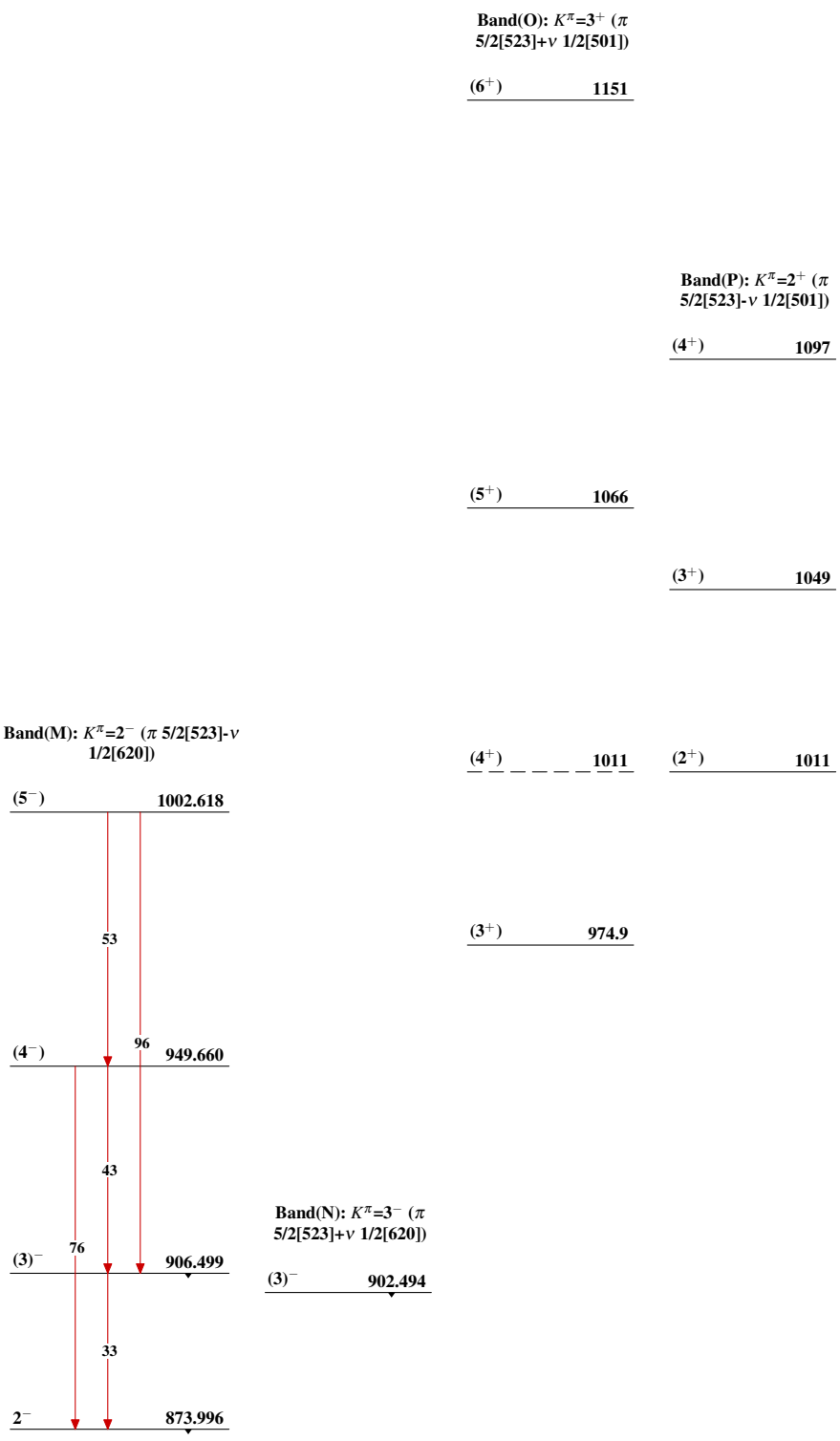
$^{242}_{95}Am_{147}$

Adopted Levels, Gammas (continued)



$^{242}_{95}Am_{147}$

Adopted Levels, Gammas (continued)



$^{242}_{95}Am_{147}$