^{74}Ge(p,nγ) 1995Al12

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh, Ameenah R. Farhan	NDS 107, 1923 (2006)	30-Apr-2006

1995Al12 (also 1995Fe15): E=3.6-4.7 MeV. Measured Eγ, Iγ, γγ, ce using HPGe detector for γ rays and superconducting magnetic lens and Si(LI) detector for conversion electrons. Hauser-Feshbach analysis. Interpretation of levels with interacting boson-fermion-fermion (IBFFM) model.

Others:

1976Al10: E=3.5-5.0 MeV. Measured γ, γγ, γce(t), ce, excitation functions.

1973Ki11: E=3.3-5.3 MeV. Measured Eγ, γγ, σ(E,Eγ), ce, excitation functions.

1973Mo14: E=3.5, 3.8, 4.0 MeV. Measured σ(Eγ,θ).

1971Ch10 (also 1968WiZX): E=3.5-5.2 MeV. Measured γ(θ), γγ, γγ(t), pγ(θ,H,t), g-factor by DPAD method.

See 1995Al12 for detailed comparisons of experimental levels and branching ratios with those predicted by IBFFM calculations.

^{74}As Levels

E(level)	J^{π} †	$T_{1/2}$	Comments
0.0	2^-		
173.135 *9*	1^-		
183.049 *8*	3^-	≤0.6 ns	$T_{1/2}$: from γce(t) (1976La10).
202.129 *8*	2^-		
206.559 *8*	1^+		
259.181 *13*	4^+	26.8 ns *5*	$T_{1/2}$: from γγ(t) (1971Ch10). Other: 25.7 ns *20* (1976La10,γce(t)). g-factor=+0.809 *10* (1971Ch10, time differential PAD method).
267.422 *20*	3^-		
271.593 *17*	4^-	1.0 ns *1*	$T_{1/2}$: from γce(t) (1976La10).
278.298 *13*	3^+	<0.3 ns	$T_{1/2}$: from γce(t) and neutron Ce(t) (1976La10).
332.333 *22*	4^-		
335.28 *6*	5^-		
372.936 *23*	4^-		
385.168 *9*	2^-		
422.224 *11*	1^+		
425.947 *14*	2^+	<0.3 ns	$T_{1/2}$: γce(t) (1976La10).
446.769 *15*	2^+		
447.974 *24*	3^-		
465.33 *3*	0^+		
507.215 *25*	$(3,4)^-$		
513.757 *18*	1^+		
527.00 *5*	(4^-)		
533.65 *5*	4^-		
552.054 *20*	2^+		
586.037 *22*	2^+		
616.93 *5*	3^-		
626.385 *22*	1^-		
632.952 *23*	2^+		
650.030 *17*	1^-		
674.39? *11*	$(4^+,5^+)$		
686.87 *4*	$(3,4)^+$		
701.365 *20*	1^+		
715.71? *13*			
716.230 *22*	2^-		
719.86? *14*			
732.19 *4*	2^+		
734.18 *13*	(4,5)		
743.504 *18*	1^-		
746.80 *4*	3^+		

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^{74}Ge(p,nγ) 1995Al12 (continued)

^{74}As Levels (continued)

E(level)	Jπ†	E(level)	Jπ†	E(level)	Jπ†	E(level)	Jπ†
753.459 *21*	1^+	779.17 *6*	2	798.94 *6*	3	835.76 *4*	$2^{(+)},3^{(+)}$
754.51 *3*	2^+	781.93 *7*	$(3)^+$	802.13 *4*	$2^{(+)}$	838.26 *14*	(3)
756.96? *18*		784.18 *5*	$(3,4)^+$	819.6? *3*			
758.84 *3*	2^-	794.76 *8*	(3,4)	823.326 *25*	1^+		

† From decay properties of levels, ce measurements and Hauser- Feshbach analysis (1995Al12). In 'Adopted Levels', the assignments are the same, except that parentheses have been added In cases where strong supporting arguments are lacking.

γ(^{74}As)

α(K)exp: from 1995Al12, unless otherwise stated.

E_γ†	I_γ†	E_i(level)	J^π_i	E_f	J^π_f	Mult.‡	α#	Comments
18.98 *10*	3.8 *12*	278.298	3^+	259.181	4^+			
33.50 *8*	0.18 *9*	206.559	1^+	173.135	1^-			
60.84 *6*	0.16 *6*	332.333	4^-	271.593	4^-			
63.68 *6*	0.71 *9*	335.28	5^-	271.593	4^-			
64.95 *6*	0.82 *11*	332.333	4^-	267.422	3^-			
65.30 *7*	0.28 *6*	267.422	3^-	202.129	2^-			
76.13 *1*	40.6 *20*	259.181	4^+	183.049	3^-	D		α(K)exp=0.144 *20* α(K)exp: others: 0.131 *2* (1973Ki11), 0.12 *3* (1976La10). A_2=−0.10 *2*, A_4=−0.02 *4* (At 3.80 MeV, 1973Mo14).
84.49 *6*	0.21 *7*	267.422	3^-	183.049	3^-			
88.58 *3*	1.80 *13*	271.593	4^-	183.049	3^-	D		α(K)exp=0.137 *15*
101.34 *3*	0.81 *7*	372.936	4^-	271.593	4^-	M1	0.087	α(K)=0.0771 *24*; α(L)=0.00832 *25*; α(M)=0.00130 *4* α(K)exp=0.085 *9* α(K)exp: other:<0.14 (1976La10).
105.51 *3*	1.06 *9*	372.936	4^-	267.422	3^-	M1	0.0781	α(K)=0.0691 *21*; α(L)=0.00745 *23*; α(M)=0.00116 *4* α(K)exp=0.072 *4* α(K)exp: other:<0.11 (1976La10).
117.16 *9*	0.22 *6*	743.504	1^-	626.385	1^-			
120.52 *10*	0.25 *6*	753.459	1^+	632.952	2^+			
122.12 *9*	0.25 *6*	507.215	$(3,4)^-$	385.168	2^-			
136.27 *9*	0.33 *8*	650.030	1^-	513.757	1^+			
147.65 *1*	28.2 *14*	425.947	2^+	278.298	3^+	M1	0.0318	α(K)=0.0282 *9*; α(L)=0.00300 *9*; α(M)=0.00047 *1* α(K)exp=0.0321 *27* α(K)exp: others: 0.029 *4* (1973Ki11), 0.031 *2* (1976La10). α(L)exp+α(M)exp=0.0042 *7* (1973Ki11).
149.20 *3*	1.1 *1*	332.333	4^-	183.049	3^-			
160.80 *8*	0.14 *6*	533.65	4^-	372.936	4^-			
163.90 *6*	0.63 *9*	586.037	2^+	422.224	1^+	M1	0.0244	α(K)=0.0214 *7*; α(L)=0.00228 *7* α(K)exp=0.023 *4*
168.49 *2*	6.5 *4*	446.769	2^+	278.298	3^+	M1	0.0227	α(K)=0.0199 *6*; α(L)=0.00212 *7* α(K)exp=0.0233 *26* α(K)exp: others: 0.030 *8* (1973Ki11), 0.020 *3* (1976La10). α(L)exp+α(M)exp=0.009 *7* (1973Ki11).

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^{74}Ge(p,nγ) 1995Al12 (continued)

γ(^{74}As) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[‡]	α[#]	Comments
173.14 *1*	44.3 *23*	173.135	1⁻	0.0	2⁻	M1	0.0212	α(K)=0.0186 *6*; α(L)=0.00197 *6* α(K)exp=0.0191 *27* α(K)exp: 0.023 *3* (1973Ki11), 0.018 *1* (1976La10). A_2=−0.01 *2*, A_4=0.00 *2* (At 3.80 MeV, 1973Mo14).
174.95 *4*	0.86 *10*	507.215	(3,4)⁻	332.333	4⁻			
176.35 *5*	0.70 *9*	447.974	3⁻	271.593	4⁻			
183.04[&] *1*	85[&] *4*	183.049	3⁻	0.0	2⁻	M1	0.0183	α(K)=0.0161 *5*; α(L)=0.00170 *6* α(K)exp=0.0169 *20* α(K)exp: others: 0.016 *3* (1973Ki11), 0.016 *1* (1976La10). α(L)exp+α(M)exp=0.0020 *3* (1973Ki11). A_2=−0.25 *2*, A_4=−0.02 *3* (At 3.80 MeV, 1973Mo14).
183.04[&@a] *1*	85.4[&@] *24*	385.168	2⁻	202.129	2⁻	M1	0.0183	α(K)=0.0161 *5*; α(L)=0.00170 *6* α(K)exp=0.0169 *20*
186.30 *12*	0.50 *8*	632.952	2⁺	446.769	2⁺			
187.63 *6*	1.37 *13*	701.365	1⁺	513.757	1⁺			
189.95 *5*	0.59 *5*	372.936	4⁻	183.049	3⁻	M1(+E2)	0.05 *3*	α(K)=0.039 *25*; α(L)=0.004 *3* α(K)exp=0.020 *4*
192.05 *15*	0.18 *6*	527.00	(4⁻)	335.28	5⁻			
194.97 *13*	0.15 *6*	527.00	(4⁻)	332.333	4⁻			
202.13[&] *1*	48[&] *3*	202.129	2⁻	0.0	2⁻	M1	0.0142	α(K)=0.0125 *4*; α(L)=0.00132 *4* α(K)exp=0.0132 *16* α(K)exp: others: 0.0112 *17* (1973Ki11), 0.013 *2* (1976La10). E(L+M)C=0.0014 *6* (1973Ki11). A_2=+0.13 *2*, A_4=+0.01 *3* (At 3.80 MeV, 1973Mo14).
202.13[&@a] *1*	48[&@] *3*	385.168	2⁻	183.049	3⁻	M1	0.0142	α(K)=0.0125 *4*; α(L)=0.00132 *4* α(K)exp=0.0132 *16*
202.30 *12*	0.50 *10*	754.51	2⁺	552.054	2⁺			
203.20 *12*	0.67 *12*	650.030	1⁻	446.769	2⁺			
206.56 *1*	100 *5*	206.559	1⁺	0.0	2⁻	E1	0.0087	α=0.0087; α(K)=0.00764 *23*; α(L)=0.00079 *2* α(K)exp=0.0074 α(K)exp: others: 0.0070 *10* (1973Ki11), 0.0075 *8* (1976La10). A_2=−0.01 *2*, A_4=0.00 *3* (At 3.80 MeV, 1973Mo14).
212.04 *8*	0.36 *6*	385.168	2⁻	173.135	1⁻			
215.67 *1*	22.5 *12*	422.224	1⁺	206.559	1⁺	M1	0.0121	α(K)=0.0106 *4*; α(L)=0.0012 *4* α(K)exp=0.0115 *4* α(K)exp: others: 0.011 *3* (1973Ki11), 0.0081 *10* (1976La10).
219.54 *10*	0.20 *6*	425.947	2⁺	206.559	1⁺			
224.07 *3*	3.60 *25*	650.030	1⁻	425.947	2⁺	E1		α(K)exp=0.0068 *13*
227.84 *3*	2.34 *14*	650.030	1⁻	422.224	1⁺	E1		α(K)exp=0.0060 *18*
235.60 *3*	1.24 *13*	507.215	(3,4)⁻	271.593	4⁻	M1+E2	0.021 *12*	α(K)=0.019 *11*; α(L)=0.0021 *12* α(K)exp=0.0135 *15*
239.80 *16*	0.27 *9*	507.215	(3,4)⁻	267.422	3⁻			
240.00 *16*	0.30 *9*	686.87	(3,4)⁺	446.769	2⁺			
240.20 *2*	8.4 *7*	446.769	2⁺	206.559	1⁺	M1+E2	0.020 *11*	α(K)=0.018 *10*; α(L)=0.0019 *11*

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^{74}Ge(p,nγ) 1995Al12 (continued)

γ(^{74}As) (continued)

$E_γ$ †	$I_γ$ †	E_i(level)	$J^π_i$	E_f	$J^π_f$	Mult. ‡	α #	Comments
								α(K)exp=0.0095 *14* α(K)exp: others: 0.0097 *25* (1973Ki11), 0.0091 *6* (1976La10). α(L)exp+α(M)exp=0.0023 *13* (1973Ki11).
240.68 *20*	0.15 *6*	754.51	2^+	513.757	1^+			
241.18 *4*	5.0 *4*	626.385	1^-	385.168	2^-			
242.60 *30*	0.07 *5*	425.947	2^+	183.049	3^-			
244.10 *34*	0.05 *4*	616.93	3^-	372.936	4^-			
249.09 *2*	4.7 *3*	422.224	1^+	173.135	1^-	E1	0.00505	α=0.00505; α(K)=0.00445 *14*; α(L)=0.00046 *1* α(K)exp=0.0048 *6* α(K)exp: other: 0.016 *3* (1976La10). Mult.: 1976La10 give M1+E2 and δ=1.0 *4*.
252.84 *4*	0.61 *8*	425.947	2^+	173.135	1^-			
255.64 *6*	0.51 *8*	527.00	(4^-)	271.593	4^-	(M1+E2)	0.016 *9*	α(K)=0.014 *8*; α(L)=0.0016 *9* α(K)exp=0.0163 *20*
258.77 *3*	13.6 *8*	465.33	0^+	206.559	1^+	M1	0.00764	α=0.00764; α(K)=0.00671 *21*; α(L)=0.00070 *2* α(K)exp=0.0071 *8* α(K)exp: others: 0.011 *5* (1973Ki11), 0.0075 *40* (1976La10).
259.80 *8*	0.69 *10*	527.00	(4^-)	267.422	3^-			
262.04 *7*	0.33 *7*	533.65	4^-	271.593	4^-			
264.85 *4*	0.65 *10*	650.030	1^-	385.168	2^-			
267.43 *3*	12.2 *10*	267.422	3^-	0.0	2^-	M1	0.00704	α=0.00704; α(K)=0.00618 *19*; α(L)=0.00065 *2* α(K)exp=0.0075 *10* α(K)exp: others: 0.0086 *20* (1973Ki11), 0.0077 *20* (1976La10). A_2=−0.13 *2*, A_4=−0.02 *3* (At 3.80 MeV, 1973Mo14).
267.74 *12*	0.60 *20*	715.71?		447.974	3^-			
271.61 *3*	5.6 *3*	271.593	4^-	0.0	2^-	E2	0.0199	α(K)=0.0174 *6*; α(L)=0.00193 *6* α(K)exp=0.0176 *20* α(K)exp: others: 0.019 *4* (1973Ki11), 0.023 *6* (1976La10). α(L)exp+α(M)exp=0.0026 *10* (1973Ki11).
273.69 *7*	0.46 *8*	552.054	2^+	278.298	3^+			
278.34 *2*	15.6 *8*	278.298	3^+	0.0	2^-	E1	0.00368	α=0.00368; α(K)=0.00324 *10*; α(L)=0.00033 *1* α(K)exp=0.0034 *6* α(K)exp: others: 0.0041 *9* (1973Ki11), 0.0035 *4* (1976La10). α(L)exp+α(M)exp=0.00051 *20* (1973Ki11).
279.10 *5*	2.34 *25*	701.365	1^+	422.224	1^+			
284.87 *17*	0.13 *8*	552.054	2^+	267.422	3^-			
285.35 *16*	0.20 *9*	732.19	2^+	446.769	2^+			
288.33 *4*	0.67 *9*	802.13	$2^{(+)}$	513.757	1^+	(M1+E2)		α(K)exp=0.0082 *25*
299.97 *5*	0.50 *8*	746.80	3^+	446.769	2^+	M1(+E2)		α(K)exp=0.0056 *18*
306.24 *4*	4.2 *3*	732.19	2^+	425.947	2^+	M1		α(K)exp=0.0046 *8*
307.09 *10*	1.8 *3*	513.757	1^+	206.559	1^+	M1	0.00501	α=0.00501; α(K)=0.00440 *14*; α(L)=0.00046 *1* α(K)exp=0.0049 *8*
307.75 *8*	2.9 *3*	586.037	2^+	278.298	3^+			
310.84 *5*	0.34 *7*	758.84	2^-	447.974	3^-	M1		α(K)exp=0.0046 *13*
317.46 *20*	0.14 *6*	743.504	1^-	425.947	2^+			
318.59 *20*	0.22 *6*	586.037	2^+	267.422	3^-			
320.96 *6*	0.42 *8*	746.80	3^+	425.947	2^+			
324.06 *6*	0.52 *8*	507.215	$(3,4)^-$	183.049	3^-	M1	0.00439	α=0.00439; α(K)=0.00386 *12*; α(L)=0.00040 *1* α(K)exp=0.0044 *11*
327.52 *2*	8.1 *4*	753.459	1^+	425.947	2^+	M1		α(K)exp=0.0036 *6*

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^{74}Ge(p,nγ) 1995Al12 (continued)

γ(^{74}As) (continued)

E_γ†	I_γ†	E_i(level)	J^π_i	E_f	J^π_f	Mult.‡	α#	Comments
331.15 *9*	0.90 *20*	779.17	2	447.974	3⁻			
331.20 *10*	0.61 *15*	753.459	1⁺	422.224	1⁺			
332.29 *7*	1.50 *16*	332.333	4⁻	0.0	2⁻	(E2)	0.007 *3*	α=0.007 *3*; α(K)=0.0061 *25*; α(L)=0.0007 *3* α(K)exp=0.0073 *18* Mult.: E2+M1 from α(K)exp In (p,nγ); but ΔJ$^\pi$ requires E2.
345.50 *2*	6.6 *3*	552.054	2⁺	206.559	1⁺	M1	0.00376	α=0.00376; α(K)=0.00330 *10*; α(L)=0.00034 *1* α(K)exp=0.0038 *7*
349.54 *12*	0.36 *8*	616.93	3⁻	267.422	3⁻			
350.54 *7*	1.19 *11*	533.65	4⁻	183.049	3⁻	M1	0.00363	α=0.00363; α(K)=0.00319 *10*; α(L)=0.00033 *1* α(K)exp=0.0039 *7*
354.65 *2*	5.7 *3*	632.952	2⁺	278.298	3⁺	M1		α(K)exp=0.0034 *6*
355.46 *7*	1.22 *15*	802.13	2⁽⁺⁾	446.769	2⁺			
358.01 *9*	1.04 *15*	823.326	1⁺	465.33	0⁺			
358.32 *4*	2.79 *20*	743.504	1⁻	385.168	2⁻	M1(+E2)		α(K)exp=0.0034 *6*
358.86 *13*	0.36 *10*	626.385	1⁻	267.422	3⁻			
368.68 *12*	0.49 *10*	552.054	2⁺	183.049	3⁻	(E1)	0.00170	α=0.00170; α(K)=0.00150 *5*; α(L)=0.00015 *1* α(K)exp=0.0016 *7*
373.58 *9*	0.79 *9*	758.84	2⁻	385.168	2⁻	M1		α(K)exp=0.0032 *6*
378.89 *13*	0.37 *9*	552.054	2⁺	173.135	1⁻			
379.47 *4*	1.85 *18*	586.037	2⁺	206.559	1⁺	M1	0.00300	α=0.00300; α(K)=0.00264 *8*; α(L)=0.00027 *1* α(K)exp=0.0028 *4*
385.10 *2*	4.46 *22*	385.168	2⁻	0.0	2⁻	M1	0.00290	α=0.00290; α(K)=0.00255 *8*; α(L)=0.00026 *1* α(K)exp=0.0025 *4*
389.05 *5*	0.56 *8*	835.76	2⁽⁺⁾,3⁽⁺⁾	446.769	2⁺	(M1+E2)		α(K)exp=0.0028 *5*
397.37 *4*	1.94 *16*	823.326	1⁺	425.947	2⁺	M1		α(K)exp=0.0022 *5*
398.85 *15*	0.15 *7*	734.18	(4,5)	335.28	5⁻			
401.13 *6*	0.76 *9*	823.326	1⁺	422.224	1⁺			
408.55 *15*	0.30 *8*	686.87	(3,4)⁺	278.298	3⁺			
409.50 *15*	0.21 *8*	794.76	(3,4)	385.168	2⁻			
413.08 *10*	0.78 *9*	586.037	2⁺	173.135	1⁻			
413.48 *14*	0.35 *7*	835.76	2⁽⁺⁾,3⁽⁺⁾	422.224	1⁺			
414.87 *15*	0.22 *6*	616.93	3⁻	202.129	2⁻			
415.21 *11*	0.43 *9*	674.39?	(4⁺,5⁺)	259.181	4⁺	(M1)		α(K)exp=0.0022 *7*
419.90 *8*	0.39 *7*	626.385	1⁻	206.559	1⁺			
421.68 *16*	0.25 *9*	756.96?		335.28	5⁻			
421.89 *16*	0.25 *9*	794.76	(3,4)	372.936	4⁻			
422.03 *16*	0.28 *7*	422.224	1⁺	0.0	2⁻			
424.07 *14*	0.66 *9*	626.385	1⁻	202.129	2⁻	M1+E2		α(K)exp=0.0029 *7*
425.81 *10*	1.35 *12*	425.947	2⁺	0.0	2⁻	E1	0.00117	α=0.00117; α(K)=0.00103 *3*; α(L)=0.00010 α(K)exp=0.00094 *16*
426.39 *12*	0.54 *9*	632.952	2⁺	206.559	1⁺			
427.69 *3*	1.87 *20*	686.87	(3,4)⁺	259.181	4⁺	M1		α(K)exp=0.0020 *5*
433.86 *13*	0.15 *8*	616.93	3⁻	183.049	3⁻			
443.23 *10*	1.5 *3*	626.385	1⁻	183.049	3⁻	(E2)		α(K)exp=0.0022 *6* Mult.: M1+E2 from ce data, but ΔJ$^\pi$ requires E2.
443.45 *8*	3.5 *3*	650.030	1⁻	206.559	1⁺			
446.70 *10*	1.04 *11*	446.769	2⁺	0.0	2⁻			
447.88 *11*	0.76 *13*	650.030	1⁻	202.129	2⁻			
447.97 *3*	6.7 *5*	447.974	3⁻	0.0	2⁻	M1	0.00204	α=0.00204; α(K)=0.00179 *6*; α(L)=0.00019 *1* α(K)exp=0.0018 *4*
453.90 *13*	0.24 *6*	732.19	2⁺	278.298	3⁺	(M1+E2)		α(K)exp=0.0026 *13*
460.68 *14*	0.22 *10*	719.86?		259.181	4⁺			

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$^{74}Ge(p,n\gamma)$ 1995Al12 (continued)

$\gamma(^{74}As)$ (continued)

E_γ †	I_γ †	E_i(level)	J^π_i	E_f	J^π_f	Mult. ‡	α #	Comments
462.24 *16*	0.14 *6*	794.76	(3,4)	332.333	4^-			
476.24 *5*	1.80 *20*	754.51	2^+	278.298	3^+	M1		α(K)exp=0.0016 *4*
476.84 *10*	0.76 *13*	650.030	1^-	173.135	1^-			
480.60 *5*	0.67 *9*	758.84	2^-	278.298	3^+			
484.30 *30*	0.04 *3*	819.6?		335.28	5^-			
487.58 *7*	0.38 *7*	746.80	3^+	259.181	4^+	E2(+M1)		α(K)exp=0.0025 *8*
494.84 *3*	5.7 *3*	701.365	1^+	206.559	1^+	M1		α(K)exp=0.0014 *3*
503.68 *11*	0.43 *8*	781.93	$(3)^+$	278.298	3^+	M1+E2		α(K)exp=0.0016 *5*
506.10 *25*	0.15 *6*	784.18	$(3,4)^+$	278.298	3^+			
507.22 *16*	0.67 *8*	507.215	$(3,4)^-$	0.0	2^-	E2(+M1)	0.0020 *5*	α=0.0020 *5*; α(K)=0.0018 *4*; α(L)=0.00018 *5* α(K)exp=0.0024 *7*
511.76 *19*	1.4 *3*	779.17	2	267.422	3^-			
513.75 *2*	17.5 *11*	513.757	1^+	0.0	2^-	E1	0.00073	α=0.00073; α(K)=0.00064 *2* α(K)exp=0.00069 *9*
514.04 *13*	1.13 *15*	716.230	2^-	202.129	2^-			
522.73 *8*	0.68 *10*	781.93	$(3)^+$	259.181	4^+	M1+E2		α(K)exp=0.0015 *4*
523.34 *14*	0.27 *6*	794.76	(3,4)	271.593	4^-			
524.99 *5*	0.87 *10*	784.18	$(3,4)^+$	259.181	4^+	M1		α(K)exp=0.0012 *4*
528.20 *3*	2.15 *16*	701.365	1^+	173.135	1^-			
530.10 *30*	0.09 *5*	732.19	2^+	202.129	2^-			
533.11 *3*	2.66 *16*	716.230	2^-	183.049	3^-	M1		α(K)exp=0.0013 *2*
536.82 *6*	0.34 *8*	743.504	1^-	206.559	1^+			
541.66 *19*	0.12 *6*	743.504	1^-	202.129	2^-			
546.79 *14*	0.29 *9*	753.459	1^+	206.559	1^+			
547.95 *4*	1.57 *13*	754.51	2^+	206.559	1^+	M1		α(K)exp=0.0012 *3*
551.22 *22*	0.50 *15*	734.18	(4,5)	183.049	3^-			
552.09 *9*	0.82 *12*	552.054	2^+	0.0	2^-	E1	0.00061	α=0.00061; α(K)=0.00054 *2* α(K)exp=0.00052 *15*
552.42 *30*	0.07 *6*	758.84	2^-	206.559	1^+			
556.71 *10*	0.41 *7*	758.84	2^-	202.129	2^-			
560.33 *16*	0.26 *6*	743.504	1^-	183.049	3^-			
570.40 *3*	2.2 *2*	743.504	1^-	173.135	1^-	M1		α(K)exp=0.0010 *2*
570.65 *35*	0.05 *4*	838.26	(3)	267.422	3^-			
575.70 *7*	0.65 *9*	758.84	2^-	183.049	3^-			
577.10 *22*	0.11 *6*	779.17	2	202.129	2^-			
580.28 *7*	0.46 *8*	753.459	1^+	173.135	1^-			
585.71 *9*	0.54 *10*	758.84	2^-	173.135	1^-			
586.00 *3*	1.86 *14*	586.037	2^+	0.0	2^-	E1	0.00053	α=0.00053; α(K)=0.00046 *1* α(K)exp=0.00053 *13*
595.82 *18*	0.94 *15*	802.13	$2^{(+)}$	206.559	1^+			
596.29 *20*	0.64 *9*	779.17	2	183.049	3^-			
600.00 *10*	0.55 *9*	802.13	$2^{(+)}$	202.129	2^-			
606.06 *15*	0.38 *8*	779.17	2	173.135	1^-			
616.66 *10*	2.33 *22*	823.326	1^+	206.559	1^+			
616.91 *5*	1.95 *20*	616.93	3^-	0.0	2^-	M1(+E2)	0.00118 *20*	α=0.00118 *20*; α(K)=0.00104 *18*; α(L)=0.00011 *2* α(K)exp=0.00097 *14*
621.24 *26*	0.12 *6*	823.326	1^+	202.129	2^-			
625.80 *12*	1.12 *14*	798.94	3	173.135	1^-			
626.42 *3*	5.4 *3*	626.385	1^-	0.0	2^-	M1(+E2)		α(K)exp=0.00093 *14*
629.14 *5*	0.36 *7*	835.76	$2^{(+)},3^{(+)}$	206.559	1^+			
636.25 *28*	0.07 *5*	838.26	(3)	202.129	2^-			
650.02 *4*	1.00 *11*	650.030	1^-	0.0	2^-			
655.06 *26*	0.08 *7*	838.26	(3)	183.049	3^-			

Continued on next page (footnotes at end of table)

^{74}Ge(p,nγ) 1995Al12 (continued)

γ(^{74}As) (continued)

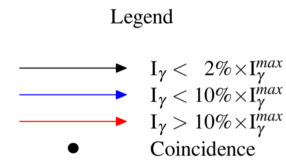
E_γ †	I_γ †	E_i(level)	J^π_i	E_f	J^π_f	Mult. ‡	Comments
716.30 *3*	2.12 *16*	716.230	2^-	0.0	2^-	M1	α(K)exp=0.00059 *12*
743.50 *3*	1.91 *16*	743.504	1^-	0.0	2^-	M1(+E2)	α(K)exp=0.00062 *13*
753.44 *6*	0.34 *8*	753.459	1^+	0.0	2^-		
758.87 *6*	0.39 *7*	758.84	2^-	0.0	2^-		
779.15 *9*	0.42 *7*	779.17	2	0.0	2^-		
781.88 *26*	0.09 *5*	781.93	$(3)^+$	0.0	2^-		
798.94 *6*	0.40 *7*	798.94	3	0.0	2^-		
823.33 *4*	0.88 *9*	823.326	1^+	0.0	2^-		
838.38 *24*	0.16 *6*	838.26	(3)	0.0	2^-		

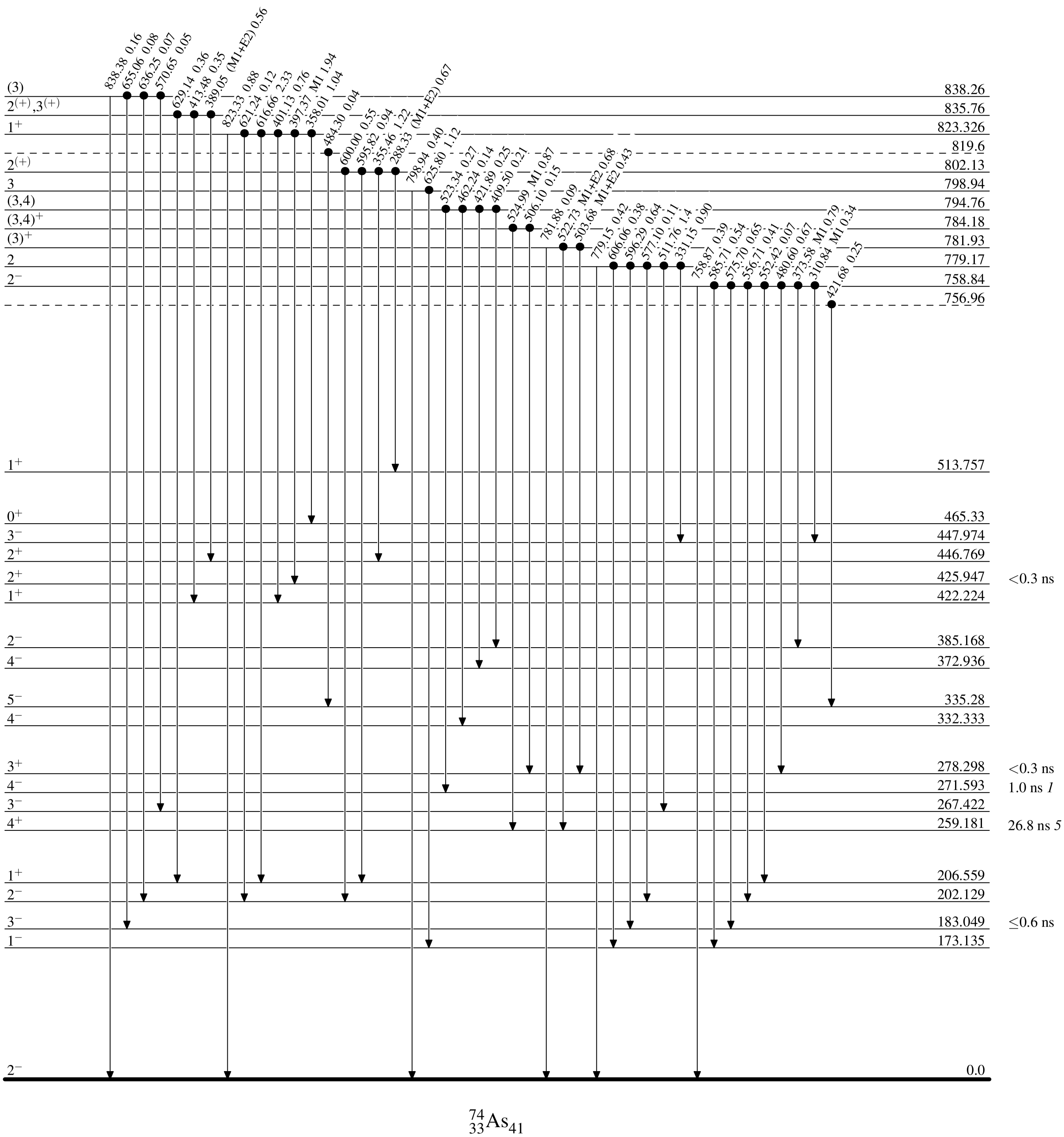
† From 1995Al12.
‡ From ce data (1995Al12).
# 1995Al12 normalized ce data to known E1 transition At 206.56 keV In ^{74}As.
@ Expected to Be weak components of possible doublets At 183 and 202.
& Multiply placed with undivided intensity.
[a] Placement of transition in the level scheme is uncertain.

$^{74}Ge(p,n\gamma)$ 1995Al12

Level Scheme

Intensities: Relative I_γ



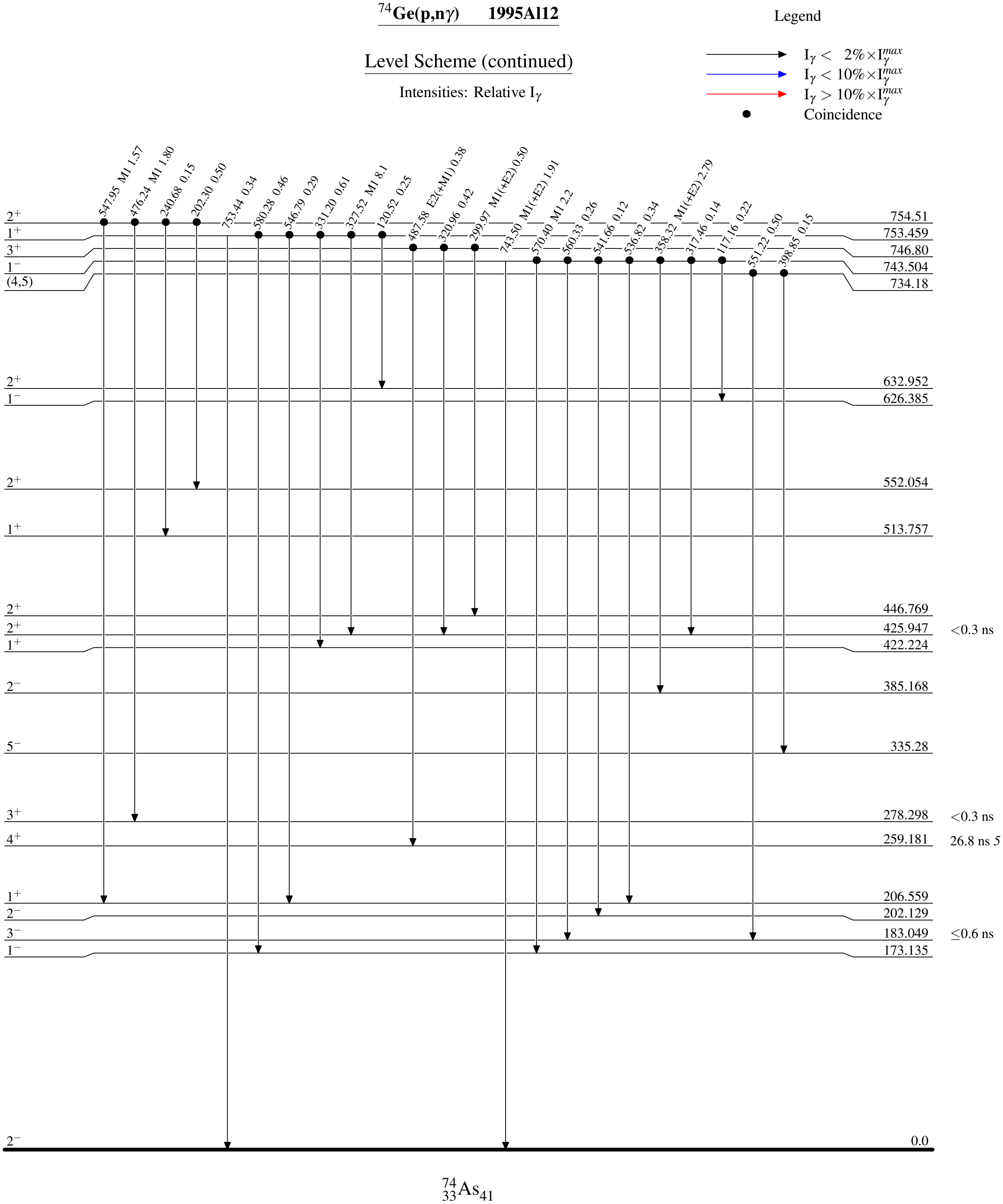


$^{74}_{33}As_{41}$

^{74}Ge(p,nγ) 1995Al12

Level Scheme (continued)

Intensities: Relative I_γ



^{74}Ge(p,nγ) 1995Al12

Level Scheme (continued)

Intensities: Relative I_γ

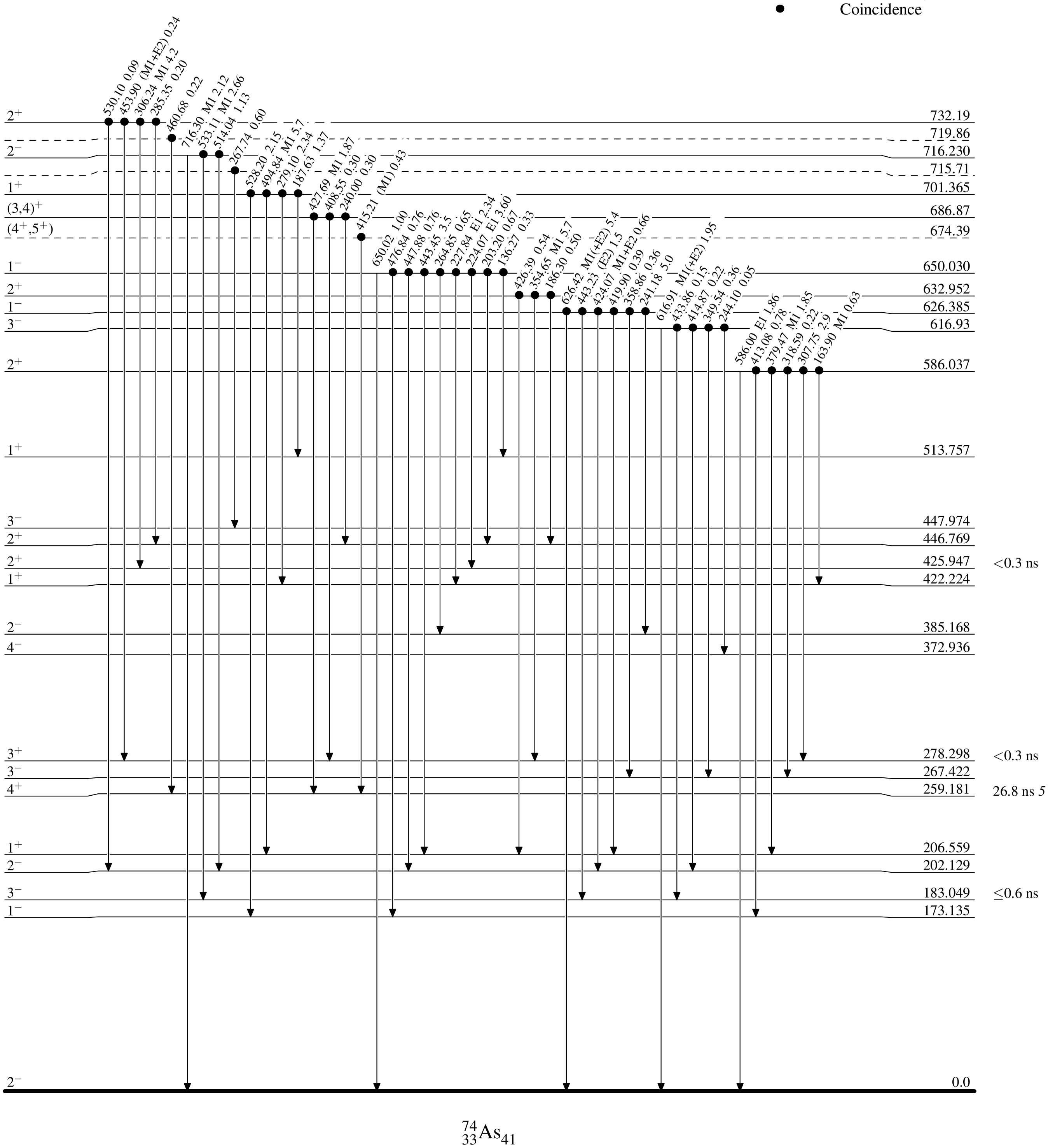
Legend

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

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

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

● Coincidence



^{74}**Ge(p,nγ)** **1995Al12**

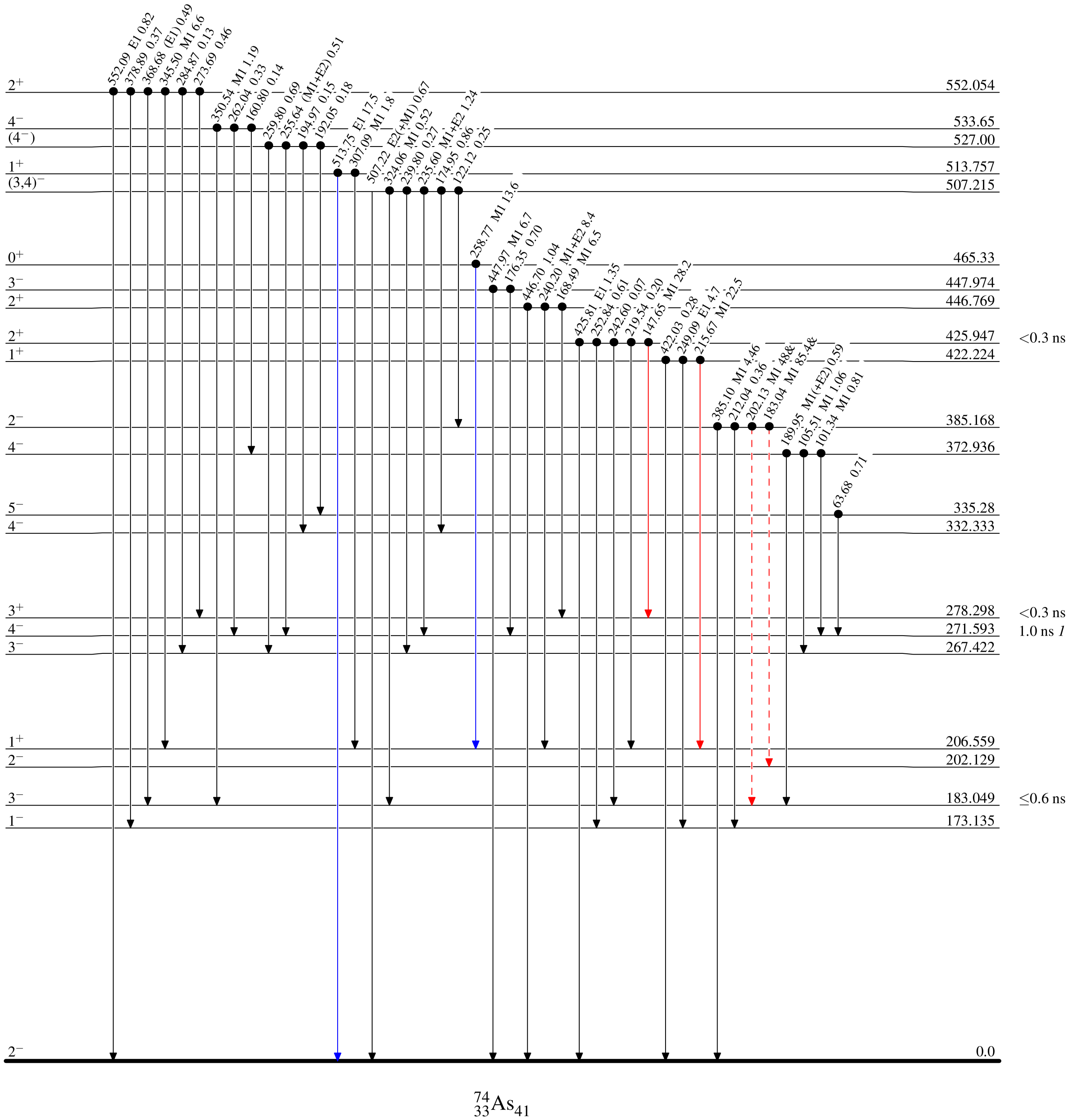
Level Scheme (continued)

Intensities: Relative I_γ

& Multiply placed: undivided intensity given

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)
- Coincidence



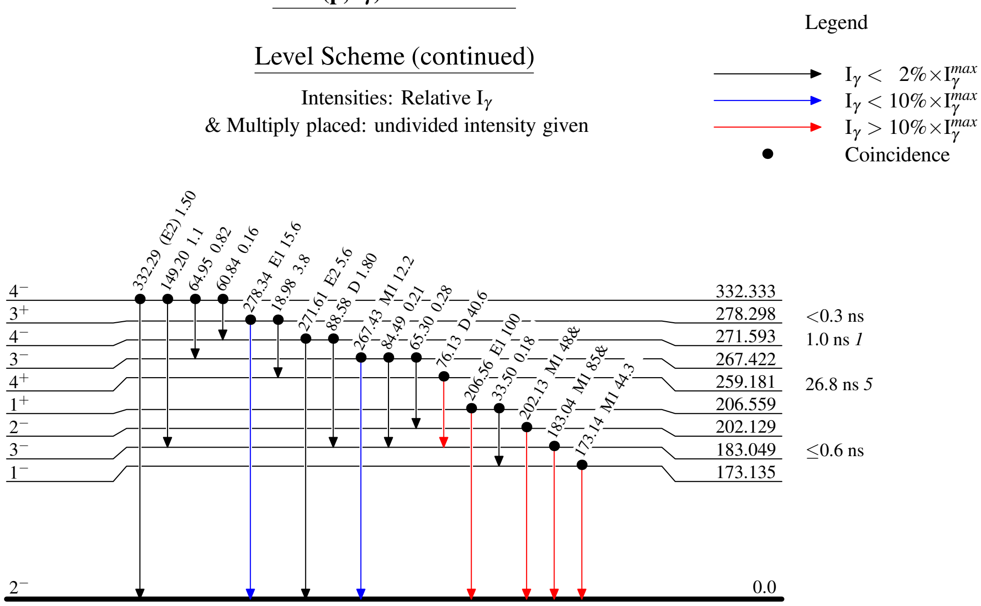
$^{74}_{33}As_{41}$

^{74}Ge(p,nγ) 1995Al12

Level Scheme (continued)

Intensities: Relative I_γ

& Multiply placed: undivided intensity given



$^{74}_{33}As_{41}$