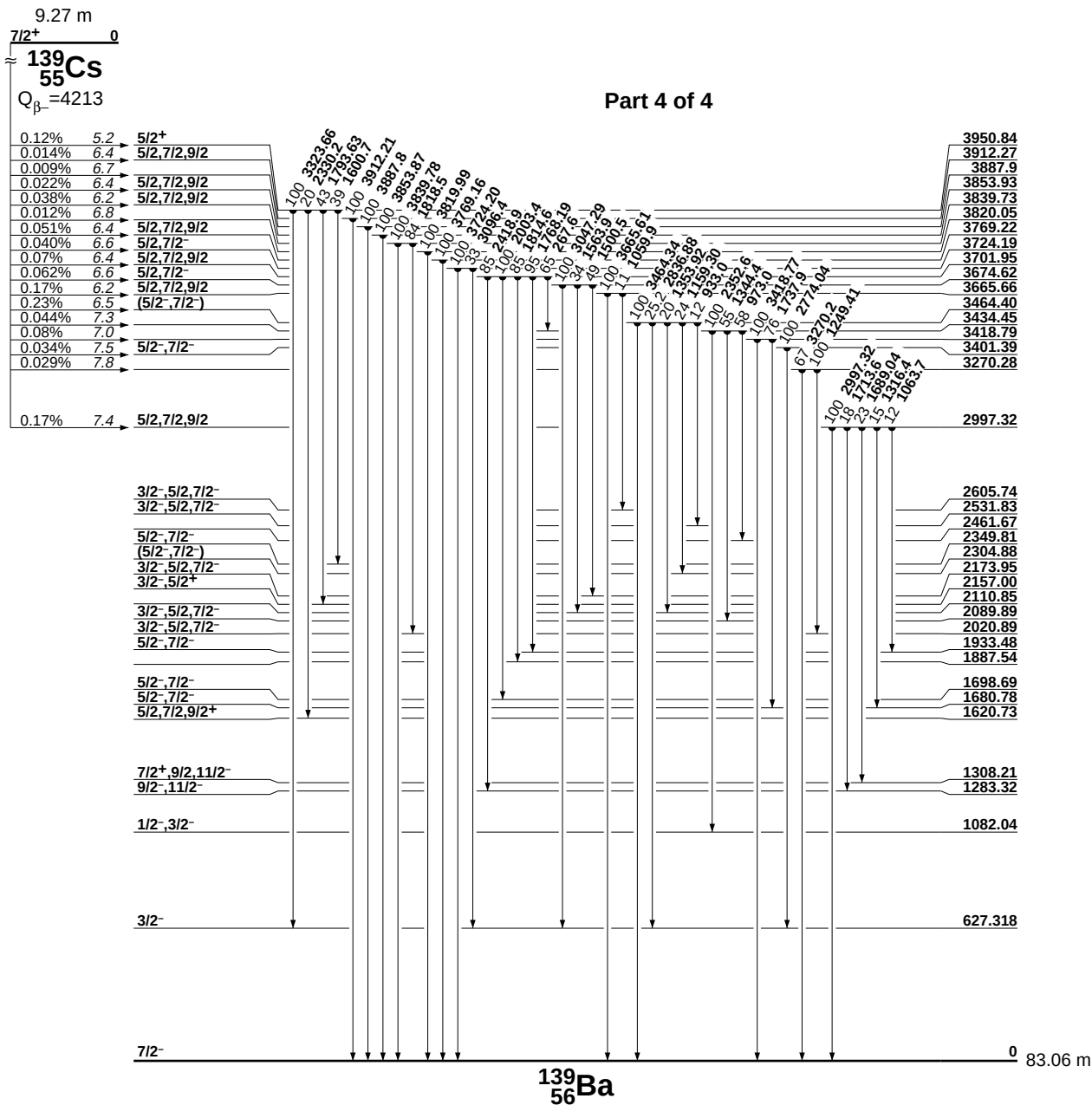




¹³⁹La (Continued)

H ¹³⁹La(n,n' γ), (n,n') (68Da14, 69Ma05, 69Ro13, 69Va03, 78AhZX, 82BeYL, 87Ab17)

I ¹³⁹La(d,d'), (α , α') (71Gr46, 72Ba02)

J Coulomb excitation (65Al21, 71Gr46, 79Ku18, 81Pe04)

K ¹⁴⁰Ce(μ^- ,n γ) E=0 MeV (73Lu01)

L ¹⁴⁰Ce(d,³He) E=28.9 MeV (71Jo16, 71Wi04)

Levels and γ -ray branchings:

0, 7/2⁺, stable, [ABDEFGHIJKL], $\mu=+2.7830455$ g, Q=+0.20 1

165.864 6, 5/2⁺, 1.499 19 ns, [ABDEFGHIJKL] γ_{166} 165.864 6 ($\dagger_{100}$) M1

1209.0 3, 1/2⁺, [ADEHIL] γ_{166} 1043.1 3 ($\dagger_{100}$)

1218.96 17, 9/2⁺, 0.57 5 ps, [AGHIJK] γ_{166} 1052.8 9 ($\dagger_{11.1}$ 11) E2

γ_{166} 1219.14 18 ($\dagger_{100.0}$ 11) E2+M1: $\delta=-4.9$ 4

1256.83 10, (5/2)⁺, [AGHIJK] γ_{166} 1090.97 10 ($\dagger_{100.0}$ 17) E2+M1 γ_{166} 1256.7 5 ($\dagger_{72.4}$ 17) E2+M1

1381.30 9, (9/2)⁺, [AGHK] γ_{166} 1215.49 10 ($\dagger_{100}$ 11) γ_{166} 1381.1 2 ($\dagger_{4.8}$ 5)

1420 12, (11/2)⁺, [DEGL]

1420.54 15, 5/2⁺, 7/2⁺, [AGHIJ] γ_{166} 1254.7 2 ($\dagger_{10.0}$ 10) γ_{166} 1420.5 2 ($\dagger_{100}$ 10) E2+M1

1476.3 3, (9/2)⁺, [AGH] γ_{166} 1310.6 2 ($\dagger_{100}$ 5) γ_{166} 1476.3 3 ($\dagger_{10.0}$ 16)

1537.70 10, (11/2)⁺, [FHI] γ_{166} 1537.69 10 ($\dagger_{100}$)

1537.87 16, 7/2⁺, 0.024 4 ps, [AFGHIJ] γ_{166} 1370.5 2 ($\dagger_{100}$ 4)

E2+M1: $\delta=-0.81$ 25 γ_{166} 1537.3 10 ($\dagger_{100}$ 4) E2+M1: $\delta=-0.89$ 9

1558.39 15, 3/2⁺, 5/2⁺, [ADEHL] γ_{166} 1392.4 2 ($\dagger_{74}$ 7) γ_{166} 1558.5 2 ($\dagger_{100}$ 10)

1576.5 22, 9/2, [GI] γ_{166} 1572 9 ($\dagger_{100}$)

1578.04 10, 5/2⁺, 7/2⁺, [AHIJ] γ_{166} 1578.09 10 ($\dagger_{100}$) M1+E2

1683.4 3, 7/2⁺, [AGHIJ] γ_{166} 1518 1(?) ($\dagger_{<2}$) γ_{166} 1683.1 3 ($\dagger_{100}$ 1) M1+E2

1716.12 10, 5/2⁺, [GHIJ] γ_{1420} 291.3 2(?) ($\dagger_{<56}$) γ_{166} 1716.11 10 ($\dagger_{100}$)

M1+E2

1761.2 3, [AGH] γ_{166} 1595.3 3 ($\dagger_{100}$ 8) γ_{166} 1762 1 ($\dagger_{3.8}$ 13)

1766.25 21, 3/2⁺, 5/2⁺, [ADEGHI] γ_{1476} 291.3 2(?) ($\dagger_{<79}$) γ_{166} 1600.9 6

($\dagger_{76}$ 16) γ_{166} 1765.4 4 ($\dagger_{100}$ 38) (E2)

1780 15, 1/2⁺, [DEI]

1820 4, [GI]

1837 4, [GI]

1856.3 3, 3/2⁺, 5/2⁺, [ADEGHI] γ_{166} 1690.5 3 ($\dagger_{100}$)

1893 6, [GH] γ_{166} 1894.0 5(?) ($\dagger_{100}$)

1920.74 18, (7/2)⁺, [AGHI] γ_{166} 1755.0 4 ($\dagger_{83}$ 10) γ_{166} 1920.7 2 ($\dagger_{100}$ 12)

1940.89 16, (7/2)⁺, [HI] γ_{1766} 174.6 2 ($\dagger_{100}$) γ_{1577} 363.1 2 ($\dagger_{69}$) $\gamma_{1537.7}$ 403.8 2 ($\dagger_{87}$)

1962.9 4, (5/2)⁺, [ADEGHIL] γ_{166} 1797.1 4 ($\dagger_{100}$)

2035, [HI]