

**151
66Dy**

Δ : -68762.4 S_n : 7513.5 S_p : 4936.8 Q_{EC} : 2871.5 Q_α : 4180.3

Nuclear Bands

- A SD-1 band (88Ra19,95Ni06)
- B SD-2 band (95Ni06)
- C SD-3 band (95Ni06)
- D SD-4 band (95Ni06)
- E SD-5 band (95Ni06)

Levels and γ -ray branchings:

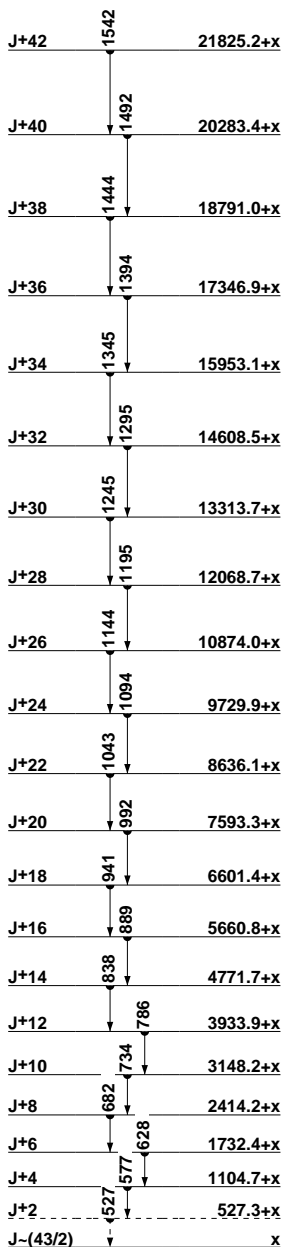
0, 7/2⁽⁻⁾, 17.9.3 m, $\% \alpha = 5.64$, $\% EC + \% \beta^+ = 94.44$, $\mu = -0.9457$, $Q = -0.305$

- 527.38.9, (9/2⁻) $\gamma_{0527.41}$ ($\dagger_{\gamma}100$) D
 775.57.11, (11/2⁻) $\gamma_{0775.53}$ 15 ($\dagger_{\gamma}100$) E2
 968.61.13, (13/2⁺) γ_{9776} 193.0.1 ($\dagger_{\gamma}100$) D
 984.75.22 γ_{776} 209.5.2 ($\dagger_{\gamma}100$)
 1334.5.3 γ_{985} 350.8.8 ($\dagger_{\gamma}22$ 13) γ_{969} 366.0.3 ($\dagger_{\gamma}100$ 13) γ_{776} 559.4.5 ($\dagger_{\gamma}50$ 13)
 1348.7.1, (13/2⁻) γ_{776} 573.2.5 ($\dagger_{\gamma}7.5$ 15) (D) γ_{527} 821.32.5 ($\dagger_{\gamma}100$ 2) E2
 1511.16.12, (15/2⁻) γ_{969} 542.5.1 ($\dagger_{\gamma}10$ 3) (D) γ_{776} 735.59.5 ($\dagger_{\gamma}100$ 3) E2
 1549.52.19 γ_{969} 580.5.10 ($\dagger_{\gamma}14$) γ_{527} 1021.5.5 ($\dagger_{\gamma}36$ 8) $\gamma_{0527.41}$ 1549.7.2 ($\dagger_{\gamma}100$ 7)
 1733.7(?) (17/2⁺) γ_{969} 765.3.3(?) ($\dagger_{\gamma}100$) E2
 1856.6.3(?) γ_{985} 871.0.10 ($\dagger_{\gamma}71$) γ_{776} 1081.4.3 ($\dagger_{\gamma}100$ 11)
 1918.58.11, (17/2⁻) γ_{1511} 407.4.1 ($\dagger_{\gamma}4.3$ 2 13) (D) γ_{1349} 569.88.5 ($\dagger_{\gamma}100$ 2) E2
 1961.3.6 γ_{776} 1185.7.10 ($\dagger_{\gamma}77$) γ_{527} 1434.3.6 ($\dagger_{\gamma}100$ 31)
 2263.02.11, (21/2⁻) γ_{1919} 344.44.4 ($\dagger_{\gamma}100$) E2
 2402.0(?) (21/2⁺) γ_{1734} 668.3.3(?) ($\dagger_{\gamma}100$) E2
 2554.3.3(?) γ_{776} 1779.1.3 ($\dagger_{\gamma}100$ 9) γ_{527} 2026.9.5 ($\dagger_{\gamma}41$ 3)
 2582.9.5(?) γ_{776} 1807.7.6 ($\dagger_{\gamma}55$ 18) γ_{527} 2055.7.8 ($\dagger_{\gamma}100$ 36)
 2866.1.4(?) γ_{985} 1881.4.3 ($\dagger_{\gamma}100$ 11) γ_{776} 2090.4.11 ($\dagger_{\gamma}21$ 11)
 2911.66.12, (25/2⁻) γ_{2263} 648.64.5 ($\dagger_{\gamma}100$) E2
 2958.6.10, (27/2⁻) 1.3.6 ns γ_{2912} 46.9 ($\dagger_{\gamma}100$) M1
 3078.2(?) (25/2⁺) γ_{2402} 675.7.3(?) ($\dagger_{\gamma}100$) E2
 3428.5.11, (29/2⁻) γ_{2959} 469.91.12 ($\dagger_{\gamma}100$) D
 3733.9.11, (31/2⁻) γ_{3429} 305.3 γ_{2959} 775.38.15 E2
 4306.3.11, (33/2⁻) γ_{3734} 572.5.5 ($\dagger_{\gamma}100$ 14) (D) γ_{3429} 877.79.16 ($\dagger_{\gamma}43$ 13) (E2)
 4387.3.11, (35/2⁻) γ_{3734} 653.37.6 ($\dagger_{\gamma}100$) E2
 4741.5.11, (37/2⁻) γ_{4387} 354.28.7 ($\dagger_{\gamma}100$ 2) D γ_{4306} 435.16.13 ($\dagger_{\gamma}22.9$ 21) E2
 4903.8.11, (41/2⁻) 5.9.7 ns γ_{4742} 162.32.5 ($\dagger_{\gamma}100$) E2
 5742.9.11, (43/2⁻) γ_{4904} 839.02.10 ($\dagger_{\gamma}100$) E1
 6007.2.11, (47/2⁻) γ_{5743} 264.29.8 ($\dagger_{\gamma}100$) E2
 6032.2.15, (49/2⁺) 11.9.8 ns γ_{6007} 25.0 ($\dagger_{\gamma}100$) D,E2
 7037.5.15, (51/2⁻) 1.2.6 ps γ_{6032} 1005.3.3 ($\dagger_{\gamma}100$) E1
 7219.5.15, (53/2⁻) 13.7.6 ps γ_{7038} 182.07.9 ($\dagger_{\gamma}100$) D
 8177.8.15, (55/2⁻) 4.5.15 ps γ_{7220} 958.2.3 ($\dagger_{\gamma}100$) M1
 8302.7.15, (57/2⁻) 20.8.12 ps γ_{8178} 124.8.3 ($\dagger_{\gamma}14$ 2) D γ_{7220} 1083.2.3 ($\dagger_{\gamma}100$ 10) E2
 8680.3.15, (59/2⁻) 2.0.3 ps γ_{8303} 377.7.3 ($\dagger_{\gamma}100$) M1
 8891.7.15, (61/2⁻) 19.8.20 ps γ_{8680} 211.5.3 ($\dagger_{\gamma}99$ 10) D γ_{8303} 589.0.3 ($\dagger_{\gamma}100$ 10) E2
 9813.4.18(?) γ_{8680} 1133.1(?)
 10029.8.16, (63/2⁻) <2 ps γ_{8892} 1138.1.3 ($\dagger_{\gamma}100$) (D)
 10131.3.18(?) γ_{8680} 1451.1 ($\dagger_{\gamma}100$)
 10279.1.21(?) γ_{10131} 148.1 ($\dagger_{\gamma}100$)
 10320.7.18(?) <2 ps γ_{10030} 291.1 ($\dagger_{\gamma}100$) (D)
 10562.6.19(?) <2 ps γ_{10321} 242.1 γ_{10030} 533.1(?) γ_{9813} 749.1 (D)
 10749.9.22(?) γ_{10279} 471.1
 11143.5.21(?) γ_{10279} 864.1(?) γ_{10131} 1012.1
 11840.7.22(?) γ_{11144} 697.1 γ_{10750} 1091.1
 A x, J=(43/2)
 A 527.3+x(?) J+2 $\gamma_{527.3}$ 1(?) ($\dagger_{\gamma}0.21$ 15) I⁽¹⁾=85.1, I⁽²⁾=79.8, $\hbar\omega=0.276$
 A 1104.7+x, J+4 γ_{527+x} 577.4.1 ($\dagger_{\gamma}0.62$ 5) I⁽¹⁾=84.6, I⁽²⁾=79.5, $\hbar\omega=0.301$
 A 1732.4+x, J+6 γ_{1105+x} 627.7.1 ($\dagger_{\gamma}0.78$ 10) I⁽¹⁾=84.0, I⁽²⁾=73.9, $\hbar\omega=0.327$

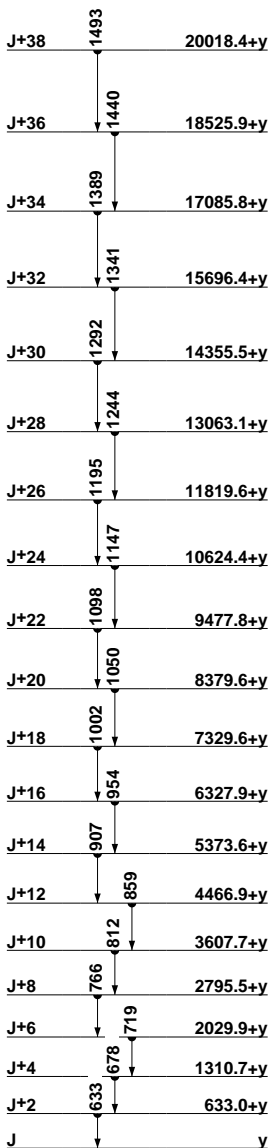
- A 2414.2+x, J+8 γ_{1732+x} 681.8.1 ($\dagger_{\gamma}0.81$ 7) I⁽¹⁾=83.3, I⁽²⁾=76.6, $\hbar\omega=0.354$
 A 3148.2+x, J+10 γ_{2414+x} 734.0.1 ($\dagger_{\gamma}0.90$ 10) I⁽¹⁾=82.9, I⁽²⁾=77.4, $\hbar\omega=0.380$
 A 3933.9+x, J+12 γ_{3148+x} 785.7.1 ($\dagger_{\gamma}0.91$ 10) I⁽¹⁾=82.5, I⁽²⁾=76.8, $\hbar\omega=0.406$
 A 4771.7+x, J+14 γ_{3934+x} 837.8.1 ($\dagger_{\gamma}1.00$ 10) I⁽¹⁾=82.2, I⁽²⁾=78.0, $\hbar\omega=0.432$
 A 5660.8+x, J+16 γ_{4772+x} 889.1.1 ($\dagger_{\gamma}0.93$ 10) I⁽¹⁾=82.0, I⁽²⁾=77.7, $\hbar\omega=0.457$
 A 6601.4+x, J+18 γ_{5661+x} 940.6.1 ($\dagger_{\gamma}1.03$ 10) I⁽¹⁾=81.8, I⁽²⁾=78.0, $\hbar\omega=0.483$
 A 7593.3+x, J+20 γ_{6601+x} 991.9.1 ($\dagger_{\gamma}1.07$ 15) I⁽¹⁾=81.6, I⁽²⁾=78.6, $\hbar\omega=0.509$
 A 8636.1+x, J+22 γ_{7593+x} 1042.8.1 ($\dagger_{\gamma}1.02$ 10) I⁽¹⁾=81.4, I⁽²⁾=78.4, $\hbar\omega=0.534$
 A 9729.9+x, J+24 γ_{8636+x} 1093.8.1 ($\dagger_{\gamma}1.00$ 10) I⁽¹⁾=81.3, I⁽²⁾=79.5, $\hbar\omega=0.559$
 A 10874.0+x, J+26 γ_{9730+x} 1144.1.1 ($\dagger_{\gamma}0.69$ 7) I⁽¹⁾=81.2, I⁽²⁾=79.1, $\hbar\omega=0.585$
 A 12068.7+x, J+28 $\gamma_{10874+x}$ 1194.7.1 ($\dagger_{\gamma}0.59$ 7) I⁽¹⁾=81.2, I⁽²⁾=79.5, $\hbar\omega=0.610$
 A 13313.7+x, J+30 $\gamma_{12069+x}$ 1245.0.1 ($\dagger_{\gamma}0.57$ 10) I⁽¹⁾=81.1, I⁽²⁾=80.3, $\hbar\omega=0.635$
 A 14608.5+x, J+32 $\gamma_{13314+x}$ 1294.8.2 ($\dagger_{\gamma}0.48$ 7) I⁽¹⁾=81.1, I⁽²⁾=80.3, $\hbar\omega=0.660$
 A 15953.1+x, J+34 $\gamma_{14609+x}$ 1344.6.2 ($\dagger_{\gamma}0.34$ 7) I⁽¹⁾=81.1, I⁽²⁾=81.3, $\hbar\omega=0.685$
 A 17346.9+x, J+36 $\gamma_{15953+x}$ 1393.8.3 ($\dagger_{\gamma}0.38$ 7) I⁽¹⁾=81.0, I⁽²⁾=79.5, $\hbar\omega=0.709$
 A 18791.0+x, J+38 $\gamma_{17347+x}$ 1444.1.4 ($\dagger_{\gamma}0.22$ 5) I⁽¹⁾=81.0, I⁽²⁾=82.8, $\hbar\omega=0.734$
 A 20283.4+x, J+40 $\gamma_{18791+x}$ 1492.4.6 ($\dagger_{\gamma}0.09$ 5) I⁽¹⁾=81.1, I⁽²⁾=81.0, $\hbar\omega=0.759$
 A 21825.2+x, J+42 $\gamma_{20283+x}$ 1541.8.6
 B y, J
 B 633.0+y, J+2 $\gamma_{633.0}$ 10 I⁽²⁾=89.5, $\hbar\omega=0.328$
 B 1310.7+y, J+4 γ_{633+y} 677.7.5 ($\dagger_{\gamma}0.35$ 8) I⁽²⁾=96.4, $\hbar\omega=0.349$
 B 2029.9+y, J+6 γ_{1311+y} 719.2.1 ($\dagger_{\gamma}0.67$ 10) I⁽²⁾=86.2, $\hbar\omega=0.371$
 B 2795.5+y, J+8 γ_{2030+y} 765.6.1 ($\dagger_{\gamma}0.95$ 13) I⁽²⁾=85.8, $\hbar\omega=0.394$
 B 3607.7+y, J+10 γ_{2796+y} 812.2.1 ($\dagger_{\gamma}0.92$ 13) I⁽²⁾=85.1, $\hbar\omega=0.418$
 B 4466.9+y, J+12 γ_{3608+y} 859.2.1 ($\dagger_{\gamma}0.94$ 14) I⁽²⁾=84.2, $\hbar\omega=0.441$
 B 5373.6+y, J+14 γ_{4467+y} 906.7.1 ($\dagger_{\gamma}1.10$ 10) I⁽²⁾=84.0, $\hbar\omega=0.465$
 B 6327.9+y, J+16 γ_{5374+y} 954.3.1 ($\dagger_{\gamma}1.00$ 8) I⁽²⁾=84.4, $\hbar\omega=0.489$
 B 7329.6+y, J+18 γ_{6328+y} 1001.7.2 ($\dagger_{\gamma}1.00$ 12) I⁽²⁾=82.8, $\hbar\omega=0.513$
 B 8379.6+y, J+20 γ_{7330+y} 1050.0.1 ($\dagger_{\gamma}1.02$ 19) I⁽²⁾=83.0, $\hbar\omega=0.537$
 B 9477.8+y, J+22 γ_{8380+y} 1098.2.1 ($\dagger_{\gamma}0.95$ 8) I⁽²⁾=82.6, $\hbar\omega=0.561$
 B 10624.4+y, J+24 γ_{9478+y} 1146.6.2 ($\dagger_{\gamma}0.74$ 7) I⁽²⁾=82.3, $\hbar\omega=0.585$
 B 11819.6+y, J+26 $\gamma_{10624+y}$ 1195.2.2 ($\dagger_{\gamma}0.67$ 7) I⁽²⁾=82.8, $\hbar\omega=0.610$
 B 13063.1+y, J+28 $\gamma_{11820+y}$ 1243.5.2 ($\dagger_{\gamma}0.54$ 7) I⁽²⁾=81.8, $\hbar\omega=0.634$
 B 14355.5+y, J+30 $\gamma_{13063+y}$ 1292.4.2 ($\dagger_{\gamma}0.45$ 8) I⁽²⁾=82.5, $\hbar\omega=0.658$
 B 15696.4+y, J+32 $\gamma_{14356+y}$ 1340.9.3 ($\dagger_{\gamma}0.35$ 8) I⁽²⁾=82.5, $\hbar\omega=0.683$
 B 17085.8+y, J+34 $\gamma_{15696+y}$ 1389.4.3 ($\dagger_{\gamma}0.18$ 6) I⁽²⁾=78.9, $\hbar\omega=0.707$
 B 18525.9+y, J+36 $\gamma_{17086+y}$ 1440.1.5 ($\dagger_{\gamma}0.18$ 6) I⁽²⁾=76.3, $\hbar\omega=0.733$
 B 20018.4+y, J+38 $\gamma_{18526+y}$ 1492.5.10
 C z, J
 C 728.5+z, J+2 $\gamma_{728.5}$ 1 I⁽²⁾=109.3, $\hbar\omega=0.373$
 C 1493.6+z, J+4 γ_{729+z} 765.1.2 I⁽²⁾=83.5, $\hbar\omega=0.395$
 C 2306.6+z, J+6 γ_{1494+z} 813.0.1 I⁽²⁾=84.2, $\hbar\omega=0.418$
 C 3167.1+z, J+8 γ_{2307+z} 860.5.2 I⁽²⁾=81.5, $\hbar\omega=0.443$
 C 4076.7+z, J+10 γ_{3167+z} 909.6.2 I⁽²⁾=81.6, $\hbar\omega=0.467$
 C 5035.3+z, J+12 γ_{4077+z} 958.6.2 I⁽²⁾=83.5, $\hbar\omega=0.491$
 C 6041.8+z, J+14 γ_{5035+z} 1006.5.1 I⁽²⁾=79.7, $\hbar\omega=0.516$
 C 7098.5+z, J+16 γ_{6042+z} 1056.7.2 I⁽²⁾=81.1, $\hbar\omega=0.541$
 C 8204.5+z, J+18 γ_{7099+z} 1106.0.2 I⁽²⁾=80.5, $\hbar\omega=0.565$
 C 9360.2+z, J+20 γ_{8205+z} 1155.7.2 I⁽²⁾=81.5, $\hbar\omega=0.590$
 C 10565.0+z, J+22 γ_{9360+z} 1204.8.2 I⁽²⁾=80.2, $\hbar\omega=0.615$
 C 11819.7+z, J+24 $\gamma_{10565+z}$ 1254.7.2 I⁽²⁾=81.8, $\hbar\omega=0.640$
 C 13123.3+z, J+26 $\gamma_{11820+z}$ 1303.6.2 I⁽²⁾=82.6, $\hbar\omega=0.664$
 C 14475.3+z, J+28 $\gamma_{13123+z}$ 1352.0.4 I⁽²⁾=77.8, $\hbar\omega=0.689$

C 15878.7+z, J+30 $\gamma_{14475+z}$ 1403.45 $I^{(2)}=86.2, \hbar\omega=0.713$
 C 17328.5+z, J+32 $\gamma_{15879+z}$ 1449.86
 D u, J
 D 712.0+u, J+2 γ_0 712.04 ($\dagger_{\gamma}0.41\ 10$) $I^{(2)}=85.7, \hbar\omega=0.368$
 D 1470.7+u, J+4 γ_{712+u} 758.73 ($\dagger_{\gamma}0.92\ 15$) $I^{(2)}=85.8, \hbar\omega=0.391$
 D 2276.0+u, J+6 γ_{1471+u} 805.32 ($\dagger_{\gamma}0.96\ 15$) $I^{(2)}=84.9, \hbar\omega=0.414$
 D 3128.4+u, J+8 γ_{2276+u} 852.42 ($\dagger_{\gamma}1.00\ 20$) $I^{(2)}=85.3, \hbar\omega=0.438$
 D 4027.7+u, J+10 γ_{3128+u} 899.32 ($\dagger_{\gamma}0.84\ 20$) $I^{(2)}=84.2, \hbar\omega=0.462$
 D 4974.5+u, J+12 γ_{4028+u} 946.84 ($\dagger_{\gamma}1.00\ 19$) $I^{(2)}=84.0, \hbar\omega=0.485$

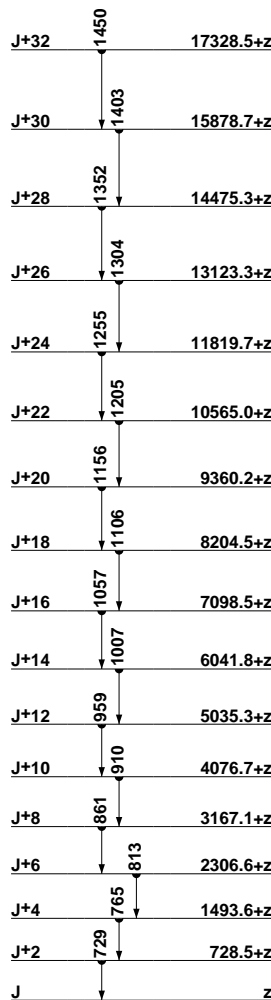
D 5968.9+u, J+14 γ_{4975+u} 994.42 ($\dagger_{\gamma}1.08\ 22$) $I^{(2)}=83.0, \hbar\omega=0.509$
 D 7011.5+u, J+16 γ_{5969+u} 1042.64 ($\dagger_{\gamma}1.00\ 18$) $I^{(2)}=83.5, \hbar\omega=0.533$
 D 8102.0+u, J+18 γ_{7012+u} 1090.52 ($\dagger_{\gamma}0.98\ 18$) $I^{(2)}=83.9, \hbar\omega=0.557$
 D 9240.2+u, J+20 γ_{8102+u} 1138.22 ($\dagger_{\gamma}0.68\ 12$) $I^{(2)}=83.0, \hbar\omega=0.581$
 D 10426.6+u, J+22 γ_{9240+u} 1186.46 ($\dagger_{\gamma}0.48\ 10$) $I^{(2)}=82.5, \hbar\omega=0.605$
 D 11661.5+u, J+24 $\gamma_{10427+u}$ 1234.93 ($\dagger_{\gamma}0.41\ 15$) $I^{(2)}=83.3, \hbar\omega=0.629$
 D 12944.4+u, J+26 $\gamma_{11662+u}$ 1282.92 ($\dagger_{\gamma}0.35\ 12$) $I^{(2)}=85.5, \hbar\omega=0.653$
 D 14274.1+u, J+28 $\gamma_{12944+u}$ 1329.76 ($\dagger_{\gamma}0.16\ 8$) $I^{(2)}=81.5, \hbar\omega=0.677$
 D 15652.9+u, J+30 $\gamma_{14274+u}$ 1378.88 ($\dagger_{\gamma}0.17\ 8$) $I^{(2)}=86.8, \hbar\omega=0.701$
 D 17077.8+u, J+32 $\gamma_{15653+u}$ 1424.910
 E v, J
 E 959.3+v, J+2 γ_0 959.35 $I^{(2)}=81.5, \hbar\omega=0.492$
 E 1967.7+v, J+4 γ_{959+v} 1008.45 $I^{(2)}=77.1, \hbar\omega=0.517$
 E 3028.0+v, J+6 γ_{1968+v} 1060.34 $I^{(2)}=77.5, \hbar\omega=0.543$
 E 4139.9+v, J+8 γ_{3028+v} 1111.95 $I^{(2)}=74.1, \hbar\omega=0.569$
 E 5305.8+v, J+10 γ_{4140+v} 1165.95 $I^{(2)}=80.6, \hbar\omega=0.595$
 E 6521.3+v, J+12 γ_{5306+v} 1215.55 $I^{(2)}=83.9, \hbar\omega=0.620$
 E 7784.5+v, J+14 γ_{6521+v} 1263.25 $I^{(2)}=79.7, \hbar\omega=0.644$
 E 9097.9+v, J+16 γ_{7785+v} 1313.48 $I^{(2)}=76.5, \hbar\omega=0.670$
 E 10463.6+v, J+18 γ_{9098+v} 1365.75



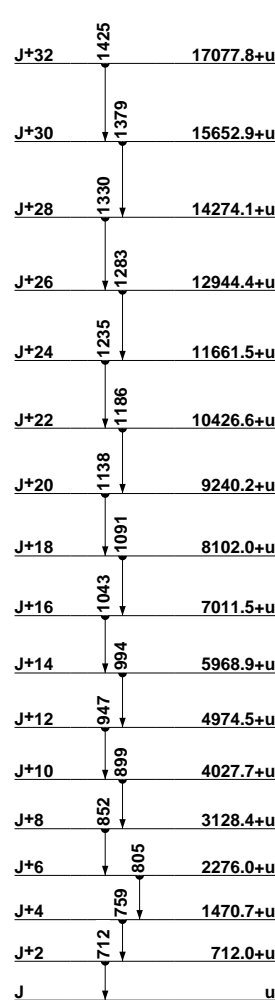
SD-1 band (88Ra19,95Ni06)



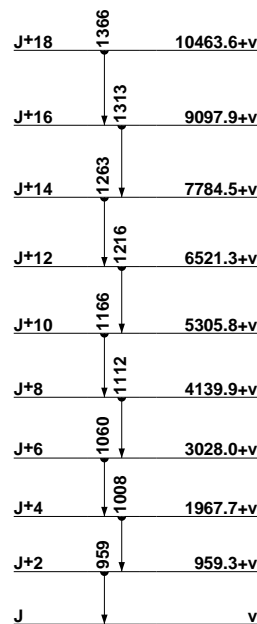
SD-2 band (95Ni06)



SD-3 band (95Ni06)



SD-4 band (95Ni06)



SD-5 band (95Ni06)