$^{136}_{60}$Nd

Δ: −79160 *60* **S_n:** (11070) **S_p:** 5540 *160*
Q_{EC}: 2211 *25* **Q_α:** (860)

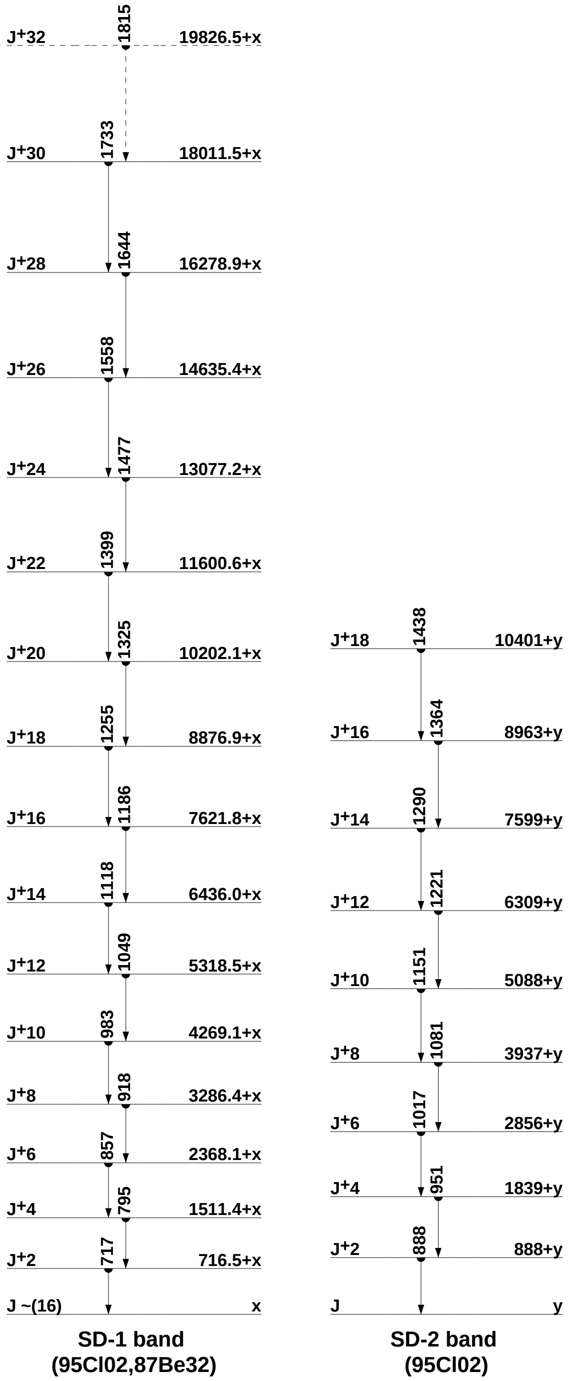
Nuclear Bands

- *A* GS band
- *B* γ band
- *C* $\pi h_{11/2}\pi g_{7/2}$ α=-1
- *D* $\pi h_{11/2}\pi g_{7/2}$ α=0
- *E* $\nu h_{11/2}{}^{2}$
- *F* $\pi h_{11/2}{}^{2}$
- *G* $\nu h_{11/2}\nu g_{7/2}$? α=-1 γ≈-60°
- *H* α=-1
- *I* $\nu h_{11/2}\nu g_{7/2}$? α=0 γ≈-60°
- *J* Band Structure
- *K* SD-1 band (95Cl02,87Be32)
- *L* SD-2 band (95Cl02)

Levels and γ-ray branchings:

- *A* **0**, 0^+, 50.65 *33* m, %EC+%β^+=100
- *A* **373.6** *3*, 2^+ γ_0***373.8*** *2* ($\dagger_\gamma$100) E2
- *B* **862.51** *16*, 2^+ γ_{374}***488.7*** *2* ($\dagger_\gamma$98 *10*) E2+M1 γ_0***862.5*** *2* ($\dagger_\gamma$100 *10*) E2
- *A* **976.3** *4*, 4^+, <8 ps γ_{374}***602.7*** *2* ($\dagger_\gamma$100) E2
- *B* **1231.04** *18*, $(3)^+$ γ_{976}***254.7*** *2* ($\dagger_\gamma$≈2) γ_{863}***368.7*** *2* ($\dagger_\gamma$27 *3*) γ_{374}***857.2*** *2* ($\dagger_\gamma$100 *10*) E2+M1
- *B* **1541.77** *20*, (4^+) γ_{976}***565.2*** *2* ($\dagger_\gamma$33 *4*) γ_{863}***679.2*** *2* ($\dagger_\gamma$100 *10*)
- *A* **1746.8** *5*, 6^+, <14 ps γ_{976}***770.3*** *2* ($\dagger_\gamma$100) E2
- **1775.6** *3* γ_{374}***1401.8*** *2* ($\dagger_\gamma$100)
- **1817.83** *21* γ_{1231}***586.9*** *2* ($\dagger_\gamma$100 *10*) γ_{863}***955.2*** *2* ($\dagger_\gamma$100 *10*)
- **1926.03** *24* γ_{1231}***695.0*** *2* ($\dagger_\gamma$100)
- *C* **2035.9** *5*, $5(^-)$ γ_{976}***1059.4*** *2* ($\dagger_\gamma$100) D
- *B* **2045.9** *5*, (5^+) γ_{1542}***503.7*** *2* ($\dagger_\gamma$4.3 *4*) γ_{1231}***814.7*** *2* ($\dagger_\gamma$100 *10*) Q γ_{976}***1069.1*** *2* ($\dagger_\gamma$16.1 *16*)
- **2181.2** *3* γ_{976}***1204.7*** *2* ($\dagger_\gamma$100)
- **2227.93** *24*, (3,4,5) γ_{2036}***192.4*** *2* ($\dagger_\gamma$74 *8*) γ_{976}***1251.3*** *2* ($\dagger_\gamma$100 *10*)
- **2346.22** *25* γ_{2046}***300.6*** *2* ($\dagger_\gamma$100 *10*) γ_{1926}***420.2*** *2* ($\dagger_\gamma$31 *3*)
- **2416.7** *3* γ_{2046}***371.1*** *2* ($\dagger_\gamma$100)
- *C* **2439.9** *5*, $7(^-)$, 21 *7* ps γ_{2036}***404.5*** *2* ($\dagger_\gamma$29.4 *10*) E2 γ_{1747}***693.1*** *2* ($\dagger_\gamma$100.0 *14*)
- *D* **2483.9** *5*, $6(^-)$ γ_{2046}***438.1*** *4* ($\dagger_\gamma$59 *9*) γ_{2036}***448.0*** *5* ($\dagger_\gamma$77 *9*) D γ_{1747}***737.1*** *5* ($\dagger_\gamma$100 *18*) D
- **2522.9** *3* γ_{863}***1660.4*** *2* ($\dagger_\gamma$100)
- *A* **2632.7** *7*, 8^+, <7 ps γ_{1747}***886.1*** *3* ($\dagger_\gamma$100) E2
- *D* **2757.8** *5*, $8(^-)$ γ_{2484}***273.9*** *3* ($\dagger_\gamma$66 *4*) Q γ_{2440}***317.9*** *3* ($\dagger_\gamma$100 *4*) D
- *C* **2941.1** *5*, $9(^-)$, 6 *2* ps γ_{2440}***501.2*** *3* ($\dagger_\gamma$100) E2
- *D* **3244.4** *6*, (10^-) γ_{2941}***303.3*** *3* ($\dagger_\gamma$31 *3*) D γ_{2758}***486.5*** *3* ($\dagger_\gamma$100 *4*) Q
- *E* **3278.7** *6*, 10^+ γ_{2633}***645.8*** *3* ($\dagger_\gamma$100) Q
- *F* **3296.5** *6*, 10^+, 51 *6* ps, μ=+11.7 *39* γ_{2941}***355.4*** *3* ($\dagger_\gamma$35.9 *9*) γ_{2633}***663.5*** *3* ($\dagger_\gamma$100.0 *21*) E2
- *A* **3552.6** *6*, 10^+ γ_{2633}***919.7*** *3* ($\dagger_\gamma$100) Q
- *C* **3602.3** *6*, $11(^-)$ γ_{2941}***661.2*** *3* ($\dagger_\gamma$100) Q
- *F* **3686.5** *6*, 12^+, 19 *3* ps, μ=+14.0 *46* γ_{3297}***390.1*** *3* ($\dagger_\gamma$100) E2
- *G* **3768.2** *7*, (9^-) γ_{2633}***1135.1*** *5* ($\dagger_\gamma$100) D
- *E* **3997.3** *7*, (12^+) γ_{3279}***718.6*** *3* ($\dagger_\gamma$100) Q
- *D* **4016.8** *8*, (12^-) γ_{3244}***772.4*** *5* ($\dagger_\gamma$100)
- *G* **4320.0** *6*, (11^-) γ_{3768}***551.8*** *3* ($\dagger_\gamma$29 *3*) Q γ_{3553}***767.5*** *3* ($\dagger_\gamma$100 *3*) D
- *F* **4347.5** *6*, 14^+, <4 ps γ_{3687}***661.0*** *3* ($\dagger_\gamma$100) E2
- *C* **4426.6** *6*, (13^-) γ_{3602}***824.3*** *3* ($\dagger_\gamma$4.7 *3*) Q
- *H* **4455.7** *7*, (12) γ_{3687}***769.2*** *5* ($\dagger_\gamma$15.7 *9*)
- *E* **4849.1** *8*, (14^+) γ_{3997}***851.8*** *3* ($\dagger_\gamma$100) Q
- *J* **4855.9** *7*, (13) γ_{3687}***1169.3*** *5* ($\dagger_\gamma$100) D
- *I* **5022.5** *7*, (12^-) γ_{4320}***702.5*** *3* ($\dagger_\gamma$100) D
- *D* **5022.7** *8*, (14^-) γ_{4017}***1005.9*** *3* ($\dagger_\gamma$100) Q
- *G* **5032.0** *7*, (13^-) γ_{4320}***711.9*** *5* ($\dagger_\gamma$100) Q
- *H* **5132.7** *8*, (14) γ_{4456}***677.0*** *5* ($\dagger_\gamma$74 *12*) Q γ_{4348}***785.2*** *5* ($\dagger_\gamma$100 *6*) D
- *F* **5192.2** *7*, (16^+) γ_{4348}***844.7*** *3* ($\dagger_\gamma$100) Q
- *C* **5415.8** *7*, (15^-) γ_{4427}***989.1*** *3* ($\dagger_\gamma$1.9 *3*) Q
- *J* **5570.2** *7*, (15) γ_{4856}***714.3*** *3* ($\dagger_\gamma$93 *22*) Q γ_{4348}***1222.7*** *4* ($\dagger_\gamma$100 *36*) D
- *I* **5695.6** *7*, (14^-) γ_{5032}***663.3*** *5* ($\dagger_\gamma$72 *21*) $\gamma_{5022.5}$***673.1*** *3* ($\dagger_\gamma$100 *7*) Q
- *E* **5844.1** *8*, (16^+) γ_{4849}***994.9*** *3* ($\dagger_\gamma$100) Q
- *G* **5876.0** *9* (?), (15^-) γ_{5032}***844.0*** *5* (?)
- *H* **5942.2** *9*, (16) γ_{5133}***809.5*** *5* ($\dagger_\gamma$100)
- *D* **6040.4** *9*, (16^-) $\gamma_{5022.7}$***1017.7*** *3* ($\dagger_\gamma$100) Q
- *F* **6191.7** *7*, (18^+) γ_{5192}***999.5*** *3* ($\dagger_\gamma$100) Q
- *C* **6360.6** *7*, (17^-) γ_{5416}***944.8*** *3* ($\dagger_\gamma$84 *8*) Q γ_{5192}***1168.4*** *3* ($\dagger_\gamma$100 *8*) D
- *J* **6472.1** *9* (?), (17) γ_{5570}***901.9*** *5* (?)
- *I* **6522.7** *8*, (16^-) γ_{5696}***827.1*** *3* ($\dagger_\gamma$100)
- *D* **6675.9** *9*, (18^-) γ_{6040}***635.5*** *3* ($\dagger_\gamma$100)
- *E* **6756.3** *9*, (18^+) γ_{5844}***912.2*** *3* ($\dagger_\gamma$100) Q
- *G* **6771.0** *14* (?), (17^-) γ_{5876}***895*** *1* (?)
- *H* **6930.8** *10*, (18) γ_{5942}***988.6*** *5* ($\dagger_\gamma$100) Q
- *C* **7142.1** *8*, (19^-) γ_{6361}***781.5*** *4* ($\dagger_\gamma$100) Q
- *F* **7238.1** *9*, (20^+) γ_{6192}***1046.4*** *5* ($\dagger_\gamma$100) Q
- *I* **7374.4** *9* (?), (18^-) γ_{6523}***851.7*** *3* (?)

J **7497.1** *14* (?), (19) γ_{6472} ***1025*** *1* (?)
D **7533.4** *10*, (20^-) γ_{6676} ***857.5*** *4* ($\dagger_\gamma$100)
H **8025.8** *14* (?), (20) γ_{6931} ***1095*** *1* (?)
C **8050.1** *9*, (21^-) γ_{7142} ***908.0*** *5* ($\dagger_\gamma$100) Q
F **8329.1** *14* (?), (22^+) γ_{7238} ***1091*** *1* (?)
D **8566.4** *14* (?), (22^-) γ_{7533} ***1033*** *1* (?)
C **9072.7** *11* (?), (23^-) γ_{8050} ***1022.6*** *5* (?)
D **9728.4** *18* (?), (24^-) γ_{8566} ***1162*** *1* (?)
C **10175.7** *15* (?), (25^-) γ_{9073} ***1103*** *1* (?)
K **x**, J≈(16)
K **716.5+x**, J+2 γ_{x} ***716.5*** *2* ($\dagger_\gamma$0.4 *1*)
$I^{(2)}$=51.0, $\hbar\omega$=0.378
K **1511.4+x**, J+4 γ_{717+x} ***794.9*** *2* ($\dagger_\gamma$1.0 *1*)
$I^{(2)}$=64.7, $\hbar\omega$=0.413
K **2368.1+x**, J+6 γ_{1511+x} ***856.7*** *3* ($\dagger_\gamma$1.1 *1*)
$I^{(2)}$=64.9, $\hbar\omega$=0.444
K **3286.4+x**, J+8 γ_{2368+x} ***918.3*** *3* ($\dagger_\gamma$1.0 *1*)
$I^{(2)}$=62.1, $\hbar\omega$=0.475
K **4269.1+x**, J+10 γ_{3286+x} ***982.7*** *3* ($\dagger_\gamma$0.9 *1*)
$I^{(2)}$=60.0, $\hbar\omega$=0.508
K **5318.5+x**, J+12 γ_{4269+x} ***1049.4*** *2*
($\dagger_\gamma$0.8 *1*) *$I^{(2)}$=58.7, $\hbar\omega$=0.542*
K **6436.0+x**, J+14 γ_{5319+x} ***1117.5*** *2*
($\dagger_\gamma$0.7 *1*) *$I^{(2)}$=58.6, $\hbar\omega$=0.576*
K **7621.8+x**, J+16 γ_{6436+x} ***1185.8*** *3*
($\dagger_\gamma$0.6 *1*) *$I^{(2)}$=57.7, $\hbar\omega$=0.610*
K **8876.9+x**, J+18 γ_{7622+x} ***1255.1*** *4*
($\dagger_\gamma$0.5 *1*) *$I^{(2)}$=57.1, $\hbar\omega$=0.645*
K **10202.1+x**, J+20 γ_{8877+x} ***1325.2*** *3*
($\dagger_\gamma$0.4 *1*) *$I^{(2)}$=54.6, $\hbar\omega$=0.681*
K **11600.6+x**, J+22 $\gamma_{10202+x}$ ***1398.5*** *4*
($\dagger_\gamma$0.3 *1*) *$I^{(2)}$=51.2, $\hbar\omega$=0.719*
K **13077.2+x**, J+24 $\gamma_{11601+x}$ ***1476.6*** *4*
($\dagger_\gamma$0.2 *1*) *$I^{(2)}$=49.0, $\hbar\omega$=0.759*
K **14635.4+x**, J+26 $\gamma_{13077+x}$ ***1558.2*** *4*
$I^{(2)}$=46.9, $\hbar\omega$=0.800
K **16278.9+x**, J+28 $\gamma_{14635+x}$ ***1643.5*** *5*
$I^{(2)}$=44.9, $\hbar\omega$=0.844
K **18011.5+x**, J+30 $\gamma_{16279+x}$ ***1732.6*** *7*
$I^{(2)}$=48.5, $\hbar\omega$=0.887
K **19826.5+x** (?), J+32 $\gamma_{18012+x}$ ***1815*** *1* (?)
L **y**, J
L **888+y**, J+2 γ_{y} ***888*** *1* *$I^{(2)}$=63.5,*
$\hbar\omega$=0.460
L **1839+y**, J+4 γ_{888+y} ***951*** *1* *$I^{(2)}$=60.6,*
$\hbar\omega$=0.492
L **2856+y**, J+6 γ_{1839+y} ***1017*** *1* *$I^{(2)}$=62.5,*
$\hbar\omega$=0.524
L **3937+y**, J+8 γ_{2856+y} ***1081*** *1* *$I^{(2)}$=57.1,*
$\hbar\omega$=0.558
L **5088+y**, J+10 γ_{3937+y} ***1151*** *1* *$I^{(2)}$=57.1,*
$\hbar\omega$=0.593
L **6309+y**, J+12 γ_{5088+y} ***1221*** *1* *$I^{(2)}$=58.0,*
$\hbar\omega$=0.628
L **7599+y**, J+14 γ_{6309+y} ***1290*** *1* *$I^{(2)}$=54.1,*
$\hbar\omega$=0.664
L **8963+y**, J+16 γ_{7599+y} ***1364*** *1* *$I^{(2)}$=54.1,*
$\hbar\omega$=0.700
L **10401+y**, J+18 γ_{8963+y} ***1438*** *1*


J+32 19826.5+x
1815
J+30 18011.5+x
1733
J+28 16278.9+x
1644
J+26 14635.4+x
1558
J+24 13077.2+x
1477
J+22 11600.6+x
1399
J+20 10202.1+x
1325
J+18 8876.9+x
1255
J+16 7621.8+x
1186
J+14 6436.0+x
1118
J+12 5318.5+x
1049
J+10 4269.1+x
983
J+8 3286.4+x
918
J+6 2368.1+x
857
J+4 1511.4+x
795
J+2 716.5+x
717
J ~(16) x
SD-1 band
(95Cl02,87Be32)
J+18 10401+y
1438
J+16 8963+y
1364
J+14 7599+y
1290
J+12 6309+y
1221
J+10 5088+y
1151
J+8 3937+y
1081
J+6 2856+y
1017
J+4 1839+y
951
J+2 888+y
888
J y
SD-2 band
(95Cl02)

$^{136}_{60}$Nd