$^{82}_{38}$Sr

Δ: –76009 *6* **S_n:** 12554 *9* **S_p:** 7841 *8*
Q_{EC}: 180 *9*

Nuclear Bands

A Band Structure
B Band Structure
C Band Structure
D Band Structure
E Yrast band
F Band Structure
G Band Structure
H Yrast
I Band Structure
J SD-1 band (95Sm08)
K SD-2 band (95Sm08)

Levels and γ-ray branchings:

C **0**, 0^+, 25.55 *15* d, %EC=100

C **573.54** *8*, 2^+, 8.9 *4* ps γ_0***573.64*** *10* (†$_\gamma$100) E2

B **1175.71** *8*, 2^+, 7.5 *24* ps γ_{574}***602.15*** *10* (†$_\gamma$100 *7*) M1(+E2): δ=+1.2 *14*
γ_0***1175.6*** *1* (†$_\gamma$10.4 *8*)

1310.89 *13*, 0^+, <3.5 ns γ_{574}***737.35*** *10* (†$_\gamma$100)

C **1328.54** *10*, 4^+, 1.0 *2* ps γ_{574}***754.9*** *1* (†$_\gamma$100) E2

A **1688.96** *11*, 3^+ γ_{1329}***359.9*** *3* (†$_\gamma$9 *3*) γ_{1176}***512.9*** *2* (†$_\gamma$80 *12*) γ_{574}***1115.8*** *2* (†$_\gamma$100 *15*)

1865 *5*, 2^+

B **1996.02** *10*, 4^+, 1.3 *4* ps γ_{1329}***667.53*** *10* (†$_\gamma$60 *9*) M1(+E2): δ=+0.3 *7*
γ_{1176}***820.25*** *10* (†$_\gamma$100 *12*) E2
γ_{574}***1422.4*** *3* (†$_\gamma$5 *2*)

2195 *5*, 2^+

C **2229.47** *11*, 6^+, 0.37^{+15}_{-11} ps
γ_{1329}***900.84*** *10* (†$_\gamma$100) E2

E **2401.82** *10*, 3^- γ_{1689}***712.4*** *1* (†$_\gamma$100 *8*) γ_{574}***1828.4*** *1* (†$_\gamma$29 *8*)

A **2525.80** *12*, 5^+ γ_{1996}***529.8*** *2* (†$_\gamma$13 *4*) γ_{1689}***837.1*** *1* (†$_\gamma$100 *22*) γ_{1329}***1197.1*** *2* (†$_\gamma$21 *6*)

2665 *5*, 0^+

E **2817.31** *11*, 5^-, 3.0 *6* ps γ_{2402}***415.17*** *10* (†$_\gamma$13 *13*) γ_{1329}***1489.00*** *10* (†$_\gamma$100 *13*) E1

I **2824.40** *12*, 4^- γ_{2402}***422.6*** *3* (†$_\gamma$7 *2*) γ_{1996}***828.4*** *2* (†$_\gamma$16 *4*) γ_{1689}***1135.52*** *10* (†$_\gamma$100 *13*) E1(+M2): δ=+0.03 *5*
γ_{1329}***1494.9*** *3* (†$_\gamma$5 *2*)

B **2836.26** *12*, 6^+, 0.6 *4* ps γ_{2229}***606.65*** *10* (†$_\gamma$50 *3*) M1(+E2): δ=+0.2 *3*
γ_{1996}***840.24*** *10* (†$_\gamma$100 *8*) E2

2885 *5*, (2^+)

2920 *5*

H **3006.91** *12*, 4^- γ_{2402}***605.1*** *1* (†$_\gamma$60 *20*) γ_{1996}***1010.7*** *2* (†$_\gamma$20 *10*) γ_{1689}***1318.3*** *3* (†$_\gamma$100 *20*) γ_{1329}***1677.6*** *4* (†$_\gamma$40 *10*)

F **3073.28** *14*, (5^-) γ_{2817}***255.4*** *3* (†$_\gamma$7 *7*) γ_{2229}***843.6*** *2* (†$_\gamma$64 *14*) γ_{1996}***1077.4*** *2* (†$_\gamma$100 *21*)

I **3086.23** *12*, 6^- γ_{2824}***261.83*** *10* (†$_\gamma$100 *9*) γ_{2817}***269.02*** *10* (†$_\gamma$78 *9*) γ_{2526}***560.8*** *2* (†$_\gamma$22 *4*)

G **3142.30** *22*, (5^-) γ_{1329}***1812.8*** *4* (†$_\gamma$100)

C **3242.82** *12*, 8^+, 0.24^{+10}_{-6} ps γ_{2229}***1013.36*** *10* (†$_\gamma$400) E2

H **3339.57** *12*, 6^- γ_{3073}***266.2*** *2* (†$_\gamma$4 *1*) γ_{3007}***332.5*** *2* (†$_\gamma$8 *2*) γ_{2817}***522.1*** *1* (†$_\gamma$100 *12*) γ_{2526}***813.9*** *1* (†$_\gamma$16 *3*) γ_{2229}***1110.3*** *2* (†$_\gamma$16 *3*)

A **3476.96** *15*, 7^+ γ_{2526}***951.15*** *10* (†$_\gamma$100)

3511.15 *13*, $(7)^-$ γ_{3086}***424*** (?) γ_{2817}***694.04*** *10* (†$_\gamma$100 *7*) E2 γ_{2229}***1281.1*** *2* (†$_\gamma$4.6 *8*)

E **3525.75** *12*, 7^- γ_{3086}***439.88*** *10* (†$_\gamma$8 *2*) γ_{3073}***451.9*** *3* (†$_\gamma$4 *1*) γ_{2817}***707.9*** *2* (†$_\gamma$7 *2*) γ_{2229}***1296.19*** *10* (†$_\gamma$100 *12*) D+Q: δ=+0.5 *5*

F **3565.75** *13*, 7^- γ_{3086}***479.3*** *2* (†$_\gamma$17 *6*) γ_{3073}***492.7*** *4* (†$_\gamma$1 *1*) γ_{2817}***748.3*** *2* (†$_\gamma$14 *1*) γ_{2229}***1336.5*** *2* (†$_\gamma$100 *13*)

G **3607.94** *13*, 7^- γ_{3142}***465.4*** *2* (†$_\gamma$30 *8*) γ_{3086}***521.5*** *2* (†$_\gamma$100 *14*) (M1+E2): δ=–0.7 *5* γ_{3073}***534.6*** *2* (†$_\gamma$35 *8*) γ_{2836}***771.8*** *2* (†$_\gamma$68 *68*) γ_{2817}***790.6*** *2* (†$_\gamma$32 *8*) γ_{2229}***1378.6*** *2* (†$_\gamma$73 *19*)

B **3622.78** *12*, 8^+, 0.7 *4* ps γ_{3243}***379.96*** *10* (†$_\gamma$8.8 *9*) γ_{2836}***786.36*** *10* (†$_\gamma$100 *7*) E2 γ_{2229}***1393.5*** *1* (†$_\gamma$18 *6*)

D **3686.07** *15*, (8^+) γ_{3243}***443.28*** *10* (†$_\gamma$100 *15*) γ_{2229}***1456.2*** *3* (†$_\gamma$36 *11*)

H **4033.49** *15*, 8^- γ_{3526}***507.9*** *3* (†$_\gamma$8 *2*) γ_{3340}***693.9*** *1* (†$_\gamma$100 *22*)

I **4142.60** *14*, 8^- γ_{3608}***534.7*** *2* (†$_\gamma$26 *8*) γ_{3566}***577.0*** *2* (†$_\gamma$31 *8*) γ_{3526}***617.1*** *4* (†$_\gamma$8 *3*) γ_{3086}***1056.3*** *1* (†$_\gamma$100 *23*) E2

4248.4 *10* γ_{3243}***1005.6*** (†$_\gamma$100)

C **4350.30** *15*, 10^+, 0.14^{+6}_{-4} ps γ_{3243}***1107.47*** *10* (†$_\gamma$100) (E2)

E **4366.82** *14*, 9^- γ_{3608}***758.8*** *1* (†$_\gamma$30 *3*) γ_{3566}***801.11*** *10* (†$_\gamma$100 *8*) (E2) γ_{3526}***841.3*** *3* (†$_\gamma$32 *4*)

4387.09 *14*, (9^-) γ_{3511}***876.0*** *1* (†$_\gamma$100 *18*) (E2) γ_{3243}***1144.20*** *10* (†$_\gamma$88 *7*)

B **4423.85** *14*, (10^+), 0.9 *2* ps γ_{3623}***801.11*** *10* (†$_\gamma$100 *12*) (E2)

γ_{3243}***1180.98*** *10* (†$_\gamma$16 *2*)

F **4472.85** *14*, 9$^-$ γ_{3566}***907.0*** *1* (†$_\gamma$62 *8*) γ_{3526}***947.2*** *2* (†$_\gamma$44 *4*) γ_{3243}***1230.3*** *2* (†$_\gamma$100 *8*)

A **4492.5** *4*, 9$^+$ γ_{3477}***1015.5*** *3* (†$_\gamma$100)

D **4637.34** *18*, (10$^+$) γ_{4424}***213.5*** *3* (†$_\gamma$10 *3*) γ_{4350}***287.0*** *2* (†$_\gamma$38 *7*) γ_{3686}***951.2*** *2* (†$_\gamma$100 *10*) γ_{3243}***1394.7*** *3* (†$_\gamma$72 *10*)

H **4909.39** *18*, 10$^-$, 0.36$^{+11}_{-8}$ ps γ_{4387}***521.7***(?) γ_{4033}***875.9*** *1* (†$_\gamma$100) E2

I **5237.4** *4*, 10$^-$ γ_{4143}***1094.8*** *3* (†$_\gamma$100)

E **5308.15** *17*, 11$^-$ γ_{4367}***941.32*** *10* (†$_\gamma$100) E2

5333.8 *15* γ_{4248}***1085.4*** (†$_\gamma$100)

5392.31 *18*(?) γ_{4387}***1005.43*** *10*(?) (†$_\gamma$100)

B **5427.12** *17*, 12$^+$, 0.33$^{+11}_{-8}$ ps γ_{4424}***1003.26*** *10* (†$_\gamma$100) E2

5468.9 *10* γ_{4424}***1045*** *1* (†$_\gamma$100)

F **5479.09** *25*, (11$^-$) γ_{4473}***1006.2*** *3* (†$_\gamma$100 *7*) γ_{4350}***1128.8*** *3* (†$_\gamma$62 *4*)

C **5569.0** *4*, 12$^+$, 0.06 *6* ps γ_{4350}***1218.7*** *3* (†$_\gamma$100)

D **5738.2** *5*, (12$^+$) γ_{4637}***1100.9*** *4* (†$_\gamma$100)

H **5913.9** *4*, 12$^-$, 0.27$^{+11}_{-8}$ ps γ_{4909}***1004.5*** *3* (†$_\gamma$100) E2

E **6367.2** *3*, 13$^-$ γ_{5308}***1059.0*** *2* (†$_\gamma$100) E2

6450.1 *11* γ_{5427}***1023*** *1* (†$_\gamma$100)

B **6543.6** *4*, 14$^+$, 0.25$^{+11}_{-9}$ ps γ_{5427}***1116.5*** *3* (†$_\gamma$100) E2

6556.4 *18* γ_{5334}***1222.6*** (†$_\gamma$100)

F **6564.8** *4*, (13$^-$) γ_{5479}***1085.7*** *3* (†$_\gamma$100)

C **6937.0** *5*, (14$^+$), 0.04$^{+6}_{-3}$ ps γ_{5569}***1368.0*** *3* (†$_\gamma$100)

H **7066.5** *5*, 14$^-$, 0.08$^{+5}_{-4}$ ps γ_{5914}***1152.6*** *3* (†$_\gamma$100) E2

7534.6 *11* γ_{6544}***991*** *1* (†$_\gamma$100)

E **7545.5** *4*, 15$^-$, 0.12 *5* ps γ_{6367}***1178.3*** *3* (†$_\gamma$100) E2

F **7788.2** *5*, (15$^-$) γ_{6565}***1223.4*** *3* (†$_\gamma$100)

B **7812.0** *6*, 16$^+$, 0.09$^{+5}_{-4}$ ps γ_{6544}***1268.4*** *4* (†$_\gamma$100) E2

7936.1 *20* γ_{6556}***1379.6*** (†$_\gamma$100)

H **8377.6** *6*, 16$^-$, 0.14 *6* ps γ_{7067}***1311.1*** *4* (†$_\gamma$100) E2

C **8434.6** *6*, (16$^+$), <0.18 ps γ_{6937}***1497.6*** *3* (†$_\gamma$100) E2

E **8842.0** *7*, 17$^-$, 0.08 *6* ps γ_{7546}***1296.5*** *5* (†$_\gamma$100) E2

F **9167.4** *7*, (17$^-$) γ_{7788}***1379.2*** *4* (†$_\gamma$100)

B **9237.8** *7*, 18$^+$, 0.05$^{+7}_{-4}$ ps γ_{7812}***1425.7*** *4* (†$_\gamma$100)

9478.1 *23* γ_{7936}***1542*** (†$_\gamma$100)

H **9842.6** *12*, (18$^-$), <0.19 ps γ_{8378}***1465*** *1* (†$_\gamma$100)

10061.6 *12*, (18$^+$) γ_{8435}***1626.9*** (†$_\gamma$100)

E **10258.8** *9*, (19$^-$), 0.08$^{+6}_{-4}$ ps γ_{8842}***1416.8*** *5* (†$_\gamma$100)

F **10709.4** *12*, (19$^-$) γ_{9167}***1542*** *1* (†$_\gamma$100)

B **10872.4** *9*, (20$^+$), <0.21 ps γ_{9238}***1634.6*** *5* (†$_\gamma$100)

H **11379.6** *16*, (20$^-$) γ_{9843}***1537*** *1* (†$_\gamma$100)

E **11798.4** *10*, (21$^-$), <0.06 ps γ_{10259}***1539.6*** *5* (†$_\gamma$100)

11837.6 *16*(?), (20$^+$) γ_{10062}***1776*** (†$_\gamma$100)

12758.8 *13*, (22$^+$) γ_{10872}***1886.4*** (†$_\gamma$100)

H **13005.7** *19*, (22$^-$) γ_{11380}***1626*** *1* (†$_\gamma$100)

E **13489.4** *14*, (23$^-$) γ_{11798}***1691*** *1* (†$_\gamma$100)

14832.7 *21*(?), (24) γ_{13006}***1827*** (†$_\gamma$100)

14910.8 *17*, (24$^+$) γ_{12759}***2152*** (†$_\gamma$100)

15409.4 *17*, (25) γ_{13489}***1920*** (†$_\gamma$100)

17246.9 *20*(?), (26$^-$) γ_{14911}***2336*** (†$_\gamma$100)

17616.5 *20*, (27) γ_{15409}***2207*** (†$_\gamma$100)

J **x**, J≈(19)

J **1432+x**, J+2 γ_{x}***1432*** *2* (†$_\gamma$0.60 *7*)
I$^{(2)}$=*24.4, ħω=0.757*

J **3028+x**, J+4 γ_{1432+x}***1596*** *2* (†$_\gamma$0.65 *7*)
I$^{(2)}$=*24.8, ħω=0.838*

J **4785+x**, J+6 γ_{3028+x}***1757*** *2* (†$_\gamma$0.83 *7*)
I$^{(2)}$=*24.7, ħω=0.919*

J **6704+x**, J+8 γ_{4785+x}***1919*** *2* (†$_\gamma$1.00 *7*)
I$^{(2)}$=*25.2, ħω=0.999*

J **8782+x**, J+10 γ_{6704+x}***2078*** *2* (†$_\gamma$1.00 *7*)
I$^{(2)}$=*26.0, ħω=1.078*

J **11014+x**, J+12 γ_{8782+x}***2232*** *2* (†$_\gamma$1.00 *7*)
I$^{(2)}$=*26.0, ħω=1.154*

J **13400+x**, J+14 $\gamma_{11014+x}$***2386*** *2* (†$_\gamma$0.80 *7*) I$^{(2)}$=*24.4, ħω=1.234*

J **15950+x**, J+16 $\gamma_{13400+x}$***2550*** *2* (†$_\gamma$0.50 *7*) I$^{(2)}$=*21.5, ħω=1.322*

J **18686+x**(?), J+18 $\gamma_{15950+x}$***2736***(?) (†$_\gamma$0.25 *5*)

K **y**, J≈(20)

K **1537+y**, J+2 γ_{y}***1537*** *2* (†$_\gamma$0.70 *5*)
I$^{(2)}$=*25.3, ħω=0.808*

K **3232+y**, J+4 γ_{1537+y}***1695*** *2* (†$_\gamma$0.85 *5*)
I$^{(2)}$=*24.8, ħω=0.888*

K **5088+y**, J+6 γ_{3232+y}***1856*** *2* (†$_\gamma$1.00 *10*)
I$^{(2)}$=*26.8, ħω=0.965*

K **7093+y**, J+8 γ_{5088+y}***2005*** *2* (†$_\gamma$0.95 *5*)
I$^{(2)}$=*25.5, ħω=1.042*

K **9255+y**, J+10 γ_{7093+y} ***2162*** *2* (†$_\gamma$0.92 *5*)

$I^{(2)}$*=26.8, ħω=1.118*

K **11566+y**, J+12 γ_{9255+y} ***2311*** *2* (†$_\gamma$0.80 *5*)

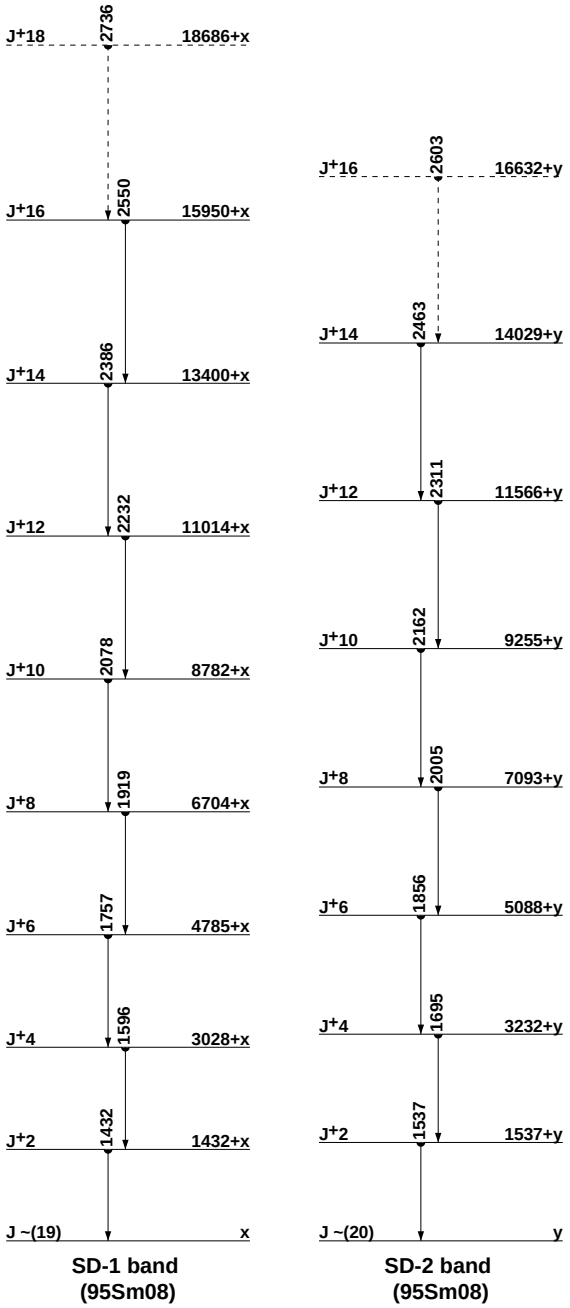
$I^{(2)}$*=26.3, ħω=1.194*

K **14029+y**, J+14 $\gamma_{11566+y}$ ***2463*** *2*

(†$_\gamma$0.30 *5*) $I^{(2)}$*=28.6, ħω=1.266*

K **16632+y** (?), J+16 $\gamma_{14029+y}$ ***2603*** (?)

(†$_\gamma$0.25 *5*)



SD-1 band
(95Sm08)

SD-2 band
(95Sm08)

$^{82}_{38}$Sr