

**Coulomb excitation 1981Jo03,1981Ba05**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. Katakura, Z. D. Wu		NDS 109, 1655 (2008)	1-Apr-2008

1981Ba05: ( $^{16}\text{O}, ^{16}\text{O}'$ ) E=48 MeV.  
 1981Jo03: ( $^{16}\text{O}, ^{16}\text{O}'$ ) E=48 MeV.  
 1964A126: ( $^{14}\text{N}, ^{14}\text{N}'$ ) E=45, 49, 53 MeV.  
 1970K106: ( $\alpha, \alpha'$ ) E=9.97 MeV, ( $^{16}\text{O}, ^{16}\text{O}'$ ) E=34-42 MeV, ( $^{32}\text{S}, ^{32}\text{S}'$ ) E=55-58 MeV.  
 1970LaZM: ( $^{14}\text{N}, ^{14}\text{N}'$ ) E=44, 48 MeV.  
 1970St20: ( $\alpha, \alpha'$ ) E=10 MeV, ( $^{16}\text{O}, ^{16}\text{O}'$ ) E=45.5 MeV.  
 1975Gr30: ( $\alpha, \alpha'$ ) E=10, 10.5, 10.6 MeV, ( $^{16}\text{O}, ^{16}\text{O}'$ ) E=42, 46 MeV.  
 1980Ha19: ( $^{35}\text{Cl}, ^{35}\text{Cl}'$ ) E=108 MeV.  
 Others: 1957A143, 1958St32, 1961An07, 1963Ha20, 1965Ro09, 1968La26, 1968St14.

 $^{124}\text{Sn}$  Levels

E(level) <sup>‡</sup>	J <sup>π</sup> #	T <sub>1/2</sub> <sup>†</sup>	Comments
0.0	0 <sup>+</sup>		
1131.5 5	2 <sup>+</sup>	0.92 ps 2	B(E2)↑=0.166 5 g=-0.15 10 (1980Ha19) B(E2)↑: Average of 0.161 4 (1970St20) and 0.170 4 (1975Gr30). Others: 0.22 4 (relative value to B(E2)(0 <sup>+</sup> to 2 <sup>+</sup> , $^{122}\text{Sn}$ )=0.26 5) (1961An07), 0.18 2 (1968La26), 0.188 13 (1970K106).
2102@	4 <sup>+</sup>	3.7 ps 4	B(E2)(2 <sup>+</sup> to 4 <sup>+</sup> )=0.032 4. B(E2)↑: From 1981Jo03, value renormalized to B(E2)(0 <sup>+</sup> to 2 <sup>+</sup> )=0.166 (evaluators).
2129.3 5	2 <sup>+</sup>	≥1 ps	J <sup>π</sup> : (0 <sup>+</sup> ) in 1981Ba05, but the assignment is questionable.
2130@	2 <sup>+</sup>	≥1.8 fs	B(E2)↑≤0.095 B(E2)↑: From 1981Jo03, value renormalized to B(E2)(0 <sup>+</sup> to 2 <sup>+</sup> )=0.166 (evaluators).
2426@	2 <sup>+</sup>	>0.08 ps	B(E2)↑<0.027 B(E2)↑: From 1981Jo03, value renormalized to B(E2)(0 <sup>+</sup> to 2 <sup>+</sup> )=0.166 (evaluators).
2602@	3 <sup>-</sup>		B(E3)↑=0.073 10 B(E3)↑: From 1981Jo03. Others: 0.60 24 (1963Ha20), 0.20 8 (1964A126).
2686.7 5	0 <sup>+</sup>	>0.2 ps	B(E2)(2 <sup>+</sup> :1131 keV to 0 <sup>+</sup> )<0.0062 (1981Ba05).

<sup>†</sup> From B(E2).

<sup>‡</sup> From  $^{124}\text{Sn}(p,p'\gamma)$ , unless otherwise noted.

# From Adopted Levels, unless otherwise noted.

@ Rounded values from Adopted Levels.

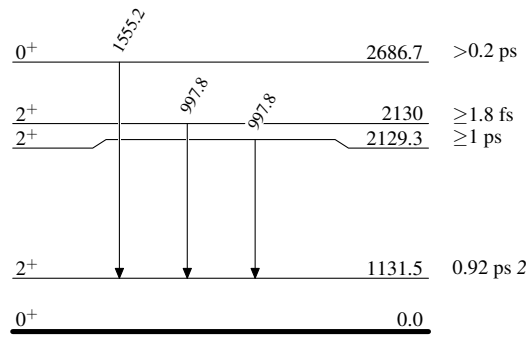
 $\gamma(^{124}\text{Sn})$ 

E <sub>γ</sub> <sup>†</sup>	E <sub>i</sub> (level)	J <sub>i</sub> <sup>π</sup>	E <sub>f</sub>	J <sub>f</sub> <sup>π</sup>
997.8 <sup>‡</sup>	2129.3	2 <sup>+</sup>	1131.5	2 <sup>+</sup>
997.8 <sup>‡</sup>	2130	2 <sup>+</sup>	1131.5	2 <sup>+</sup>
1555.2	2686.7	0 <sup>+</sup>	1131.5	2 <sup>+</sup>

<sup>†</sup> From 1981Ba05.

<sup>‡</sup> Multiply placed.

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