^{91}Zr(^{3}He,d) 1985De35,1973Fi14

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 2187 (2012)	15-Sep-2012

$J^{\pi}(^{91}Zr)=5/2^{+}$.
Other: 1969Ca20.
1985De35: E(^{3}He)=25.5 MeV, FWHM=17 keV, θ(lab)=6°−30°, DWBA analysis of $\sigma(\theta)$.
1969Ca20: E(^{3}He)=30.9 MeV, FWHM=30-55 keV, θ(lab)=6°−30°, DWBA analysis of $\sigma(\theta)$.
1973Fi14: E(^{3}He)=30.2 MeV, FWHM=70 keV, θ(lab)=3°−45°; DWBA analysis of $\sigma(\theta)$ for each IAS is consistent with L=2.

^{92}Nb Levels

E(level)[†]	L[#]	$(2J_f+1)C^2S$[@]	E(level)[†]	L[#]	$(2J_f+1)C^2S$[@]	E(level)[†]	L[#]	$(2J_f+1)C^2S$[@]
0.0	4	13.3	2142 *10*	2	0.11	3185 *10*		
135 *2*	4	4.5	2240 *10*	2	0.06	3200 *10*		
225 *2*	1	1.7	2290 *10*	1	0.31	3228 *10*		
285 *2*	4	6.2	2335 *10*			3242 *10*		
356 *2*	4	9.4	2360 *10*	2	0.14	3260 *10*		
389 *2*	1	2.2	2390 *10*			3280 *10*	2	0.61
478 *2*	4	8.0	2433 *10*			3294 *10*	2	0.16
499 *2*	4	12.0	2462 *10*	2	0.28	3320 *10*		
1086 *2*	2[&]	0.16	2530 *10*			3330 *10*	2	0.13
1319 *10*	1	0.16	2560 *10*			3345 *10*	2	0.39
1345 *10*			2590 *10*			3372 *10*	2	0.68
1374 *10*	1	0.02	2609 *10*	2	0.53	3385 *10*	2	0.96
1416 *10*	1	0.38	2653 *10*			3402 *10*		
1474 *10*	2	0.14	2670 *10*			3445 *10*	2	1.06
1548 *10*			2738 *10*			3460 *10*		
1606 *10*			2755 *10*			3516 *10*		
1634 *10*	1	0.37	2785 *10*			3530 *10*	2	0.76
1658 *10*	1	0.37	2811 *10*	2	0.19	3550 *10*		
1671 *10*	1	0.12	2832 *10*			3560 *10*		
1716 *10*	1	0.23	2905 *10*			3580 *10*		
1730 *10*	1	0.08	2923 *10*			3590 *10*		
1760 *10*			2950 *10*			3622 *10*	2	0.57
1779 *10*	1	0.09	2964 *10*			3650 *10*	2	1.05
1816 *10*			2981 *10*			3672 *10*	2	0.72
1832 *10*	1	0.04	3010 *10*			3696 *10*	2	0.91
1851 *10*	1	0.19	3020 *10*			3790 *10*		
1875 *10*			3040 *10*			3805 *10*		
1907 *10*	1	0.17	3064 *10*			3837 *10*		
1932 *10*	1	0.07	3072 *10*			9.00×10^3[‡a] *4*	(2)	4.1 *16*
1972 *10*	2	0.10	3090 *10*	2	0.60	9.93×10^3[‡b] *4*	(2)	10.4
2030 *10*			3122 *10*			10.47×10^3[‡c] *4*	(2)	22.7
2054 *10*	2	0.15	3134 *10*			10.83×10^3[‡d] *4*	(2)	3.9 *16*
2082 *10*			3142 *10*					
2129 *10*	2	0.15	3160 *10*					

[†] From 1985De35, unless noted otherwise. Uncertainties shown for E(level)>1086 are upper limits; authors quote ΔE=5-10 keV for weak states and for E(level)>2000.
[‡] From 1973Fi14. ΔE=30-40 keV.
[#] From 1985De35 for E<4000; from 1973Fi14 otherwise.
[@] $(2J_f+1)C^2S$. 1985De35 assumed $1g_{9/2}$ orbital for L=4 transfers, $2p_{1/2}$ for L=1 transfers for 225 and 389 states, $2p_{3/2}$ for all other L=1 transfers; normalization factor =4.42. Data are from 1985De35, except for E≥9000, where unweighted averages from

Continued on next page (footnotes at end of table)

^{91}Zr(^{3}He,d) 1985De35,1973Fi14 (continued)

^{92}Nb Levels (continued)

1973Fi14 (resulting from different analysis techniques) are listed; data from 1969Ca20 for the first 10 levels are consistent with those of 1985De35.

& Based on data at angles greater than the first L=1 maximum (a broad impurity peak masks this level in forward angle data). 1969Ca20 assigned L=1 for this level.

[a] $J^{\pi}=0^{+}$ if isobaric analog of ^{92}Zr g.s.

[b] $J^{\pi}=2^{+}$ if isobaric analog of 934 state in ^{92}Zr.

[c] $J^{\pi}=4^{+}$ if isobaric analog of 1495 state in ^{92}Zr.

[d] $J^{\pi}=2^{+}$ if isobaric analog of 1847 state in ^{92}Zr.