

$^{92}\text{Zr}(\text{p,d})$ 1976B111

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 114, 1293 (2013)	1-Sep-2013

1976B111: E=22.11 MeV. 94.41% ^{92}Zr target. Magnetic spectrometer + semi, FWHM=11-20 keV. $\theta=5^\circ$ to 120° (5° steps).

1968Ba31: E=31 MeV. 95.7% ^{92}Zr target. Magnetic spectrometer, FWHM=18 keV.

Theory (partial list): **1987Ro20**.

 ^{91}Zr Levels

E(level) [†]	L [‡]	S [#]	Comments
0	2	1.18	
1205 4	0	0.045	
1467 4	2	0.011	
1883 4			
2044 4	2	0.047	
2133 4	4	0.61	
2172 4	(4,5)		L: 4 from 1968Ba31 ($\sigma(\theta)$ not shown); (5) from 1976B111 , but fit is very poor for both L=5 and L=4.
2204 4			
2323 8			
2358 8	1		S: 0.20 if J=L-1/2, 0.17 if J=L+1/2.
2575 8			
2640 8	(1)		
2693 8			
2817 8			
2902 8	4	4.90	
2927 10			
3109 10	4	0.26	
3236 10	1		S: 0.93 if J=L-1/2, 0.78 if J=L+1/2.
3287 10	(1)		L: inconsistent with adopted J ^π .
3382 10	(1)		
3475 10	1		S: 0.64 if J=L-1/2, 0.52 if J=L+1/2.
3575 10	1		S: 0.83 if J=L-1/2, 0.68 if J=L+1/2.
3598 10	3		S: 0.37 if J=L-1/2, 0.25 if J=L+1/2.
3679 10			
3702 10	4	0.30	
3746 10	(2)		S: 0.105 if J=L-1/2, 0.094 if J=L+1/2.
3820 10			
3883 10	(1)		
3902 10	4	1.48	
3957 10	4	0.21	
3981 10			
4020 10			
4070 10			
4210 10	1		S: 0.07 if J=L-1/2, 0.06 if J=L+1/2.
4295 10	1		S: 0.08 if J=L-1/2, 0.07 if J=L+1/2.
4325 10	1		S: 0.30 if J=L-1/2, 0.25 if J=L+1/2.
4.40×10 ³ 1	1		L: inconsistent with adopted J ^π .
4.50×10 ³ 1	1		
4.73×10 ³ 1	1		
4.82×10 ³ 1	1		

[†] From **1976B111**, except for levels above 4325; the latter are from **1968Ba31**. **1976B111** estimate their uncertainties range from 4 keV for the lower energy levels to 10 keV for the levels at 4 MeV. Individual uncertainties assigned by the evaluator.

[‡] From comparison of $\sigma(\theta)$ with DWBA predictions; from **1976B111** for E(level)≤4325, from **1968Ba31** for E>4325. Note that

 ${}^{92}\text{Zr}(\text{p,d})$ [1976BI11](#) (continued) ${}^{91}\text{Zr}$ Levels (continued)

some of the latter are in conflict with other experiments.

From DWBA analysis ([1976BI11](#)). See [1968Ba31](#) for C^2S deduced from their data.