

$^{90}\text{Zr}(^{12}\text{C}, ^{11}\text{C})$  [1976Th04,1991HeZX](#)

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

[1991HeZX](#): E=345 MeV;  $\theta(\text{C.M.})=5^\circ$  to  $15^\circ$ ; FWHM $\approx$ 700 keV; magnetic spectrometer or semi telescopes; measured  $\sigma(\theta)$ . DWBA analysis.

[1976Th04](#): E=98 MeV. Enriched target. Magnetic spectrograph with proportional counter. Measured  $\sigma(\theta)$ . FWHM $\approx$ 200 keV.  $\theta(\text{lab})=12^\circ$  to  $35^\circ$ .

 $^{91}\text{Zr}$  Levels

E(level) <sup>†</sup>	S <sup>‡</sup>	Comments
0	0.65	S: if $J^\pi=5/2^+$ .
$2.17\times 10^3$ <sup>#</sup>	@	
$2.20\times 10^3$ <sup>#</sup>	@	
3466	0.20	S: if $J^\pi=7/2^+$ .

<sup>†</sup> Values given by [1976Th04](#) (quoted from other experiments).

<sup>‡</sup> From DWBA, normalized to optimize fit at small angles; S is based on  $\theta(\text{C.M.})=20^\circ$  to  $22^\circ$  data.

<sup>#</sup> Unresolved doublet or triplet; probably dominated by known  $(11/2)^-$  2170 and  $(7/2)^+$  2201 levels, with possible small contribution from  $3/2^+$  2042.

<sup>@</sup> Assuming equal values for S(2170) and S(2200), [1976Th04](#) estimate S=0.53 or 0.41 if  $J^\pi(2170)=11/2^-$  or  $9/2^-$ , respectively.