

$^1\text{H}(^{76}\text{Zn},\text{p}')$  2018Co06

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh, Jun Chen and Ameenah R. Farhan		NDS 194,3 (2024)	8-Jan-2024

**2018Co06:** 275.5 MeV/nucleon  $^{76}\text{Zn}$  beam was produced in fission of  $^{238}\text{U}$  beam at  $E=345$  MeV/nucleon impinging on 3-mm-thick  $^9\text{Be}$  target at RIBF-RIKEN facility. The identification of the  $^{76}\text{Zn}$  ions was made by the BigRIPS separator using the  $B\rho-\Delta E-B\rho$  technique. The ions were focused on the MINOS device composed of a liquid hydrogen target with a thickness of  $735$   $\text{mg}/\text{cm}^2$  surrounded by time projection chamber (TPC). After the inelastic (p,p') scattering, reaction products were analyzed using the ZeroDegree spectrometer, and deexcitation gamma rays were detected with DALI2 array of 186 NaI(Tl) detectors. Measured  $E\gamma$ ,  $I\gamma$ , and  $\sigma(\text{p},\text{p}')$ . Comparison with QRPA and shell model calculations.

 $^{76}\text{Zn}$  Levels

E(level) <sup>†</sup>	$J\pi^{\ddagger}$	Comments
0	$0^+$	
593 10	$2^+$	$\sigma(\text{p},\text{p}')=1.9$ mb 10.
1301 19	$(4^+)$	$\sigma(\text{p},\text{p}')=1.3$ mb 6.

<sup>†</sup> From  $E\gamma$ .

<sup>‡</sup> From the Adopted Levels.

 $\gamma(^{76}\text{Zn})$ 

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
593 10	593	$2^+$	0	$0^+$
708 16	1301	$(4^+)$	593	$2^+$

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