

Pb($^{43}\text{Ar},n\gamma$) 1997Wa25

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen [#] and Balraj Singh		NDS 135, 1 (2016)	31-May-2016

Neutron removal from ^{43}Ar beam with a Pb target (acting as an anvil), leading to population of states in ^{42}Ar .

1997Wa25: ^{43}Ar was produced via fragmentation of 330 MeV/nucleon ^{50}Ti beam on a ^9Be target at GSI. Fragments were selected by the fragment separator FRS and identified by energy-loss ΔE and time-of-flight (TOF) before the 0.9 g/cm² secondary Pb target. Projectile-like reaction products were identified by the B ρ -TOF- ΔE method using the large magnetic spectrometer ALADIN, γ -rays were detected by the Darmstadt-Heidelberg Crystal Ball spectrometer (CB) and neutrons were detected by the LAND detector. Measured E_γ , $\gamma\gamma$ -coin, $n\gamma$ -coin and cross section (100 mb 20).

 ^{42}Ar Levels

E(level)

0
1208
2414

 $\gamma(^{42}\text{Ar})$

<u>E_γ</u>	<u>$E_i(\text{level})$</u>	<u>E_f</u>
1206	2414	1208
1208	1208	0

[†] Rounded energies from Adopted Gammas.

Pb($^{43}\text{Ar},n\gamma$) 1997Wa25**Level Scheme**