

$^{244}\text{Pu}(\text{}^3\text{He},\text{t})$  1991Ja04

| <u>Type</u>     | <u>Author</u>  | <u>History Citation</u> | <u>Literature Cutoff Date</u> |
|-----------------|----------------|-------------------------|-------------------------------|
| Full Evaluation | C. D. Nesaraja | NDS 146, 387 (2017)     | 31-Aug-2017                   |

1991Ja04: A beam of 200 MeV  ${}^3\text{He}^{++}$  particles from Indiana University Cyclotron Facility (IUCF) impinges a  ${}^{244}\text{PuO}_2$  target in a scattering chamber with a beam current of 20-80nA.

Triton spectra were measured at  $\theta=0^\circ$  by using a magnetic spectrometer. The focal plane of the IUCF K600 magnetic spectrograph consisted of two multi-wire drift chambers backed by two scintillation detectors for particle identification and drift-time measurements. The energy resolution of the focal plane detection system was about 50 keV.

Protons were detected with Li-drifted Si detectors in coincidence with the measured tritons.

 $^{244}\text{Am}$  Levels

| <u>E(level)</u> | <u>J<math>^\pi</math></u> | <u>Comments</u>   |
|-----------------|---------------------------|---|
| 19464 27        | 0 <sup>+</sup>            | %p≤100<br>$\Gamma_p=337$ keV 90<br>Q( ${}^3\text{He},\text{t}$ )=-19558 keV 27 for the transition to the isomeric analog state was measured. The Coulomb displacement energy was deduced from this Q value as 20322 keV 27. |