^{244}Pu(t,p) 1979Br19

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 198,449 (2024)	31-Jul-2022

1979Br19: E(t)=17 MeV from the Los Alamos National Laboratory tandem Van de Graff bombarded a ^{244}Pu target. A position sensitive proportional counter was used to measure the protons at the focal plane of the magnetic spectrometer. A monitor detector located at 30° was used to measure elastic scattering for absolute cross sections as well as relative normalizations from angle to angle. Angular distributions were measured from 10° to 65° in ≈ 5° steps. Measured $\sigma(\theta)$ with FWHM=12 keV. Determined excitation energy with energy resolution of 12 keV for most of the data. DWBA calculations performed using DWUCK code.

^{246}Pu Levels

Differential cross sections at angle 50° from 1979Br19 are given in comments.

E(level)†	J^π	Comments
0	0^+	$d\sigma/d\Omega$=90 μb/sr.
46 *5*	2^+‡	$d\sigma/d\Omega$=3.4 μb/sr.
155 *5*	4^+‡	$d\sigma/d\Omega$=1.6 μb/sr.
769 *5*		$d\sigma/d\Omega$=1.6 μb/sr.
901? *5*		
938 *5*		
991 *5*	0^+	J^π: L=0 from angular measurements and DWBA analysis. $d\sigma/d\Omega$=21.0 μb/sr.
1040 *8*		$d\sigma/d\Omega$=9.2 μb/sr.
1212 *8*		$d\sigma/d\Omega$=10.4 μb/sr.
1246 *8*		$d\sigma/d\Omega$=7.0 μb/sr.
1424 *8*		$d\sigma/d\Omega$=9.4 μb/sr.
1464 *8*		$d\sigma/d\Omega$=17.6 μb/sr.
1548 *8*		E(level): probable doublet. $d\sigma/d\Omega$=34 μb/sr.

† From 1979Br19.
‡ From Adopted Levels.