

$^{249}\text{Bk}(\text{p,t}) \text{E}=15 \text{ MeV}$ [1983De19](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 125, 395 (2015)	31-Mar-2014

[1983De19](#): ^{249}Bk target was bombarded by 15-MeV protons from Princeton University AVF cyclotron. Tritons were magnetically analyzed by a QDDD spectrometer and detected with a position-sensitive gas proportional counter (FWHM \approx 8 keV) backed by a plastic scintillator. Data were taken at intervals of 5° from $\theta=10^\circ$ to 90° . DWBA analysis was performed. $J^\pi(^{249}\text{Bk})=7/2^+$.

 ^{247}Bk Levels

E(level) [†]	J^π [‡]	L [#]	Relative Intensity of peak at $\theta=20^\circ$	Comments
41 1	$7/2^+$ [@]	0	100	The differential cross section at $\theta=20^\circ$ for the 41-keV level was estimated to be about 30 $\mu\text{b/sr}$.
84 1	$9/2^+$ [@]	2	48	
137 5	$11/2^+$ [@]		25	
196 1	$13/2^+$ [@]		9.7	
265 2	$15/2^+$ [@]		6.5	

[†] From [1983De19](#). FWHM \approx 8 keV No levels above 300 keV were observed.

[‡] J^π for the 41- and 196-keV levels known previously in [1977Ah01](#); J^π 's for all other levels were deduced by [1983De19](#) from relative peak intensities, and from energy fit to the rotational band.

[#] From angular distribution ([1983De19](#)).

[@] $7/2[633]$ band, Coriolis mixed with the $5/2[642]$ band.