Coulomb excitation

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 127, 191 (2015)	1-Jun-2014

^{238}Pu(α,α') E=17 MeV (1973Be44,1974Mc15).
Quadrupole and hexadecupole parameters were deduced by 1973Be44 from B(E2) and B(E4) values.
For calculated deformation parameters see 1970Ga12, for example.

^{238}Pu Levels

E(level)[†]	J$^\pi$	$T_{1/2}$	Comments
0[‡]	0^+		
44.08	2^+	174 ps *3*	B(E2)↑=12.63 *17* (1973Be44) $T_{1/2}$: from B(E2) and α=775. This α is the E2 theory value lowered by 3% (see 1987Ra01). Other B(E2): 12.58 *35* (1971Fo17).
146[‡]	4^+		B(E4)↑=1.9 *7* (1973Be44)
661[#]	3^-		B(E3)↑=0.71 *12* (1974Mc15)
983[@]	2^+	0.55 ps *+15−11*	B(E2)↑=0.166 *22* (1974Mc15) $T_{1/2}$: from B(E2) with Iγ(983γ)=30% +7-6.

[†] Rounded-off values from Adopted Levels.
[‡] Band(A): K=0 g.s. band.
[#] Band(B): K=0 octupole-vibrational band.
[@] Band(C): K=0 β-vibrational band.

Coulomb excitation

$^{238}_{94}Pu_{144}$