Coulomb excitation 2015Ke06

History Type	Author	Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 196,342 (2024)	1-Sep-2023

2015Ke06,2015KeZZ: Beam=2.85 MeV/nucleon ^{202}Po produced in U(p,X) reaction with E(p)=1.4 GeV at REX-ISOLDE-CERN facility. The Po ions were resonantly laser ionized using RILIS and 1^+ charge states were selected by High-Resolution Separator (HRS). The purity of the ^{202}Po beam was 98.3% *2* for ^{104}Pd target and 98.1% *2* for ^{94}Mo target. Targets=^{94}Mo and ^{104}Pd, 2.0 mg/cm^2 thick. Detected scattered ions using double-sided silicon-strip detectors (DSSD) and γ rays by the Miniball array of eight cluster Ge detectors. Measured Eγ, Iγ, (particle)γ-coin, angular distribution of scattered ions. GOSIA analysis.

^{202}Po Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	0^+		
677.2 *2*	2^+	1.7 ps *+5−4*	B(E2)↑=1.12 *+34−26* B(E2)↑ from $<0+_1\|$ E2 $\|2+_1>$=+1.06 *+15−13* and $<2+_1\|$ E2 $\|2+_1>$=−0.7 *+13−12*. Other: 0.98 *8* from $<0+_1\|$ E2 $\|2+_1>$=+0.99 *4* and $<2+_1\|$ E2 $\|2+_1>$=0. $T_{1/2}$: From B(E2)↑=1.12 *+34−26*.

$\gamma(^{202}Po)$

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[†]	Comments
677.2 *2*	100	677.2	2^+	0.0	0^+	E2	0.01620 *23*	α(K)=0.01210 *17*; α(L)=0.00310 *4*; α(M)=0.000763 *11* α(N)=0.0001960 *27*; α(O)=3.97×10^{-5} *6*; α(P)=4.59×10^{-6} *6* I_γ,Mult.: From Adopted gammas. σ(Coulomb excitation)=0.45 b *6* for ^{104}Pd target, 0.39 b *8* for ^{94}Mo target.

[†] Additional information 1.

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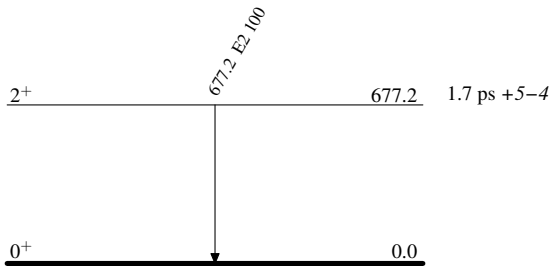
Level Scheme

Intensities: Relative I_γ



$^{202}_{84}Po_{118}$