Coulomb excitation 2016Gr17

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 201,346 (2025)	21-Jan-2025

2016Gr17: 2.85 MeV/nucleon ^{206}Po beam produced in UC_x(p,X),E=1.4 GeV at ISOLDE-CERN facility. The polonium atoms were ionized using the resonant-ionization laser ion source (RILIS), mass selected using the ISOLDE High Resolution Separator (HRS), and finally injected in the REX-ISOLDE accelerator complex. Targets comprised of 2 mg/cm^2-thick ^{104}Pd and ^{114}Cd foils. Measured Eγ, Iγ, scattered projectile and target nuclei in coincidence with γ rays using MINIBALL array and double-sided silicon strip detector with 16 annular strips.

^{206}Po Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	0^+		
700.66 *3*	2^+	2.6 ps *+19−13*	B(E2)↑=0.64 *+48−32* from E2 matrix element=+0.8 eb *+3−2* (2016Gr17). Diagonal E2 matrix element=−2.0 eb *+40−29* (2016Gr17). $T_{1/2}$: From B(E2)↑.

$\gamma(^{206}Po)$

Eγ	E$_i$(level)	J_i^π	E$_f$	J_f^π	Mult.	α[†]	Comments
700.66 *3*	700.66	2^+	0.0	0^+	E2	0.01507 *21*	α(K)=0.01132 *16*; α(L)=0.00283 *4*; α(M)=0.000695 *10* α(N)=0.0001785 *25*; α(O)=3.62×10^{-5} *5*; α(P)=4.21×10^{-6} *6* Eγ: From adopted gammas.

[†] Additional information 1.

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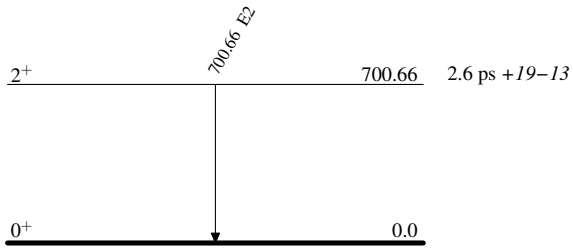
Level Scheme



$^{206}_{84}Po_{122}$