

Coulomb excitation 2007Kr19

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 146, 1 (2017)	30-Sep-2017

2007Kr19: $^{96}\text{Mo} (^{138}\text{Xe}, ^{138}\text{Xe}') E=2.84$ MeV/nucleon ^{138}Xe beam was produced from the LINAC accelerator at REX-ISOLDE facility at CERN. Target was ^{96}Mo of 1.7 mg/cm² thickness. γ rays were detected with the MINIBALL spectrometer consisting of 8 triple clusters of six-fold segmented HPGe detectors; scattered particles were detected with a double-sided segmented Si detector (DSSSD). Measured E_γ , I_γ , particle- γ -coin. Deduced B(E2).

 ^{138}Xe Levels

E(level)	J^π	$T_{1/2}$	Comments
0	0^+		
588.8	2^+	10.5 ps +38-22	B(E2) $\uparrow=0.38$ 10 (2007Kr19) Results for B(E2) \uparrow are preliminary as stated by 2007Kr19. E(level): Round-off value from Adopted Levels. $T_{1/2}$: Deduced from measured B(E2) \uparrow .

 $\gamma(^{138}\text{Xe})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	α^\dagger	Comments
588.8	588.8	2^+	0	0^+	E2	0.00577	$\alpha(\text{K})=0.00491$ 7; $\alpha(\text{L})=0.000686$ 10; $\alpha(\text{M})=0.0001398$ 20 $\alpha(\text{N})=2.87\times 10^{-5}$ 4; $\alpha(\text{O})=3.48\times 10^{-6}$ 5 E_γ : Round-off value from Adopted Gammas.

\dagger Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ -ray energies, assigned multiplicities, and mixing ratios, unless otherwise specified.

Coulomb excitation 2007Kr19Level Scheme