Coulomb excitation   2007Ce02,2007Va22

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal and F. G. Kondev	NDS 113, 1315 (2012)	1-Aug-2011

2007Ce02: Beam: ^{110}Sn at 2.82 MeV/A. Target=2 mg/cm^2, enriched to 99.9% in ^{58}Ni. Radioactive ^{110}Sn beam was produced by a 1.4 GeV proton beam hitting LaC$_x$ target. The Sn atoms were ionized by a three-step laser ionization procedure. The REX-ISOLDE facility at CERN was used. The γ rays were detected by MINIBALL array of 24 HPGe detectors with a total of 144 segments. The charged particles were detected by a circular double-sided silicon strip (DSSSD) detector. Measured: Eγ, Iγ, particle-γ coin. Deduced: BE2.

2007Va22: Beam: ^{110}Sn at 79 MeV/A. Target=212 mg/cm^2 thick ^{197}Au. Radioactive ^{110}Sn beam was produced in the fragmentation of ^{124}Xe beam at 140 MeV/A with a 300 mg/cm^2 thick Be target and separated using A1900 fragment recoil separator at NSCL, Michigan State University. The γ-rays were detected by segmented germanium array (SeGA) and the charged particles were identified and measured using S800 spectrograph. Measured: Eγ, Iγ, particle-γ coin. Deduced: BE2.

Others: 2006Ek01, 2006VaZW.

^{110}Sn Levels

E(level)[†]	J$^{\pi}$[†]	T$_{1/2}$	Comments
0	0$^+$		
1212.02 9	2$^+$	0.48 ps 4	T$_{1/2}$: From B(E2)↑=0.226 *18*. B(E2)↑=0.226 *18*, weighted average of 0.240 *32* from 2007Va22, measured relative to B(E2)↑(3/2$^+$ (g.s.) to 7/2$^+$ (547 keV level))=0.449 41 for ^{197}Au taken from 1995Zh27 (communicated by the first author of 2007Va22 with an e-mail reply on October 25, 2007) (statistical uncertainty of 0.020 and systematic uncertainty of 0.025 were combined in quadrature by the evaluators) and 0.220 *22* from 2007Ce02, measured relative to to B(E2)↑(0$^+$ to 2$^+$)=0.0695 *20* for ^{58}Ni.

[†] From Adopted Levels.

$\gamma(^{110}$Sn)

E$_\gamma$[†]	I$_\gamma$[†]	E$_i$(level)	J$^{\pi}_i$	E$_f$	J$^{\pi}_f$	Mult.[†]	Comments
1212.01 9	100	1212.02	2$^+$	0	0$^+$	E2	E$_\gamma$: Other: 1211.9 keV in 2007Ce02.

[†] From adopted gammas.

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<u>Level Scheme</u>

Intensities: Type not specified

2^+ 1212.01 E2 100   1212.02   0.48 ps *4*

0^+ 0

$^{110}_{50}Sn_{60}$

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