

$^{113}\text{Xe} \beta^+ \text{p decay}$ **2005Ja10**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. Lalkovski, F. G. Kondev		NDS 124, 157 (2015)	1-Aug-2014

Parent: ^{113}Xe : E=0.0; $J^\pi=(5/2^+)$; $T_{1/2}=2.74$ s 8; $Q(\beta^+\text{p})=8075$ II; % $\beta^+\text{p}$ decay=7 4

^{113}Xe -Q(g.s.)=Q(ϵp) from [2012Wa38](#).

2005Ja10: Facility: GSI; Source: mass-separated ^{113}Xe from $^{58}\text{Ni}/(^{58}\text{Ni},2\text{pn})$; Beam: E(^{58}Ni)=275 MeV; Target: 3.7 mg/cm² thick ^{58}Ni ; Detectors: Nb/Ta catcher, ion source, transport tape, total absorption spectrometer comprising one large-volume NaI(Tl) crystal, one germanium x-ray detector, one 600- μm thick silicon β -particle counter and one telescope for β -delayed particles; Measured: γ , p, β , $\beta\text{-p}$.

Others: [1985Ti02](#), [1981TiZY](#), [1980GoZX](#).

 ^{112}Te Levels

E(level) [†]	J^π [‡]
0	0^+
688.7 5	2^+
1475.3 7	4^+
1483.3 7	(2^+)

[†] From a least-squares fit to $E\gamma$.

[‡] From the Adopted Levels.

 $\gamma(^{112}\text{Te})$

E_γ [†]	I_γ ^{†#}	E_i (level)	J_i^π	E_f	J_f^π	Comments
688.7 5	53 5	688.7	2^+	0	0^+	E_γ : Other: 689 keV in 2005Ja10 , 688.8 keV 2 (1980GoZX).
786.6 5	3.8 7	1475.3	4^+	688.7	2^+	E_γ : Other: 786.7 keV 2 (1980GoZX).
794.6 5	3.3 6	1483.3	(2^+)	688.7	2^+	E_γ : Other: 794.5 keV 2 (1980GoZX).

[†] From [1985Ti02](#) using a Ge(Li) detector.

Delayed Protons (^{112}Te)

$E(^{112}\text{Te})$	$I(p)$ ^{†#}	Comments
0	32 2	I(p): Other: 47 5 in 1985Ti02 .
688.7	60 3	I(p): Other: 46 5 in 1985Ti02 .
1475.3	8 [‡] 1	I(p): Other: 3.8 7 in 1985Ti02 .
1483.3	8 [‡] 1	I(p): Other: 3.3 6 in 1985Ti02 .

[†] From [2005JA10](#) using NaI, TAS.

[‡] Doublet in [2005Ja10](#); uncorrected value is given.

For absolute intensity per 100 decays, multiply by 0.07 4.

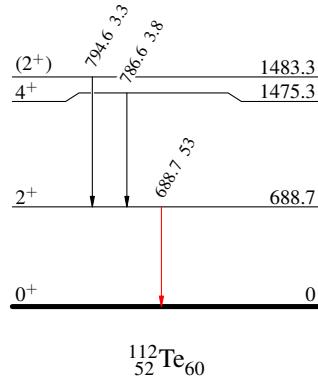
^{113}Xe $\beta^+ \mathbf{p}$ decay 2005Ja10Decay Scheme

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$

$\% \beta^+ p=7$ $(5/2^+) \quad 0.0 \quad 2.74 \pm 8$
 $Q=8075 \text{ II}$
 $^{113}_{54}\text{Xe}_{59}$

 $^{112}_{52}\text{Te}_{60}$