

¹¹⁵In β⁻ decay (4.486 h) 1974Ha39

| Type | Author | History Citation | Literature Cutoff Date |
|-----------------|--------------|----------------------|------------------------|
| Full Evaluation | Jean Blachot | NDS 113, 2391 (2012) | 1-Sep-2012 |

Parent: ¹¹⁵In: E=326.244 17; J^π=1/2⁻; T_{1/2}=4.486 h 4; Q(β⁻)=497.489 10; %β⁻ decay=5.0 7

¹¹⁵In-%β⁻ decay: Iβ=5.0% 7 (1974Ha39) from I(ce+β⁻)/Iγ(336γ).

Additional information 1.

¹¹⁵Sn Levels

| E(level) | J ^π | T _{1/2} |
|----------|------------------|------------------|
| 0.0 | 1/2 ⁺ | stable |
| 497.37 | 3/2 ⁺ | |

β⁻ radiations

| E(decay) | E(level) | Iβ ^{-†} | Log ft | Comments |
|--------------|----------|------------------|--------|--------------|
| (326.363 20) | 497.37 | 0.047 | 7.3 | av Eβ= 97 3 |
| 830 20 | 0.0 | 5.0 7 | 6.7 | av Eβ= 279 4 |

E(decay): E(β⁻)=830 30 (1962Se03), 840 (1952La02), 830 20 (1949Be53).
 Iβ⁻: from measured I(ce+β⁻)/Iγ(336γ) via ¹¹⁵In IT decay + β⁻ decays if β⁻ component to 497 level is neglected. Others: Iβ=5.5% (1952La02), 3.7% 8 (1966Gr14).

† For absolute intensity per 100 decays, multiply by 20.0.

γ(¹¹⁵Sn)

Iγ normalization: from Iγ(497γ)/Iγ(336γ), ¹¹⁵In=0.00103 2 (1974Ha39). Others: 0.00110 2 (1978He08), 0.0013 (1967Mu08).

| E _γ | I _γ [†] | E _i (level) | J _i ^π | E _f | J _f ^π | Mult. | δ | α [‡] | Comments |
|----------------|-----------------------------|------------------------|-----------------------------|----------------|-----------------------------|-------|---------|----------------|---|
| 497.370 29 | 0.047 1 | 497.37 | 3/2 ⁺ | 0.0 | 1/2 ⁺ | M1+E2 | +0.21 2 | 0.00805 1 | α(K)=0.00699; α(L)=0.00085; α(M)=0.00017 E _γ : 497.370 29 (1978He08), 497.4 5 (1974Ha39), 497.3 5 (1967Mu08). I _γ : photons per 100 decays of isomer=0.047 1 (1974Ha39). Other: 0.025 1 (1978He08). |

† Absolute intensity per 100 decays.

‡ 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.

^{115}In β^{-} decay (4.486 h) 1974Ha39

Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays