## $^{140}$Ce(e,e′) 1985HeZW,1970Pi06,1992Ki10

| Type | Author | History Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | N. Nica | NDS 154, 1 (2018) | 20-Nov-2018 |

E=230 MeV (1985HeZW), 50, 60 MeV (1970Pi06), 190 MeV (1992Ki10).
Measured: $\sigma$(E,$\theta$).

### $^{140}$Ce Levels

| E(level)[#] | J$^\pi$[‡] | T$_{1/2}$[@] | Γ(0) eV[&] | Comments |
|---|---|---|---|---|
| 0.0 | 0$^+$ | | | |
| 1596 | 2$^+$ | | 6.7×10$^{-3}$ *7* | B(E2)↑=0.304 *8* (1992Ki10) |
| 2083 | 4$^+$ | | | B(E4)↑=0.0341 *44* (1992Ki10)<br>Γ(0): authors value, Γ(0)=1.5×10$^{-8}$ eV *3* (1970Pi06) with branching gives T$_{1/2}$=7.6 ps in disagreement with well known adopted T$_{1/2}$=3.44 ns *5*. Authors Γ(0) (W.u.) gives Γ(0)=5.67×10$^{-11}$ and thus T$_{1/2}$=2.0 ns *4*. The Γ(0) value is probably a misprint. |
| 2108 | 6$^+$ | | | |
| 2348 | 2$^+$ | | | B(E2)↑=0.0043 *28* (1992Ki10) |
| 2350 | 5$^+$ | | | J$^\pi$: weak line; $\sigma$(0°)≈O; $\sigma$(180°)>O. |
| 2460[†] | 3$^-$[†] | 0.10 ps *2* | 6.2×10$^{-6}$ *7* | B(E3)↑=0.198 *14* (1992Ki10) |
| 2900[†] | 2$^+$[†] | 28 fs *2* | 9.5×10$^{-3}$ *4* | B(E2)↑=0.0171 *27* (1992Ki10) |
| 3120[†] | 2$^+$[†] | | 26×10$^{-3}$ *5* | B(E2)↑=0.0659 *51* (1992Ki10) |
| 3320[†] | 2$^+$[†] | | 19×10$^{-3}$ *4* | |
| 3425 | 7$^-$ | | | |
| 3602 | | | | |
| 4061 | | | | |
| 4296 | 3$^-$,4$^+$ | | | |
| 4700 | | | | |
| 5026 | | | | |
| 5397 | 4$^+$,5$^-$ | | | |
| 6233 | | | | |
| 6678 | | | | |
| 7050 | | | | |

[†] From 1970Pi06.
[‡] From analysis of $\sigma$($\theta$).
[#] ΔE=2-3 keV for strong lines, ΔE=5 keV for weak lines.
[@] From Γ(0) (1970Pi06) and adopted branching.
[&] From 1970Pi06.