

⁹⁶Ru(³⁵Cl,2p2n γ) **1998Mo30**

| Type | Author | History Citation | Literature Cutoff Date |
|-----------------|--------------|----------------------|------------------------|
| Full Evaluation | A. Hashizume | NDS 112, 1647 (2011) | 1-Oct-2009 |

1998Mo30: E=182 MeV, six array of Compton-suppressed Ge detectors and a 14-element BGO filter. Measured E γ , I γ , $\gamma\gamma$, $\gamma\gamma(\theta)$ (DCO).

¹²⁷Pr Levels

| E(level) [†] | J π [‡] | T _{1/2} [#] | Comments |
|-----------------------|----------------------|-------------------------------|---------------------------|
| 0.0 | | 4.2 s 3 | |
| 0+x @ | 11/2 ⁻ | | Additional information 1. |
| 236.0+x @ 5 | (15/2 ⁻) | | |
| 625.0+x @ 7 | (19/2 ⁻) | | |
| 1149.0+x @ 9 | (23/2 ⁻) | | |
| 1787.0+x @ 10 | (27/2 ⁻) | | |
| 2518.0+x @ 12 | (31/2 ⁻) | | |
| 3327.0+x @ 13 | (35/2 ⁻) | | |

[†] From least-squares fit to E γ 's, assuming $\Delta(E\gamma)=0.5$ keV when not stated (evaluator).

[‡] From Adopted Levels.

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@ Band(A): $\pi h_{11/2}$ Calculations are made within the framework of the core-quasiparticle model and good agreement with level energies was obtained. (**1998Mo30**).

$\gamma(^{127}\text{Pr})$

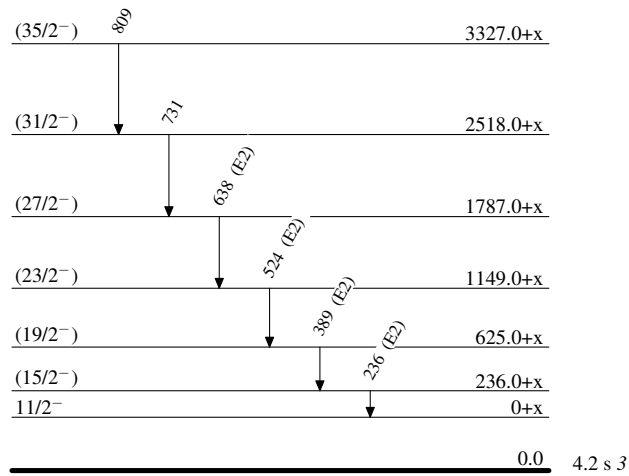
| E γ | E _i (level) | J π _i | E _f | J π _f | Mult. [†] | α [‡] | Comments |
|------------|------------------------|----------------------|----------------|----------------------|--------------------|-----------------------|--|
| 236 | 236.0+x | (15/2 ⁻) | 0+x | 11/2 ⁻ | (E2) | 0.1094 | $\alpha(K)=0.0845$ 12; $\alpha(L)=0.0196$ 3; $\alpha(M)=0.00428$ 6; $\alpha(N+..)=0.001081$ 16 $\alpha(N)=0.000937$ 14; $\alpha(O)=0.0001387$ 20; $\alpha(P)=5.29\times 10^{-6}$ 8 |
| 389 | 625.0+x | (19/2 ⁻) | 236.0+x | (15/2 ⁻) | (E2) | 0.0229 | $\alpha(K)=0.0187$ 3; $\alpha(L)=0.00330$ 5; $\alpha(M)=0.000710$ 10; $\alpha(N+..)=0.000182$ 3 $\alpha(N)=0.0001566$ 22; $\alpha(O)=2.40\times 10^{-5}$ 4; $\alpha(P)=1.269\times 10^{-6}$ 18 |
| 524 | 1149.0+x | (23/2 ⁻) | 625.0+x | (19/2 ⁻) | (E2) | 0.00994 14 | $\alpha=0.00994$ 14; $\alpha(K)=0.00828$ 12; $\alpha(L)=0.001305$ 19; $\alpha(M)=0.000278$ 4; $\alpha(N+..)=7.19\times 10^{-5}$ 10 $\alpha(N)=6.17\times 10^{-5}$ 9; $\alpha(O)=9.61\times 10^{-6}$ 14; $\alpha(P)=5.78\times 10^{-7}$ 8 |
| 638 | 1787.0+x | (27/2 ⁻) | 1149.0+x | (23/2 ⁻) | (E2) | 0.00598 9 | $\alpha=0.00598$ 9; $\alpha(K)=0.00503$ 7; $\alpha(L)=0.000749$ 11; $\alpha(M)=0.0001591$ 23; $\alpha(N+..)=4.12\times 10^{-5}$ 6 $\alpha(N)=3.53\times 10^{-5}$ 5; $\alpha(O)=5.56\times 10^{-6}$ 8; $\alpha(P)=3.56\times 10^{-7}$ 5 |
| 731 | 2518.0+x | (31/2 ⁻) | 1787.0+x | (27/2 ⁻) | | | |
| 809 | 3327.0+x | (35/2 ⁻) | 2518.0+x | (31/2 ⁻) | | | |

[†] From DCO ratios.

[‡] 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.

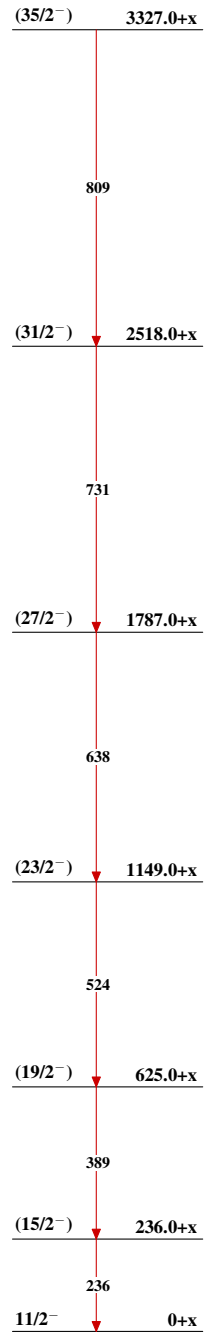
$^{96}\text{Ru}(\text{}^{35}\text{Cl}, 2\text{p}2\text{n}\gamma)$ 1998Mo30

Level Scheme

 $^{127}_{59}\text{Pr}_{68}$

$^{96}\text{Ru}({}^{35}\text{Cl}, 2\text{p}2\text{n}\gamma)$ 1998Mo30

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