

Adopted Levels

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev, S. Juutinen, D. J. Hartley		NDS 150, 1 (2018)	1-Feb-2018

S(n)=11444 38; S(p)=1450 22; Q(α)=8082 15 [2017Wa10](#)

Activity produced by $^{142}\text{Nd}(^{50}\text{Cr},4n)$ at 252 MeV in the middle of the target ([2003Va16](#)) and $^{142}\text{Nd}(^{52}\text{Cr},6n)$ at E=288 and 294 MeV ([1999An52](#)). Targets: 290 $\mu\text{g}/\text{cm}^2$ 99.8% ^{142}Nd (in the form of $^{142}\text{NdF}_3$). Detectors: Velocity filter SHIP, 16-strip position sensitive silicon detector for α particles, open box of 6 silicon detectors for conversion electrons, segmented clover detector for γ 's. ^{188}Po was identified by $E_{\alpha 1}$ - $E_{\alpha 2}$ correlations with the known decays of the ^{184}Pb daughter. Others: [2001Hu21](#), [2005An17](#).

[Additional information 1.](#)

 ^{188}Po Levels

E(level)	J $^{\pi}$	T $_{1/2}$	Comments
0	0 ⁺	0.27 ms 3	<p>$\%_{\alpha} \approx 100$</p> <p>$\%_{\alpha}$: only α decay observed by 2003Va16 and 1999An52.</p> <p>T$_{1/2}$: from $\alpha(t)$ in 2003Va16; Other: 0.40 ms +20-15 (1999An52).</p> <p>The ^{188}Po g.s. decays by two α branches: $E_{\alpha}=7910$ 15, $I_{\alpha}=80$ 4 to g.s. and $E_{\alpha}=7355$ 35, $I_{\alpha}=20$ 4 to 572 30-keV level in ^{184}Pb (2003Va16); see also 1999An52. $\sigma(^{142}\text{Nn}(^{52}\text{Cr},6n))=0.6$ nb 3 and $\sigma(^{142}\text{Nd}(^{50}\text{Cr},4n))=8$ nb 4 (2005An17).</p>