

Adopted Levels

| Type | Author | History | Citation | Literature Cutoff Date |
|-----------------|--------------------------|---------|---------------------|------------------------|
| Full Evaluation | Ictp-2014 Workshop Group | | NDS 132, 257 (2016) | 15-Jan-2016 |

S(n)=8290 *SY*; S(p)=2060 *70*; Q(α)=7816 *14* [2012Wa38](#)
 Estimated uncertainty=110 for S(n) ([2012Wa38](#)).
 S(2n)=15170 *100*, S(2p)=6360 *100* ([2012Wa38](#)).

^{227}Np evaluated by B. Singh.

[1990Ni05](#): ^{227}Np activity was produced in $^{209}\text{Bi}(^{22}\text{Ne},4n)$ reaction at E=121 MeV, and identified by mass separation and by detection of α particles with E_{α} =8010 keV from daughter nucleus ^{223}Pa . No spontaneous fission activity was observed. Measured E_{α} using a semiconductor detector.

[1990An19](#): ^{227}Np activity was produced in $^{209}\text{Bi}(^{22}\text{Ne},4n)$ reaction at E=106-115 MeV, and identified by detection of α particles with E_{α} =8.00 *15* MeV and E_{α} =8.20 *15* MeV from ^{223}Pa , its daughter nucleus. Measured E_{α} using a semiconductor detector. See also [1994Ye08](#).

A spontaneous fission activity with half-life of 60 s *5* reported by [1966Ku13](#), and 51 s *15* by [1976SoZT](#) (also [1978SoZZ](#)), previously assigned to ^{228}Np or ^{227}Np , probably belongs to ^{228}Np .

 ^{227}Np Levels

| E(level) | $T_{1/2}$ | Comments |
|----------|-----------------|---|
| 0 | 0.51 s <i>6</i> | $\%_{\alpha}$ =100 $T_{1/2}$: from 1990Ni05 . $\%_{\epsilon} + \%_{\beta^{+}} \approx 0.7$, theory (1997Mo25). No spontaneous fission decay observed (1990Ni05). J^{π} : $5/2^{-}$ proposed from syst (2012Au07). |