## $^{208}$Pb($^{64}$Ni,X)

History

| Type | Author | Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | Huo Junde, Huang Xiaolong, J. K. Tuli | NDS 106, 159 (2005) | 1-Apr-2005 |

Including: ($^{76}$Ge,X) and ($^{86}$Kr,X).
1994Pa20: thick target ($^{208}$Pb 98.7% enriched), E($^{64}$Ni)=350 MeV, 11 Compton suppressed Ge detectors and an liner ball of 48 BGO elements, measured E$\gamma$, I$\gamma$, $\gamma\gamma$ coincidence. See also 1994Pa32 and 1995Fo16.
2003Ma50: E($^{76}$Ge)=60 MeV/nucleon,$^{9}$Be target,
2002Ge16,2004Ge11: E($^{76}$Ge)=61.4 MeV/nucleon,$^{9}$Be target, TDPAD method, see also 2001Ge13.
1997Is13: E($^{76}$Ge)=635 MeV, target:$^{198}$Pt, 4.3 mg/cm$^2$, measured E$\gamma$, $\gamma\gamma$ coincidence.
1998Gr14: E($^{86}$Kr)=60.3 MeV/nucleon, natural Ni target.

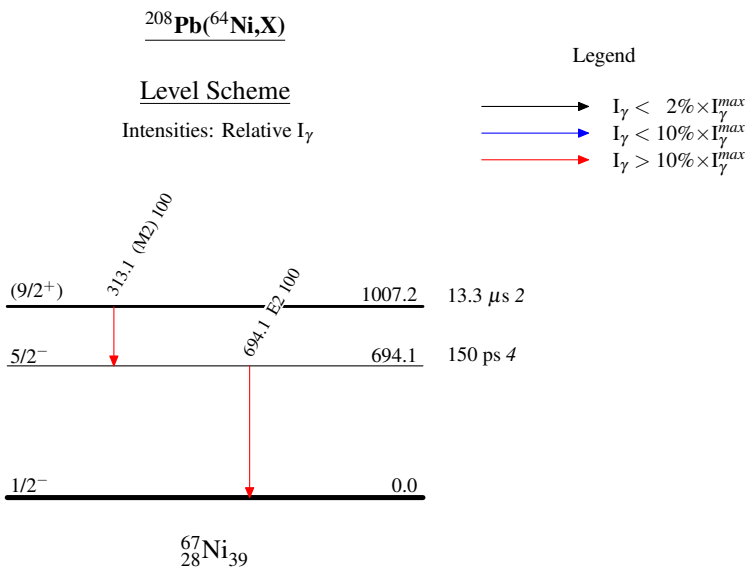
### $^{67}$Ni Levels

| E(level) | J$^\pi$ | T$_{1/2}$ | Comments |
|---|---|---|---|
| 0.0 | 1/2$^-$ | | |
| 694.1 | 5/2$^-$ | 150 ps *4* | T$_{1/2}$: From 2003Ma50. |
| 1007.2 | (9/2$^+$) | 13.3 $\mu$s *2* | g=0.125 *6* (2002Ge16,2004Ge11)<br>J$^\pi$: from assigned multipolarity and expected configuration=($\nu$ g$_{9/2}$) (1998Gr14).<br>T$_{1/2}$: from 1998Gr14. Others: >0.3 $\mu$s (1994Pa20,1994Pa32), >0.6 $\mu$s (1997Is13). |

### $\gamma$($^{67}$Ni)

| E$_\gamma$ † | I$_\gamma$ † | E$_i$(level) | J$_i^\pi$ | E$_f$ | J$_f^\pi$ | Mult. | Comments |
|---|---|---|---|---|---|---|---|
| 313.1 *1* | 100 | 1007.2 | (9/2$^+$) | 694.1 | 5/2$^-$ | (M2) | B(M2)↓=0.047 (1998Gr14)<br>Mult.: from comparison of measured T$_{1/2}$ with Weisskopf estimate (1998Gr14). Similar isomeric transition in $^{65}$Fe. |
| 694.1 *1* | 100 | 694.1 | 5/2$^-$ | 0.0 | 1/2$^-$ | E2 | B(E2)↓=1.46 *4*(2003Ma50)<br>Mult.: expected E2 from $\Delta$J and configuration (1998Gr14). |

† From 1994Pa20.


208Pb(64Ni,X)
Level Scheme
Intensities: Relative Iγ
Legend
Iγ < 2%×Iγmax
Iγ < 10%×Iγmax
Iγ > 10%×Iγmax
313.1 (M2) 100
694.1 E2 100
(9/2+)
1007.2
13.3 μs 2
5/2−
694.1
150 ps 4
1/2−
0.0
67Ni39