^{59}Ni(t,p) 1978Na14

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	20-Jan-2020

No changes made since the 2015 update.
1978Na14: E=17 MeV. Measured σ(E(p),θ), 12 angles from 10° to 65°, magnetic spectrometer, FWHM=10-15 keV, enriched target.
$J^{\pi}(^{59}Ni)=3/2^{-}$.

^{61}Ni Levels

Cross sections listed in comments correspond to maximum values in the $\sigma(\theta)$ distribution.

E(level)	L[†]	Comments
0	0+2	dσ/dΩ=373 μb/sr.
70 *10*	2+4	dσ/dΩ=71 μb/sr.
280 *10*	2	dσ/dΩ=92 μb/sr.
660 *10*	2	dσ/dΩ=42 μb/sr.
910 *10*	4	dσ/dΩ=0.087 μb/sr.
1020 *10*	2	dσ/dΩ=54 μb/sr.
1100 *10*	0+2	dσ/dΩ=52 μb/sr.
1130 *10*	2	dσ/dΩ=57 μb/sr.
1190 *10*	2	dσ/dΩ=22.8 μb/sr.
1460 *10*	2+4	dσ/dΩ=7.5 μb/sr.
1610 *10*	2+4	dσ/dΩ=9.6 μb/sr.
1730 *10*	0+2	dσ/dΩ=1.02 μb/sr.
1810 *10*	4	dσ/dΩ=0.039 μb/sr.
1990 *10*	4	dσ/dΩ=2.4 μb/sr.
2000 *10*	2	dσ/dΩ=8.0 μb/sr.
2020 *10*	2	dσ/dΩ=14.3 μb/sr.
2110 *10*	3+5	dσ/dΩ=82 μb/sr.
2410 *10*	(0+2)	dσ/dΩ=5.7 μb/sr.
2470 *10*	2	dσ/dΩ=15.4 μb/sr.
2530 *10*	2+4	dσ/dΩ=8.0 μb/sr.
2590 *10*	4	dσ/dΩ=4.0 μb/sr.
2640 *10*	2	dσ/dΩ=5.9 μb/sr.
2700 *10*	1+3	dσ/dΩ=10.2 μb/sr.
2760 *10*	0+2	dσ/dΩ=20.5 μb/sr.
2790 *10*	2	dσ/dΩ=5.1 μb/sr.
2860 *10*	2+4	dσ/dΩ=20.5 μb/sr.
2900 *10*	2+4	dσ/dΩ=1.8 μb/sr.

[†] From DWBA analysis of $\sigma(\theta)$.