^{61}Ni(p,d), (pol p,d) 1976Ko06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 114, 1849 (2013)	31-Dec-2012

$J^{\pi}(^{61}Ni)=3/2^{-}$.
(p,d): E(p)=40 MeV. Measured $\sigma(\theta)$, θ=4° to 54°. Enriched target (93%), magnetic spectrograph, FWHM= 45 keV (1976Ko06).
(pol p,d): E(p)=16.6 MeV. Measured $\sigma(\theta)$, asymmetry(θ). Enriched target (79.2%), ΔE-E telescope. FWHM≈80− 150 keV (1971Ma58).
Other: 1974Ko32.
All data are from 1976Ko06, except as noted.

^{60}Ni Levels

E(level)	L†	C^2S†	Comments
0.0	1‡	0.32	
1332 *3*	1	0.43	L: L=1(J=3/2$^-$)+3(J=5/2$^-$)+3(J=7/2$^-$), C^2S=0.31+0.36+0.024 (1971Ma58).
2159 *3*	3#	0.17	L: L=3(J=5/2$^-$)+1(J=3/2$^-$)+1(J=1/2$^-$), C^2S=0.25+0.051+0.015 (1971Ma58).
2284 *3*	1	0.08	
2506 *3*	3#	0.39	
2626 *3*	3#	0.60	
3123 *3*	1+3	0.37+0.30	
3189 *3*	1+3	0.04+0.19	
3270 *3*	1+3	0.29+0.32	
3394 *3*	1+3	0.30+0.08	
3618 *3*	1+3	0.005+0.04	
3670 *3*	(3)	0.07	
3734 *3*	1+3	0.02+0.06	
3871 *3*	1+3	0.05+0.04	
4005 *8*	1+3	0.04+0.01	
4022 *8*	1	0.12	
4045 *8*	4	0.13	
4078 *8*	1+3	0.04+0.03	
4112 *8*	1+3	0.03+0.04	
4163 *8*			
4317 *8*	1+3	0.02+0.02	
4355 *8*	1+3	0.01+0.02	
4489 *8*	1+3	0.02+0.07	
4539 *8*	1+3	0.03+0.06	
4607 *8*	3	0.10	
4845 *8*	1+3	0.02+0.07	
4970 *8*	3	0.05	
5307 *8*	1+3	0.01+0.07	
5381 *8*	3	0.06	
5442 *8*	1+3	0.01+0.12	
5526 *8*	1+3	0.01+0.14	
5923 *8*			
6052 *8*	3	0.25	
6175 *8*	(4)	0.25	
6194 *8*	1+3	0.02+0.15	
6545 *8*	3	0.08	
6605 *8*	3	0.11	
6824 *8*	1+3	0.01+0.16	

† From comparison of $\sigma(\theta)$ with DWBA calculation.
‡ J of transferred neutron=3/2 from comparison of $\sigma(\theta)$ and asymmetry(θ) to DWBA calculation (1971Ma58).
# J of transferred neutron=5/2 from similarity of $\sigma(\theta)$ to those of known transitions in ^{62}Ni(p,d) (1976Ko06).