

$^{59}\text{Co}(\text{p,p}')$, (pol p,p) 1966Ka04

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 151, 1 (2018)	1-Apr-2018

Others: 1997Ah08, 1982Sa37 and 1982Sa19, 1968An23, 1967Ri02, 1966Ha37, 1964Bj01, 1958Co73, 1957Ma03.

1982Sa37: E(pol p)=65 MeV; measured $\sigma(\theta)$, analyzing power, $\theta \approx 20^\circ - 80^\circ$, elastic scattering only. Most data published in 1982Sa19 also. See 1997Ah08 for independent optical model analysis of these data.

1967Ri02: E(p)=155 MeV; FWHM=400-700 keV, $\theta \approx 12^\circ - 35^\circ$; measured $\sigma(\theta)$ for peaks at 1.3, 2.5, 3.2, 3.9 MeV; $\Delta E = 100-200$ keV.

1966Ka04: E(p)=8.972 MeV; measured E(p'); single gap magnetic spectrograph, photographic plates, FWHM=6-8 keV.

1964Bj01: E(p)=3-4.3 MeV; measured E(p'); $\theta = 145.5^\circ$, heavy particle spectrograph.

1963Fu03: E(p)=17.5 MeV; measured $\sigma(\theta)$; double-focusing magnetic spectrometer, Li-drifted junction detectors, FWHM=80 keV.

For $\sigma(\theta)$, polarization from E(p)=6.53 MeV elastic scattering, see 1966Ha37.

 ^{59}Co Levels

<u>E(level)[†]</u>	<u>L[‡]</u>	<u>E(level)[†]</u>	<u>E(level)[†]</u>	<u>E(level)[†]</u>
0.0		2585 6	3195 5	3760 5
1097 5	2	2711 6	3224 5	3765 10
1189 5	2	2720 [#] 10	3235 5	3797 5
1289 5		2770 6	3275 5	3812 5
1432 5		2781 6	3326 5	3819 8
1458 5		2822 6	3383 6	3830 8
1479 5	2	2911 6	3416 5	3845 8
1743 5		2955 6	3425 10	3857 8
2061 5		2964 9	3492 5	3917 10
2086 5		3016 5	3565 5	3925 10
2152 5		3061 5	3582 8	3950 5
2183 5		3082 5	3600 5	3986 8
2205 5		3090 12	3620 10	4000 12
2397 6		3123 7	3655 5	4015 8
2477 6		3140 7	3666 7	4030 8
2540 6		3161 5	3741 5	

[†] For E<3000: from 1957Ma03. For E≥3000: from 1966Ka04 (authors' average of 60°, 120° data). Many additional levels are evident in the spectrum of 1966Ka04 (E≈4000-5700).

[‡] From 1963Fu03.

[#] From 1966Ka04.