

Table 4.25 from (1992TI02): Measurements and analyses of cross sections for proton scattering on  ${}^3\text{He}$

$E_p$ (MeV)	Measurement	$\theta_{\text{c.m.}}$ (deg) or $-t$ (GeV/c) $^2$	Description <sup>a</sup>	Refs.
13.600	$A_y$	15 – 165	Precision measurements. Compared with $n + {}^3\text{He}$ .	<a href="#">1974JA16</a>
85	$\sigma(\theta)$	10 – 168	Compared with various theoretical calculations.	<a href="#">1974VO05</a>
18.0, 20.0, 22.5, 25.0, 27.5, 39.0, 35.0, 40.0, 42.7, 45.0, 48.5, 57.0	$\sigma(E, \theta)$	14 – 165	Phase-shift analysis. Compared to resonating group predictions.	<a href="#">1975MO15</a>
27	$\sigma(\theta), P_3$	40 – 160	Polarized ${}^3\text{He}$ target.	<a href="#">1975WA08</a>
600	$\sigma(\theta)$	$-t = 0.08 - 0.45$	Chose $-t$ range to study nuclear multiple scattering.	<a href="#">1976FA09</a>
16.2	$K_x^{x'}, K_y^{y'}, K_z^{z'}$	30 – 90	$R$ -Matrix analysis.	<a href="#">1976HA08</a>
18 – 48	$\sigma_R(E)$		Beam-attenuation technique.	<a href="#">1976SO01</a>
415, 600	$\sigma(\theta)$	$\theta_p = 136^\circ - 172^\circ$	Detected ${}^3\text{He}$ recoils.	<a href="#">1977FR05</a>
25	$A_y$ for ${}^3\text{He}$	46 – 156	Polarized target.	<a href="#">1978MU14</a>
19.6 – 26.5	$A_y$	135	Phase-shift analysis.	<a href="#">1978MU14</a>
2.30, 3.00, 4.47, 6.80, 8.80	$A_y$	$\approx 45 - 155$	Polarized ${}^3\text{He}$ target.	<a href="#">1978SZ05</a>
6.82, 8.82, 10.77	$K_x^{x'}, K_y^{y'}, K_z^{z'}$	43.6, 58.9, 76.9, 93.9	Compared with calculated values from previous data analyses.	<a href="#">1978WE16</a>
1000	$\sigma(\theta)$	$\approx 20 - 45$	Studied $\sigma(\theta)$ near minimum. Compared with Glauber model.	<a href="#">1979AL15</a>
1.74 – 4.50	$A_y$	40 – 150	$R$ -Matrix analysis. Established order of low-lying $T = 1$ ${}^4\text{Li}$ levels.	<a href="#">1979DE04</a>

Table 4.25 from (1992TI02): Measurements and analyses of cross sections for proton scattering on  $^3\text{He}$  (continued)

$E_p$ (MeV)	Measurement	$\theta_{\text{c.m.}}$ (deg) or $-t$ (GeV/c) <sup>2</sup>	Description <sup>a</sup>	Refs.
0.3 – 1.0	$\sigma(E, \theta), A_y$	52.4 – 173.3	Phase-shift analysis.	<a href="#">1980BE06</a>
700 – 1700	$\sigma(E, \theta)$	160 – 180	Features in $\sigma(E, \theta)$ attributed to baryonic excitation.	<a href="#">1981BE52</a>
1000	$\sigma(E, E_p)$	156	Studied proton spectra.	<a href="#">1983AN18</a>
21.4 – 49.6	$A_y$	20 – 160	Errors < 0.01. Data compared with fits from phase shift and $R$ -matrix predictions.	<a href="#">1984BI05</a>
978	$d\sigma/dt$	$-t = 0.03 - 0.15$ (GeV/c) <sup>2</sup>	Results compared with Glauber-Sitenko theory.	<a href="#">1984BL07</a>
19.5 – 47.5	$\sigma(E, \theta)$	10.1 – 173.4	Phase-shift analysis. Compared with resonating group calculation.	<a href="#">1984MU13</a>
1000	$\sigma(\theta)$	$\approx 10 - 40$	Analyzed by Glauber-Sitenko theory. Obtained p, n r.m.s. radii difference.	<a href="#">1985AL09</a>
25.0, 30.0, 32.5, 35.0	$A_y$	39.8 – 152.6	Polarized $^3\text{He}$ target. Statistical error $\approx 0.05$ .	<a href="#">1985MC04</a>
200, 300, 415, 515	$\sigma(E, \theta), A_y$	15 – 150	Analysis by Glauber multiple scattering theory.	<a href="#">1986HA23</a>

<sup>a</sup> Elastic scattering except as noted.