EXP 89-044 : Response Functions Separations for two-body break-up

January 30, 2000

Optimized counting times (EPERP results)

Part 1 ^{3}He(e,e'p)d Perpendicular Kinematics

Runs #	$\vec{q}$ (GeV/c)	P_m (GeV/c)	t_1 (hr)	t_2 (hr)	t_3 (hr)	Σt_i (hr)	$\delta\sigma_{LT}$ (%)	$\delta\sigma_T$ (%)	$\delta\sigma_{LTT}$ (%)	$\delta\sigma_{LTT}$ ($t=\infty$)
1-2 3	1.500	0.000	0.7	N/A	1.3	2.0	N/A	2.3	11.2	11.1
4 5 6	1.500	0.150	0.9	0.7	3.4	5.0	6.5	2.9	13.0	11.5
7 8 9	1.500	0.300	10.1	6.6	33.3	50.0	6.6	6.3	23.1	11.0
10 11 12	1.500	0.425	19.9	15.5	64.6	100.0	9.6	11.8	37.7	10.4
13 14 15	1.500	0.550	35.2	42.8	122.	200.0	17.7	23.0	66.4	10.1

Part 2 ^{3}He(e,e'p)d Parallel Kinematics

Runs #	$\vec{q}$ (GeV/c)	P_m (GeV/c)	t_1 (hr)	t_3 (hr)	Σt_i (hr)	$\delta\sigma_T$ (%)	$\delta\sigma_L$ (%)	$\delta\sigma_L$ ($t=\infty$)
16 17	1.000	0.000	0.4	0.6	1.0	3.2	6.8	6.8
18 19	1.940	0.000	1.0	1.0	2.0	3.6	24.6	24.4
20 21	2.999	0.000	2.6	2.4	5.0	3.0	37.8	36.3
22 23	1.007	-0.300	12.4	7.6	20.0	9.8	20.3	15.5
24 25	1.940	-0.300	14.4	25.6	40.0	7.2	41.0	17.4
26 27	1.000	+0.300	27.0	23.0	50.0	5.8	16.7	11.5

Note :

1) *Assume 2% systematic error on each cross section determination.*
2) *Forward/Backward acceptance matching factor F1=0.04, for all kinematics.*
3) *Assume 10^{38} luminosity, reduced by a factor of 0.35 (forward and backward) to account for effective acceptances, radiative effects,...*