Foil #	Thickness (um)	# of Runs Avg/ Taken	Detector Threshold	Up/Down Mott Asymmetry	Up/Down Detector Asymmetry	Up/Down Beam Asymmetry	Left/Right Mott Asymmetry	Left/Right Detector Asymmetry	Left/Right Beam Asymmetry
15	1.00	6/6	Low	33.765 ± 0.0803	-0.308 ± 0.0907	0.097 ± 0.0907	0.508 ± 0.0859	1.343 ± 0.0859	0.012 ± 0.0859
3	0.87	6/6	Low	34.584 ± 0.0784	-0.087 ± 0.0891	-0.099 ± 0.0891	0.716 ± 0.0841	0.678 ± 0.0841	0.029 ± 0.0841
4	0.75	6/6	Low	35.609 ± 0.0820	-0.349 ± 0.0939	0.020 ± 0.0939	0.598 ± 0.0883	0.892 ± 0.0883	-0.079 ± 0.0883
2	0.625	6/6	Low	37.212 ± 0.0844	-0.347 ± 0.0980	0.092 ± 0.0980	0.540 ± 0.0916	0.218 ± 0.0916	0.103 ± 0.0916
5	0.50	6/6	Low	38.598 ± 0.0830	0.069 ± 0.0975	0.183 ± 0.0975	0.690 ± 0.0907	0.331 ± 0.0907	0.133 ± 0.0907
14	0.35	6/6	Low	39.174 ± 0.0902	0.052 ± 0.1066	-0.004 ± 0.1066	0.570 ± 0.0992	0.170 ± 0.0992	0.063 ± 0.0992
8	0.35	4/4	Hi	39.183 ± 0.0836	0.162 ± 0.0987	0.042 ± 0.0987	0.590 ± 0.0914	1.348 ± 0.0914	-0.064 ± 0.0914
1	0.225	6/6	Hi	40.965 ± 0.0730	0.469 ± 0.0877	-0.011 ± 0.0877	0.583 ± 0.0812	-0.596 ± 0.0812	0.081 ± 0.0812
12	0.05	5/8	Hi	43.256 ± 0.1134	1.900 ± 0.1395	-0.125 ± 0.1395	0.577 ± 0.1294	-2.846 ± 0.1294	-0.076 ± 0.1294
13	0.05	7/8	Hi	43.464 ± 0.0955	0.416 ± 0.1177	0.248 ± 0.1177	0.694 ± 0.1093	-2.369 ± 0.1093	-0.001 ± 0.1093
15	1.00	10/10	Hi	33.686 ± 0.0519	0.401 ± 0.0585	0.040 ± 0.0585	0.557 ± 0.0554	2.445 ± 0.0554	-0.023 ± 0.0554
15	1.00	10/10	Low	33.634 ± 0.0616	-0.477 ± 0.0694	-0.099 ± 0.0694	0.483 ± 0.0659	1.391 ± 0.0659	0.020 ± 0.0659

Asymmetry vs Thickness Study **More Details on following page**

Time of Flight cuts: same for all four detectors, between 48ns and 58ns

Energy cuts: from E-spectra fit: between mean - 1*sigma and mean + 2*sigma

- Last two rows are the “stability” runs on foil 15, split between hi and low threshold and averaged together
- No hi-threshold data runs for foil 15, first row is low threshold data runs on foil 15
- 82 runs total, 4 not included in averages – *8074, 8079, 8082, 8090* – energy fit failed to find gaussian peak
- insertable half wave-plate flipped between in and out for runs – physics asymmetries corrected (In = 1, Out = -1) so that geometric weighted average is taken
- Detector and Beam, ie Instrumental, Asymmetries have algebraic weighted average
- low detector threshold = -25 mV, hi = -100 mV
- beam momentum = 5.487 MeV/c

Foil 15 Low-T Data (row 1)	Foil 15 Hi-T Stability (row 11)	Foil 15 Low-T Stability (row 12)	Foil 3 0.87 um	Foil 4 0.75 um	Foil 2 0.625 um	Foil 5 0.50 um	Foil 14 0.35 um	Foil 8 0.35 um	Foil 1 0.225 um	Foil 12 0.05 um	Foil 13 0.05 um
7999	8058	8022	8013	8024	8032	8040	8048	8060	8066	8074	8086
8000	8059	8023	8014	8025	8033	8041	8049	8061	8067	8075	8087
8001	8064	8030	8015	8026	8034	8042	8050	8062	8068	8078	8088
8002	8065	8031	8019	8027	8035	8043	8051	8063	8069	8079	8089
8003	8072	8038	8020	8028	8036	8044	8052		8070	8080	8090
8004	8073	8039	8021	8029	8037	8045	8053		8071	8081	8091
	8084	8046								8082	8092
	8085	8047								8083	8093
	8094	8054									
	8095	8055									

8074, 8079, 8082, 8090 – energy fit failed to find gaussian peak – not included in foil's averages