

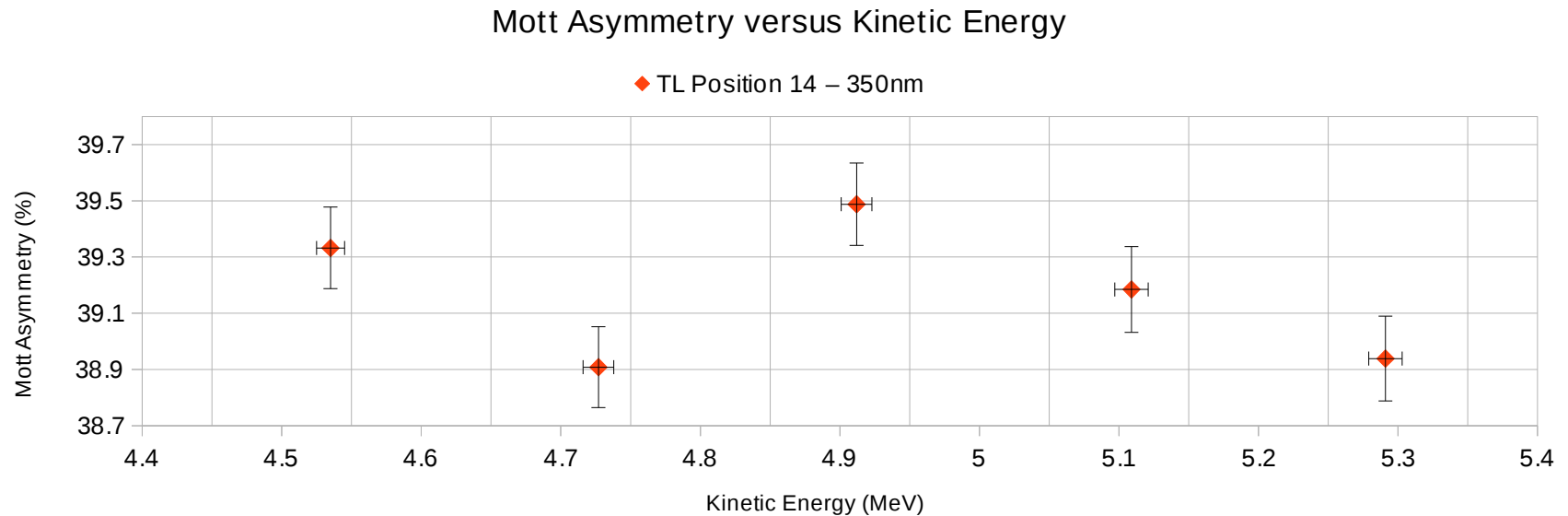
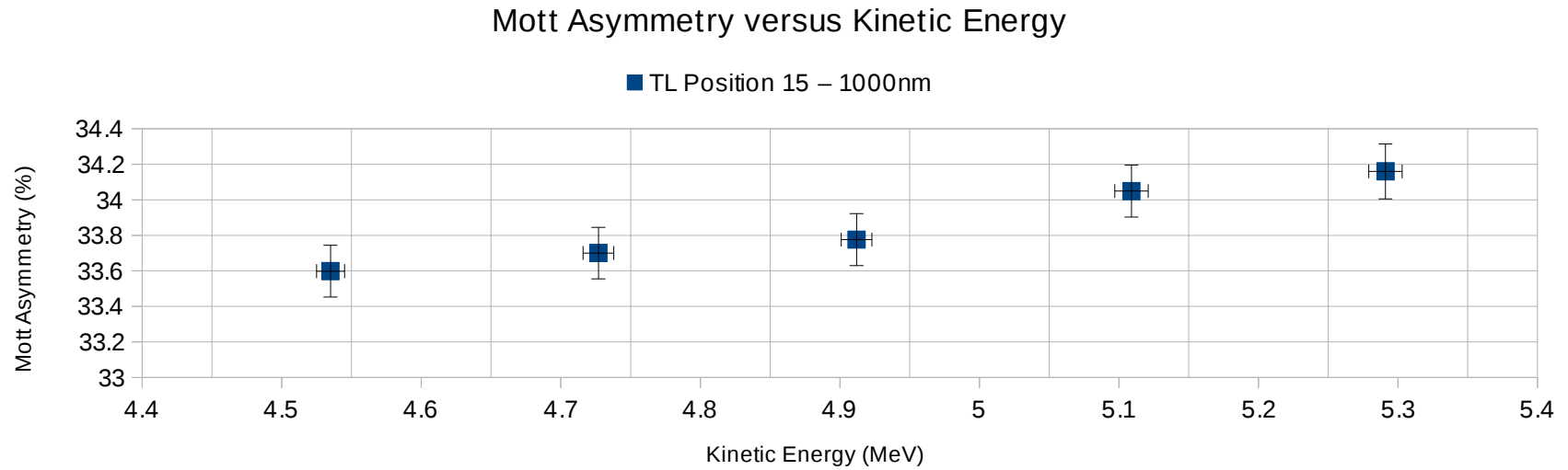
Run II Energy Sensitivity Study

- 40 runs, alternating half-wave plate, 500k events each
- 1000 nm Foil 15 and 350 nm Foil 14
- 4 runs at 5 energies, 5 different 0L02-8 settings
- From Joe's v6 tech note, beam momenta and kinetic energies for each 0L02-8 setting
- From Xavier, theoretical Sherman function values for same beam momenta

Run II Energy Sensitivity Study

Run 2 Asymmetry versus Beam Momentum and Kinetic Energy								
				TL Position 15 1000 nm Foil			TL Position 14 350 nm Foil	
0L02-8	p	d(p)	T	dT	Asym	d(Asym)	Asym	d(Asym)
MV/m	MeV/c	MeV/c	MeV	MeV	%	%	%	%
3.350	5.020	0.011	4.535	0.010	33.598	0.145	39.332	0.145
3.740	5.213	0.011	4.727	0.011	33.700	0.145	38.908	0.144
4.120	5.399	0.011	4.912	0.011	33.776	0.147	39.488	0.146
4.500	5.597	0.012	5.109	0.012	34.049	0.147	39.184	0.153
4.890	5.780	0.012	5.291	0.012	34.160	0.155	38.939	0.151

Run II Energy Sensitivity Study



Run II Energy Sensitivity Study

P = 86.449 +/- 0.550					
p	d(p)	TL Position 15 – 1000nm		TL Position 14 – 350nm	
MeV/c	MeV/c	S_eff	d(S_eff)	S_eff	d(S_eff)
5.020	0.011	0.3756	0.0029	0.4397	0.0032
5.213	0.011	0.3767	0.0029	0.4350	0.0032
5.399	0.011	0.3775	0.0029	0.4414	0.0033
5.597	0.012	0.3806	0.0029	0.4381	0.0033
5.780	0.012	0.3818	0.0030	0.4353	0.0032

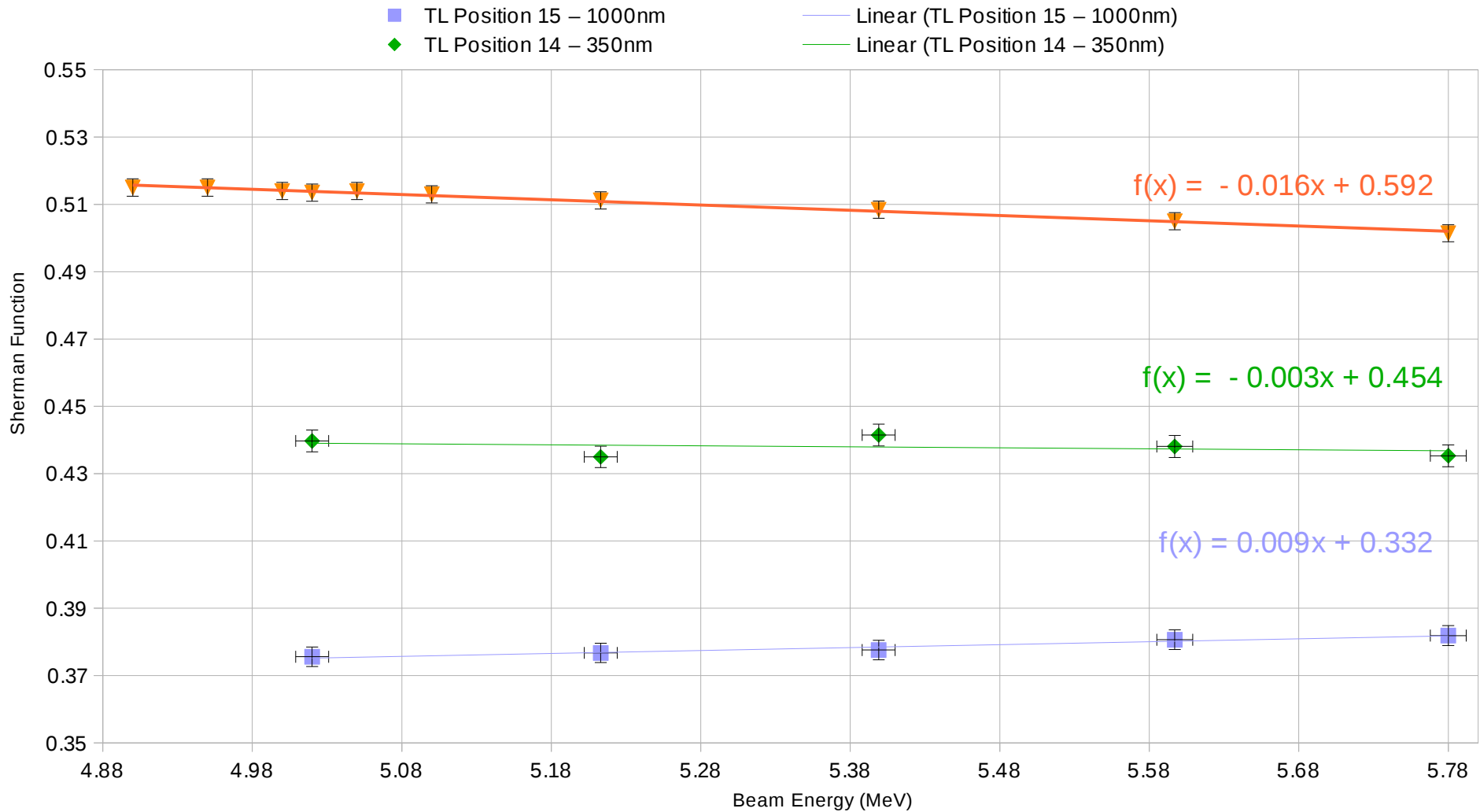
E (MeV)	S_theory
5.020	0.5135
5.213	0.5112
5.399	0.5084
5.597	0.5050
5.780	0.5014
4.900	0.515
4.950	0.515
5.000	0.514
5.050	0.514
5.100	0.513

*0.5% error on S_theory

Run II Energy Sensitivity Study

Sherman Function versus Beam Energy

For Foils, $P = 86.449 \pm 0.550$, $S_{\text{eff}} = \text{Asym}/P$



Run II Energy Sensitivity Study

Normalized About E=5.399 MeV, Sherman Function versus Beam Energy

For Foils, P = 86.449 +/- 0.550, S_eff = Asym/P

