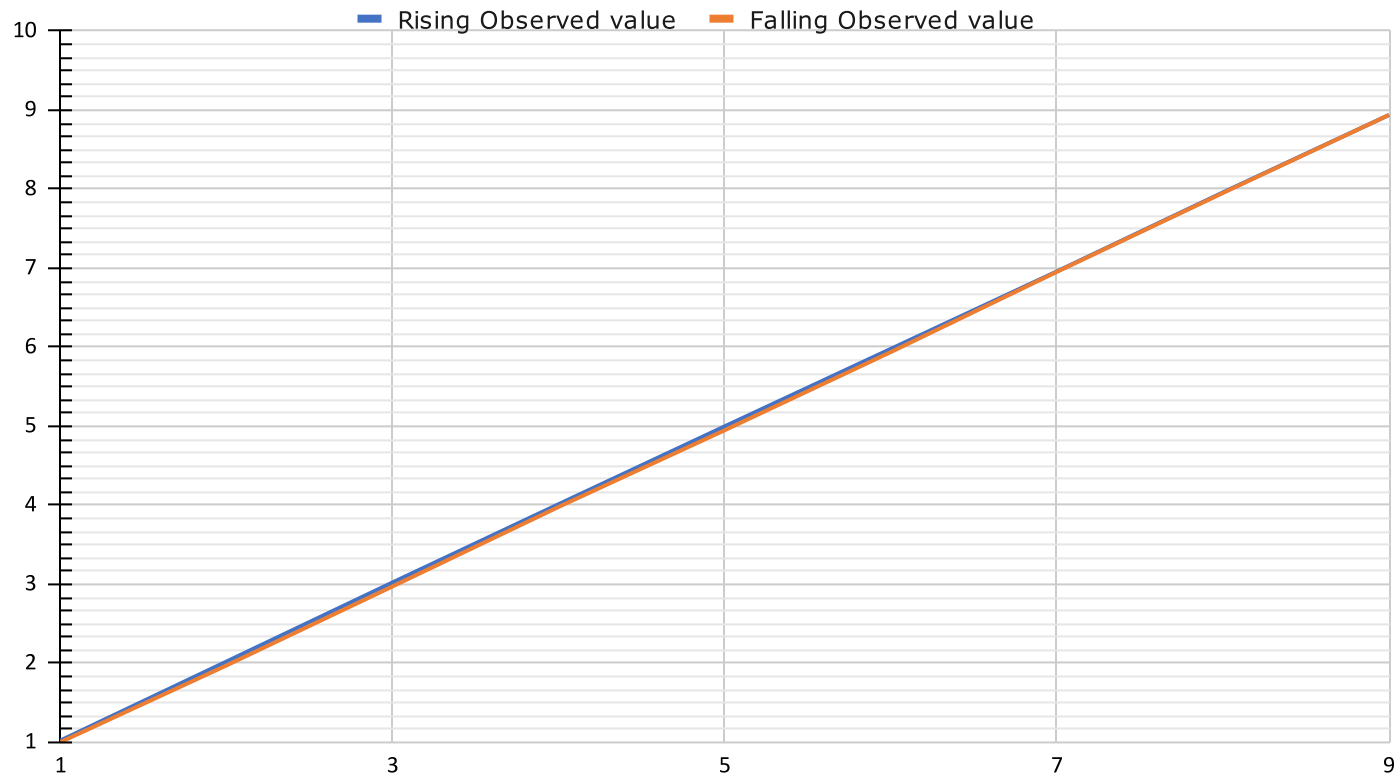


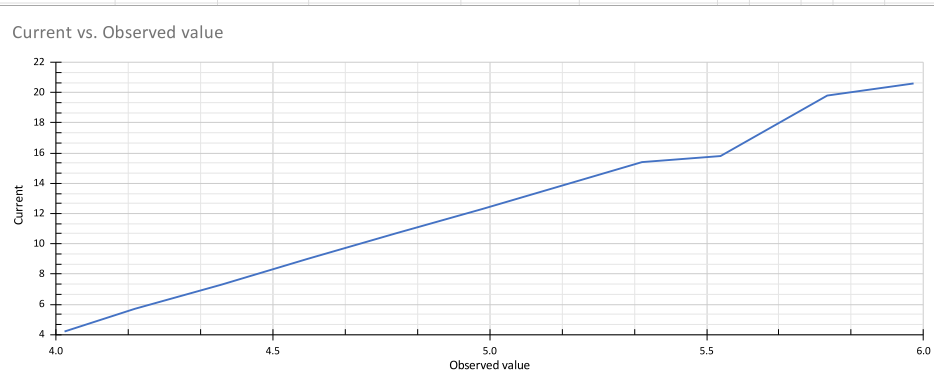
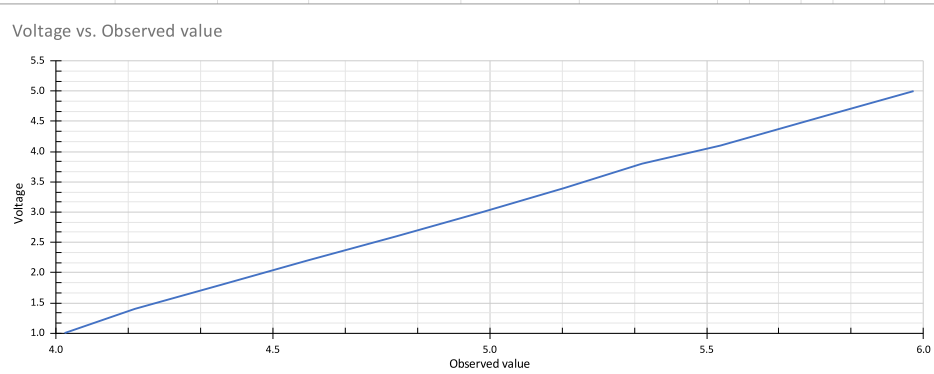
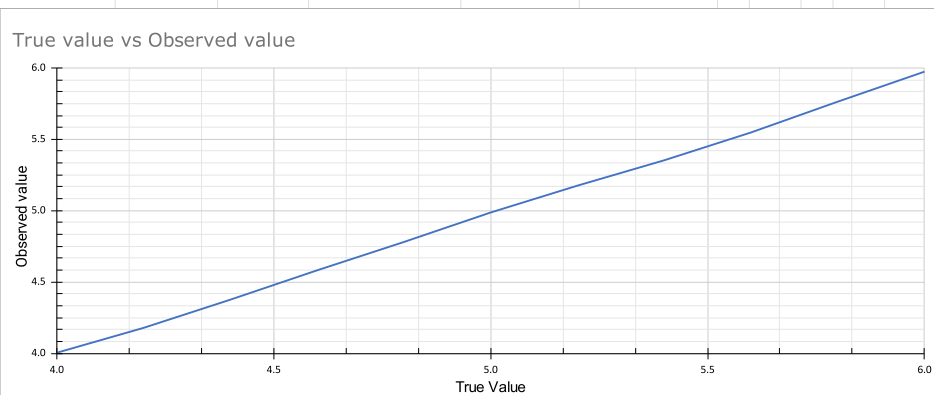
Pressure 1 - 9 bar																
Cycles	True value	Observed value	Current mA	Voltage V		True value	Observed value		TV	OV	TV*OV	TV-OV	% Accuracy			
	True value	Observed value	Current mA	Voltage V		x1	y1	x2	y2	x3	y3	x_avg	y_avg	x*y		
1	1	1.045	4.3	1		1	1.045	1	1.05	1	1.032	1	1.042333333	1.042333333	-0.04233333333	-0.4703703704
	2	2.03	5.3	1.5		2	2.03	2	2.02	2	2.016	2	2.022	4.044	-0.022	-0.2444444444
	3	3.028	9.4	2		3	3.028	3	3.018	3	3.024	3	3.023333333	9.07	-0.02333333333	-0.2592592593
	4	4.013	10.4	2.6		4	4.013	4	4.017	4	4.007	4	4.012333333	16.04933333	-0.01233333333	-0.137037037
	5	5.002	12.5	3		5	5.002	5	4.975	5	4.99	5	4.989	24.945	0.011	0.1222222222
	6	5.99	14.5	3.6		6	5.99	6	5.98	6	5.985	6	5.985	35.91	0.015	0.1666666667
	7	6.973	15.5	4		7	6.973	7	6.968	7	6.947	7	6.962666667	48.73866667	0.03733333333	0.4148148148
	8	7.977	19.6	4.6		8	7.977	8	7.976	8	7.969	8	7.974	63.792	0.026	0.2888888889
	9	8.965	20.7	5.1		9	8.965	9	8.962	9	8.955	9	8.960666667	80.646	0.03933333333	0.437037037
2	True value	Observed value	Current mA	Voltage V												
	1	1.05	4.3	1												
	2	2.02	5.3	1.5												
	3	3.018	9.4	2.1												
	4	4.017	10.5	2.6	sum											
	5	4.975	12.4	3	sum^2											
	6	5.98	14.5	3.5	sum^2/9											
	7	6.968	15.5	4	sum(x^2)											
	8	7.976	19.6	4.6	sum(x)*sum(y)											
9	8.962	20.7	5.1	sum(x)*sum(y)/9												
3	True value	Observed value	Current mA	Voltage V	Subtraction											
	1	1.032	4.2	1	SQRT											
	2	2.016	5.3	1.5												
	3	3.024	9.4	2.1												
	4	4.007	10.4	2.6												
	5	4.99	12.5	3.1	C/(A*B)	0.9999961599										
	6	5.985	14.5	3.6												
	7	6.947	15.5	4												
	8	7.969	19.6	4.6												
9	8.955	20.6	5													
										60	58.76817758	59.38066667				
										7.745966692	7.666040541					
										A	B	C				
										59.3808947						

Rising Pressure				Falling Pressure				Rise - Fall
True value	Observed value	Current mA	Voltage V	True value	Observed value	Current mA	Voltage V	
0	0.01	2.1	0.5	0	0.005	2.1	0.5	0.005
1	1.025	4.2	1	1	1.004	4.2	1	0.021
2	2.024	5.3	1.5	2	1.975	5.2	1.5	0.049
3	3.025	9.4	2	3	2.975	9.3	2	0.05
4	4.015	10.4	2.6	4	3.981	10.3	2.5	0.034
5	5	12.5	3	5	4.951	12.4	3	0.049
6	5.98	14.5	3.6	6	5.94	14.4	3.6	0.04
7	6.96	15.5	4	7	6.955	15.5	4	0.005
8	7.96	19.6	4.6	8	7.953	19.6	4.6	0.007
9	8.94	20.6	5.1	9	8.94	20.6	5.1	0
								0.05
								Hysterise= 0.05

True value	Rising Observed value	Falling Observed value
1	1.025	1.004
2	2.024	1.975
3	3.025	2.975
4	4.015	3.981
5	5	4.951
6	5.98	5.94
7	6.96	6.955
8	7.96	7.953
9	8.94	8.94

Rising Observed value and Falling Observed value



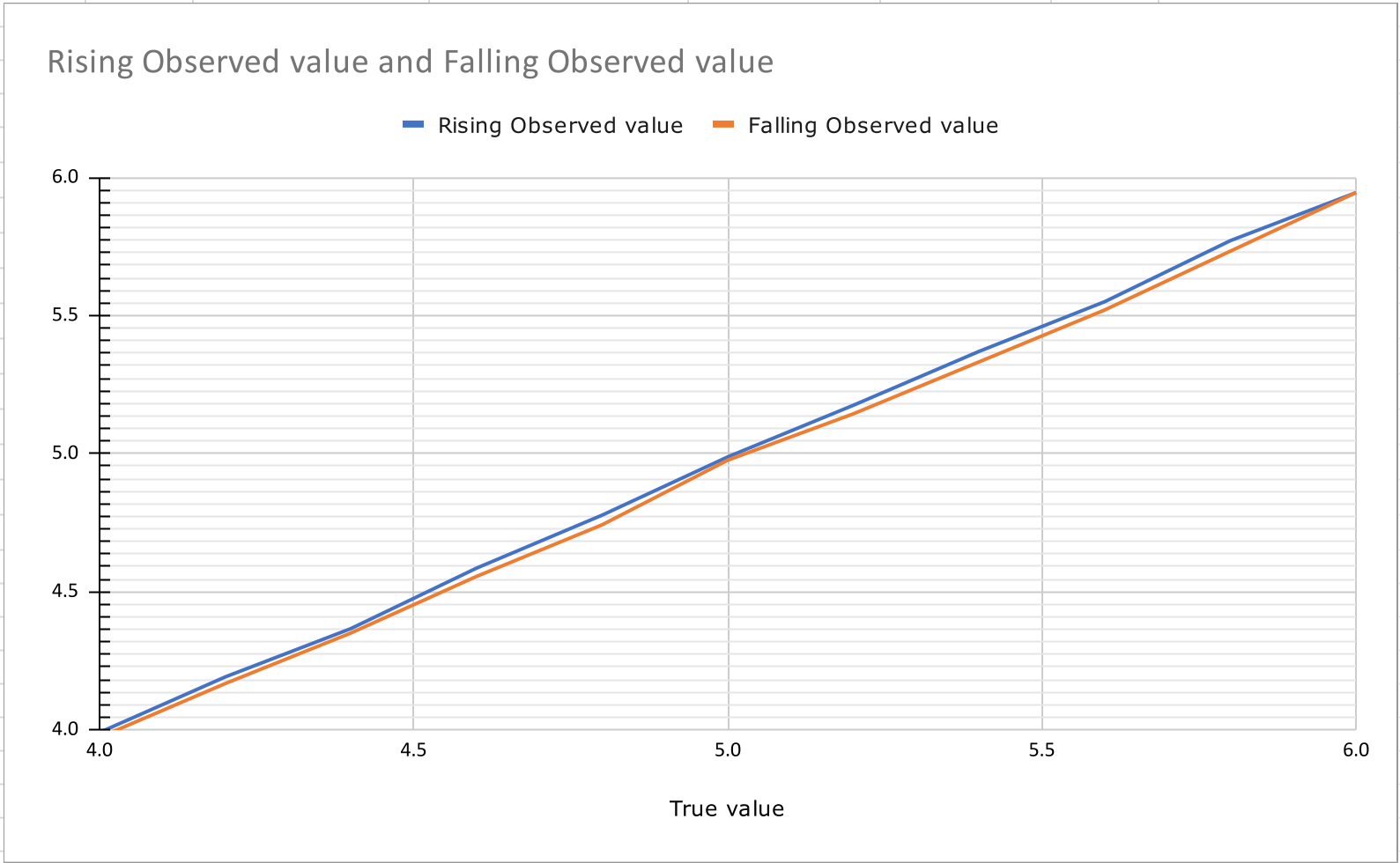
Pressure 4 - 6 bar																
Cycles	True value	Observed value	mA current	voltage						TV	OV	TV*OV	TV-OV	% Accuracy		
	True value	Observed value	Current mA	Voltage V	True value	Observed value	x2	y2	x3	y3	x_avg	y_avg	x*y			
1	4	4.02	4.2	1	x1	y1	4	4.001	4	3.99	4	4.003666667	16.01466667	-0.00366666667	-0.03333333333	
	4.2	4.182	5.7	1.4	4.2	4.182	4.2	4.175	4.2	4.177	4.2	4.178	17.5476	0.022	0.2	
	4.4	4.382	7.3	1.8	4.4	4.382	4.4	4.355	4.4	4.39	4.4	4.375666667	19.25293333	0.02433333333	0.2212121212	
	4.6	4.58	9	2.2	4.6	4.58	4.6	4.574	4.6	4.59	4.6	4.581333333	21.07413333	0.01866666667	0.1696969697	
	4.8	4.785	10.7	2.6	4.8	4.785	4.8	4.77	4.8	4.785	4.8	4.78	22.944	0.02	0.1818181818	
	5	4.983	12.3	3	5	4.983	5	4.992	5	4.985	5	4.986666667	24.93333333	0.01333333333	0.1212121212	
	5.2	5.173	13.9	3.4	5.2	5.173	5.2	5.185	5.2	5.167	5.2	5.175	26.91	0.025	0.2272727273	
	5.4	5.351	15.4	3.8	5.4	5.351	5.4	5.352	5.4	5.355	5.4	5.352666667	28.9044	0.04733333333	0.4303030303	
	5.6	5.532	15.8	4.1	5.6	5.532	5.6	5.556	5.6	5.555	5.6	5.547666667	31.06693333	0.05233333333	0.4757575758	
	5.8	5.778	19.8	4.6	5.8	5.778	5.8	5.762	5.8	5.751	5.8	5.763666667	33.42926667	0.03633333333	0.3303030303	
	6	5.977	20.6	5	6	5.977	6	5.97	6	5.975	6	5.974	35.844	0.026	0.2363636364	
2	True value	Observed value	Current mA	Voltage V												
	4	4.001	4.2	1												
	4.2	4.175	5.6	1.4												
	4.4	4.355	7.1	1.7												
	4.6	4.574	9.9	2.2												
	4.8	4.77	10.5	2.6												
	5	4.992	12.4	3	sum						55	54.71833333	277.9212667		2.560606061	
	5.2	5.185	14	3.4	sum^2						3025	2994.096003			0.2327823691	
	5.4	5.352	15.4	3.8	sum^2/11						275	272.1905457				
	5.6	5.556	17	4.2	sum(x^2)						279.4	276.4521494				
	5.8	5.762	19.8	4.6	sum(x)*sum(y)								3009.508333			
6	5.97	20.5	5	sum(x)*sum(y)/11								273.5916667				
3	True value	Observed value	Current mA	Voltage V												
	4	3.99	4.1	1	Subtraction						4.4	4.261603737	4.3296			
	4.2	4.177	5.6	1.4	SQRT						2.097617696	2.064365214				
	4.4	4.39	7.2	1.8							A	B	C			
	4.6	4.59	9.1	2.2												
	4.8	4.785	10.7	2.6							4.330249005					
	5	4.985	12.3	3	C/(A*B)	0.999850123										
	5.2	5.167	13.8	3.4												
	5.4	5.355	15.4	3.8												
	5.6	5.555	17	4.2												
	5.8	5.751	19.7	4.6												
6	5.975	20.6	5													
Observed value		mA current														
4.02		4.2														
4.182		5.7														
4.382		7.3														
4.58		9														
4.785		10.7														
4.983		12.3														
5.173		13.9														
5.351		15.4														
5.532		15.8														
5.778		19.8														
5.977		20.6														
																
Observed value		Voltage														
4.02		1														
4.182		1.4														
4.382		1.8														
4.58		2.2														
4.785		2.6														
4.983		3														
5.173		3.4														
5.351		3.8														
5.532		4.1														
5.778		4.6														
5.977		5														
																
True Value		Observed value														
4		4.003666667														
4.2		4.178														
4.4		4.375666667														
4.6		4.581333333														
4.8		4.78														
5		4.986666667														
5.2		5.175														
5.4		5.352666667														
5.6		5.547666667														
5.8		5.763666667														
6		5.974														
																

A				Falling Pressure					
True value	Observed value	Current mA	Voltage V	True value	Observed value	Current mA	Voltage V	Rise - Fall	
4	3.99	4.1	1	4	3.972	4	1	0.018	
4.2	4.191	5.8	1.4	4.2	4.167	5.6	1.4	0.024	
4.4	4.366	7.2	1.8	4.4	4.35	7.1	1.7	0.016	
4.6	4.585	9	2.2	4.6	4.555	9.8	2.2	0.03	
4.8	4.777	10.6	2.6	4.8	4.742	10.4	2.5	0.035	
5	4.988	12.4	3	5	4.976	12.2	3	0.012	
5.2	5.175	13.9	3.4	5.2	5.144	13.7	3.4	0.031	
5.4	5.37	15.5	3.8	5.4	5.332	15.2	3.8	0.038	
5.6	5.55	17	4.2	5.6	5.52	15.7	4.2	0.03	
5.8	5.771	19.8	4.6	5.8	5.733	19.6	4.6	0.038	
6	5.945	20.3	5	6	5.945	20.3	5	0	

0.038

**Hysteresis = 0.038**

True value	Rising Observed value	Falling Observed value
4	3.99	3.972
4.2	4.191	4.167
4.4	4.366	4.35
4.6	4.585	4.555
4.8	4.777	4.742
5	4.988	4.976
5.2	5.175	5.144
5.4	5.37	5.332
5.6	5.55	5.52
5.8	5.771	5.733
6	5.945	5.945

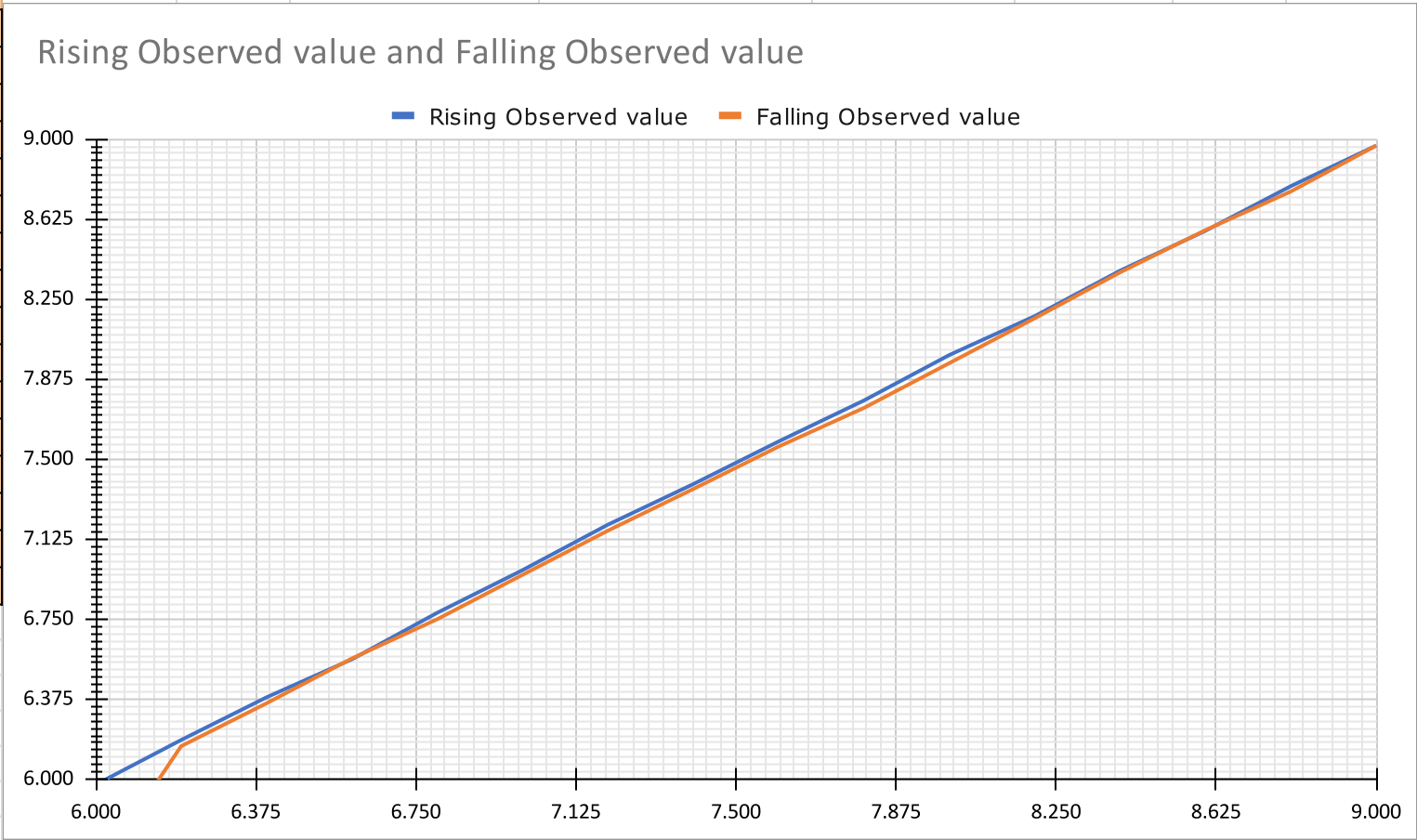




A				Falling Pressure				Rise - Fall
True value	Observed value	Current mA	Voltage V	True value	Observed value	Current mA	Voltage V	
6	5.975	3.9	0.99	6	5.56	3.8	0.97	0.415
6.2	6.184	5	1.27	6.2	6.155	4.8	1.23	0.029
6.4	6.384	5.1	1.54	6.4	6.356	5.9	1.5	0.028
6.6	6.562	7	1.79	6.6	6.566	7	1.9	-0.004
6.8	6.78	9.2	2.08	6.8	6.75	9	2.04	0.03
7	6.98	9.3	2.35	7	6.958	9.1	2.33	0.022
7.2	7.193	10.4	2.55	7.2	7.165	10.3	2.51	0.028
7.4	7.383	11.4	2.9	7.4	7.36	11.3	2.98	0.023
7.6	7.583	12.5	3.18	7.6	7.559	12.3	3.15	0.024
7.8	7.775	13.5	3.44	7.8	7.74	13.3	3.41	0.035
8	7.988	14.6	3.74	8	7.95	14.4	3.58	0.038
8.2	8.17	15.6	3.98	8.2	8.16	15.5	3.96	0.01
8.4	8.383	15.7	4.27	8.4	8.375	15.7	4.26	0.008
8.6	8.57	17.7	4.52	8.6	8.573	17.7	4.53	-0.003
8.8	8.779	19.8	4.91	8.8	8.754	19.7	4.77	0.025
9	8.969	19.9	5.06	9	8.969	19.9	5.06	0
								0.415

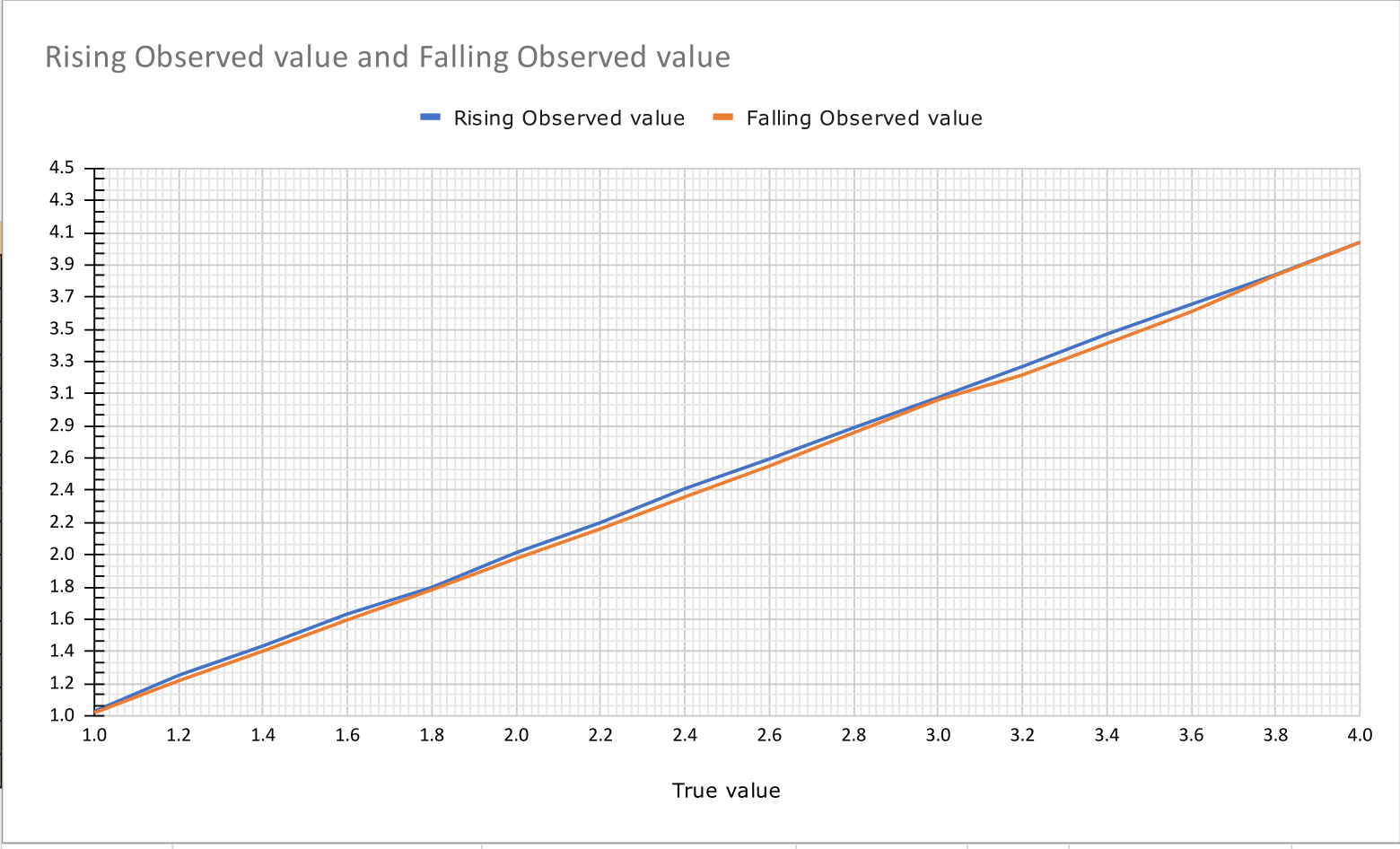
Hysteresis = 0.415

True value	Rising Observed value	Falling Observed value
6	5.975	5.56
6.2	6.184	6.155
6.4	6.384	6.356
6.6	6.562	6.566
6.8	6.78	6.75
7	6.98	6.958
7.2	7.193	7.165
7.4	7.383	7.36
7.6	7.583	7.559
7.8	7.775	7.74
8	7.988	7.95
8.2	8.17	8.16
8.4	8.383	8.375
8.6	8.57	8.573
8.8	8.779	8.754
9	8.969	8.969





A				Falling Pressure				Rise - Fall		
True value	Observed value	Current mA	Voltage V	True value	Observed value	Current mA	Voltage V			
1	1.03	4.2	1.07	1	1.02	4.1	1.05	0.01		
1.2	1.26	5.4	1.38	1.2	1.225	5.1	1.3	0.035		
1.4	1.448	5.4	2.54	1.4	1.415	5.2	1.59	0.033		
1.6	1.652	7.5	1.91	1.6	1.614	7.3	1.96	0.038		
1.8	1.822	8.5	2.14	1.8	1.806	9.3	2.12	0.016		
2	2.044	9.6	2.44	2	2.006	9.4	2.39	0.038		
2.2	2.236	10.6	2.71	2.2	2.196	10.4	2.54	0.04		
2.4	2.453	11.8	3	2.4	2.4	11.6	2.94	0.053		
2.6	2.642	12.8	3.36	2.6	2.597	12.5	3.2	0.045		
2.8	2.842	13.8	3.53	2.8	2.81	13.7	3.48	0.032		
3	3.035	15	3.9	3	3.02	14.8	3.77	0.015		
3.2	3.233	15.9	4.06	3.2	3.179	15.6	3.98	0.054		
3.4	3.44	17	4.34	3.4	3.381	15.7	4.26	0.059	<b>Hysteresis = 0.059</b>	
3.6	3.63	18	4.51	3.6	3.583	18	4.53	0.047		
3.8	3.82	19.1	4.96	3.8	3.815	19	4.95	0.005		
4	4.027	20.1	5.15	4	4.027	20.1	5.15	0		
								0.059		





Pressure range (kg/cm^2)	Average Accuracy(%)	Linearity(% of full scale)	Hysteresis
1 to 9	0.035	0.999	0.05
4 to 6	0.233	0.999	0.038
6 to 9	0.132	0.999	0.415
1 to 4	0.184	0.999	0.059
Pressure range (kg/cm^2)	RMSE	MAPE	
1 to 9	0.035	0.999	
4 to 6	0.233	0.999	
6 to 9	0.132	0.999	
1 to 4	0.184	0.999	

