

Thruster Report

Magnetic Field: 750 mT
Anode Power: 1117 W
Anode Current: 10.0 A
Propellant: Argon 1.999 mg/s

Thruster Details: Nagoya magnet, LaB6 cathode, 1 mm orifice, copper anode, 80 mm internal diameter.

Thrust	Thrust Eff.	ISP	Total DOF	Coverage Factor	Exp. Uncertainty	Std. Uncertainty
26.2 mN	15.4 %	1335.4 sec	21	2.08	2.5 mN	1.2 mN

Thrust-Stand Uncertainty Components

	Scale	Hysteresis	Repeatability	Noise	Offset	Drift
Value	0.5 mN	0.7 mN	0.2 mN	0.5 mN	0.7 mN	0.1 mN
DOF	6	6	6	31	4	4

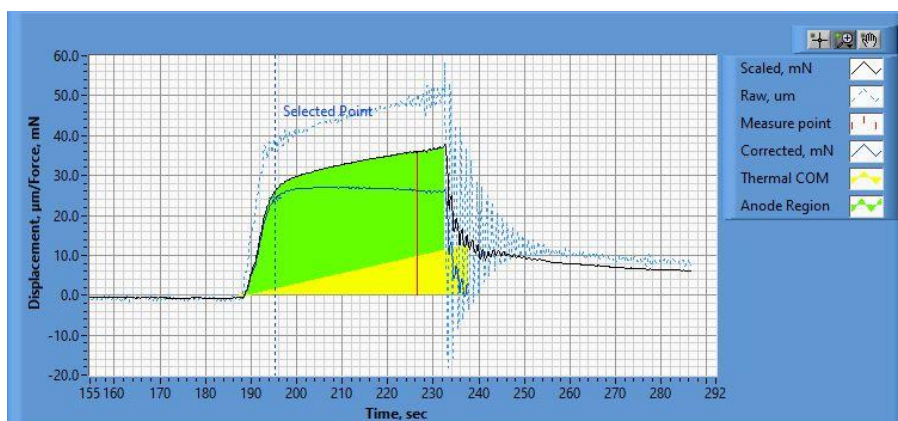


Figure 1. Thrust Plot

File Name: Philtech Data 2024.11.24_00.50.53.csv

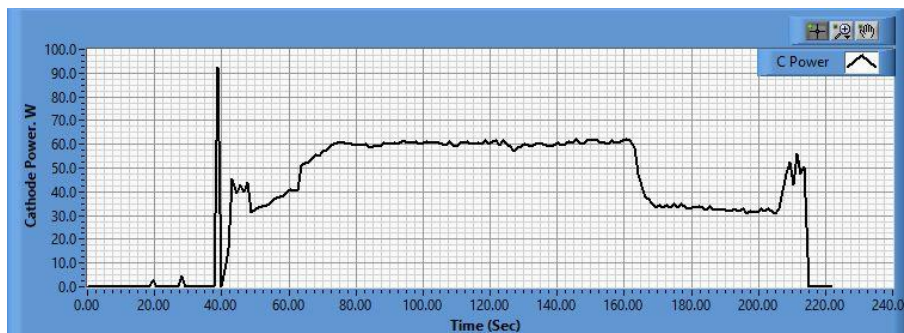
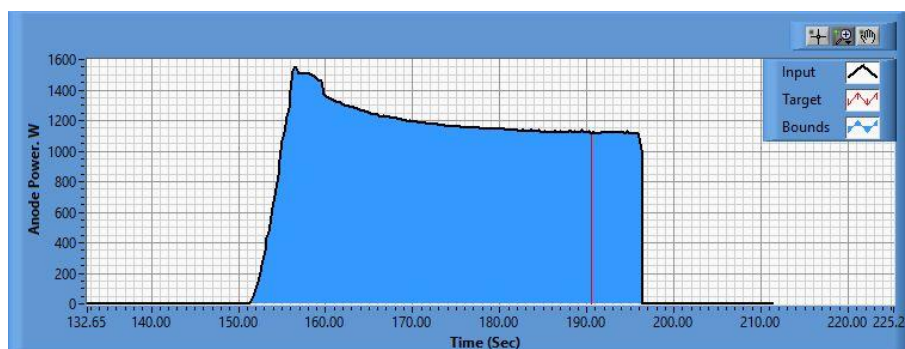


Figure 2. Cathode Power Plot

File Name: PSU C Data 2024.11.24_00.51.19.csv

**Figure 3. Anode Power Plot**

File Name: PSU A Data 2024.11.24_00.51.29.csv

Pre-Cal. Information

File Name: Magnet_Flow_1_5_Philtech Data 2024.11.22_15.22.48.csv

Start/Stop times (24 h): 15:22:54 15:26:39

Sensitivity: 1.61 $\mu\text{m}/\text{mN}$

Offset	Drift	Scale Factor	Scale Std.Dev
0.250 mN	0.000 mN/s	0.621	0.968 mN

Plateau values:

Weight 0	Weight 1	Weight 2	Weight 3	Weight 4	Weight 5	Weight 4	Weight 3	Weight 2	Weight 1	Weight 0
-0.3 mN	20.7 mN	39.0 mN	59.4 mN	80.6 mN	100.9 mN	80.1 mN	59.0 mN	38.7 mN	20.6 mN	1.1 mN

Post-Cal. Information

File Name: Magnet_Flow_2_0_Philtech Data 2024.11.22_15.27.11.csv

Start/Stop times (24 h): 15:27:21 15:31:06

Sensitivity: 1.62 $\mu\text{m}/\text{mN}$

Offset	Drift	Scale Factor	Scale Std.Dev
0.798 mN	0.003 mN/s	0.617	0.925 mN

Plateau values:

Weight 0	Weight 1	Weight 2	Weight 3	Weight 4	Weight 5	Weight 4	Weight 3	Weight 2	Weight 1	Weight 0
0.1 mN	20.9 mN	39.2 mN	59.8 mN	80.9 mN	101.1 mN	80.1 mN	59.1 mN	38.7 mN	20.6 mN	1.0 mN

