

Thruster Report

Magnetic Field: 750 mT
Anode Power: 202 W
Anode Current: 2.0 A
Propellant: Argon 1.490 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
4.6 mN	3.5 %	313.5 sec	18	2.09	3.4 mN	1.6 mN

Thrust-Stand Uncertainty Components

	Scale	Hysteresis	Repeatability	Noise	Offset	Drift
Value	0.7 mN	0.7 mN	0.2 mN	0.4 mN	0.6 mN	1.0 mN
DOF	6	6	6	31	4	4

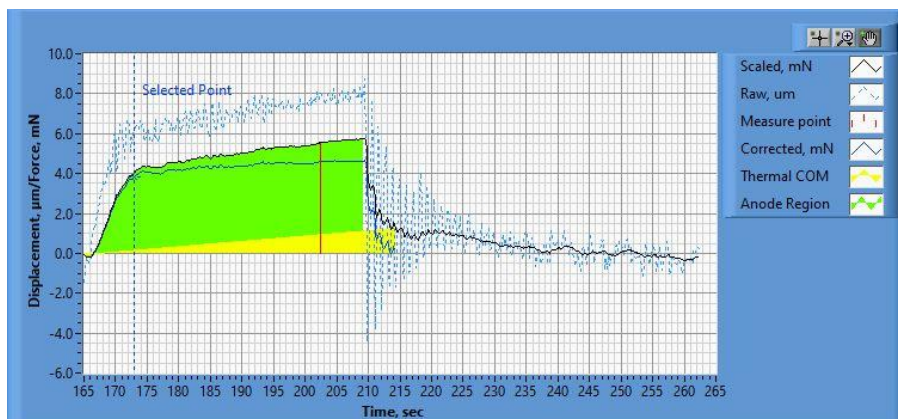


Figure 1. Thrust Plot

File Name: Philtech Data 2024.11.23_08.42.23.csv

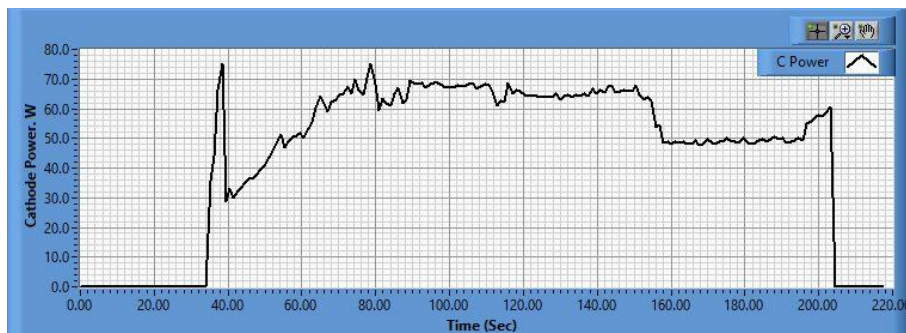
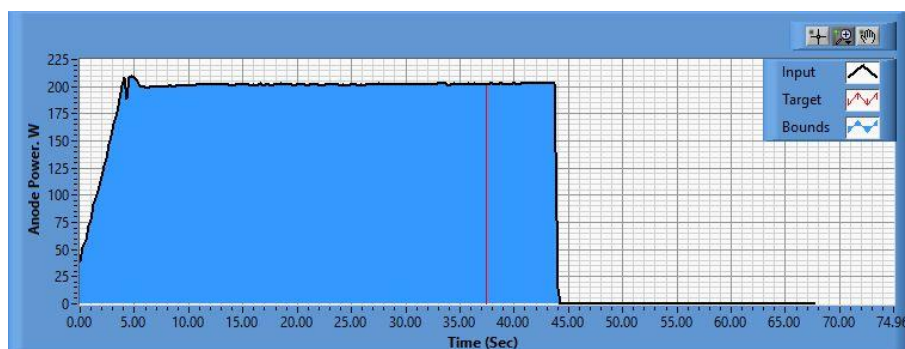


Figure 2. Cathode Power Plot

File Name: PSU C Data 2024.11.23_08.42.37.csv

**Figure 3. Anode Power Plot**

File Name: PSU A Data 2024.11.23_08.45.08.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: Philtech Data 2024.11.23_08.42.23.csv

Start/Stop times (24 h): 08:49:07 08:53:01

Sensitivity: 1.71 $\mu\text{m}/\text{mN}$

Offset	Drift	Scale Factor	Scale Std.Dev
0.198 mN	-0.032 mN/s	0.586	1.215 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
-0.2 mN	21.6 mN	38.8 mN	60.7 mN	80.8 mN	100.8 mN	79.3 mN	59.0 mN	37.9 mN	21.2 mN	0.1 mN

