

Thruster Report

Magnetic Field: 199 mT
Anode Power: 581 W
Anode Current: 8.0 A
Propellant: Argon 1.500 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
8.8 mN	4.4 %	597.9 sec	39	2.06	3.7 mN	1.8 mN

Thrust-Stand Uncertainty Components

	Scale	Hysteresis	Repeatability	Noise	Offset	Drift
Value	0.7 mN	0.8 mN	0.4 mN	1.0 mN	0.4 mN	0.8 mN
DOF	6	6	6	31	4	4

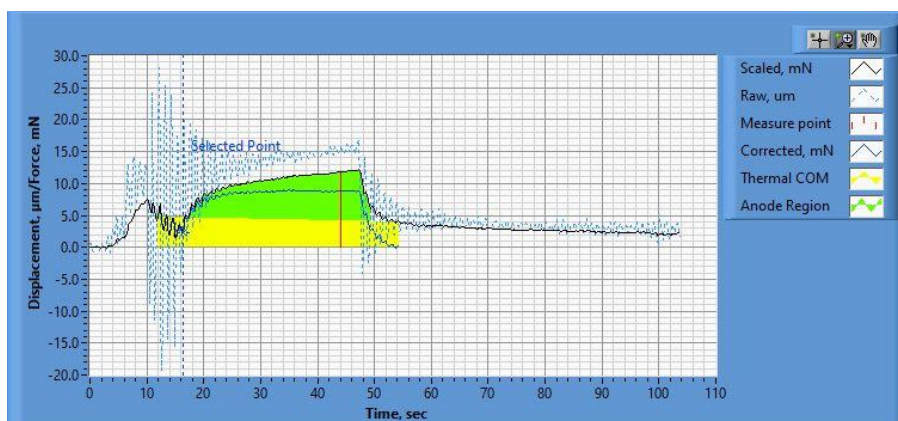


Figure 1. Thrust Plot

File Name: Philtech Data 2024.10.10_19.56.52.csv

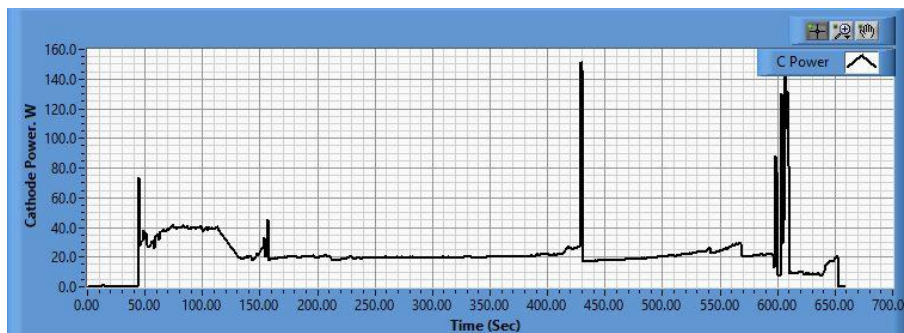
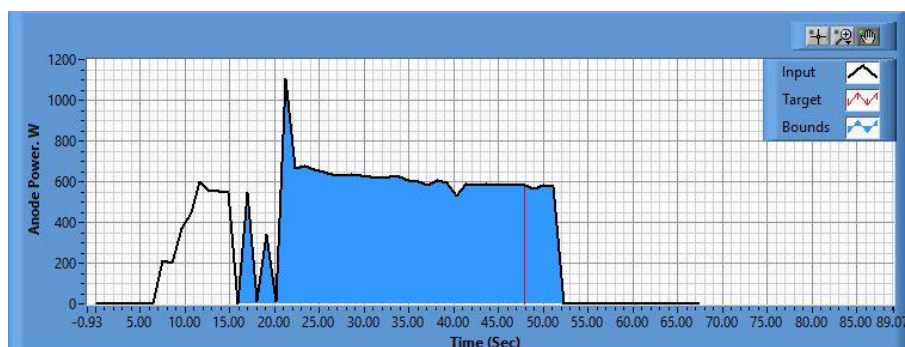


Figure 2. Cathode Power Plot

File Name: PSU C Data 2024.10.10_19.46.59.csv

**Figure 3. Anode Power Plot**

File Name: PSU A Data 2024.10.10_19.56.48.csv

Pre-Cal. Information

File Name: CALibration_with_magnet_and_Cathode_Philtech Data 2024.10.09_19.38.31.csv

Start/Stop times (24 h): 19:38:34 19:42:19

Sensitivity: 1.53 $\mu\text{m}/\text{mN}$

Offset	Drift	Scale Factor	Scale Std.Dev
0.438 mN	-0.003 mN/s	0.654	0.814 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
-0.0 mN	37.6 mN	74.4 mN	110.5 mN	146.8 mN	184.9 mN	147.1 mN	110.9 mN	75.6 mN	36.4 mN	0.5 mN

Post-Cal. Information

File Name: Philtech Data 2024.10.10_19.56.52.csv

Start/Stop times (24 h): 20:00:55 20:02:52

Sensitivity: 1.53 $\mu\text{m}/\text{mN}$

Offset	Drift	Scale Factor	Scale Std.Dev
-2.833 mN	-0.032 mN/s	0.655	1.622 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	36.8 mN	72.5 mN	108.0 mN	144.2 mN	184.0 mN	145.6 mN	109.4 mN	75.2 mN	38.2 mN	-0.5 mN

