

Thruster Report

Magnetic Field: 199 mT
Anode Power: 257 W
Anode Current: 4.0 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
4.6 mN	2.1 %	236.0 sec	14	2.11	2.8 mN	1.3 mN

Thrust-Stand Uncertainty Components

	Scale	Hysteresis	Repeatability	Noise	Offset	Drift
Value	1.1 mN	0.5 mN	0.3 mN	0.3 mN	0.4 mN	0.3 mN
DOF	6	6	6	31	4	4

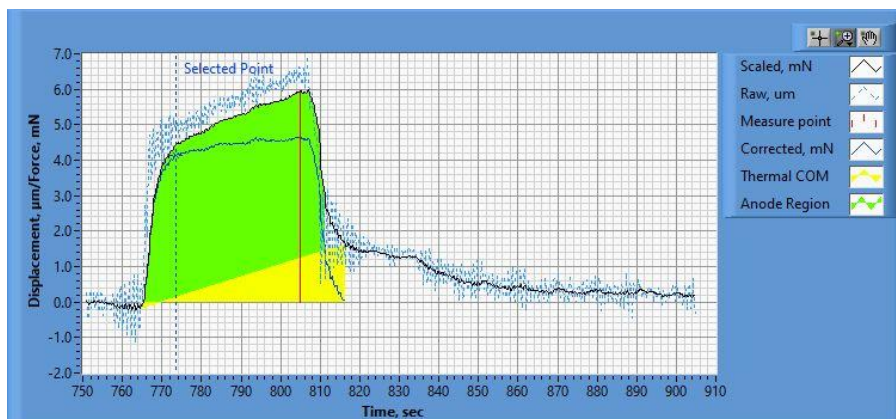


Figure 1. Thrust Plot

File Name: Philtech Data 2024.09.18_09.58.04.csv

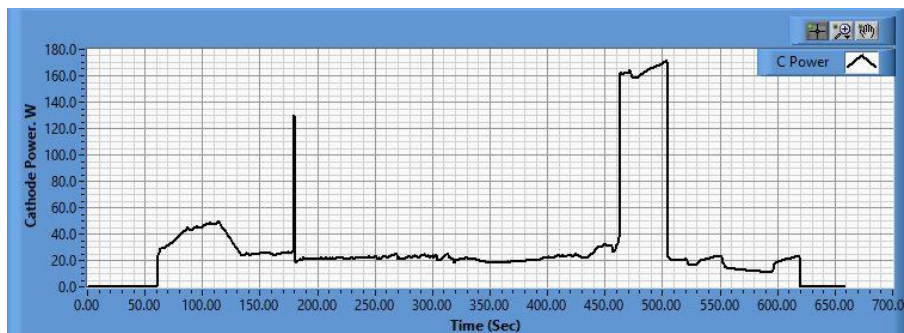
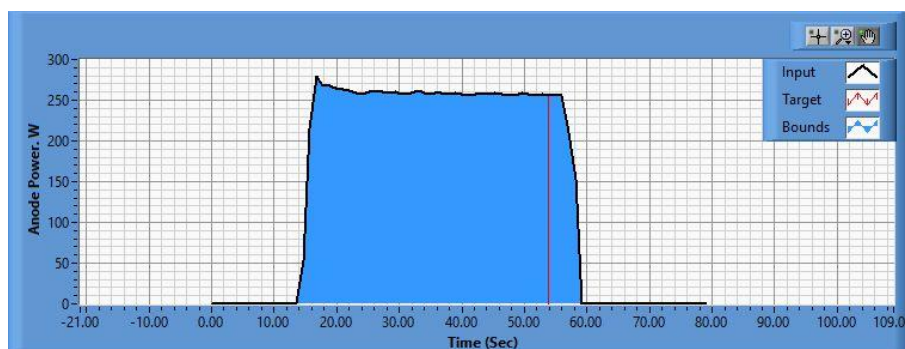


Figure 2. Cathode Power Plot

File Name: PSU C Data 2024.09.18_10.01.38.csv

**Figure 3. Anode Power Plot**

File Name: PSU A Data 2024.09.18_10.10.35.csv

Pre-Cal. Information

File Name: BaseLine_with_Magnet_Philtech Data 2024.09.18_09.28.52.csv

Start/Stop times (24 h): 09:29:04 09:32:49

Sensitivity: 1.29 $\mu\text{m}/\text{mN}$

Offset	Drift	Scale Factor	Scale Std.Dev
-0.836 mN	0.009 mN/s	0.777	1.150 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
-0.6 mN	13.1 mN	27.7 mN	40.9 mN	51.9 mN	67.9 mN	51.3 mN	40.6 mN	26.7 mN	12.6 mN	-0.1 mN

Post-Cal. Information

File Name: Philtech Data 2024.09.18_09.58.04.csv

Start/Stop times (24 h): 10:15:06 10:18:50

Sensitivity: 1.29 $\mu\text{m}/\text{mN}$

Offset	Drift	Scale Factor	Scale Std.Dev
1.585 mN	-0.000 mN/s	0.774	1.241 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	13.5 mN	28.3 mN	41.4 mN	52.0 mN	67.9 mN	51.5 mN	40.6 mN	26.7 mN	12.6 mN	0.3 mN

