

Thruster Report

Magnetic Field: 265 mT
Anode Power: 141 W
Anode Current: 2.0 A
Propellant: Argon 2.000 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
3.1 mN	1.7 %	156.0 sec	27	2.08	2.6 mN	1.2 mN

Thrust-Stand Uncertainty Components

	Scale	Hysteresis	Repeatability	Noise	Offset	Drift
Value	0.8 mN	0.5 mN	0.2 mN	0.6 mN	0.5 mN	0.2 mN
DOF	6	6	6	31	4	4

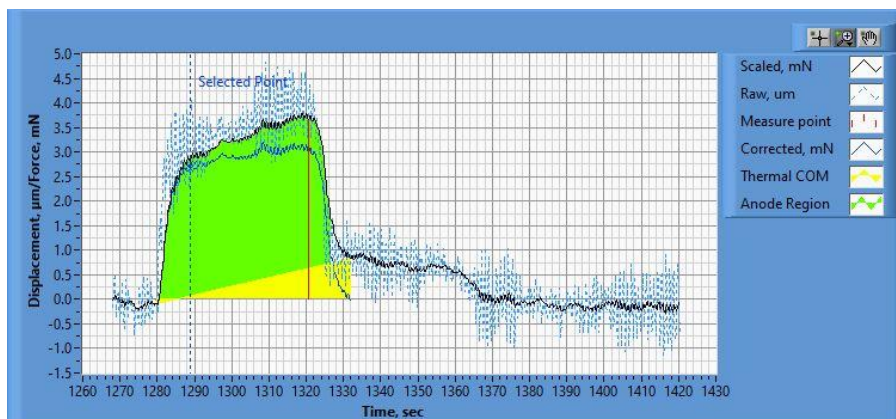


Figure 1. Thrust Plot

File Name: Philtech Data 2024.09.17_14.04.50.csv

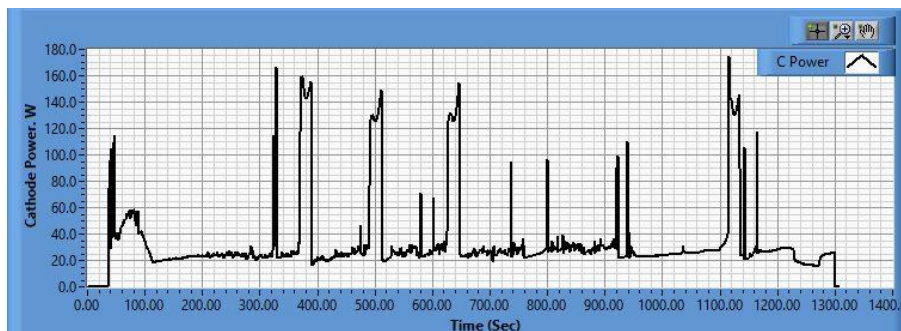
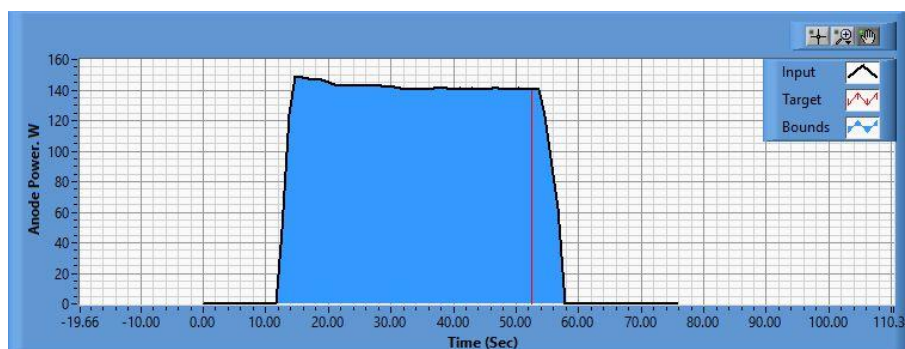


Figure 2. Cathode Power Plot

File Name: PSU C Data 2024.09.17_14.05.42.csv

**Figure 3. Anode Power Plot**

File Name: PSU A Data 2024.09.17_14.25.58.csv

Pre-Cal. Information

File Name: BaseLine_Magnet_Philtech Data 2024.09.17_13.36.23.csv

Start/Stop times (24 h): 13:36:24 13:40:10

Sensitivity: 1.27 $\mu\text{m}/\text{mN}$

Offset	Drift	Scale Factor	Scale Std.Dev
-0.404 mN	-0.003 mN/s	0.786	0.872 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	12.9 mN	27.2 mN	41.3 mN	52.8 mN	67.9 mN	52.0 mN	40.5 mN	26.8 mN	12.6 mN	0.3 mN

Post-Cal. Information

File Name: PostThrust Philtech Data 2024.09.17_14.04.50.csv

Start/Stop times (24 h): 14:05:06 14:08:51

Sensitivity: 1.26 $\mu\text{m}/\text{mN}$

Offset	Drift	Scale Factor	Scale Std.Dev
-0.635 mN	0.002 mN/s	0.792	0.955 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
-0.8 mN	12.6 mN	28.4 mN	41.5 mN	53.3 mN	67.7 mN	52.4 mN	41.0 mN	26.8 mN	12.0 mN	-0.3 mN

