

## Thruster Report

**Magnetic Field:** 1000 mT  
**Anode Power:** 1310 W  
**Anode Current:** 10.0 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
28.2 mN	15.2 %	1436.8 sec	21	2.08	3.0 mN	1.5 mN

### Thrust-Stand Uncertainty Components

	Scale	Hysteresis	Repeatability	Noise	Offset	Drift
Value	0.8 mN	0.6 mN	0.5 mN	0.4 mN	0.3 mN	0.8 mN
DOF	6	6	6	31	4	4

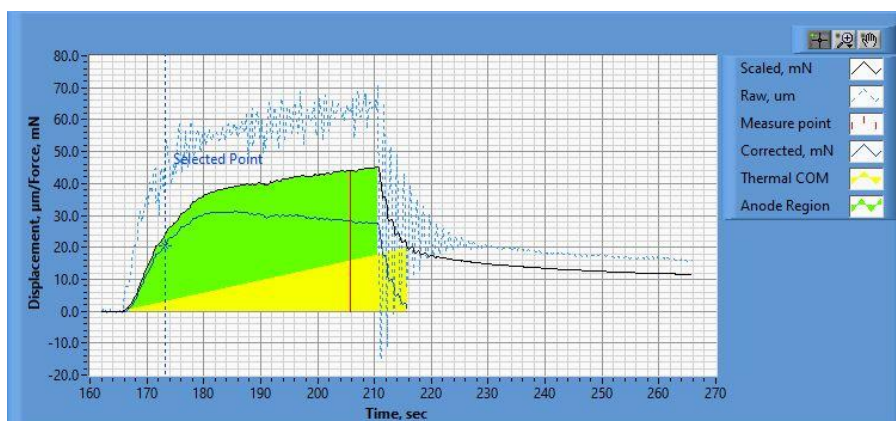


Figure 1. Thrust Plot

File Name: Philtech Data 2024.11.22\_07.34.35.csv

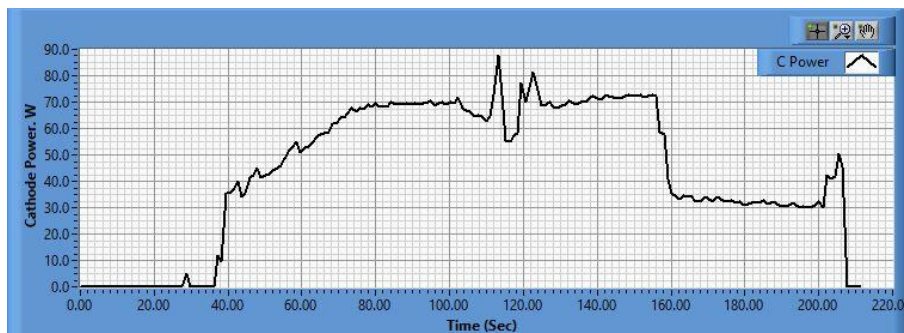
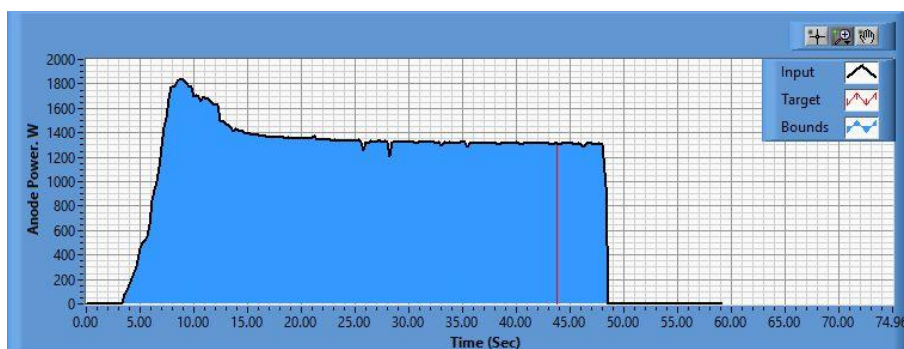


Figure 2. Cathode Power Plot

File Name: PSU C Data 2024.11.22\_07.34.44.csv

**Figure 3. Anode Power Plot**

File Name: PSU A Data 2024.11.22\_07.37.17.csv

**Pre-Cal. Information**

File Name: MagnetOn\_Flow\_2\_0\_Philtech Data 2024.11.20\_13.22.28.csv

Start/Stop times (24 h): 13:22:50 13:26:34

Sensitivity: 1.66  $\mu\text{m}/\text{mN}$ 

Offset	Drift	Scale Factor	Scale Std.Dev
0.137 mN	0.000 mN/s	0.601	1.019 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	22.3 mN	40.0 mN	61.1 mN	81.2 mN	101.2 mN	80.4 mN	60.4 mN	39.0 mN	22.1 mN	0.5 mN

**Post-Cal. Information**

File Name: Philtech Data 2024.11.22\_07.34.35.csv

Start/Stop times (24 h): 07:41:29 07:45:11

Sensitivity: 1.72  $\mu\text{m}/\text{mN}$ 

Offset	Drift	Scale Factor	Scale Std.Dev
-6.871 mN	-0.025 mN/s	0.580	1.348 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	19.9 mN	36.8 mN	58.4 mN	80.0 mN	101.2 mN	79.3 mN	59.0 mN	38.4 mN	21.2 mN	0.3 mN

