

## Thruster Report

**Magnetic Field:** 1000 mT  
**Anode Power:** 1729 W  
**Anode Current:** 10.0 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
26.8 mN	13.8 %	1820.3 sec	19	2.09	3.1 mN	1.5 mN

### Thrust-Stand Uncertainty Components

	Scale	Hysteresis	Repeatability	Noise	Offset	Drift
Value	0.7 mN	0.7 mN	0.4 mN	0.4 mN	0.2 mN	0.9 mN
DOF	6	6	6	31	4	4

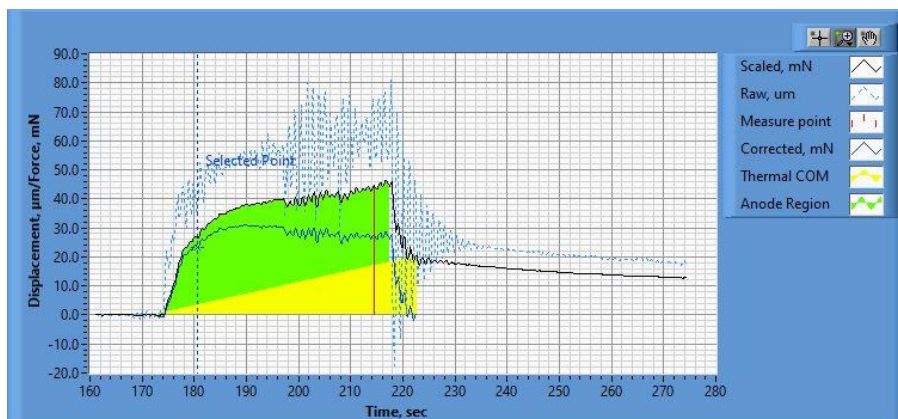


Figure 1. Thrust Plot

File Name: Philtech Data 2024.11.20\_21.27.42.csv

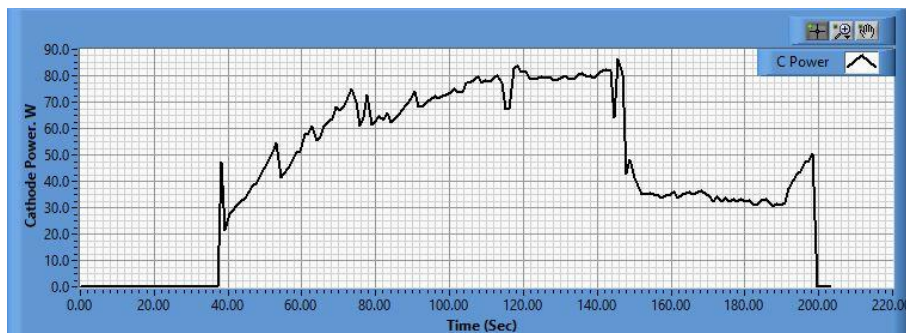
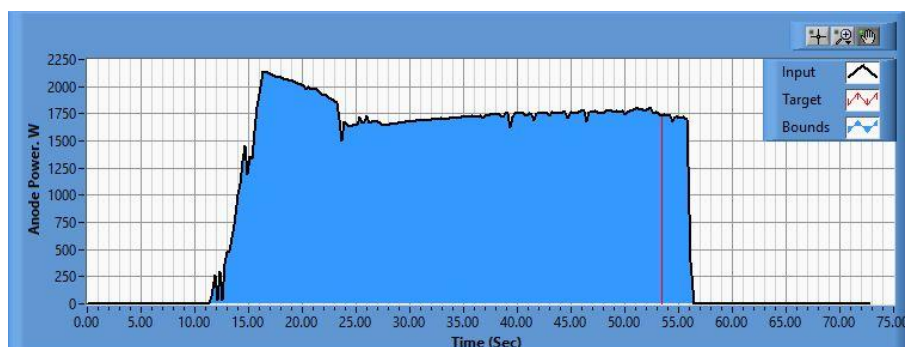


Figure 2. Cathode Power Plot

File Name: PSU C Data 2024.11.20\_21.28.08.csv

**Figure 3. Anode Power Plot**

File Name: PSU A Data 2024.11.20\_21.30.23.csv

**Pre-Cal. Information**

File Name: Philtech Data 2024.11.20\_13.17.51.csv

Start/Stop times (24 h): 13:18:06 13:21:51

Sensitivity: 1.67  $\mu\text{m}/\text{mN}$ 

Offset	Drift	Scale Factor	Scale Std.Dev
-0.107 mN	-0.000 mN/s	0.600	0.921 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
-0.4 mN	21.5 mN	39.6 mN	60.7 mN	81.0 mN	101.2 mN	79.8 mN	59.8 mN	38.5 mN	21.4 mN	-0.0 mN

**Post-Cal. Information**

File Name: Philtech Data 2024.11.20\_21.27.42.csv

Start/Stop times (24 h): 21:34:44 21:38:38

Sensitivity: 1.74  $\mu\text{m}/\text{mN}$ 

Offset	Drift	Scale Factor	Scale Std.Dev
-7.760 mN	-0.028 mN/s	0.576	1.334 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	36.7 mN	58.2 mN	79.5 mN	101.0 mN	79.4 mN	59.0 mN	38.4 mN	20.9 mN	0.1 mN

