

## Thruster Report

**Magnetic Field:** 199 mT  
**Anode Power:** 447 W  
**Anode Current:** 8.0 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
9.6 mN	5.1 %	489.1 sec	18	2.09	2.5 mN	1.2 mN

### Thrust-Stand Uncertainty Components

	Scale	Hysteresis	Repeatability	Noise	Offset	Drift
Value	0.6 mN	0.8 mN	0.3 mN	0.2 mN	0.5 mN	0.1 mN
DOF	6	6	6	31	4	4

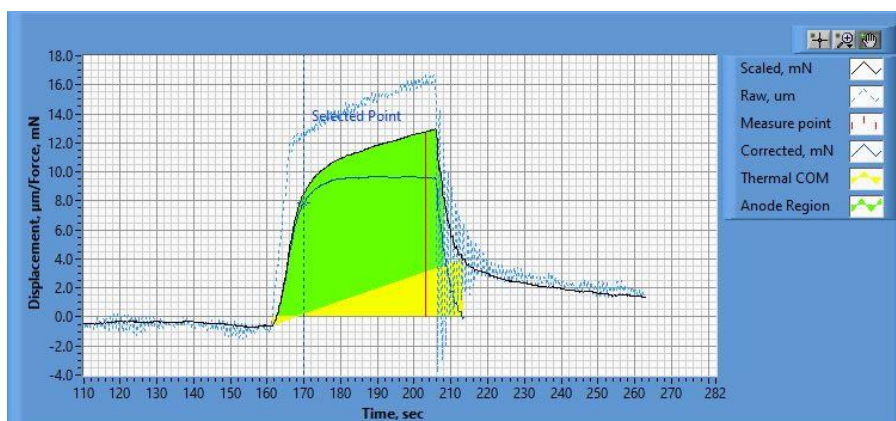


Figure 1. Thrust Plot

File Name: Philtech Data 2024.12.01\_09.28.15.csv

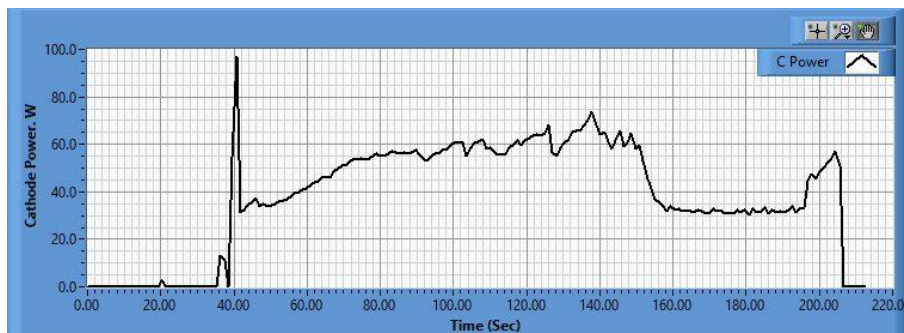
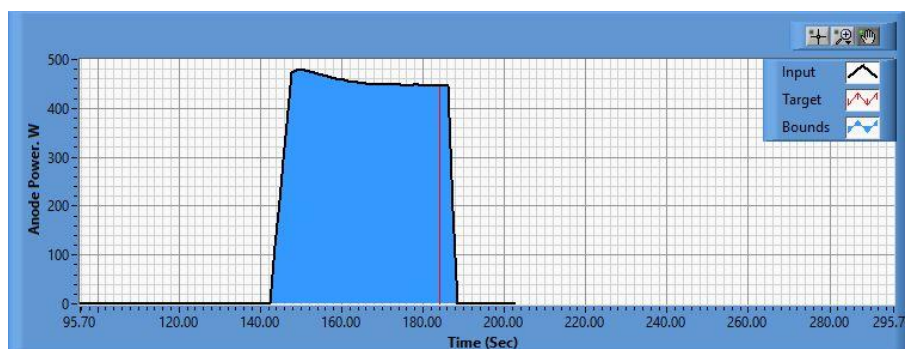


Figure 2. Cathode Power Plot

File Name: PSU C Data 2024.12.01\_09.28.25.csv

**Figure 3. Anode Power Plot**

File Name: PSU A Data 2024.12.01\_09.28.34.csv

**Pre-Cal. Information**

File Name: Magnet\_Flow\_2\_0\_Philtech Data 2024.11.30\_19.57.42.csv

Start/Stop times (24 h): 19:57:48 20:01:33

Sensitivity: 1.50  $\mu\text{m}/\text{mN}$ 

Offset	Drift	Scale Factor	Scale Std.Dev
-0.331 mN	0.000 mN/s	0.665	1.095 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	20.9 mN	39.1 mN	60.2 mN	79.7 mN	101.0 mN	79.0 mN	59.4 mN	38.0 mN	20.7 mN	0.9 mN

**Post-Cal. Information**

File Name: Philtech Data 2024.12.01\_09.28.15.csv

Start/Stop times (24 h): 09:34:58 09:38:41

Sensitivity: 1.51  $\mu\text{m}/\text{mN}$ 

Offset	Drift	Scale Factor	Scale Std.Dev
-0.396 mN	-0.003 mN/s	0.662	1.161 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	20.9 mN	39.3 mN	60.2 mN	79.9 mN	101.2 mN	78.9 mN	59.1 mN	37.5 mN	20.3 mN	0.6 mN

