

## Thruster Report

**Magnetic Field:** 265 mT  
**Anode Power:** 135 W  
**Anode Current:** 2.0 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
2.3 mN	1.3 %	157.2 sec	16	2.10	3.2 mN	1.5 mN

### Thrust-Stand Uncertainty Components

	Scale	Hysteresis	Repeatability	Noise	Offset	Drift
Value	0.5 mN	1.0 mN	0.3 mN	0.2 mN	0.8 mN	0.2 mN
DOF	6	6	6	31	4	4

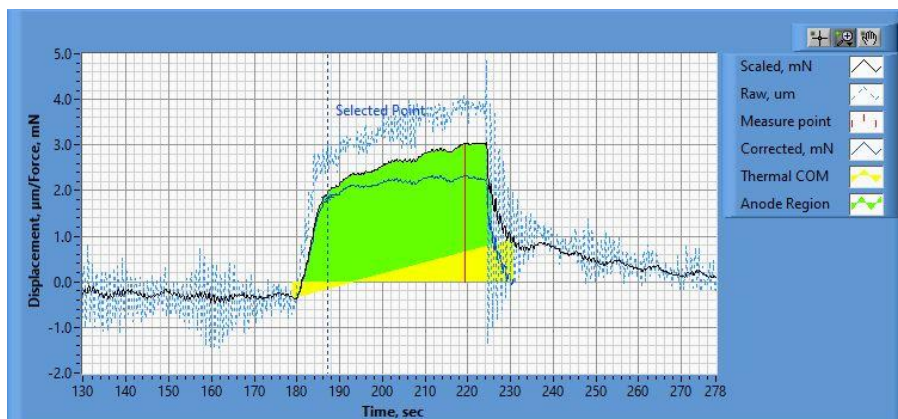


Figure 1. Thrust Plot

File Name: Philtech Data 2024.11.30\_16.02.30.csv

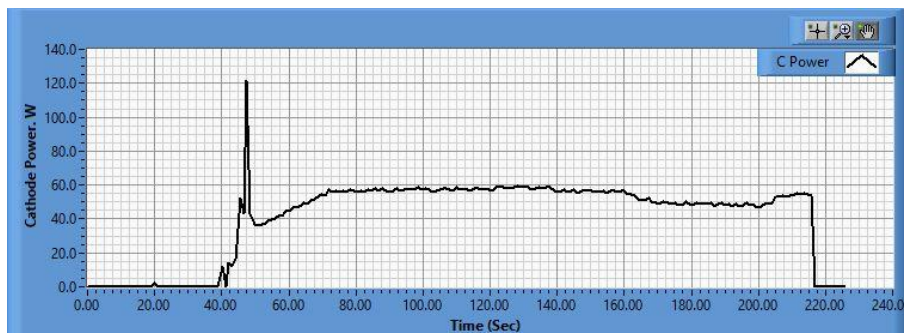
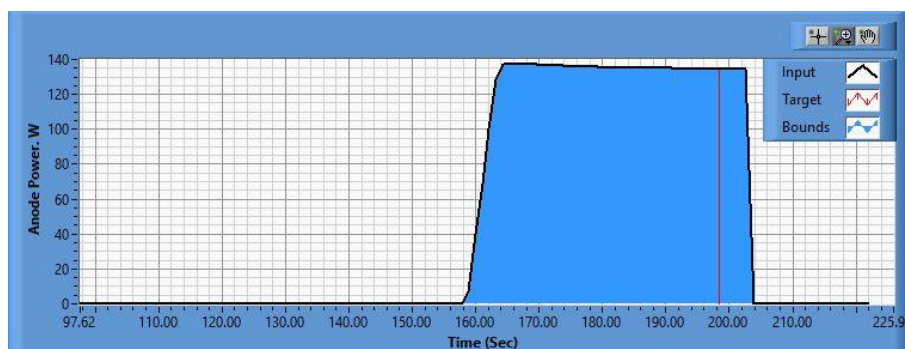


Figure 2. Cathode Power Plot

File Name: PSU C Data 2024.11.30\_16.02.50.csv

**Figure 3. Anode Power Plot**

File Name: PSU A Data 2024.11.30\_16.02.51.csv

**Pre-Cal. Information**

File Name: Magnet\_Flow\_1\_5Philtech Data 2024.11.30\_15.56.46.csv

Start/Stop times (24 h): 15:56:54 16:00:39

Sensitivity: 1.52  $\mu\text{m}/\text{mN}$ 

Offset	Drift	Scale Factor	Scale Std.Dev
-0.269 mN	0.005 mN/s	0.659	0.969 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	21.3 mN	40.2 mN	60.4 mN	80.5 mN	100.9 mN	79.9 mN	60.4 mN	38.8 mN	21.4 mN	1.6 mN

**Post-Cal. Information**

File Name: Philtech Data 2024.11.30\_16.02.30.csv

Start/Stop times (24 h): 16:09:42 16:13:26

Sensitivity: 1.52  $\mu\text{m}/\text{mN}$ 

Offset	Drift	Scale Factor	Scale Std.Dev
-0.421 mN	-0.002 mN/s	0.658	0.969 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	21.3 mN	40.0 mN	60.5 mN	80.3 mN	101.1 mN	79.4 mN	60.0 mN	38.5 mN	21.1 mN	0.9 mN

