

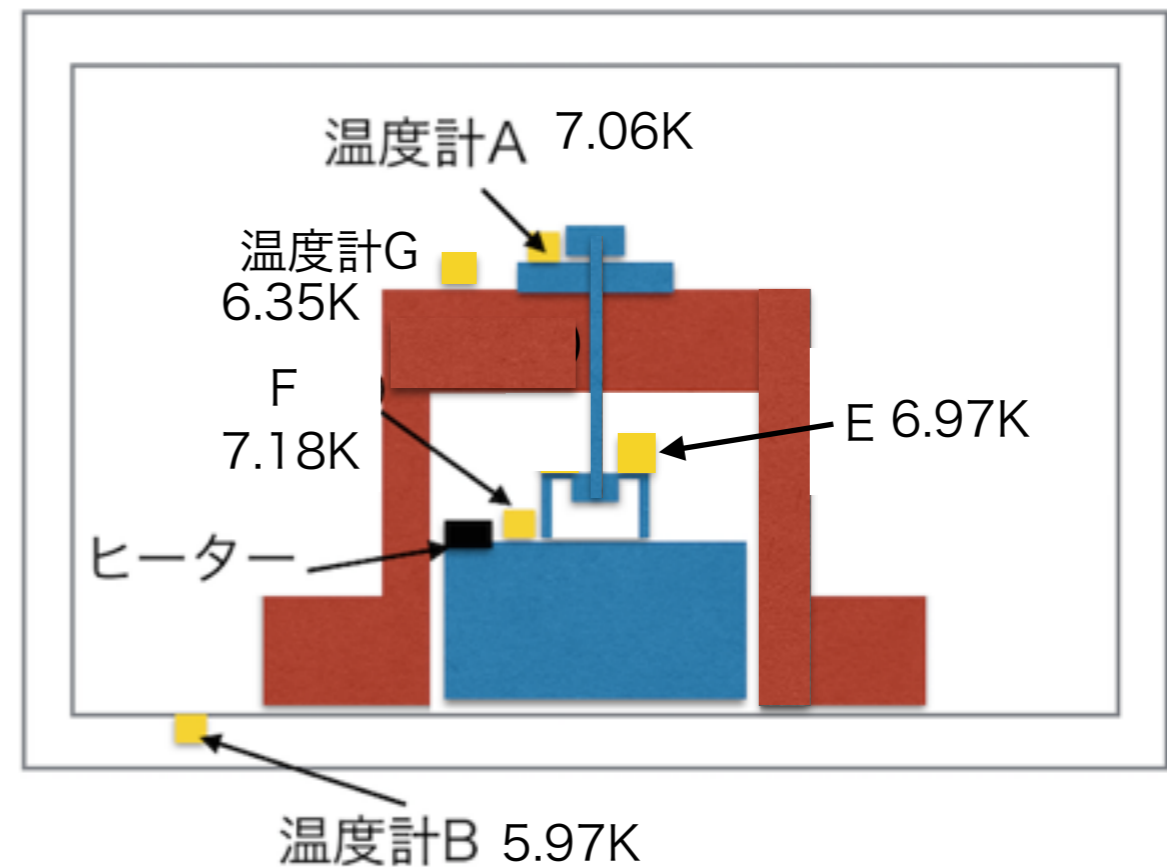
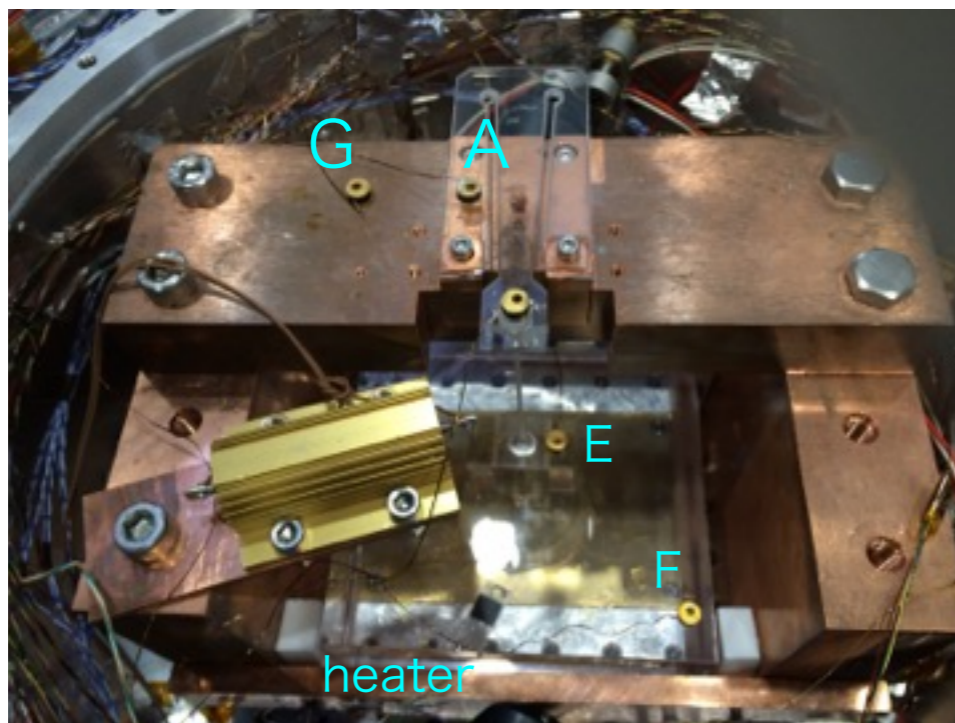
My work in 2016

3-4

Hiroki Tanaka

heat load test(9th)

After cooling down(before 1st test)



heat load test

- We installed the calibration into the temperature monitor (LS218).

How to calibrate sensor E

sensor E(not calibrated)

dummy	
temp[K]	Voltage[V]
300	1.0
295	1.1
⋮	⋮

We already have this table on the description of LS 218.

How to calibrate sensor E

sensor E(not calibrated)

dummy

temp[K]

300

295

⋮

Voltage[V]

1.0

1.1

⋮

real

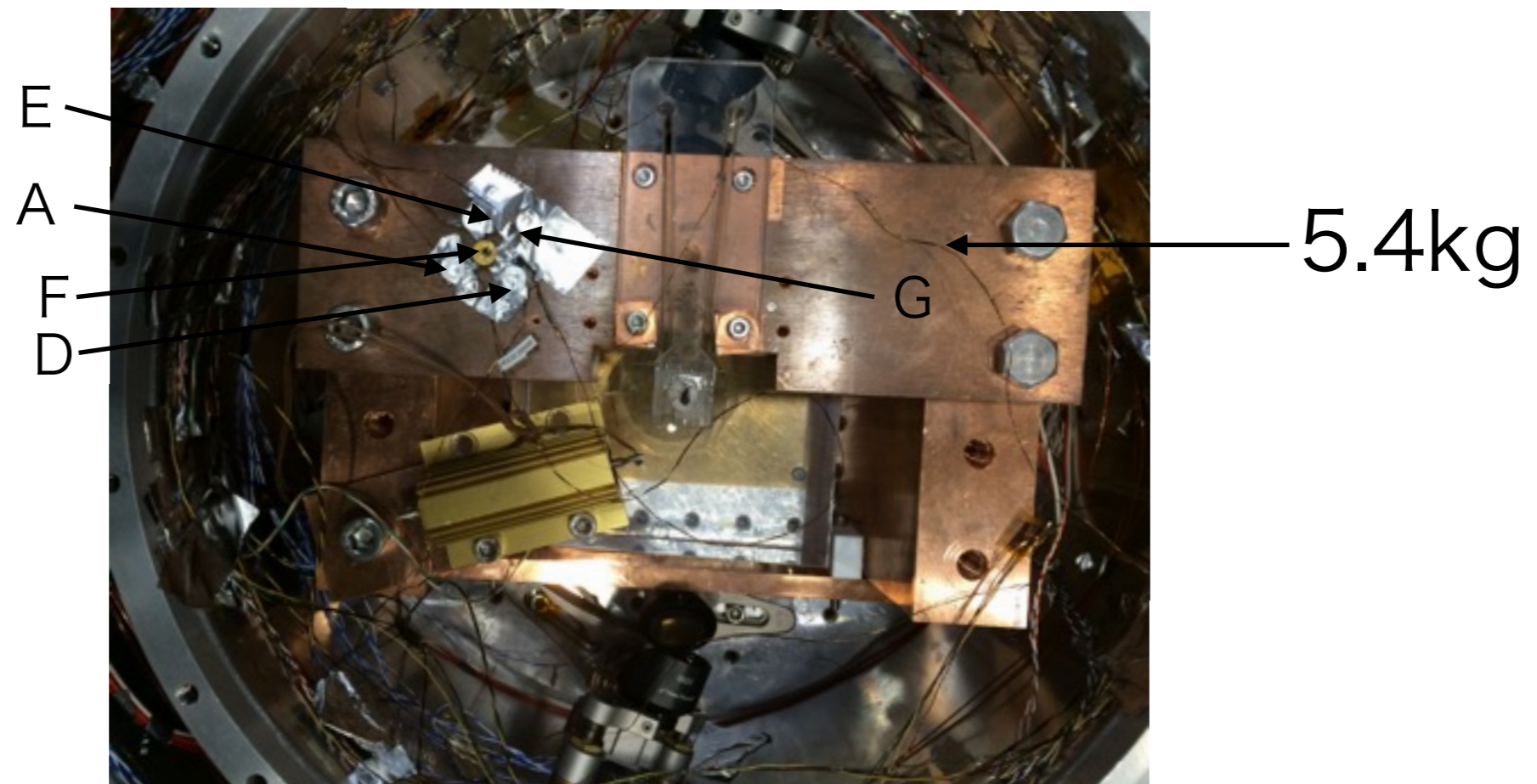
temp[K]

?

?

We want to make
this table.

temperature sensor calibration (previous)



In order to make the correct table, we used the result of this experiment.

How to calibrate sensor E

sensor E(not calibrated)

sensor F(calibrated)

dummy

temp[K]

300

295

⋮

Voltage[V]

1.0

1.1

⋮

real

temp[K]

302

298

⋮

Now we can make
the table.

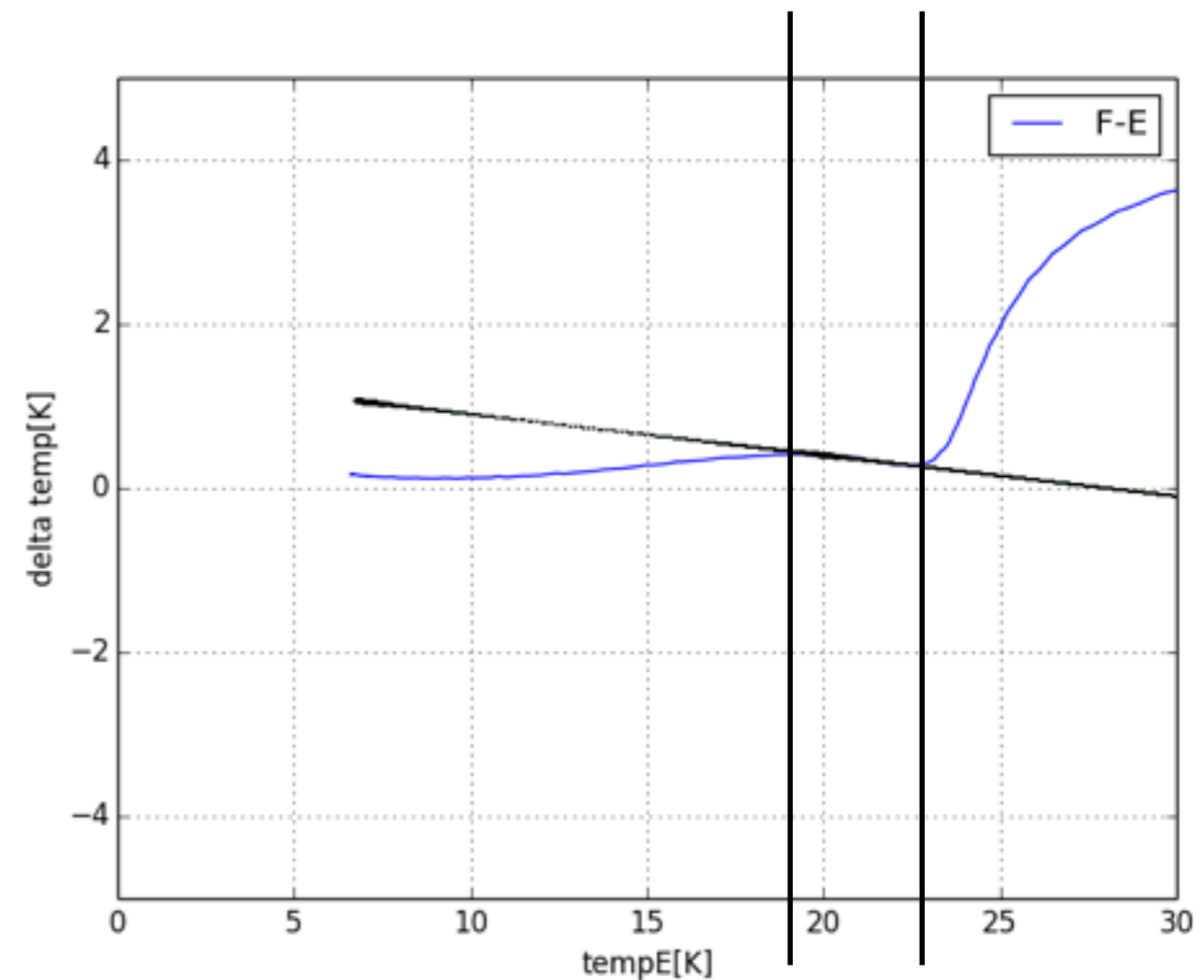
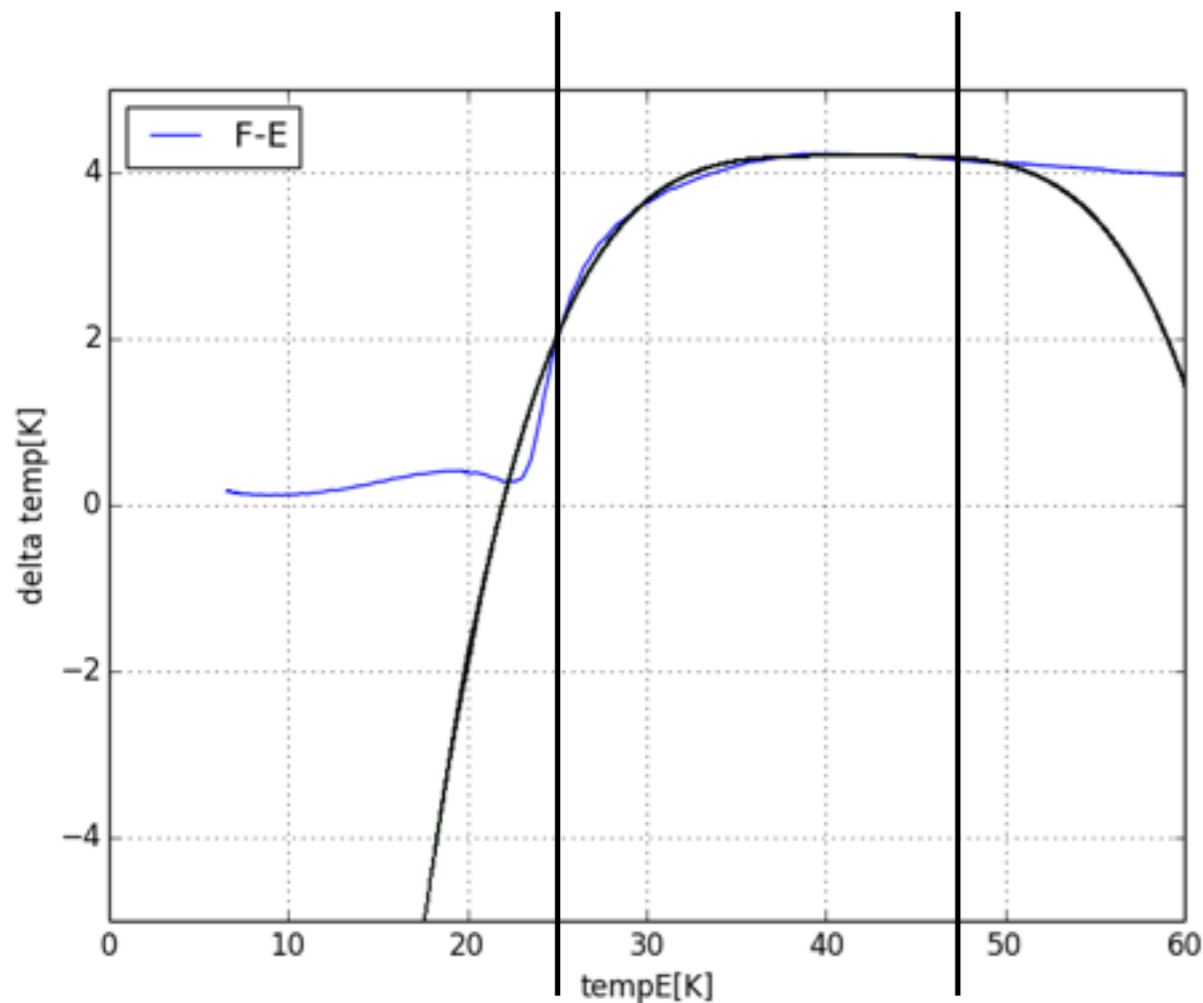
However, there are
so many datas...

heat load calibration(E)

In order to deal with many datas, we approximated the

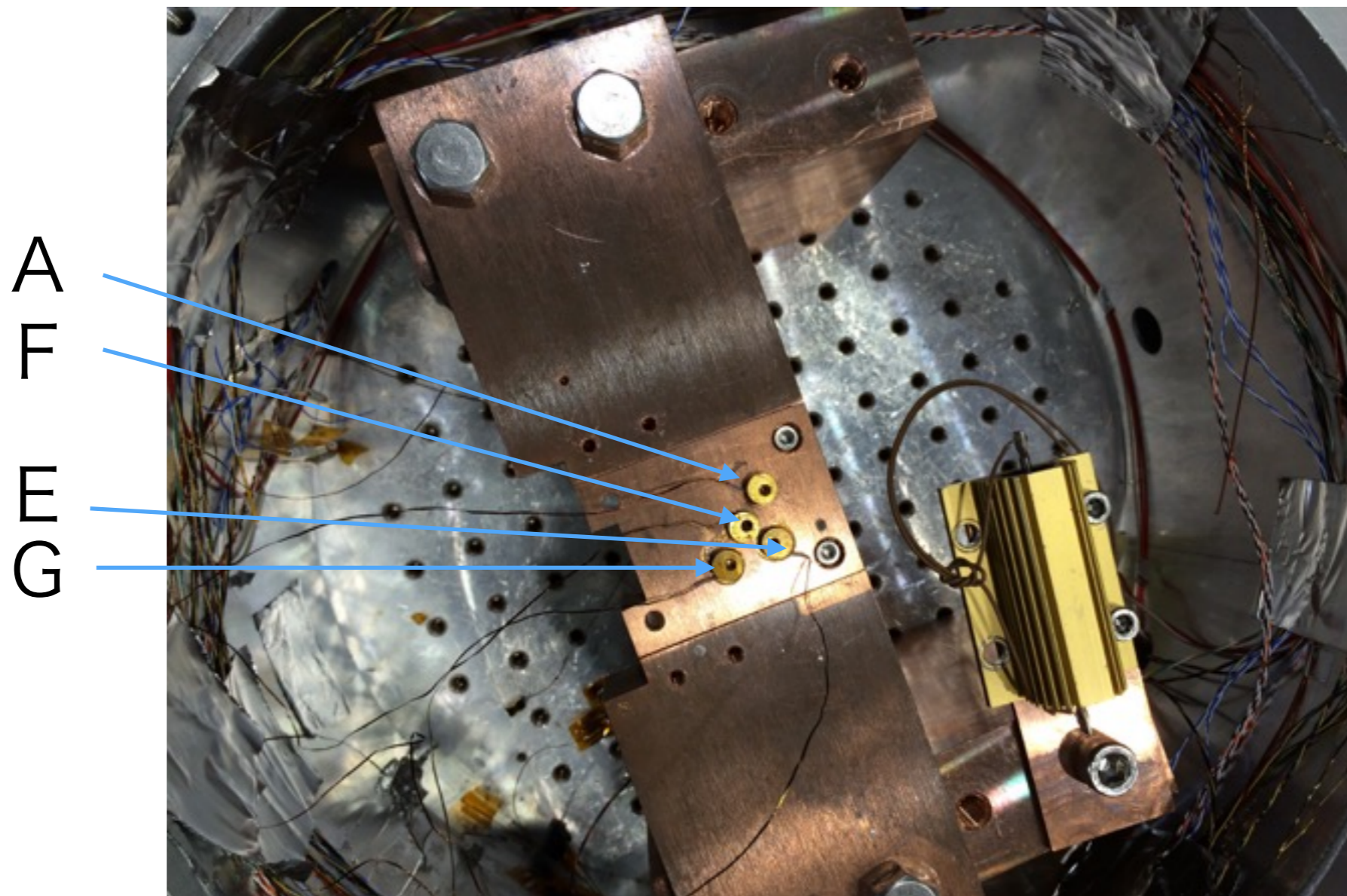
curve to $T_F - T_E = aT_E + b$ or $T_F - T_E = a(T_E - b)^2 + c$

or $T_F - T_E = a(T_E - b)^4 + c$



Future work 1

We will do the calibration and check if the temperature of all sensors are almost the same.



Future work2

- Dr. Kokeyama suggested I and Takahiro to go to Kamioka (4/1-4/11, or some days of them) and practice the interferometer.
- Should we go?