

FeelIRIII Installation Manual

For Thermo FT-IR Microscope Continuum

Optical center reference and FeelIRIII body optical center is adjusted at manufacturing time.

It is easy to install by adjusting the intermediate interface with the optical center reference.

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Preparation for adjusting

- Install the intermediate interface.



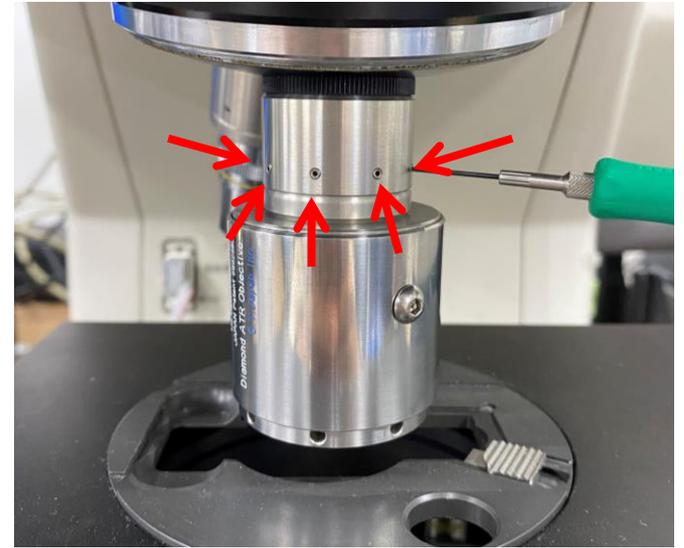
- Install the FeelIR III body.



STEP1

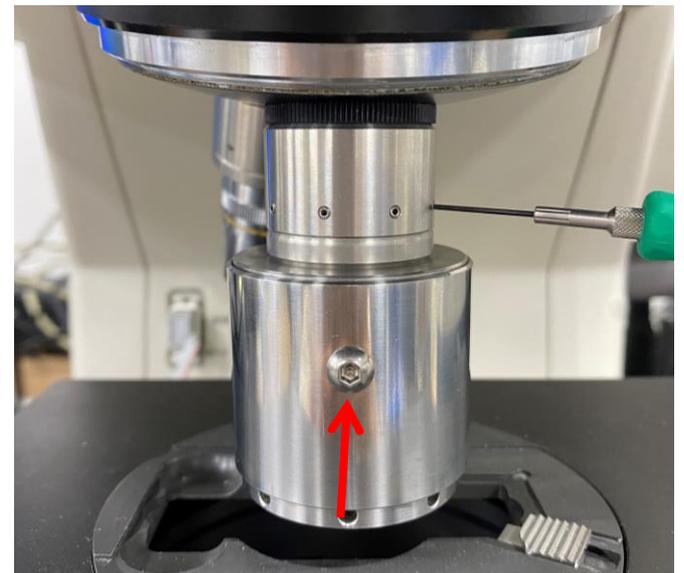
Adjust the rotation direction of FeelIR III

1, Loosen the five screws in front of the intermediate interface.

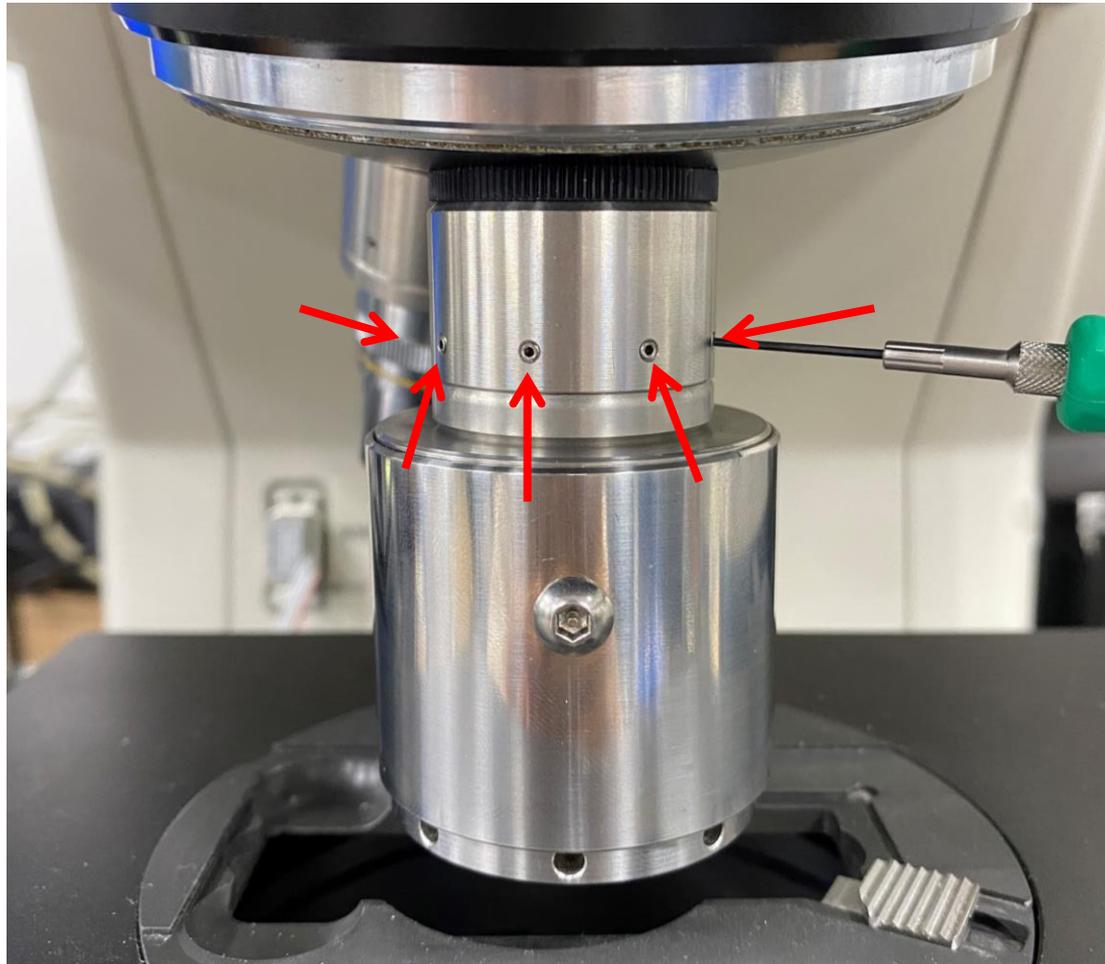


2, Rotate the FeelIR III body so that the cover screw of the FeelIR III body is in front.

(The lower part of the intermediate interface and the FeelIR III body rotate at the same time.)



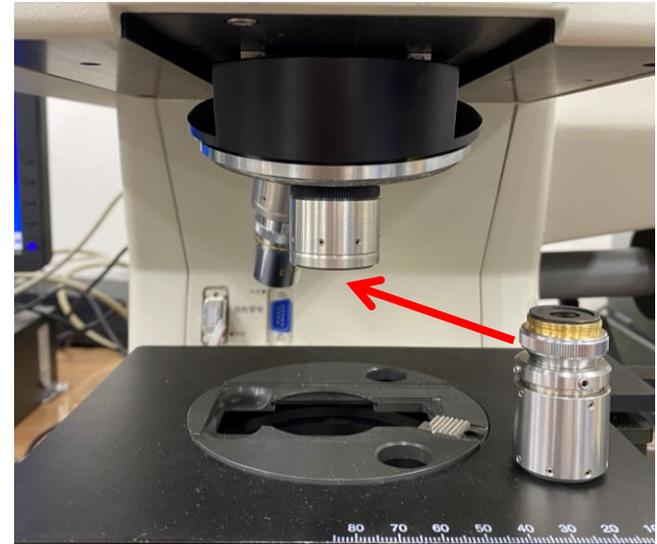
3, Tighten the front five screws.



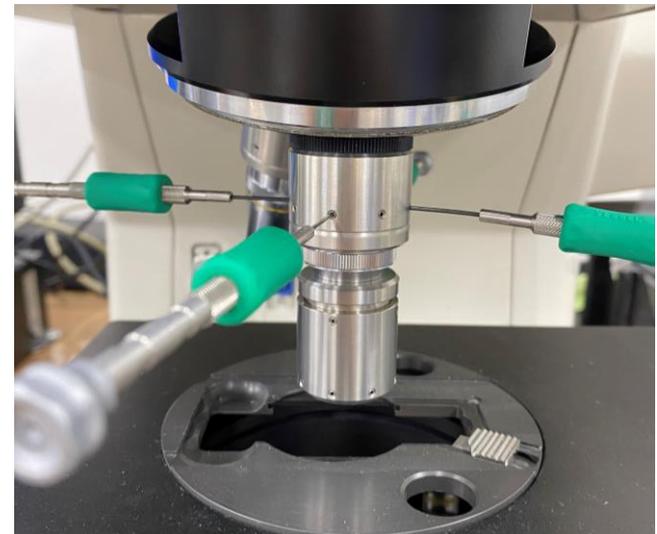
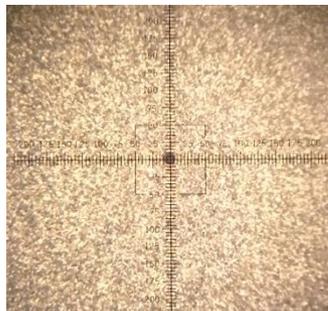
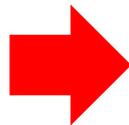
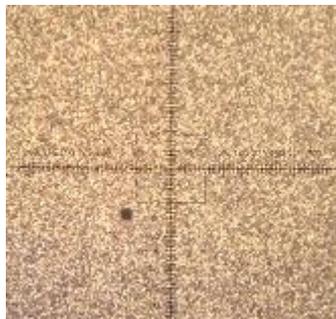
STEP2

Install and adjust the optical center reference

1, Install the optical center reference to the intermediate interface.

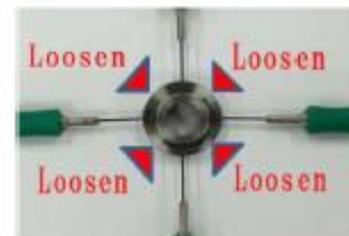


2, Loosen four of the eight screws, adjust the hole to the center with the other four screws, and finally tighten the screws.



Details are described on the next page 2-1 ~ 2-4.

2-1, Loosen the non-adjustment screw.

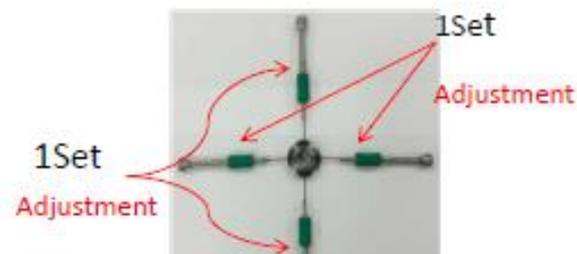


2-2, Adjustment

Adjust the hole comes to the center.

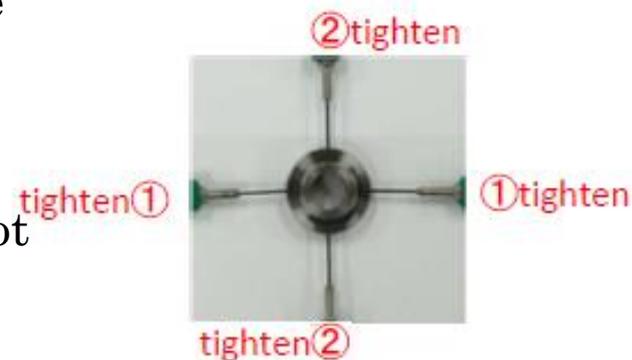
Use the left and right tools at the same time.

For example, if you want to move the hole to the right, loosen the right screw and tighten the left screw at the same time.

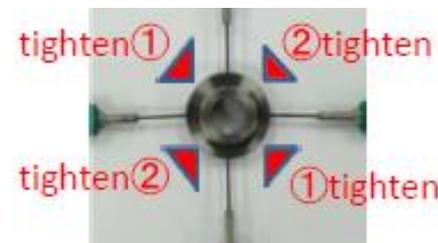


2-3, Tighten the adjustment screw.

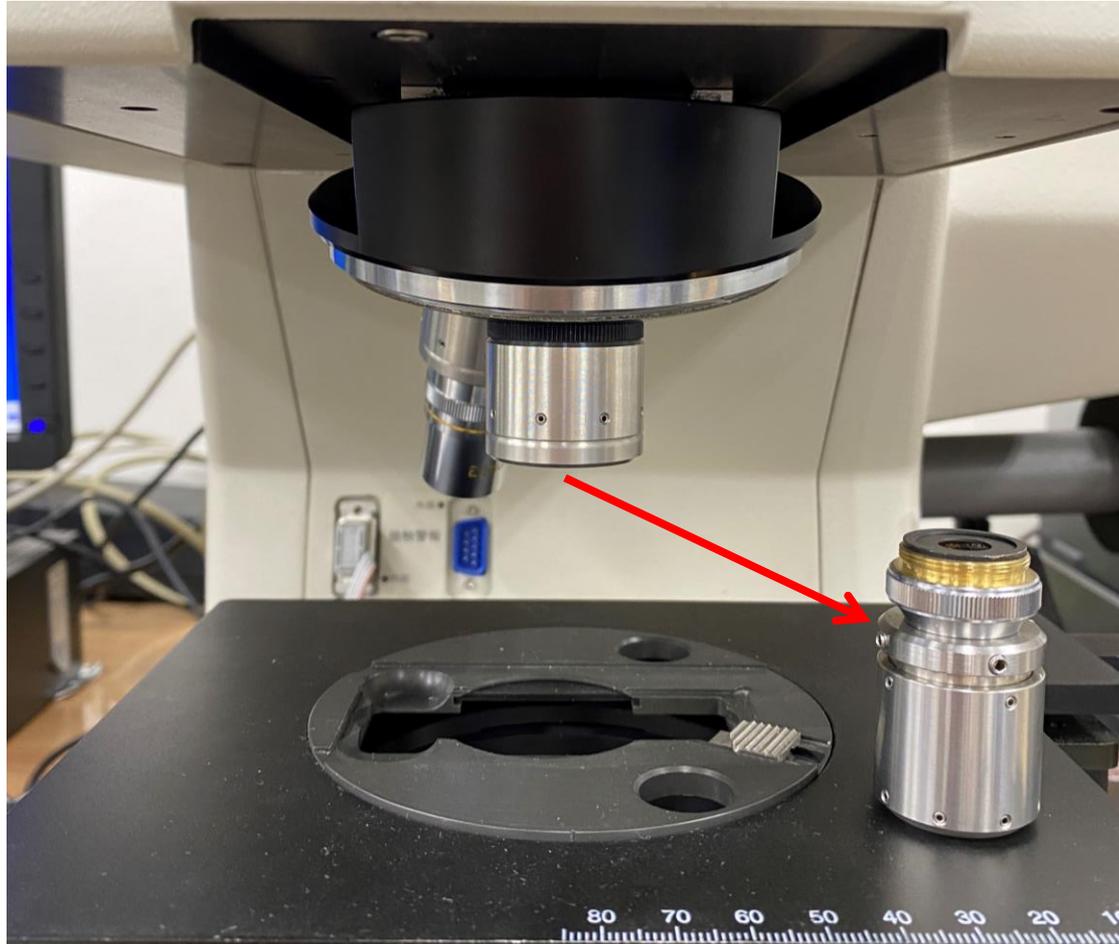
At this time, check that the position of the hole does not move.



2-4, Finally tighten the non adjustment screw.

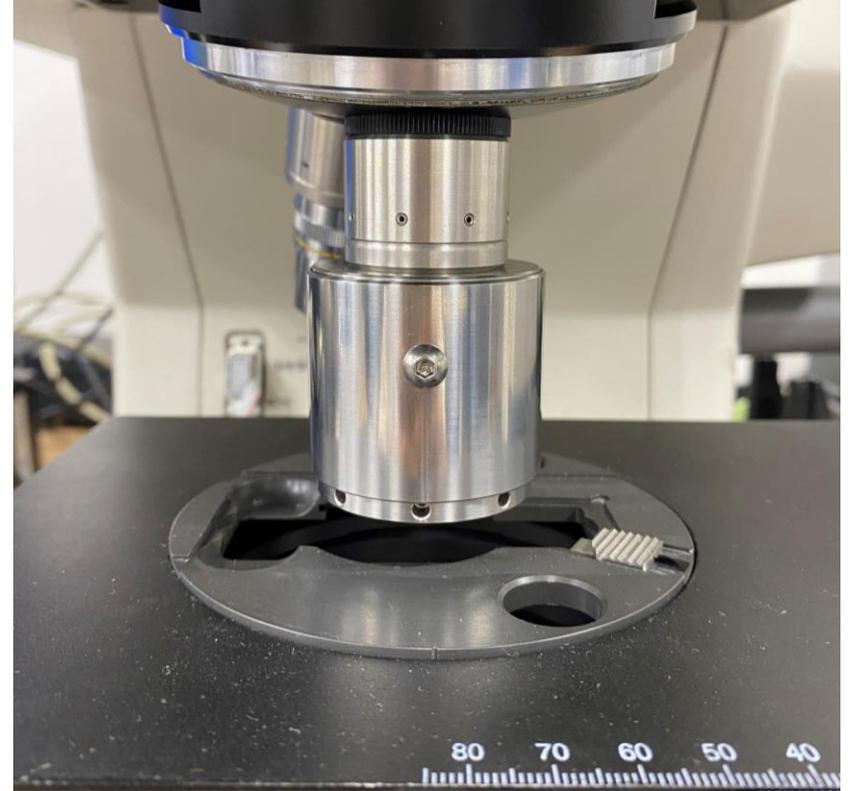
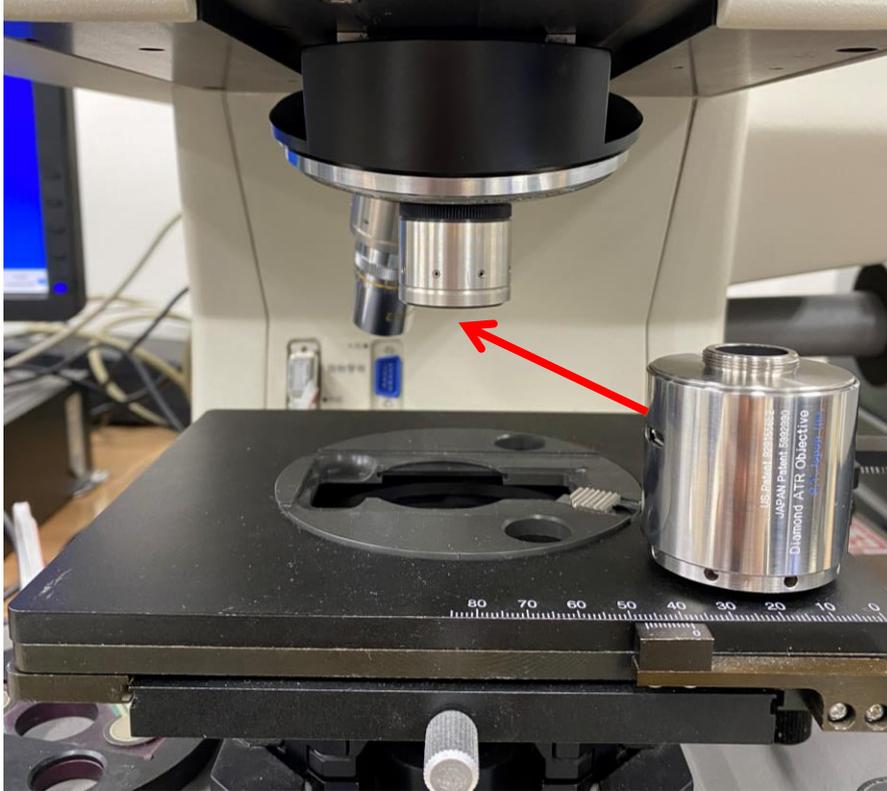


2-5, Remove the optical center reference.



STEP3

Install the FeelIRIII body

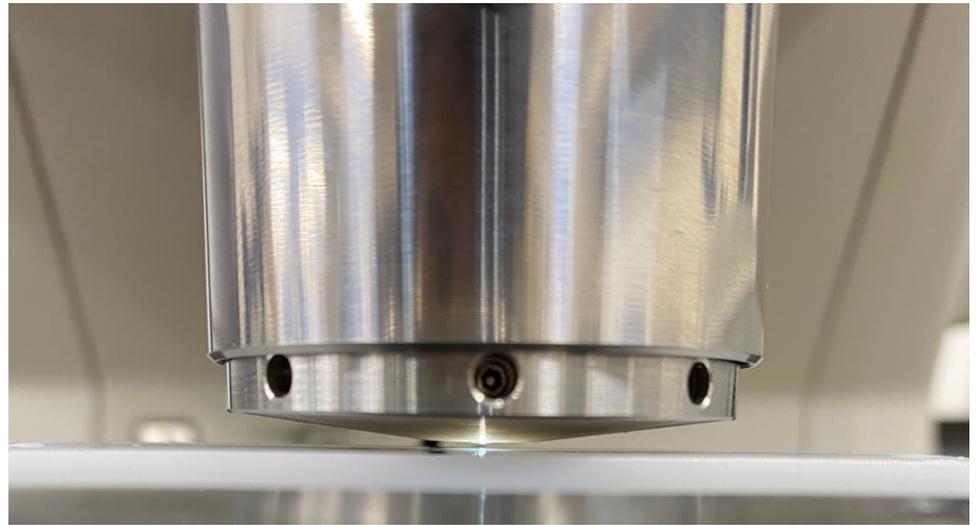
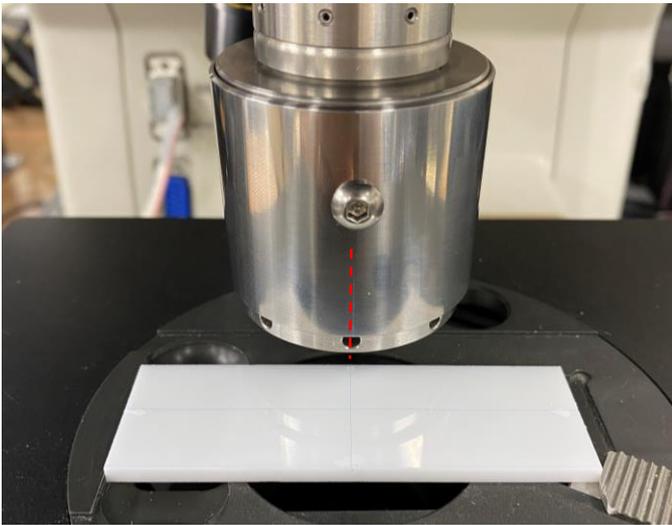


STEP4

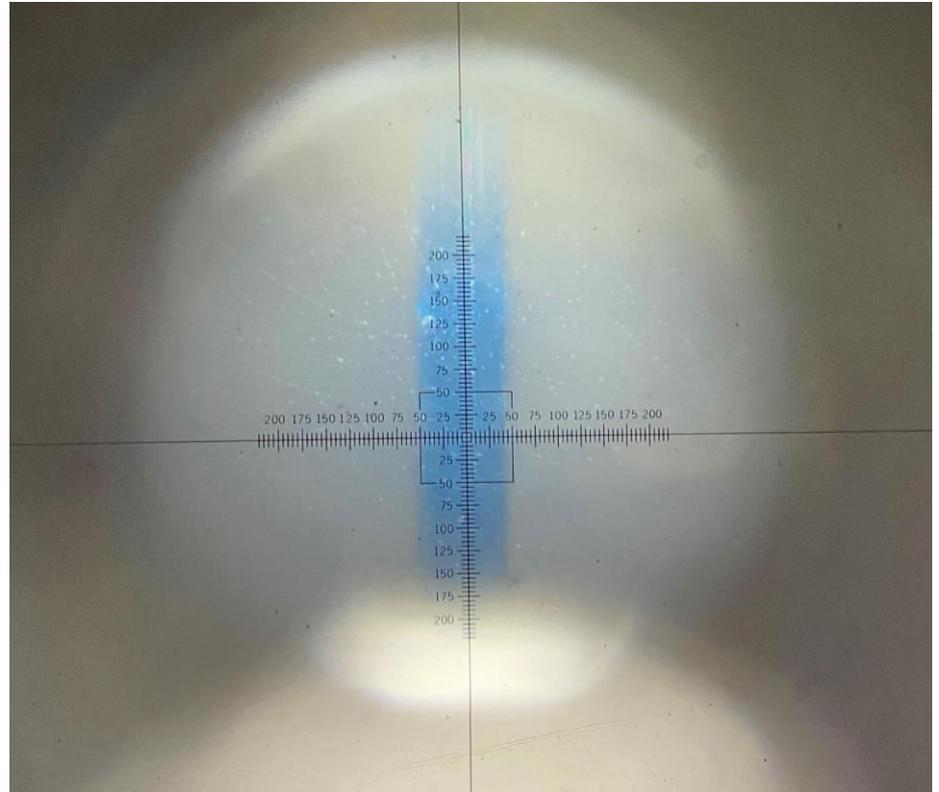
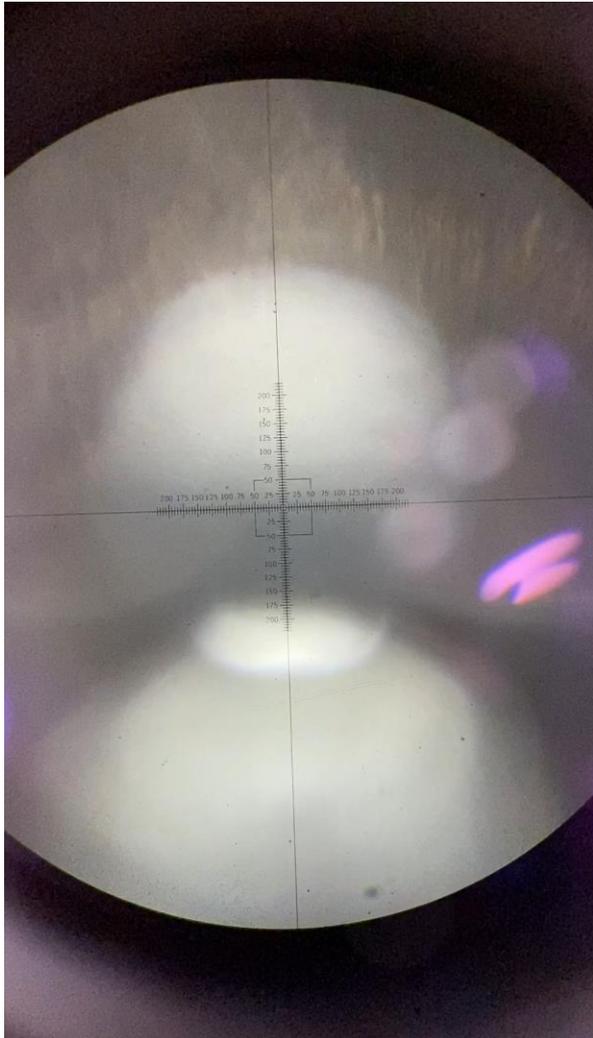
Adjust the center of x10 lens and FeelIRIII

1, Set the standard sample and switch to FeelIRIII.

2, Move the vertical fiber to the center of FeelIRIII, and raise the Z axis.
Raise it while visually checking that the distance from FeelIRIII is about 1 mm.



3, Move the stage horizontally while checking with the eyepiece. Look for the vertical fiber shadow. If you find the vertical fiber, adjust the focus.

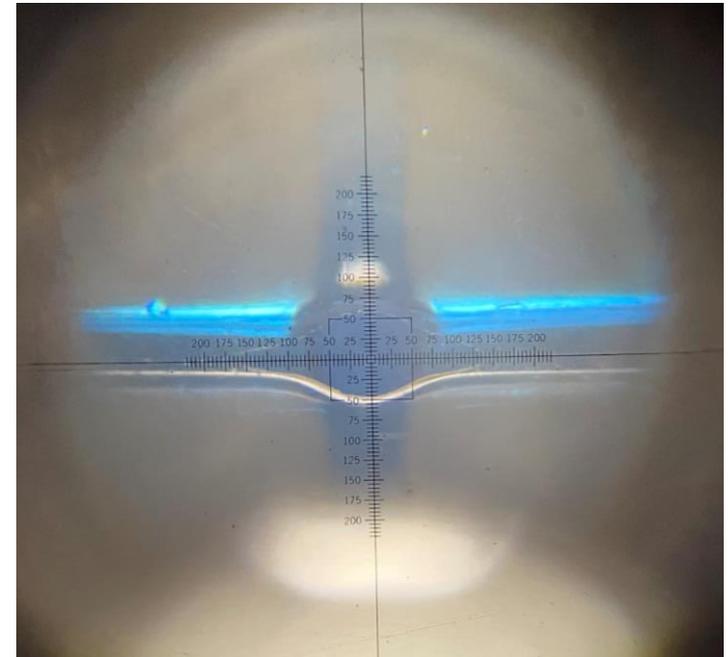


Vertical fiber shadow (Movie)

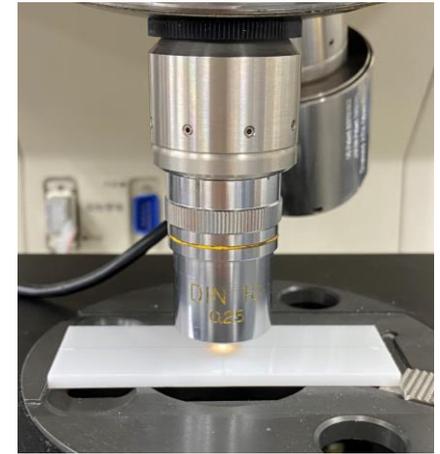
4, When the vertical fiber is found, move the horizontal fiber to the center of the FeelIR III while visually checking.



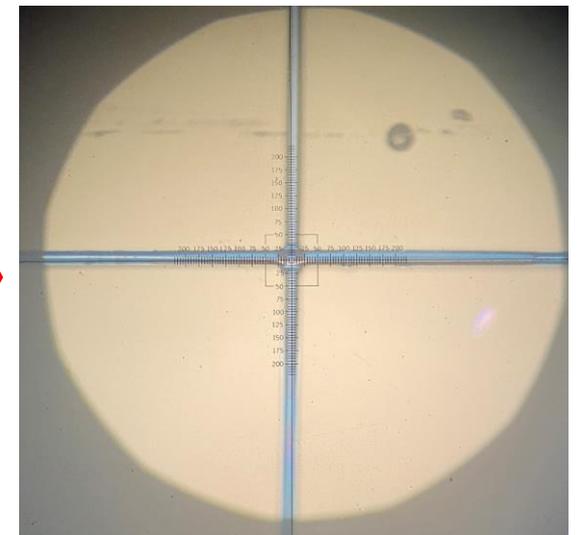
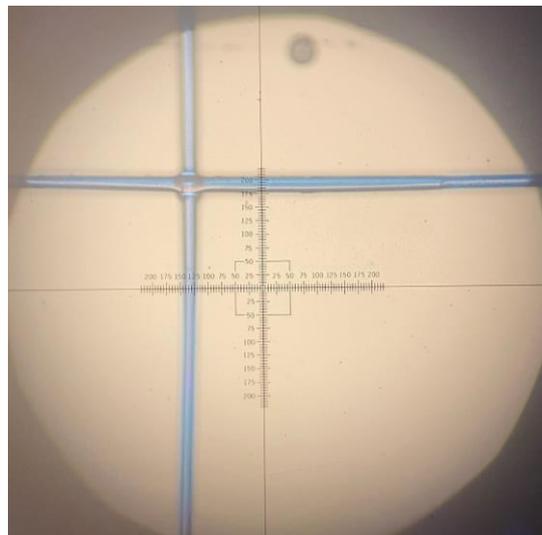
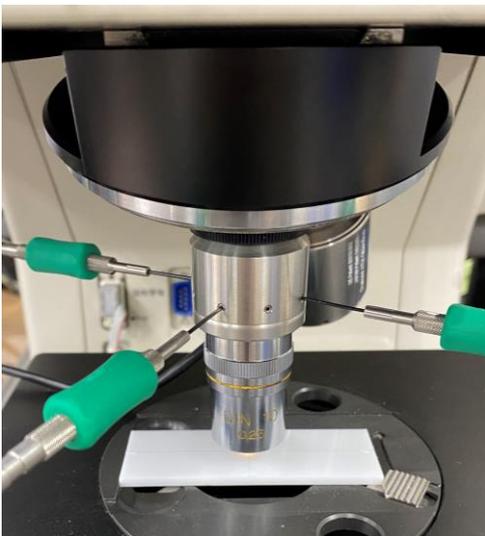
5, Move to the cross position while checking with the eyepiece.



6, Switch to the x10 lens.



7, Move the cross to the center of the x10 lens, same method as in Step 2.



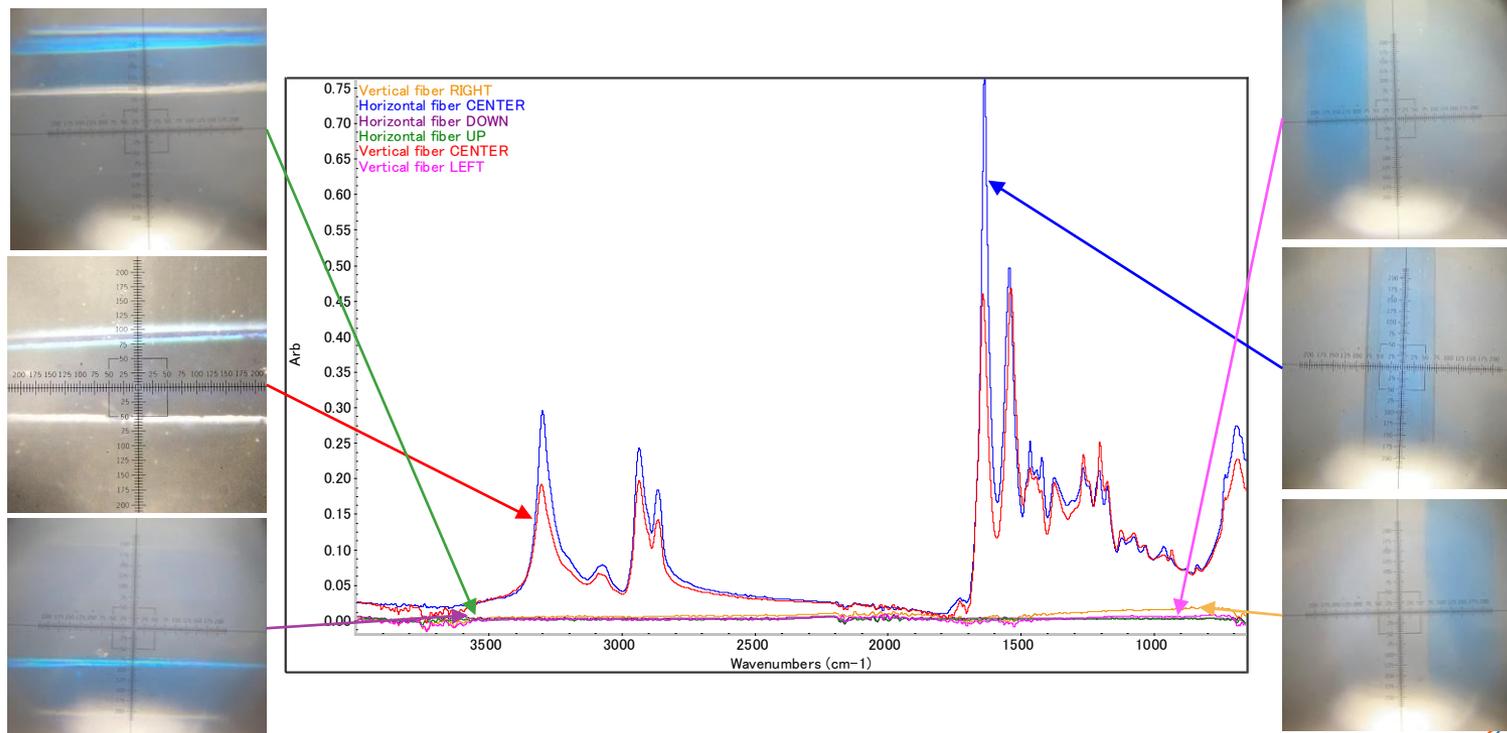
STEP5

Performance test and visual image check

1, Performance test

Using the standard 25 μm diameter fiber as standard sample, shift the center one fiber to the upper and lower, left and right to check whether the spectrum appears. (Continuum aperture is set to maximum)

Make sure that the spectrum appears when you touch the sample in the horizontal and vertical centers.

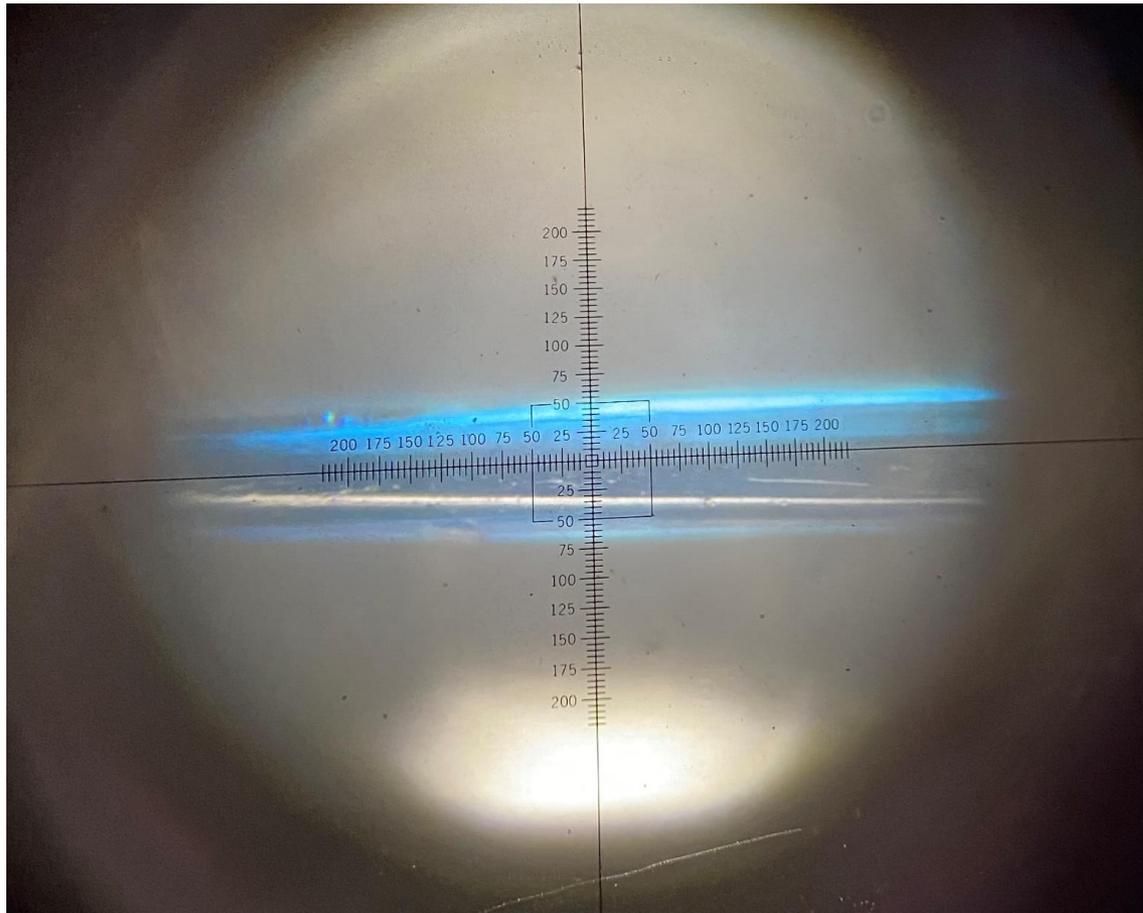


STEP5

Performance test and visible image check

2, Visible image check

Check the 25um diameter fiber looks beautiful.

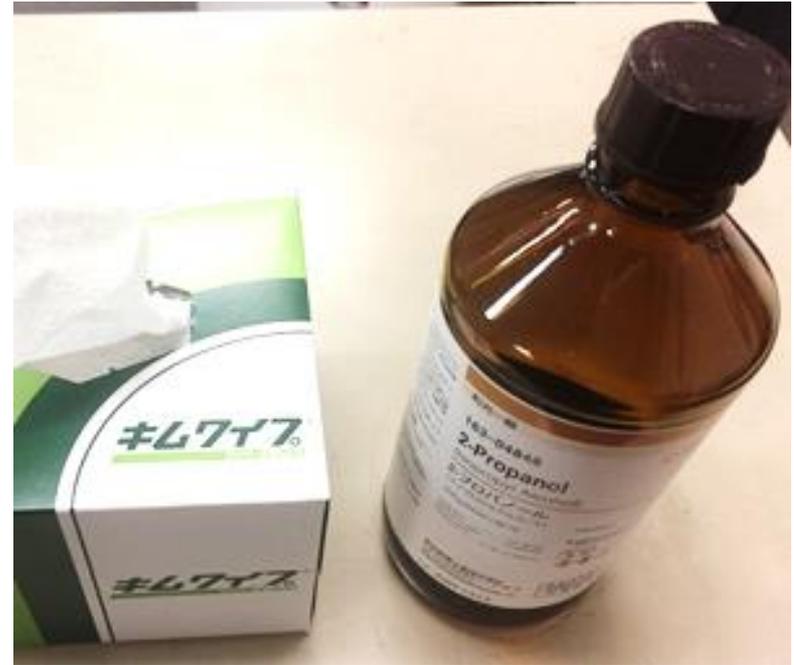
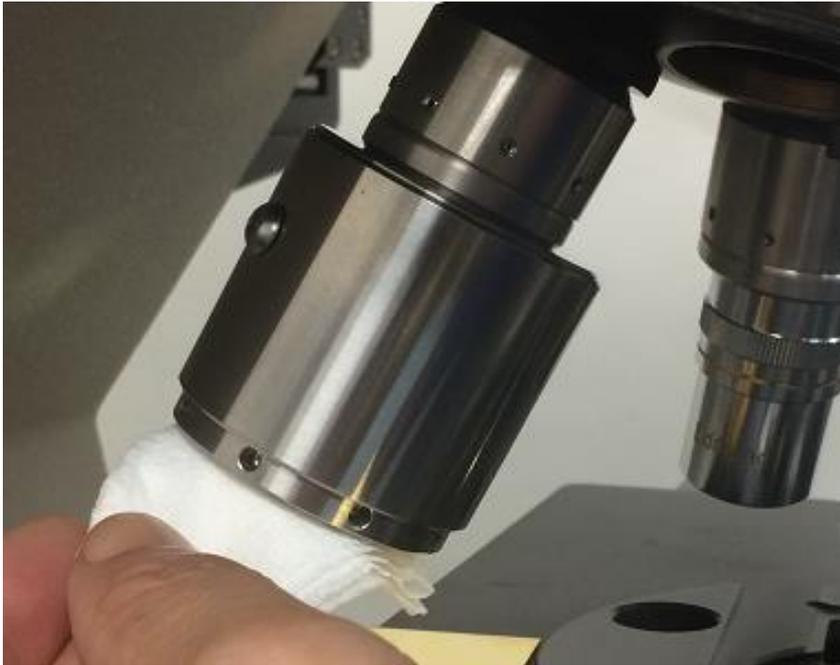


Important Point

1, Clean the diamond surface with isopropanol, ethanol, etc.

Caution

With Acetone or Toluene in the cleaning solvent, which may cause failure. Do not use it.



2, Do not contact FeelIRIII with strong adhesive tape.

Caution

Diamond crystal may come off when in contact with strong adhesive tape. Do not use it.