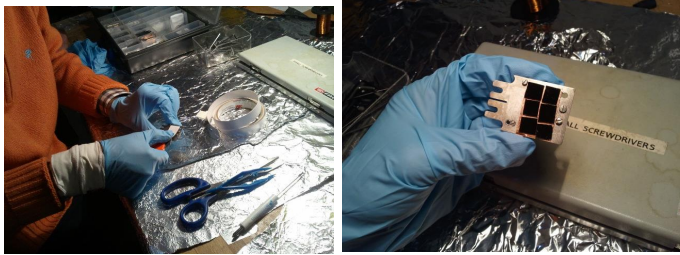
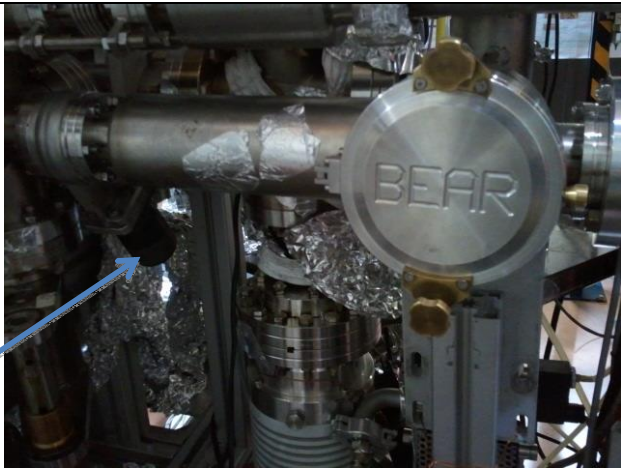
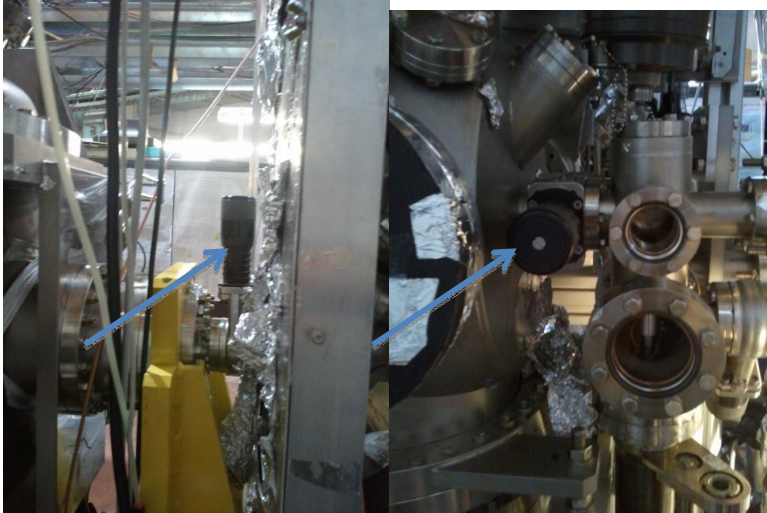
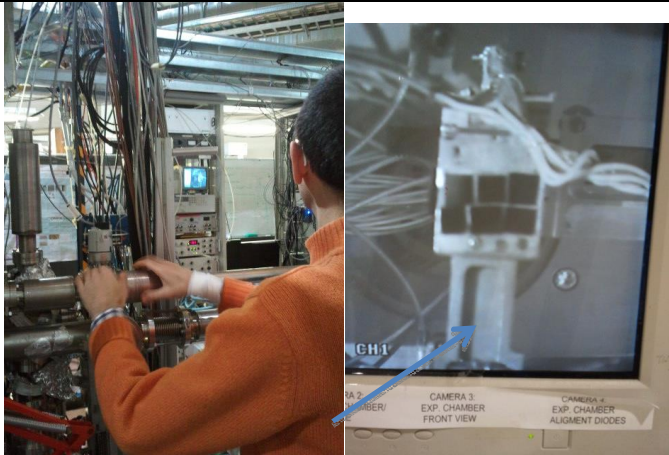
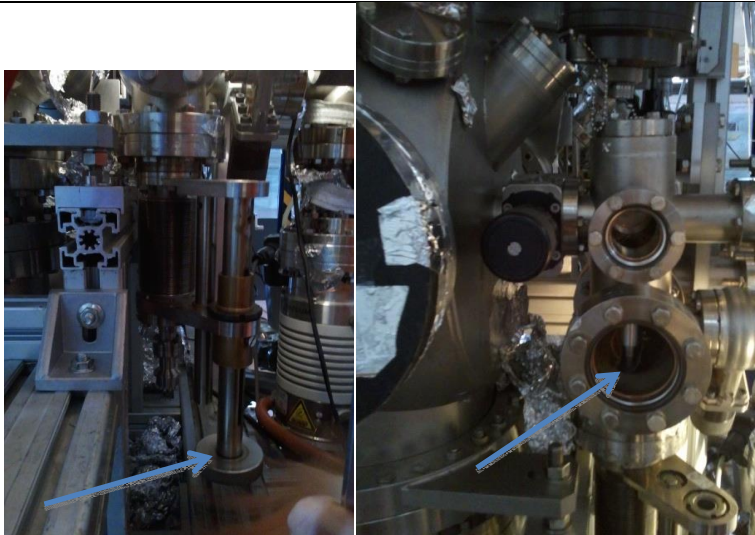
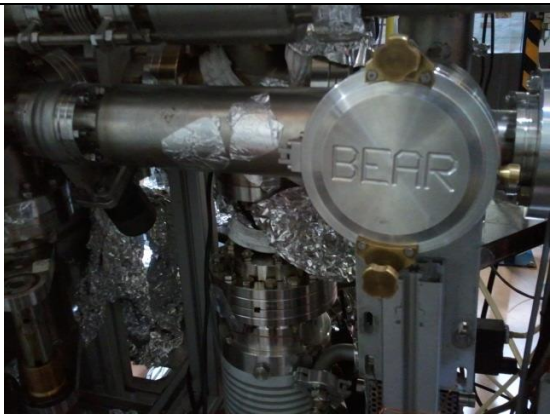


SAMPLE PREPARATION AND INSERTION IN THE VACUUM CHAMBERS

Prepare the samples on the sample holder. Use copper tape (vacuum compatible, conductive for photon current measurements, good adhesive)	
Make sure to have the black valve closed tightly counterclockwise	
To vent the pre-vacuum chamber Press stop: The blue light will switch off. In few seconds it will be possible to open the chamber	
Insert the sample and rotate the arm until you see the sample clamped in the camera 2. Close the chamber and press the star vacuum. Wait for about 20 min until the light gets blue for transfer ok	

REMOVAL OF PREVIOUS SAMPLE AND INSERTION OF NEW ONE

Put the experimental chamber axes in the transfer position: $\theta_A=0$, $\Phi_A=0$, $\theta_M=1$, $\Phi_M=90$	
Open the two valves completely	
Camera1: Insert the arm and fix the sample. Clamp by rotation. The sample is clamped when you see a parallel shadow (see blue arrow, figure right). Remove the sample and take it to the intermediate position	
Close the two valves	

Camera 2: By rotating the linear drive lift the sample holder to get the sample. Remove the experimental arm. Then lower the sample to the extraction position.	
Put it in the parking	
Open the valve to insert the extraction arm. Insert the extraction arm and clamp the sample to be removed. Extract the sample. Close the valve	
Lift the sample to be measured by rotating the linear drive.	
Insert the experimental arm and clamp the sample. Lower the linear drive	
Open the two valves. Switch to camera1 and switch the gauge Insert the sample into the	

experimental arm. When in place on the fork remove the clamp by rotating until the shadow is not parallel. If the fork does not enter change theta from 1 to 2	
Remove the arm and close the two valves	
When the arm is removed the sample must be rotated to $\Phi_{IM}=0$ (the sample must be perpendicular to the beam)	
Axis definition (camera 1): XM (parallel to the beam), YM, ZM perpendicular to the image. Take care not to move in Y direction so as to touch the analyser.	

CAMERA1 top of the chamber

CAMERA2 transfer

CAMERA3 in front of the beam

CAMERA4 for the sample alignment