



# Problems with AC151

## Test 1:

- after 128  $\mu\text{m}$  BCP
- **BD at 28.7 MV/m with strong FE**

## Test 2:

- after additional HPR
- **BD at 26.7 MV/m with very low x-rays**

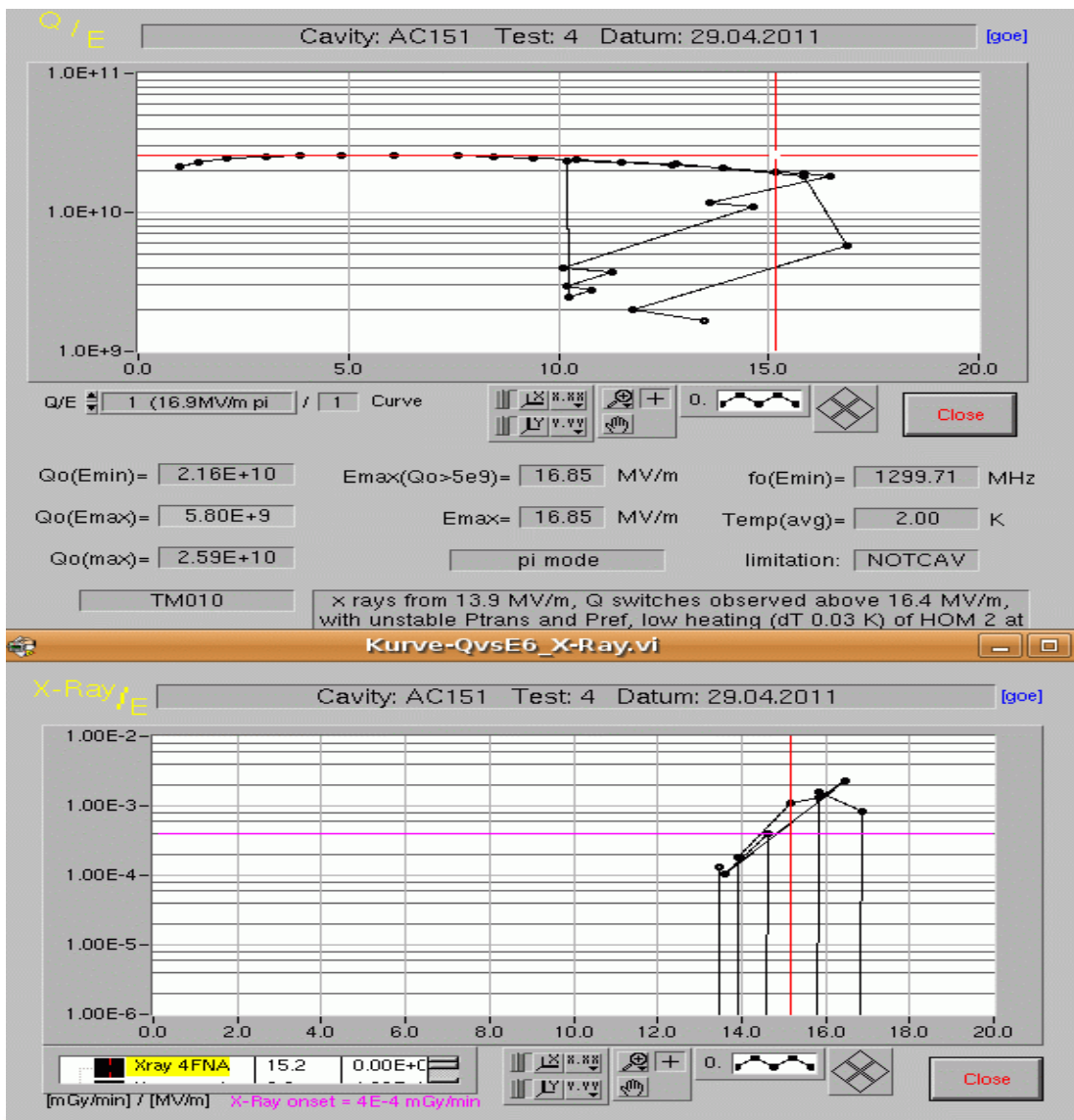
## Test 3:

- after 48  $\mu\text{m}$  EP
- **Limited with Q-switches at 19.9 MV/m**

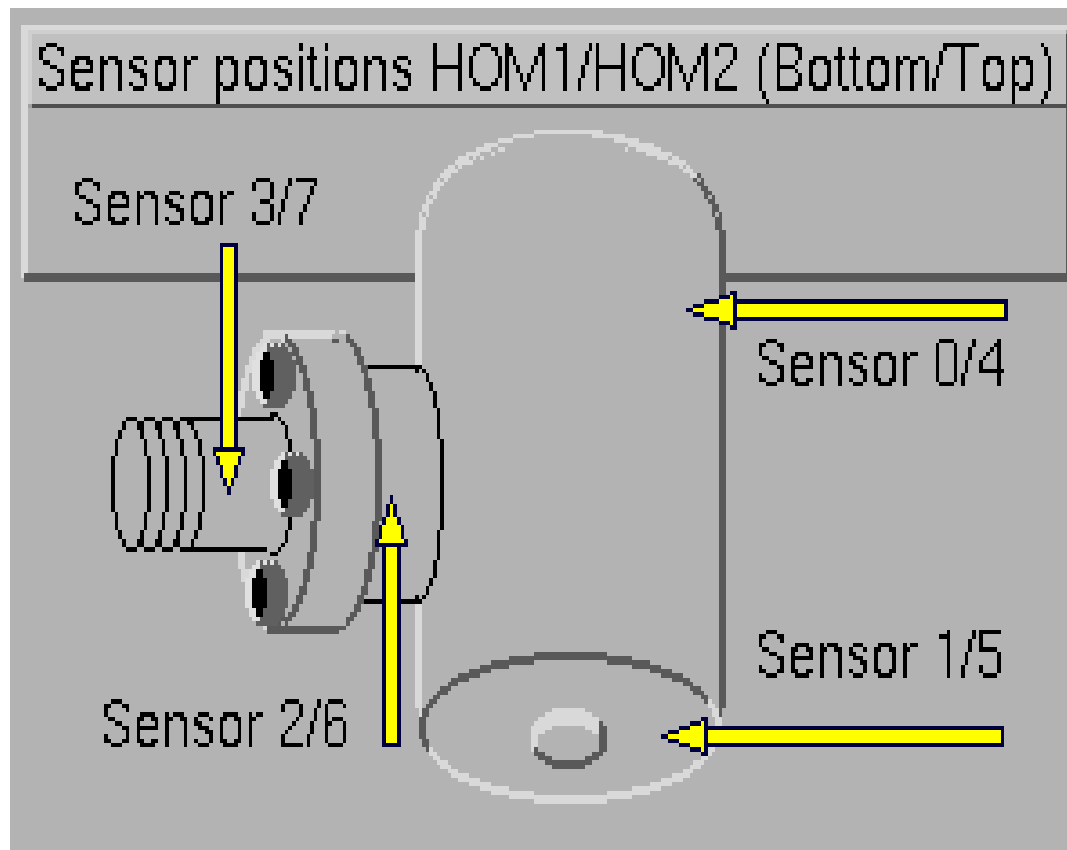
## Test 4:

- **Added T-sensors**
- **Limited with Q-switches at 16.7 MV/m**

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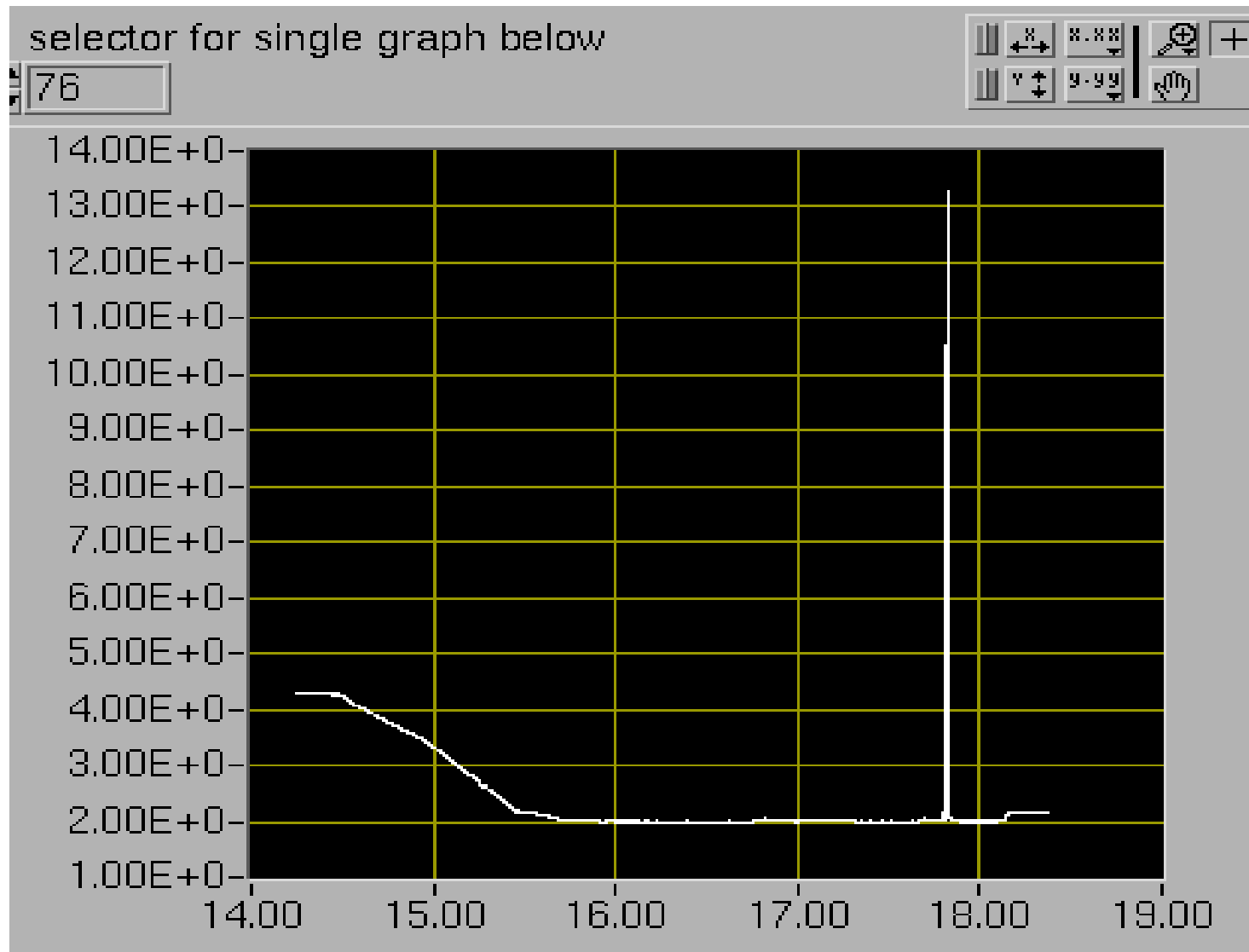
# T-sensors on HOM



Sensors 76-79, HOM 2,  
corresponding sensors 4-7  
on presented picture.



# Max change of T for pi-mode

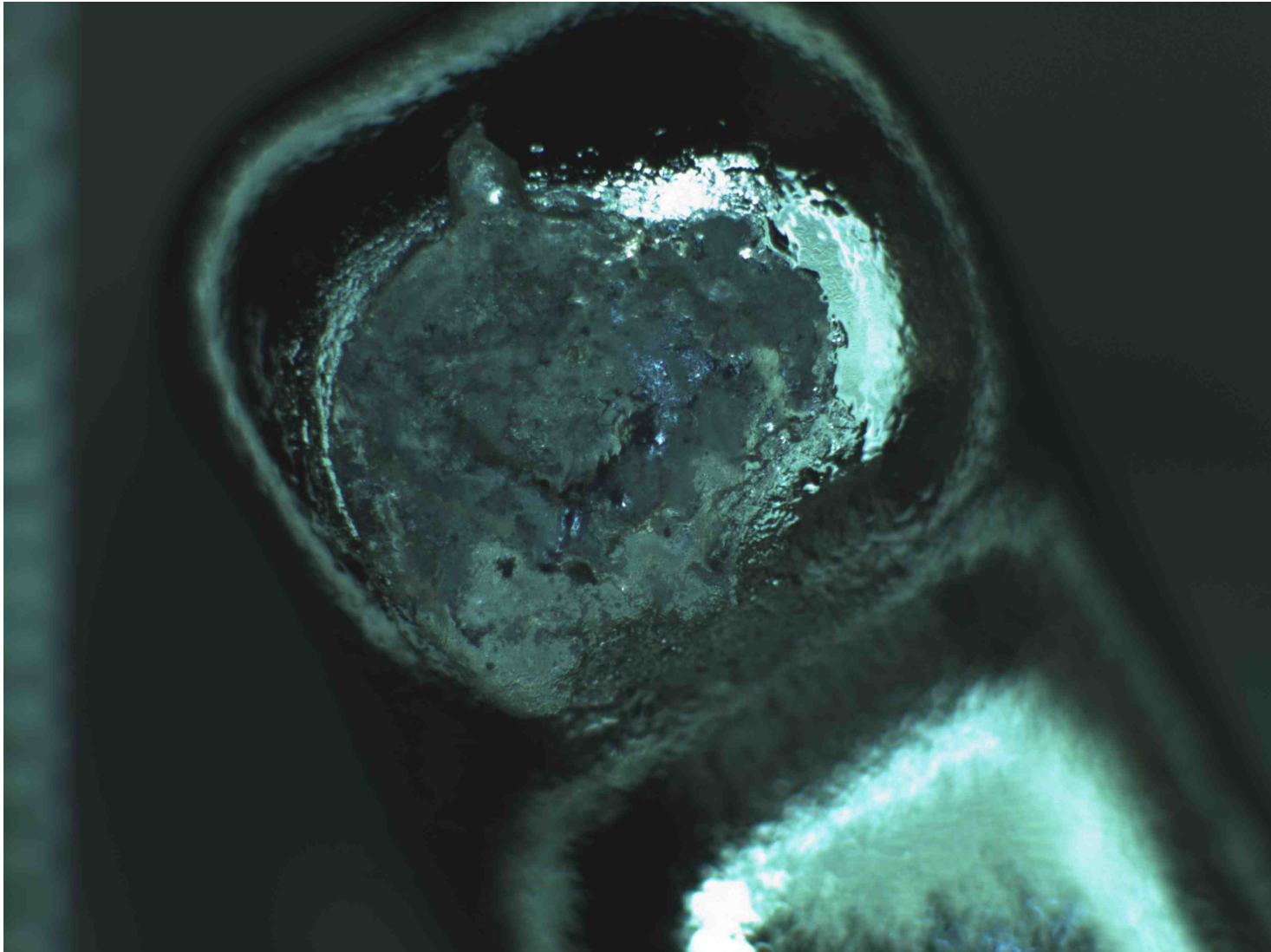


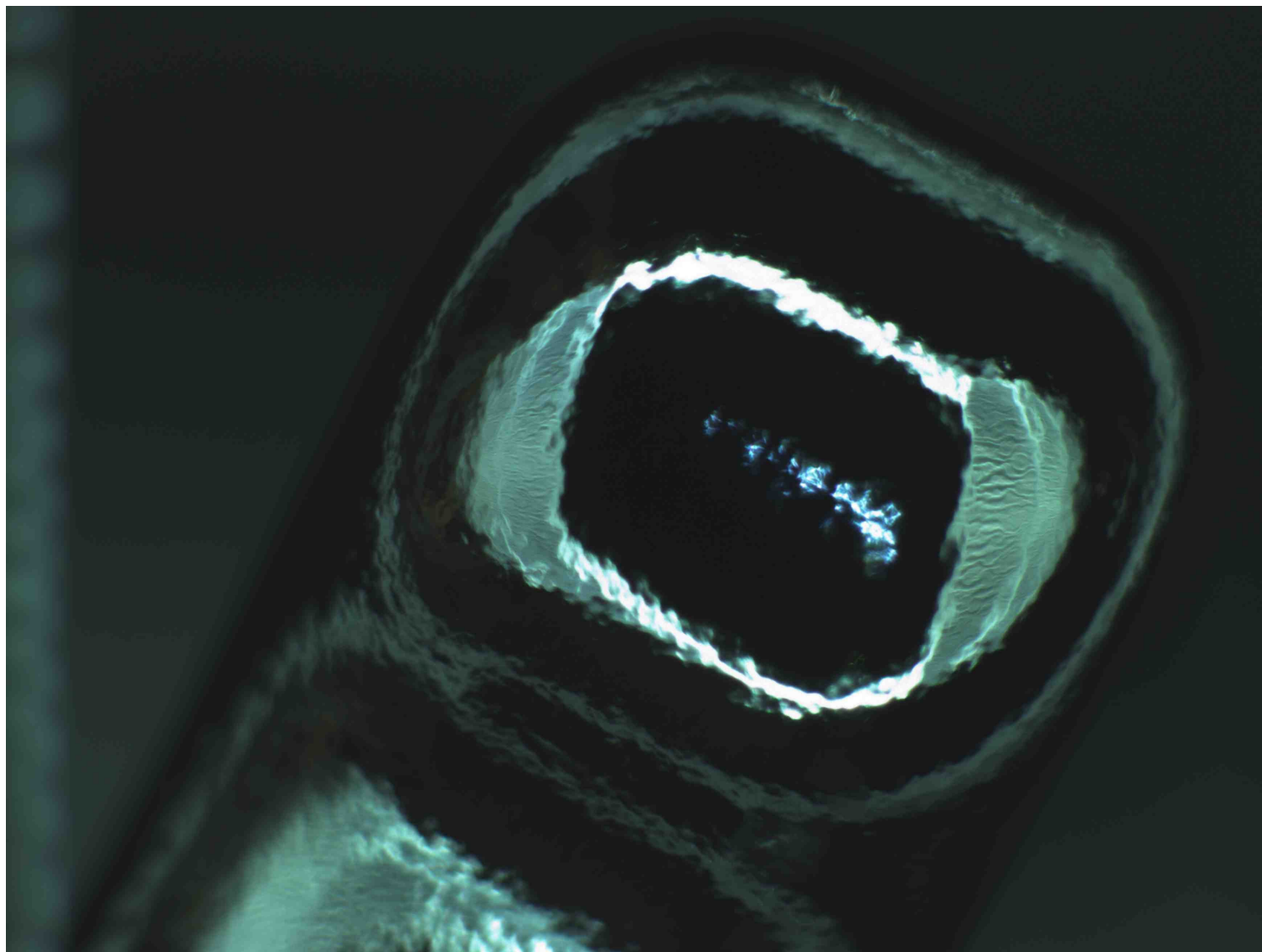






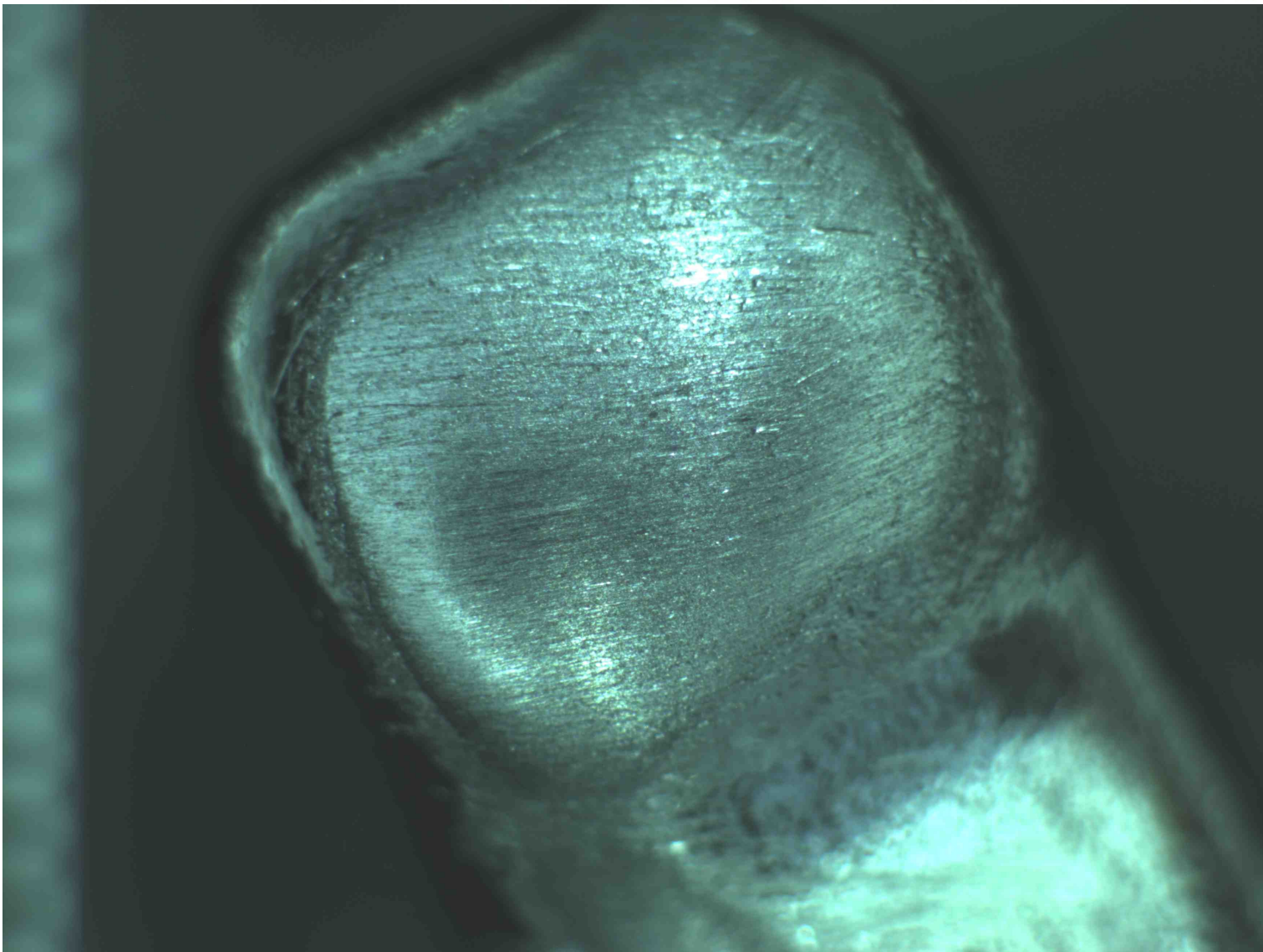
# Inspection from inside, HOM2



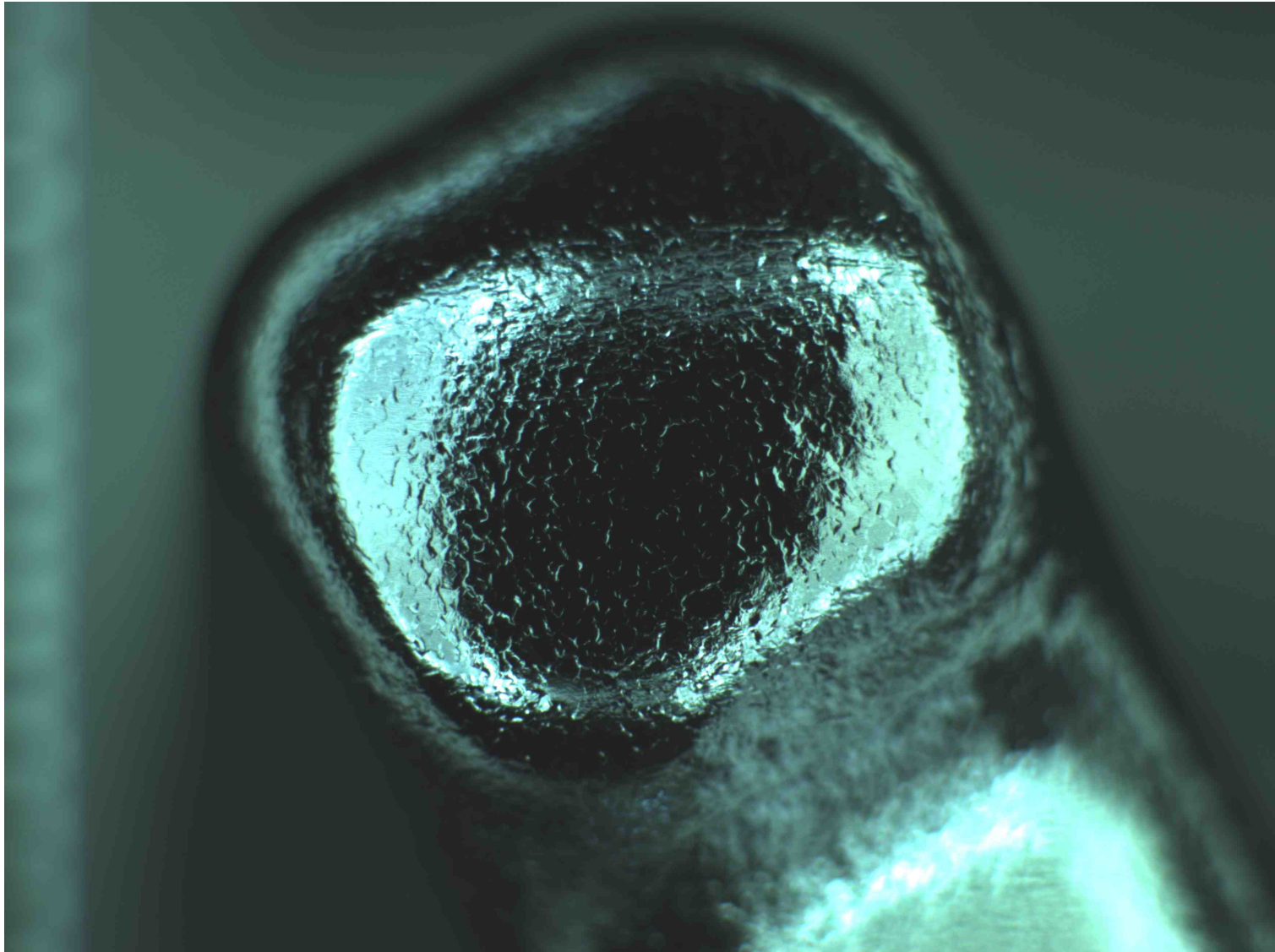




# After grinding



# After local BCP



Inspection of EP-electrode:

- **Damage of Teflon-insulation at location of HOM2**

Belt for rotation of cavity was displaced during EP-process → non-circular movement of cavity

Next step: new EP and re-test

## Monitoring at present setup:

- **Radiation measurement on top of cryostat**
- **Present but not in use:**
  - Gamma spectrum
  - Electron current measurement

## Future monitoring at AMTF (XFEL-tests)

- **Radiation at top and bottom of cryostat**
- **Nothing else**

## FE reduction:

- **Assemble as clean as possible after standard procedures**
- **In case of high FE → additional HPR**