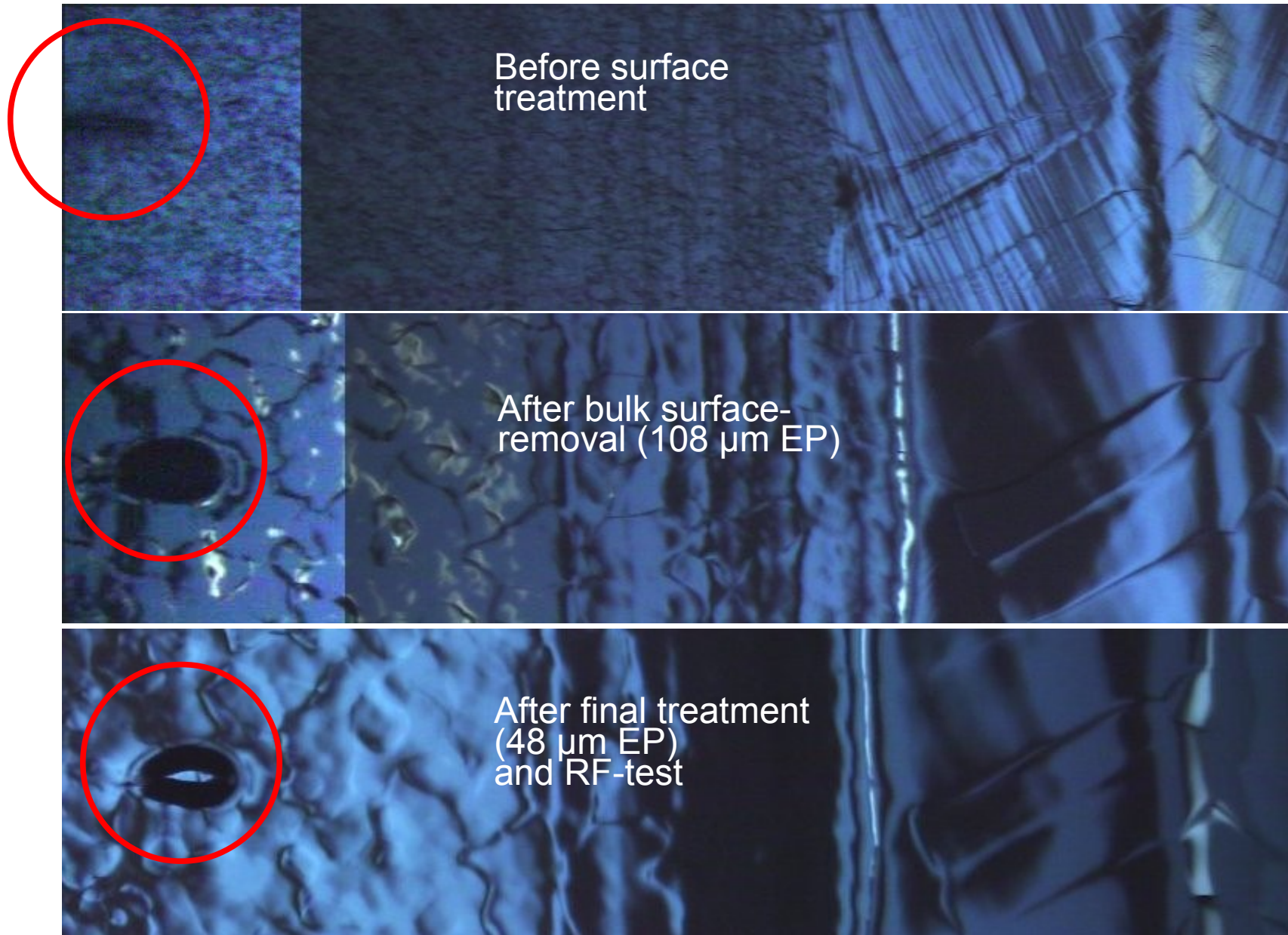


# Z142



# Z142

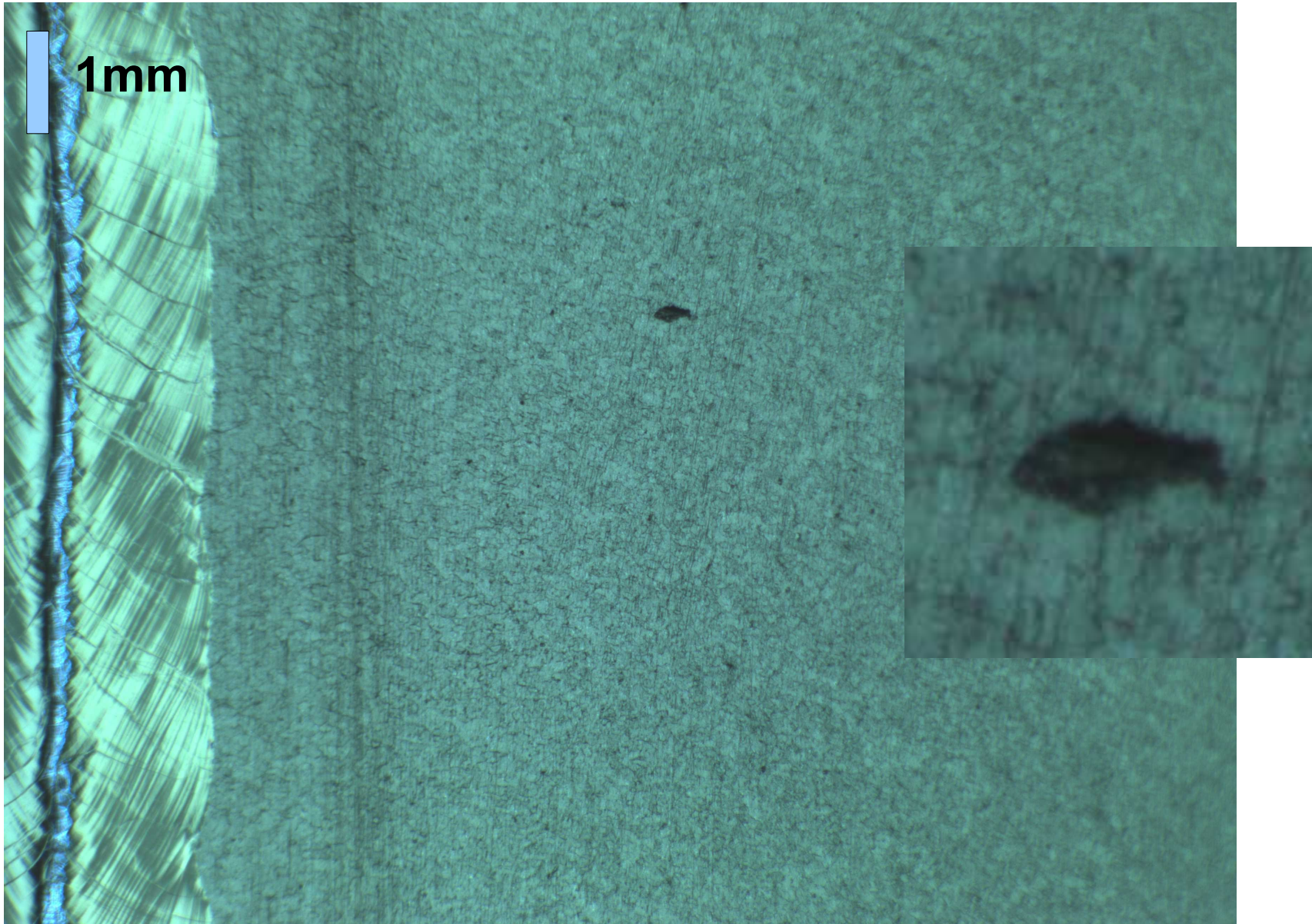
- Defect identified as quench location in vertical test by T-map
- Quench in pi-mode at 20.6 MV/m with  $Q_0=1.6E10$

# Z161

- Big (several 100 um) dark spots were observed in Z161
- They were not removed by ultrasonic rinsing
- EP (100 um surface removal) did not remove the spots, only the surface around the spots was affected, „pre-EP surface“ is still visible
- Still visible after final EP and vertical test, partially correlated to quench position

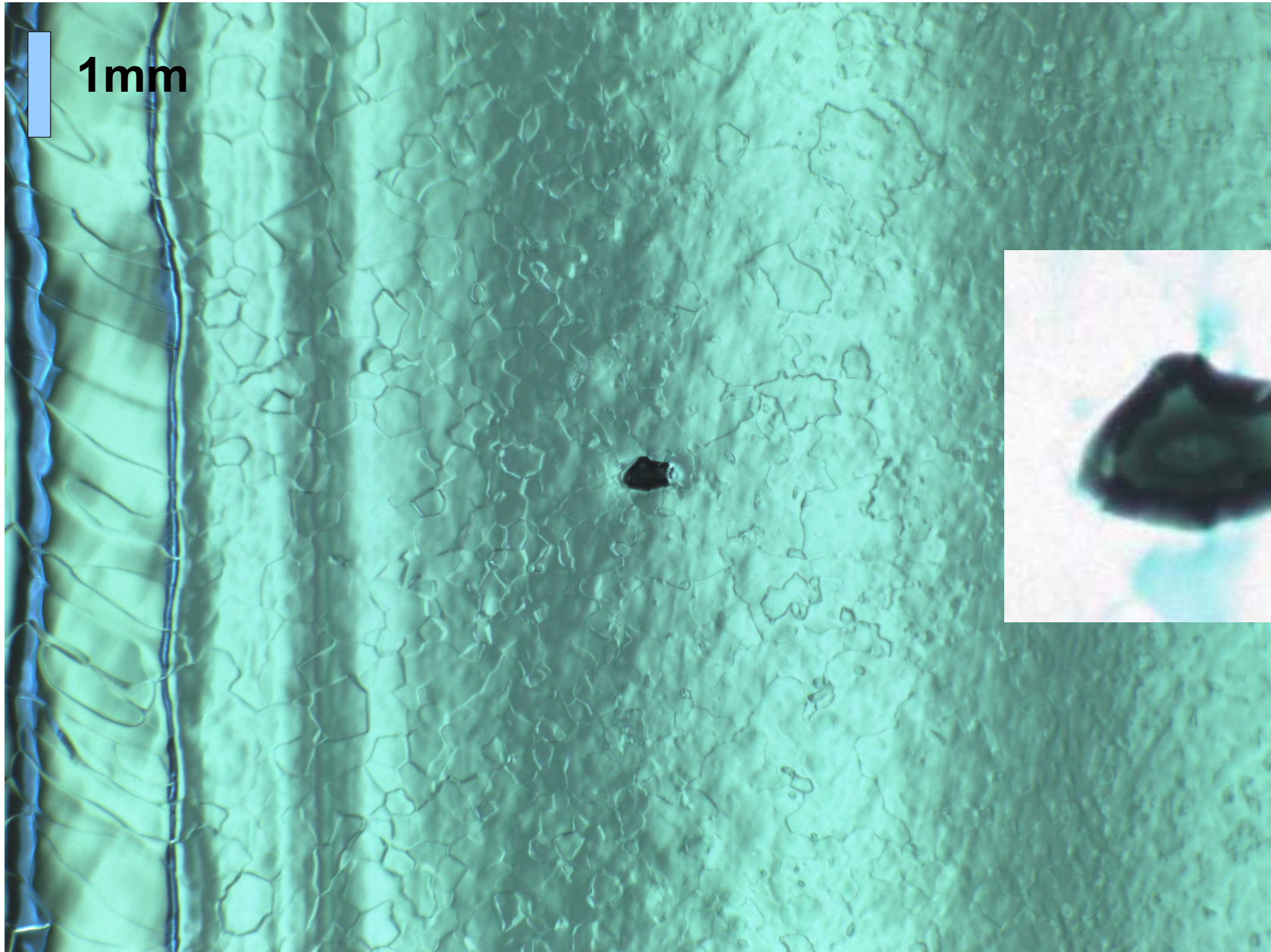


# Z161: Initial surface condition





# Z161: after vertical test



# Z161

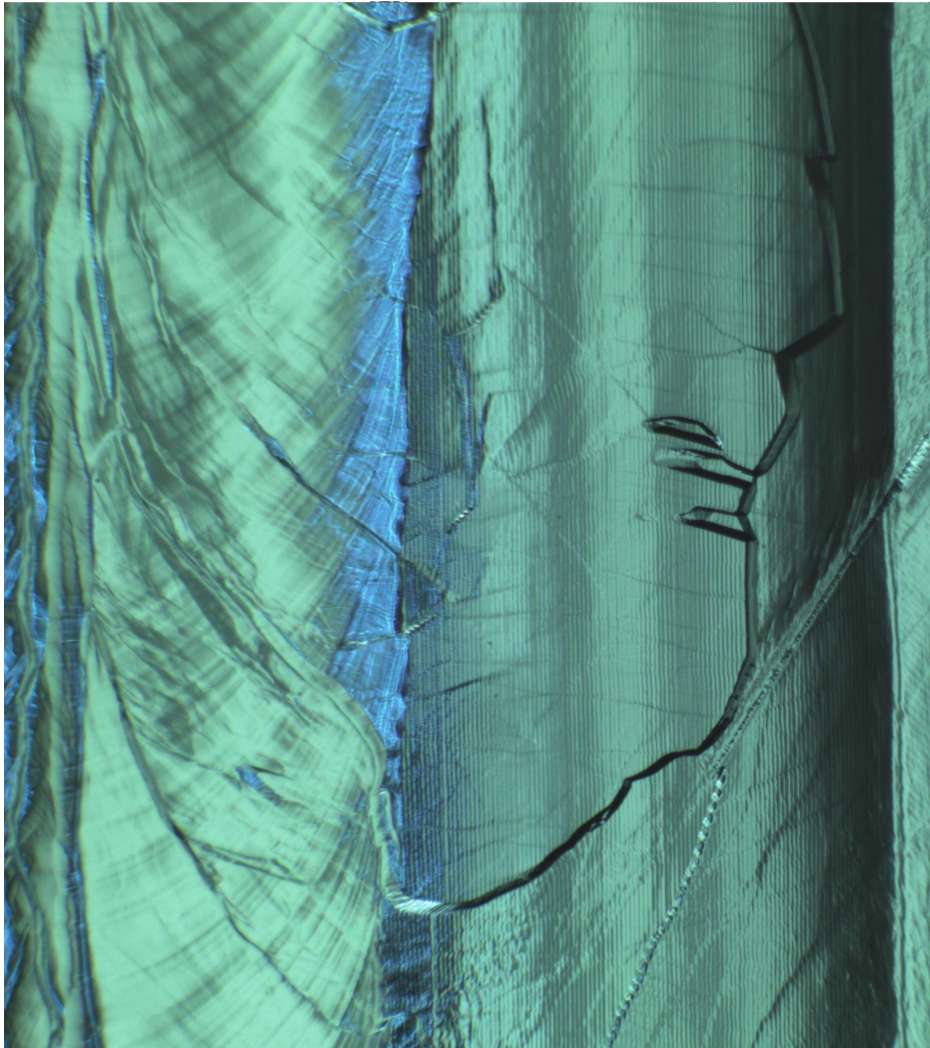
- Quench at 13.6 MV/m
- Several of the defects identified as quench-location by T-map and 2nd sound
- Cavity dissected for detailed analysis
- EDX-analysis: Aluminum detected on defect
- The source of the Al-contamination is thought to be understood and eliminated
- Details: Poster by X. Singer et al., THPO055

# LG cavities AC151-AC158

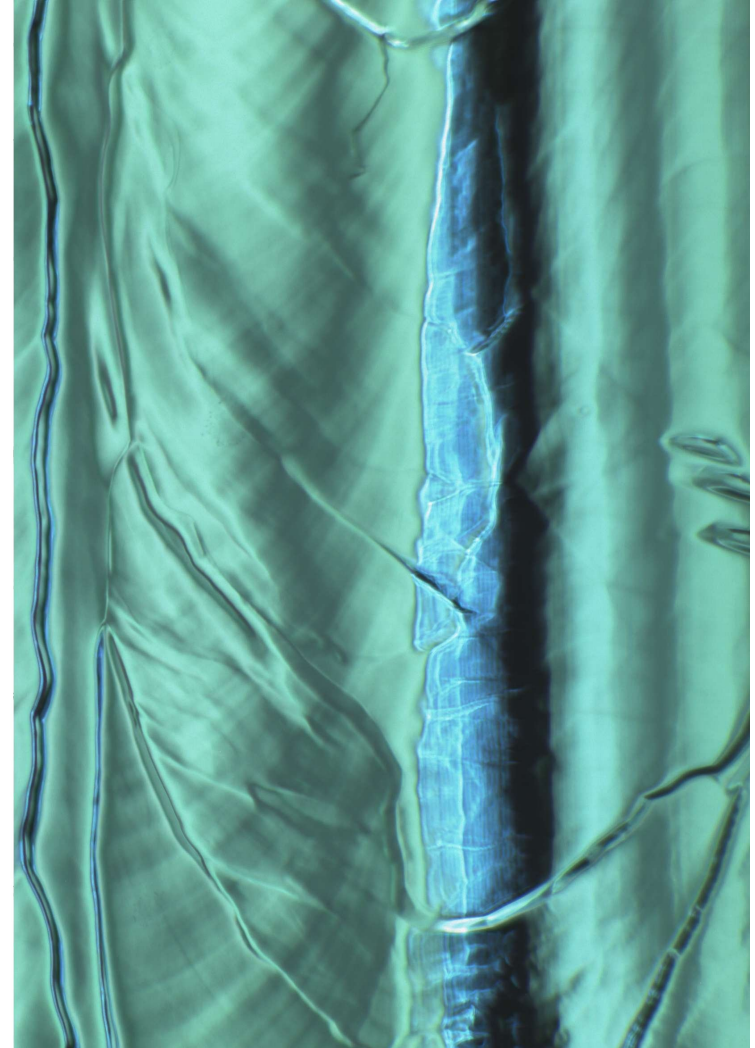
- Optical inspection of quench-locations identified by Tmap and 2nd sound so far:
  - No „obvious defects“ at quench location
  - Just etching-pits (all over the cavity as well) and grain-boundaries



# Example: Grain boundary in AC158



After BCP



After EP