

Optical inspection update (Z130) at DESY

Sebastian Aderhold

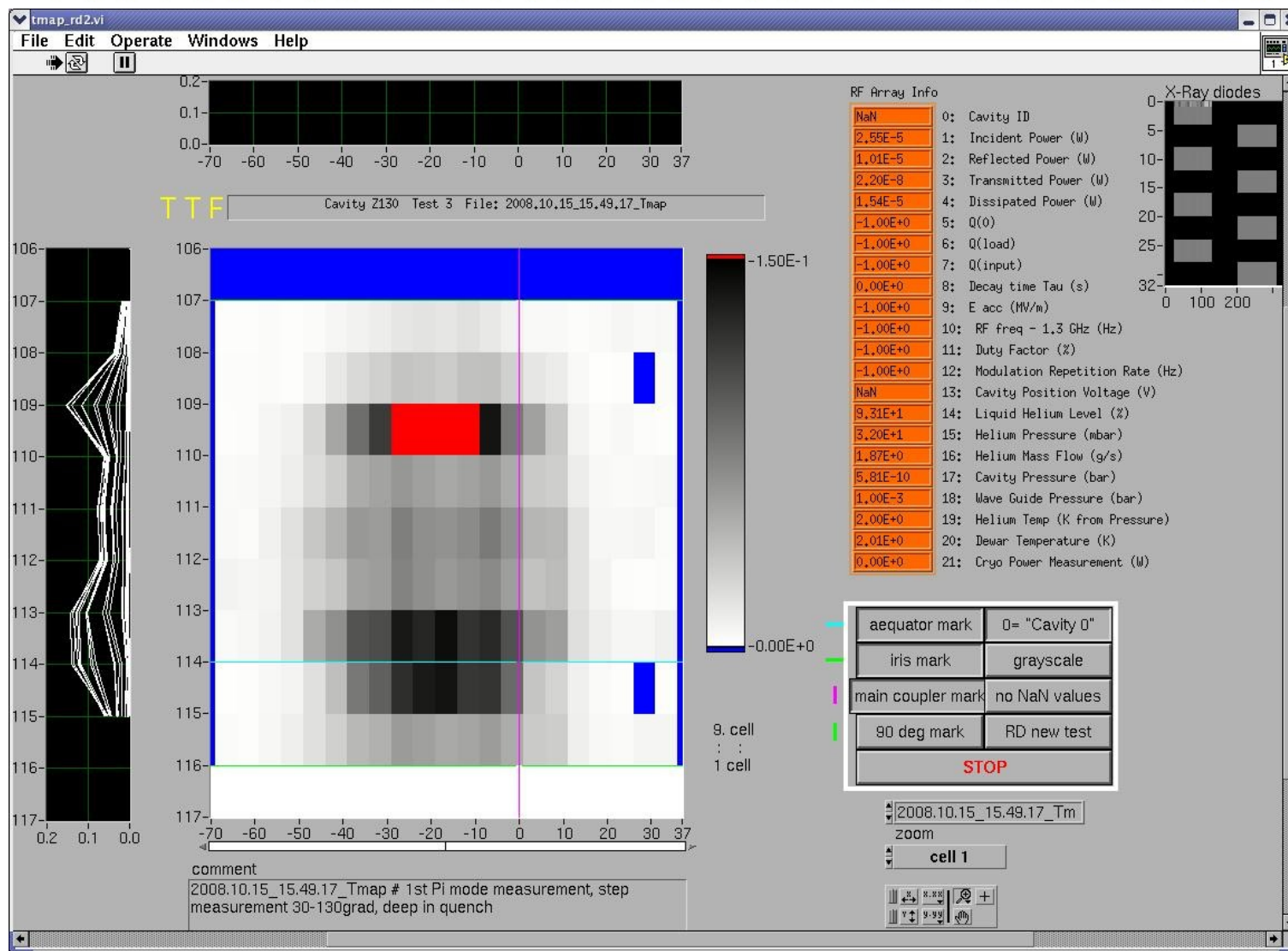
- Vertical test with T-map in all modes done
- Three hotspots found in different modes
- Optical inspection of all welding seams and hotspots
- Cavity will be cut for surface analysis of the defects



T-map measurement in all modes

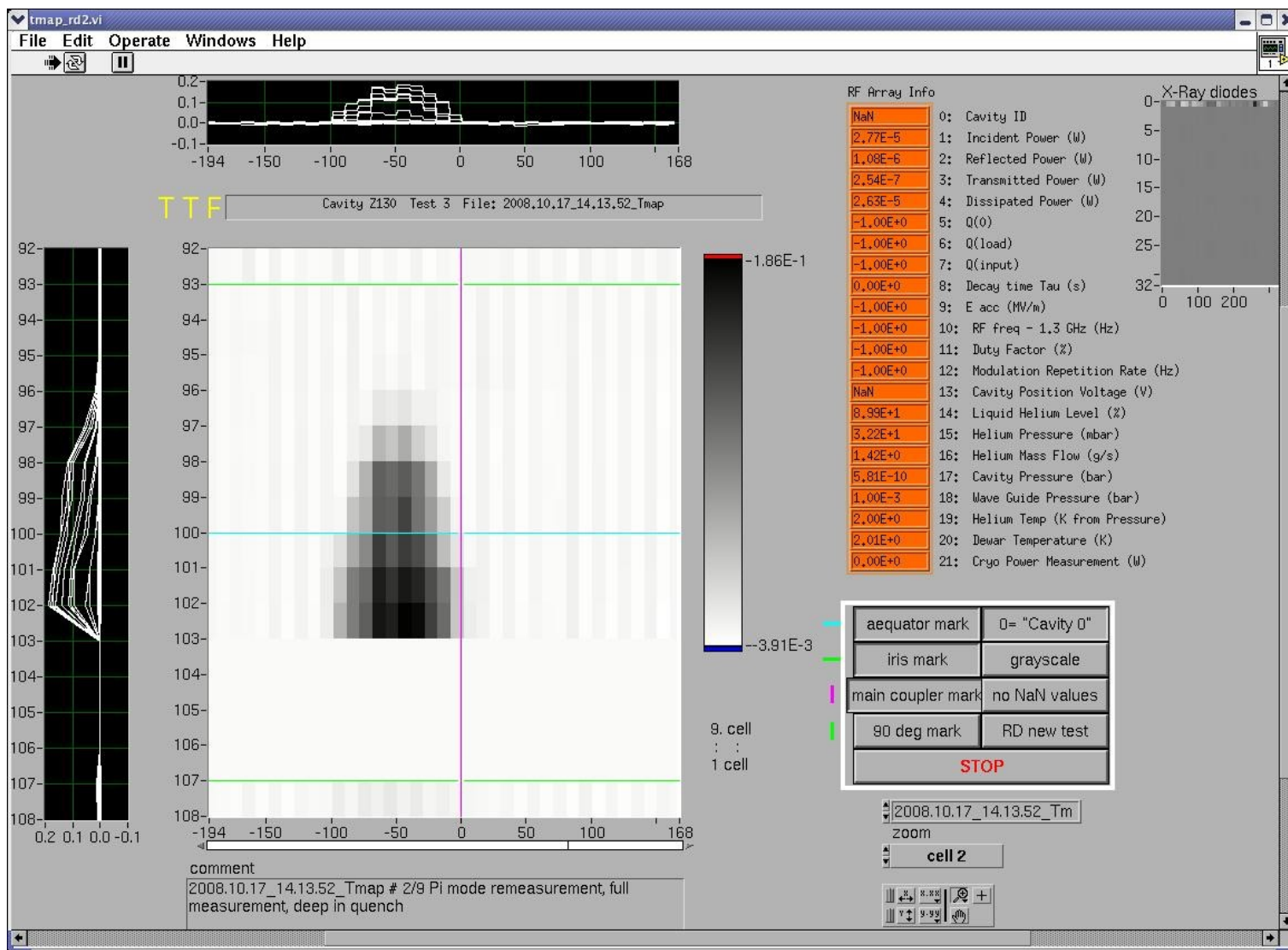
- π -, $8\pi/9$ -, $7\pi/9$ -, $6\pi/9$ -, $5\pi/9$ -, $4\pi/9$ -mode:
 - Quench in cell 1 at 16 MV/m
- $3\pi/9$ - and $1\pi/9$ -mode:
 - Quench on equator of cell 5 at 22 MV/m ($3/9$) and 18 MV/m ($1/9$)
- $2\pi/9$ -mode:
 - Quench in cell 2 at 35 MV/m

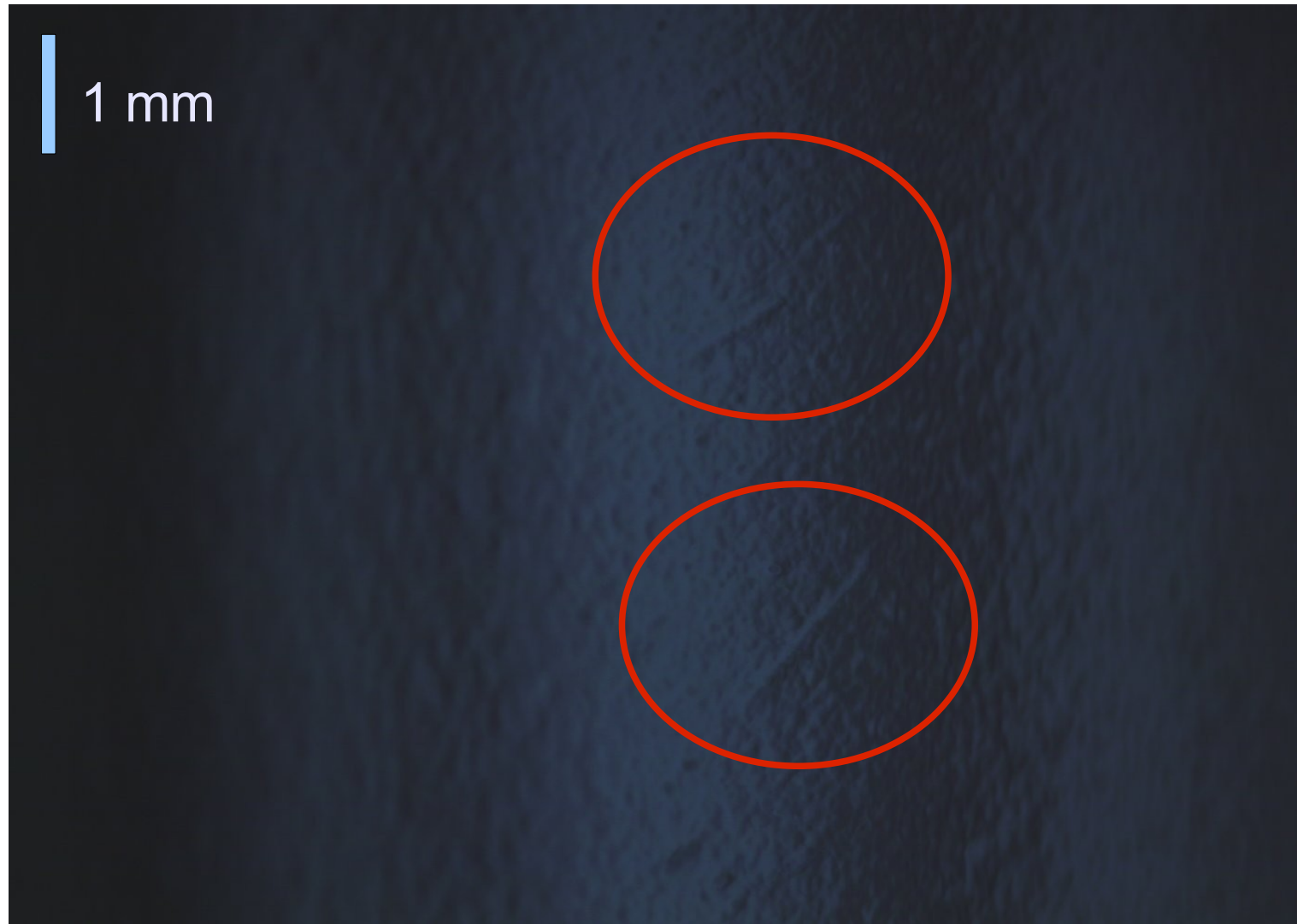
T-map measurement cell 1



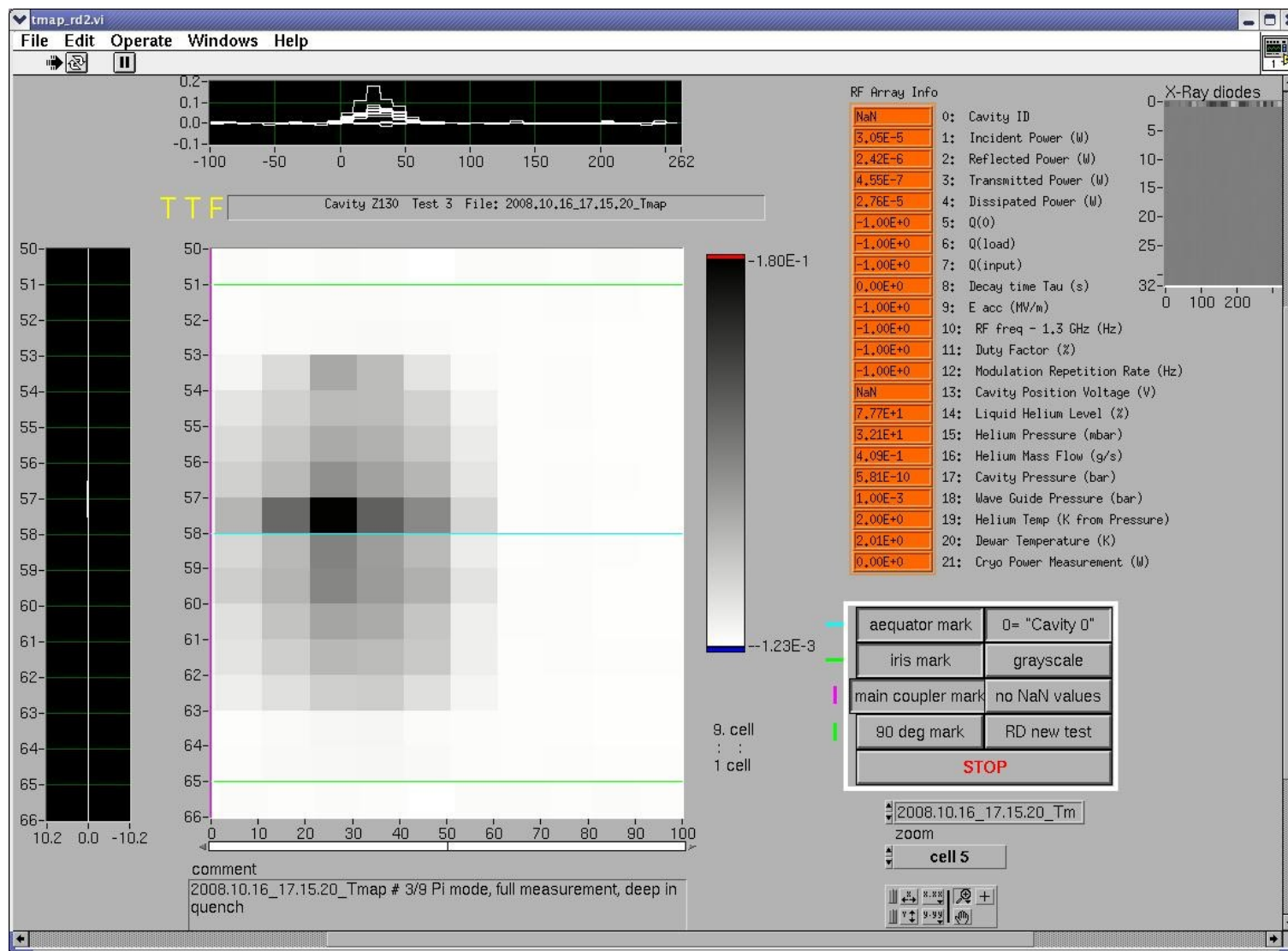


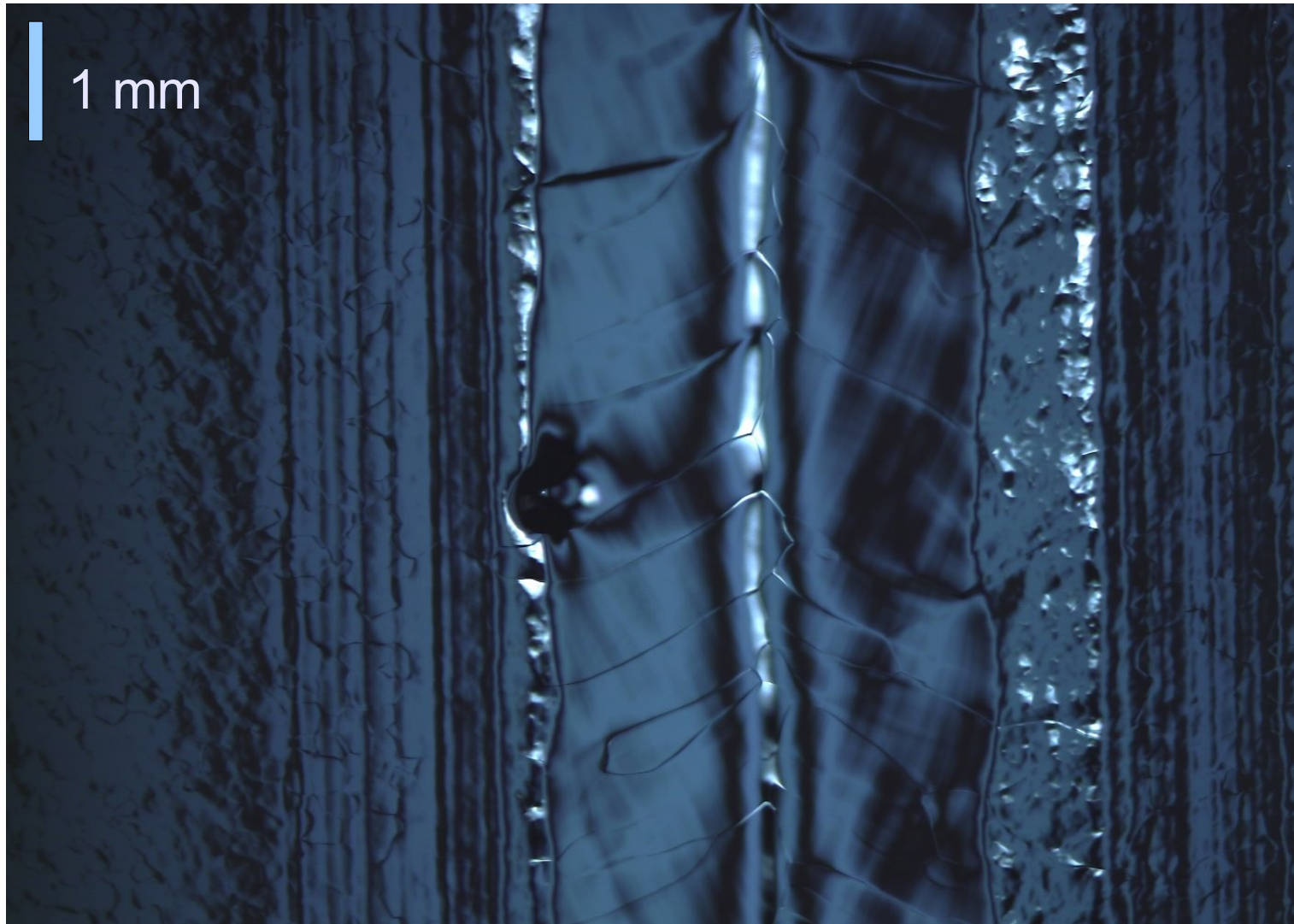
T-map measurement cell 2





T-map measurement cell 5





Upcoming

- Z130 will be cut for detailed investigation of the surface at the defects found
 - **Microscopy**
 - **Check for foreign material in defects**
- T-map measurement in all modes and optical inspection of Z131 showing similar test results (Quench at 17 MV/m)