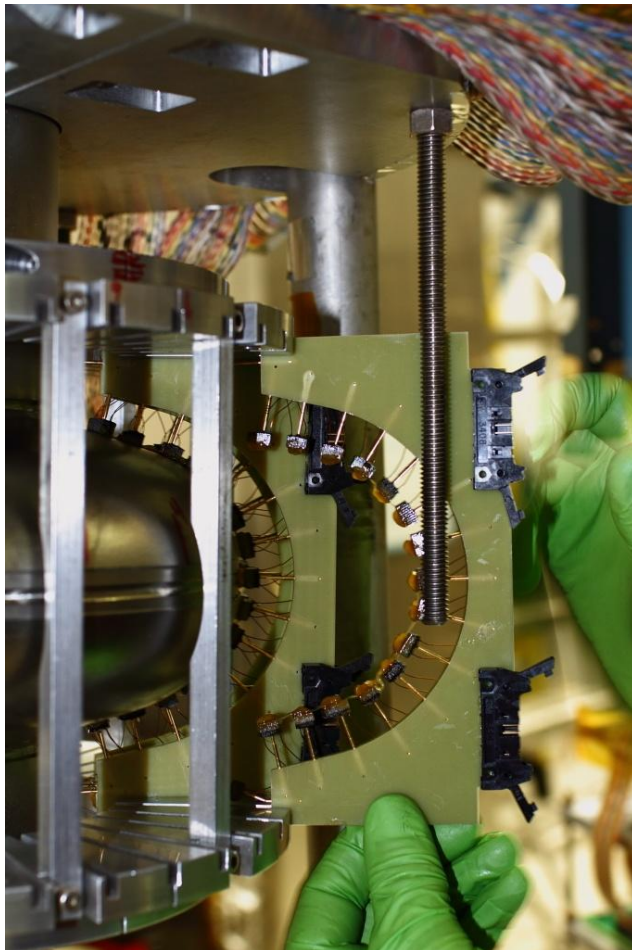


TE1AES004 JLAB T-map test

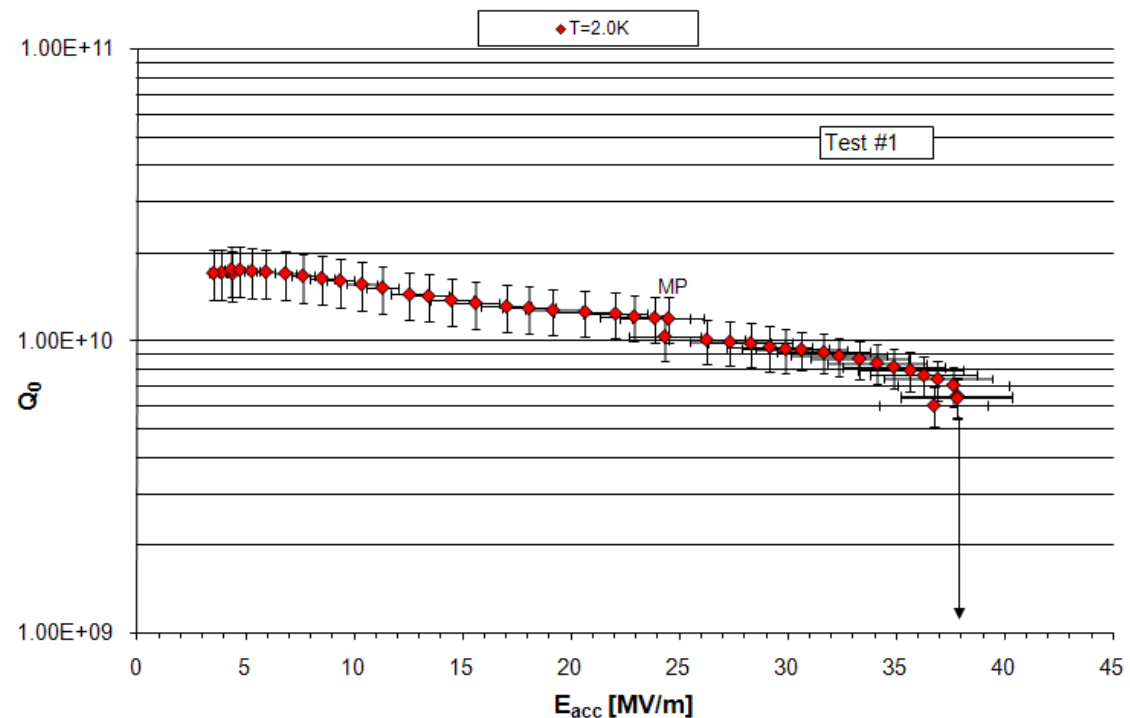
G. Ciovati, M. Morrone, G. Wu



- Cavity sealed on 6/7,
- T-map installed on 6/8,
- RF tested on 6/9,
- Disassembled on 6/10,
- Shipped back on 6/11.

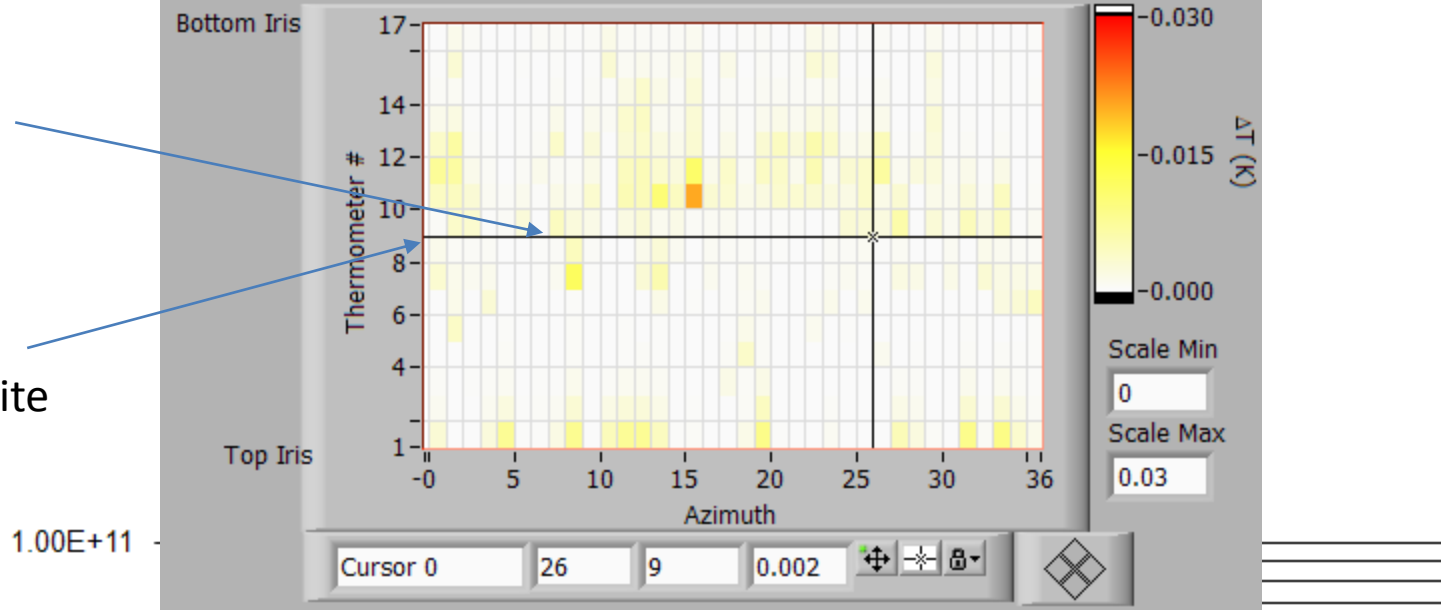
- Cavity see no chemical etching since 2008,
- Only see HPR and molding.
- Cavity last tested at A0 (40 MV/m)
- No active pumping since A0 RF test.
- No x-ray was detected at JLAB (38 MV/m)
- Three hot spots and one quench site located
- Geometric defect showed no heating at all
- Previous quench site (A0) was a hot spot
- Quench had pre-heating

AES004, TESLA Cavity Shape, single cell



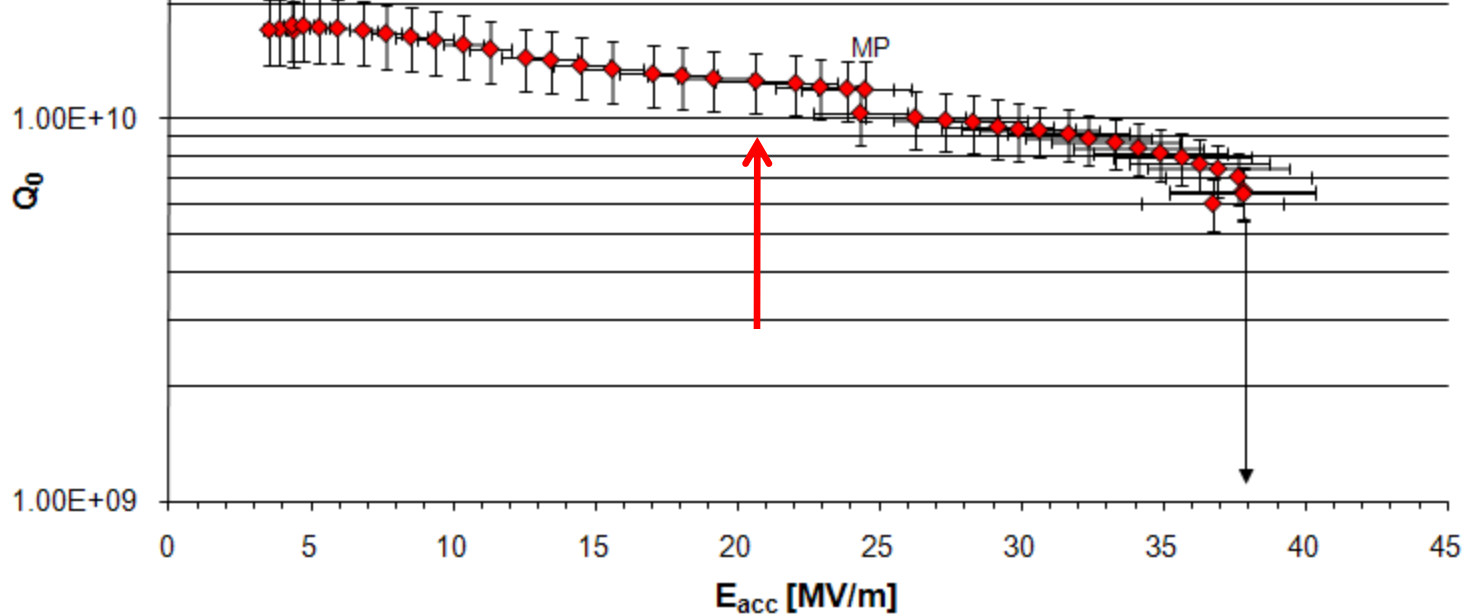
Defect

Previous
quench site



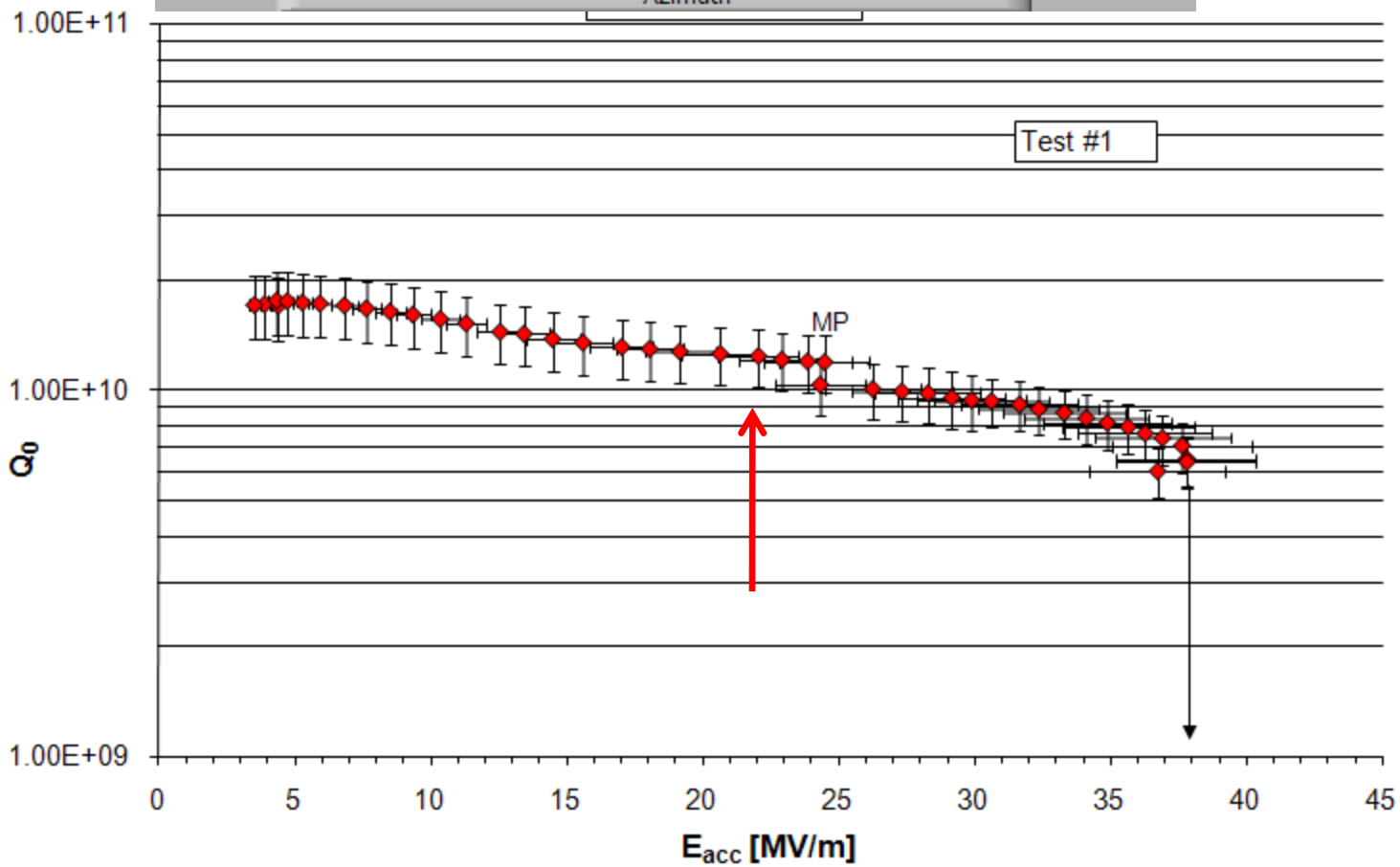
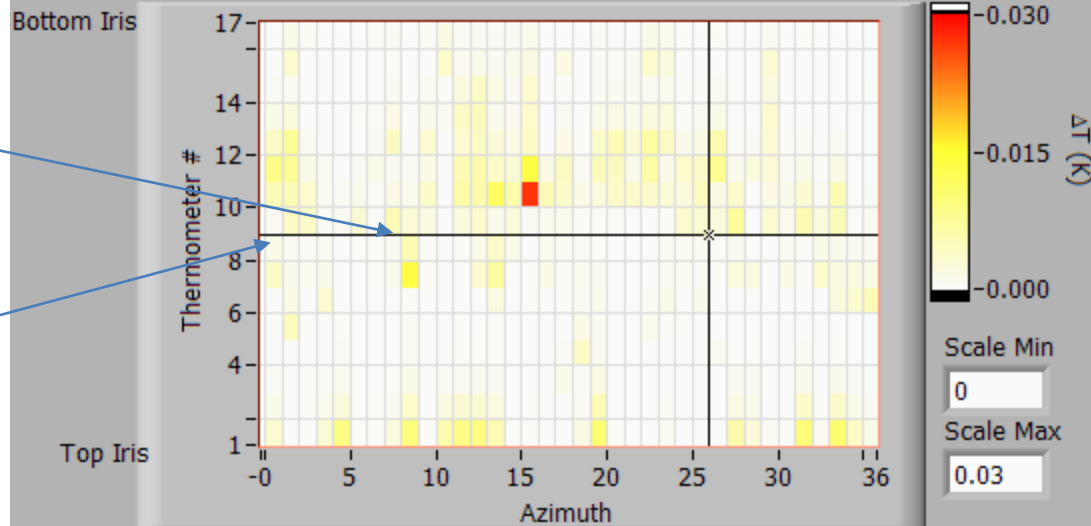
1.00E+11

Test #1



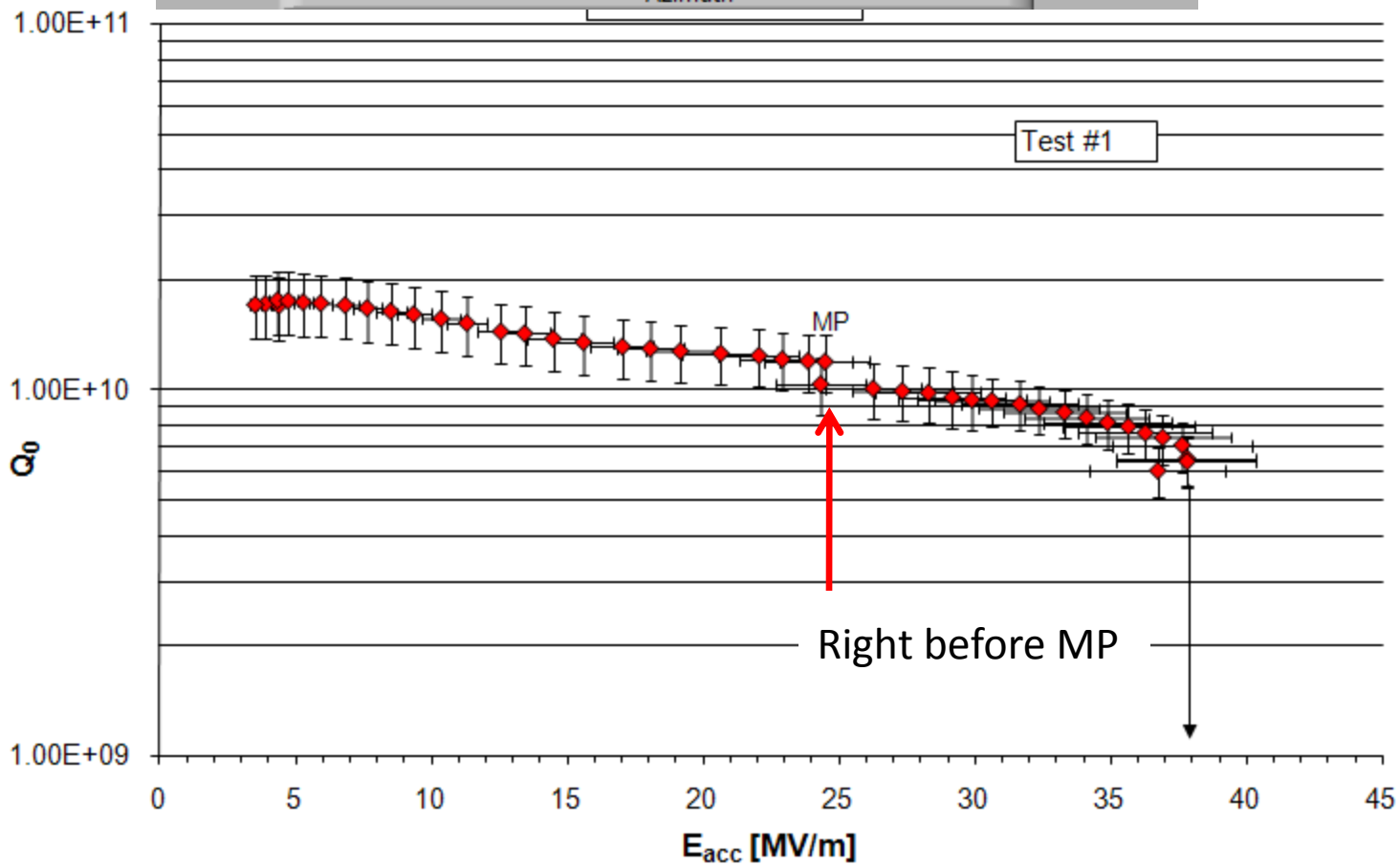
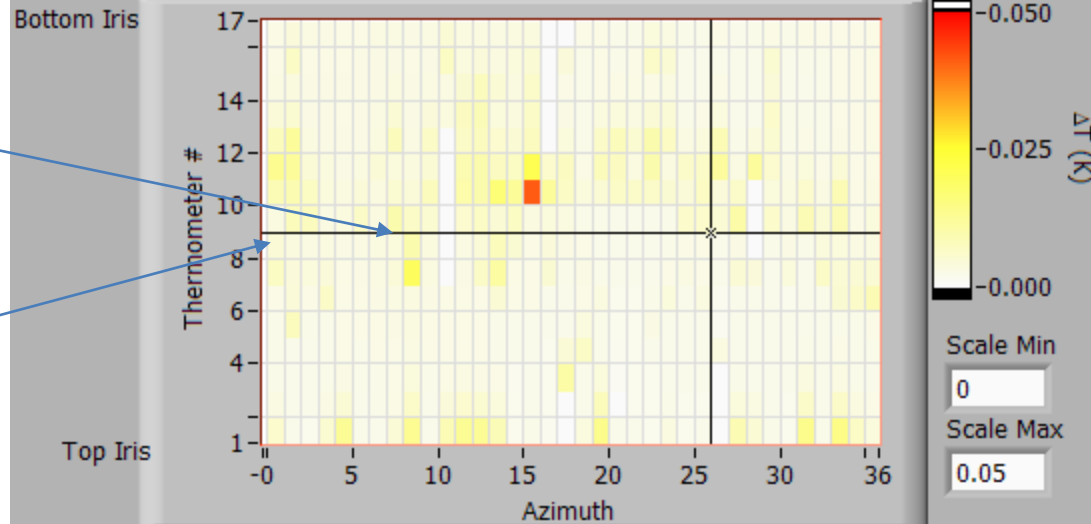
Defect

Previous
quench site



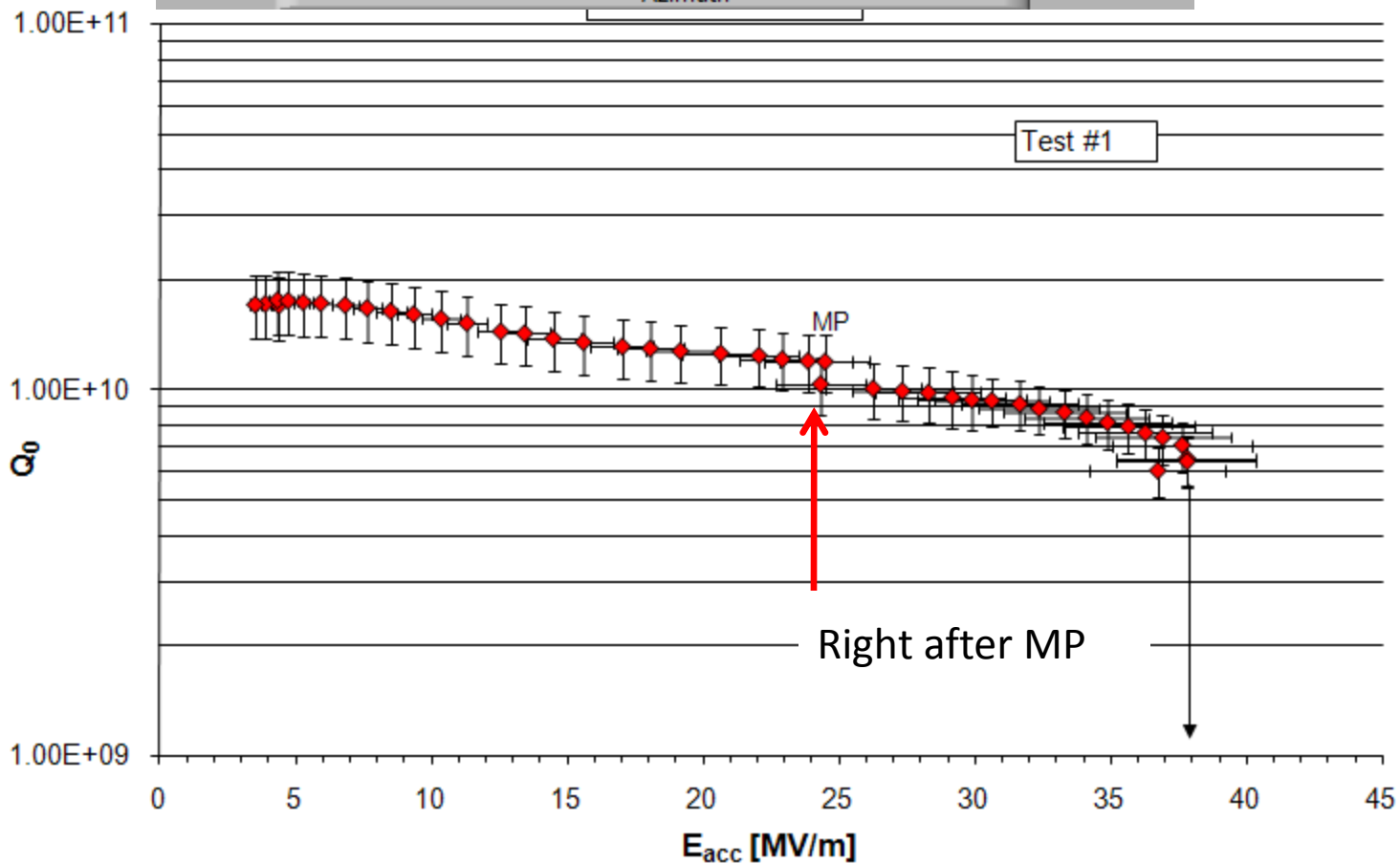
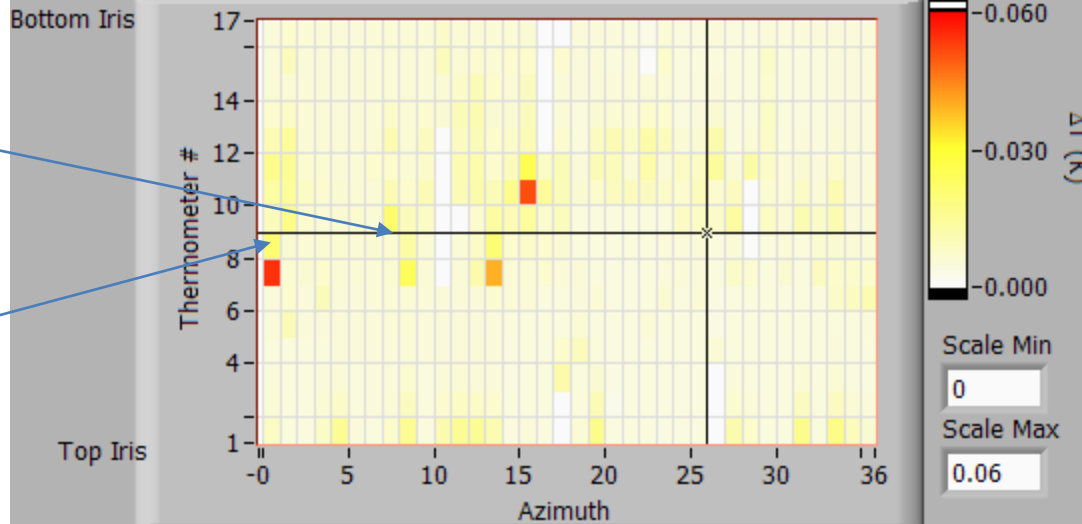
Defect

Previous
quench site



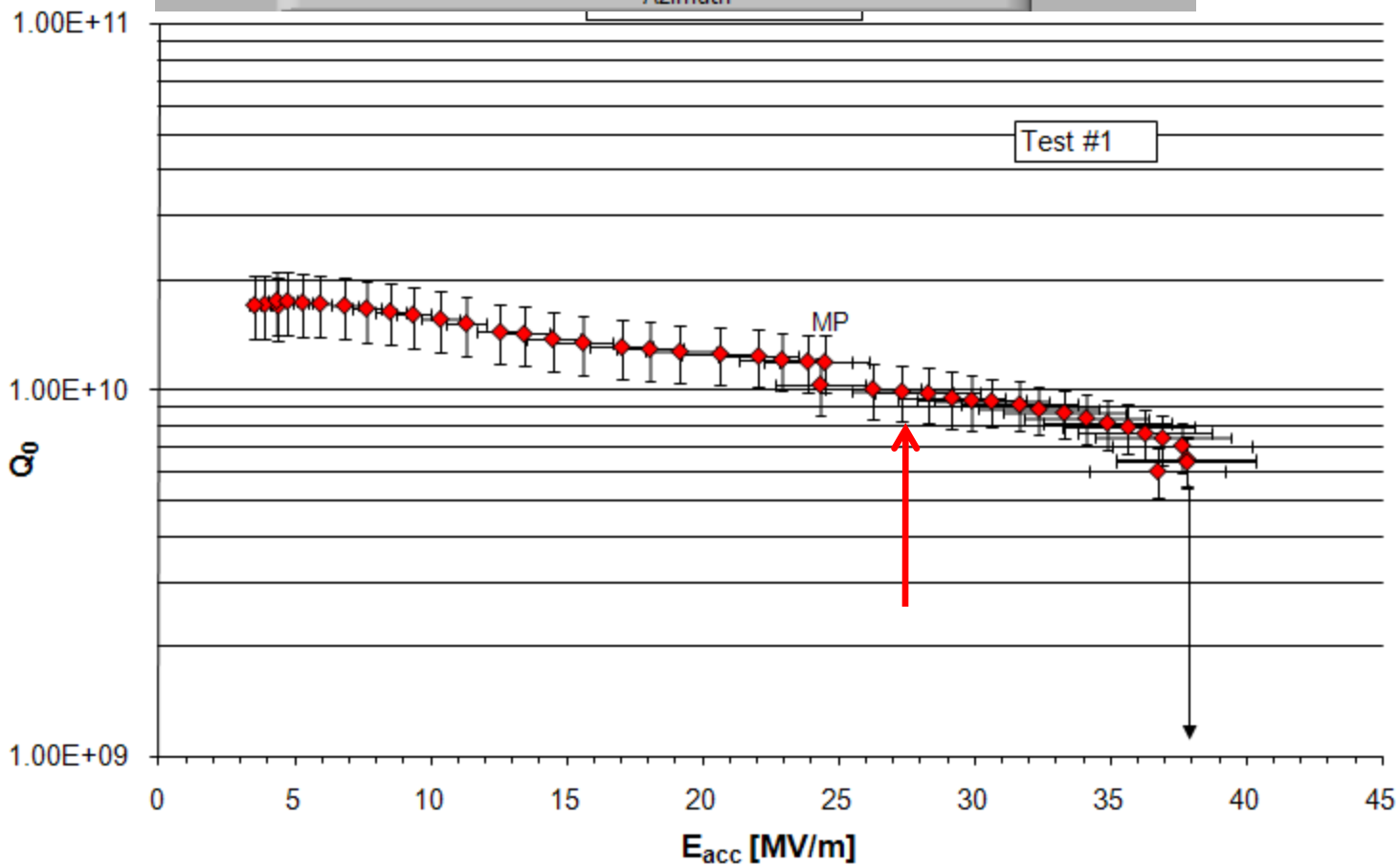
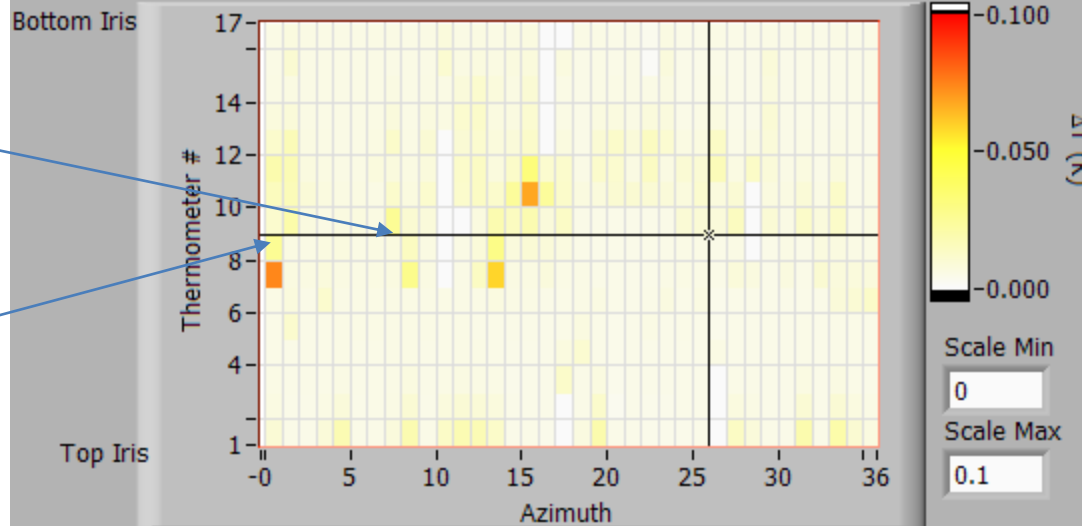
Defect

Previous
quench site



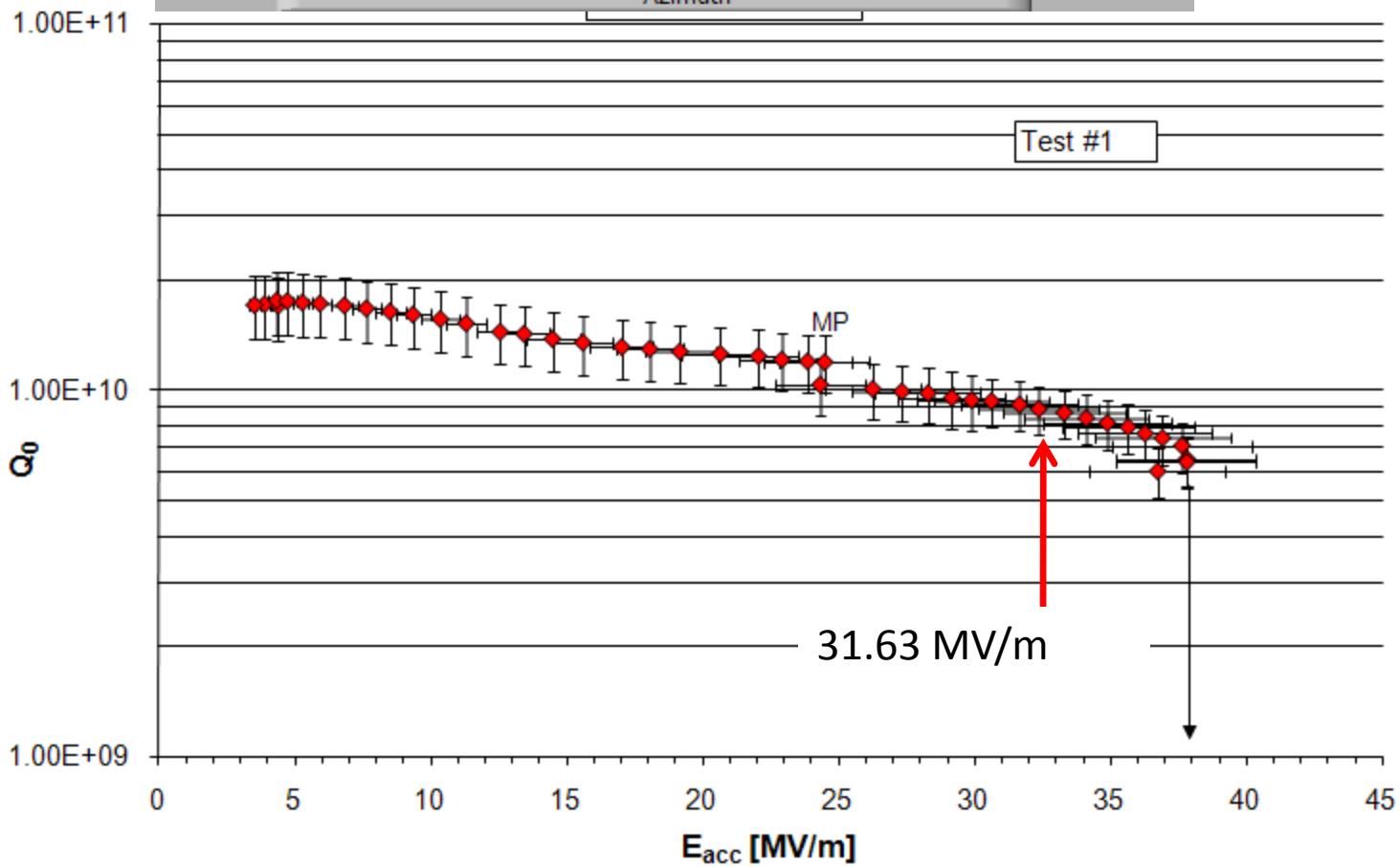
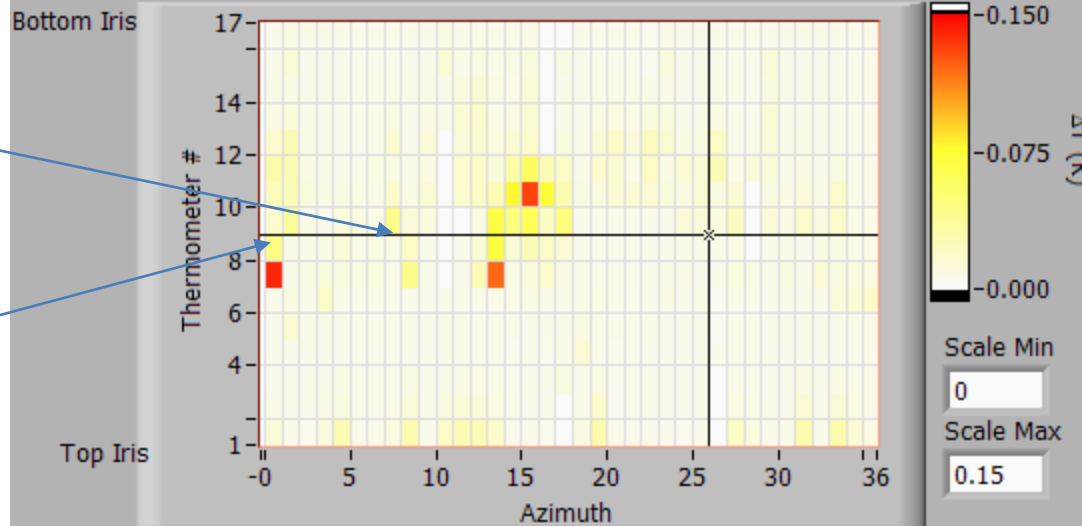
Defect

Previous
quench site



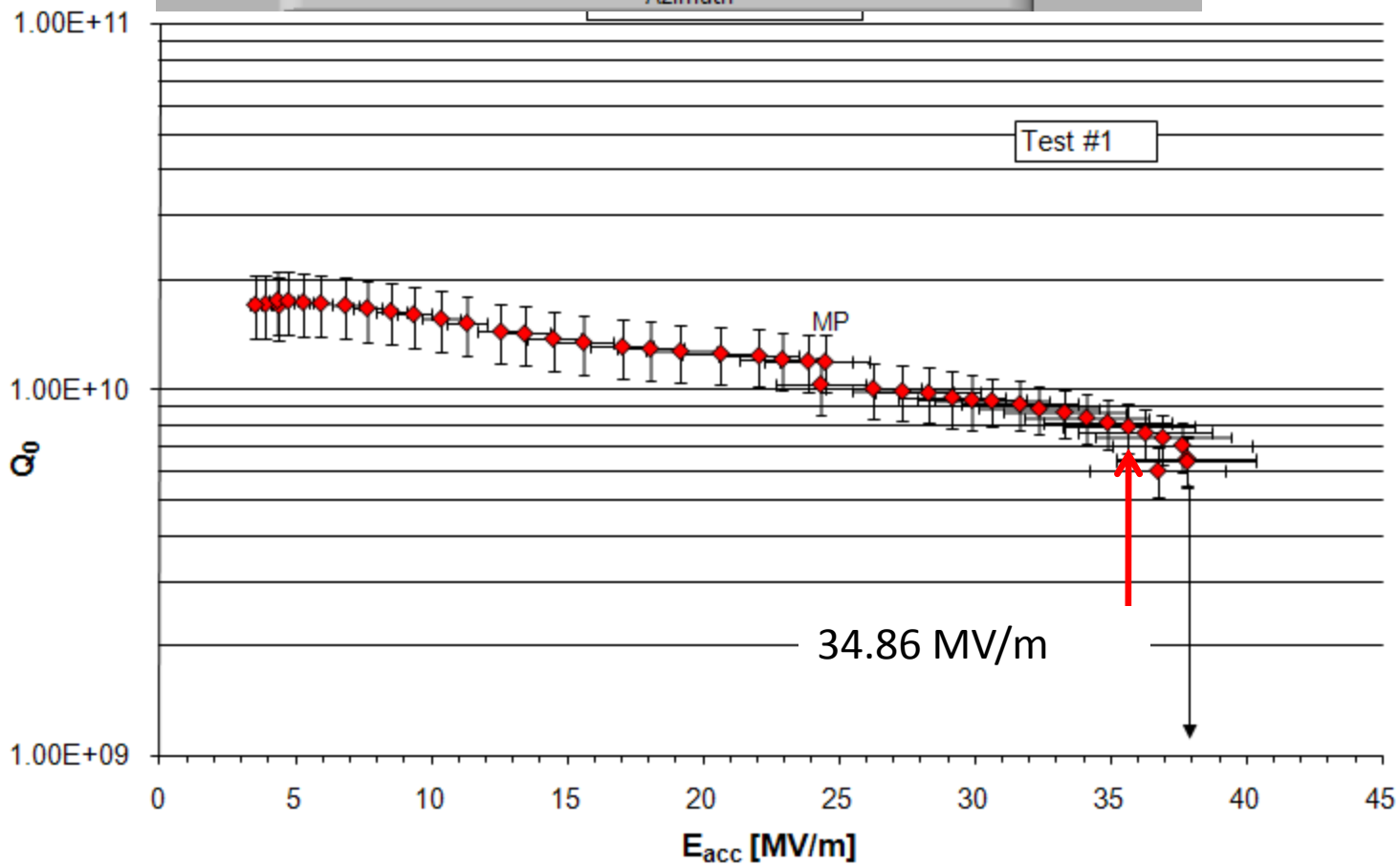
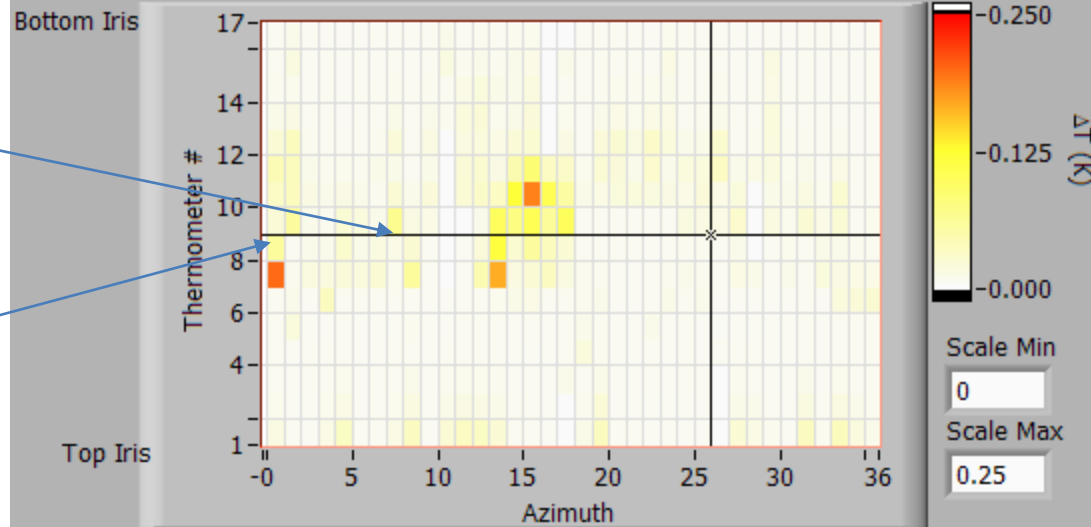
Defect

Previous
quench site



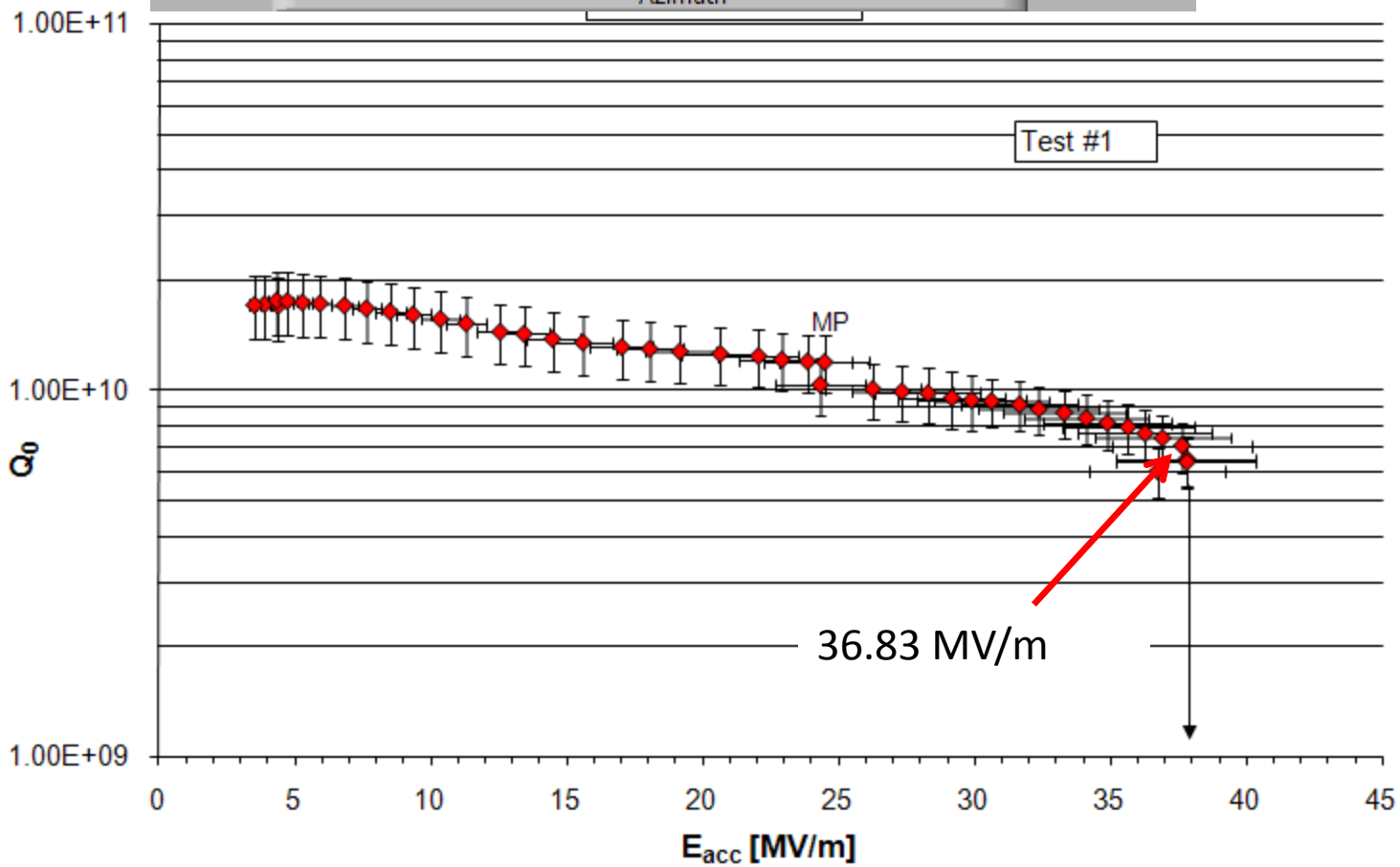
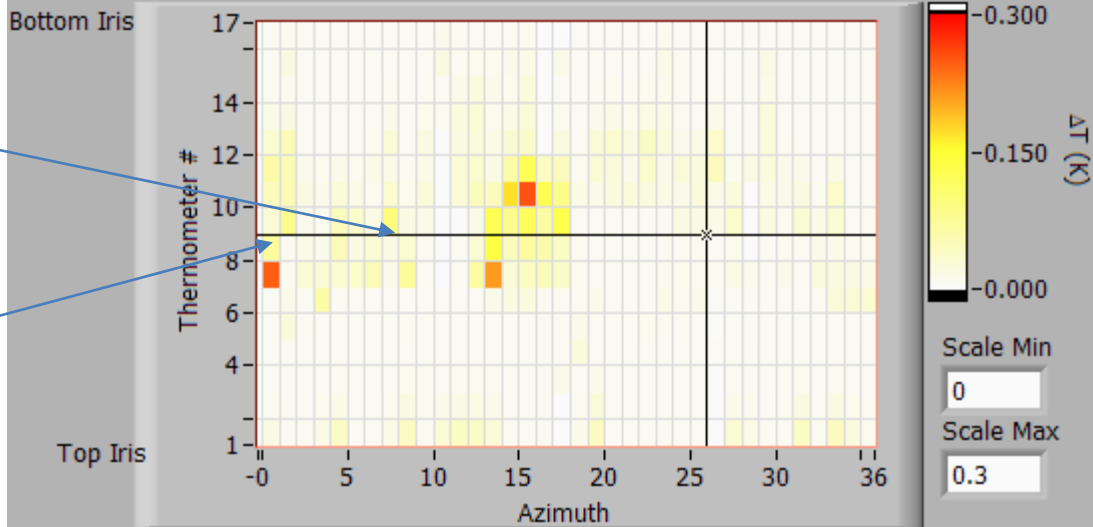
Defect

Previous
quench site



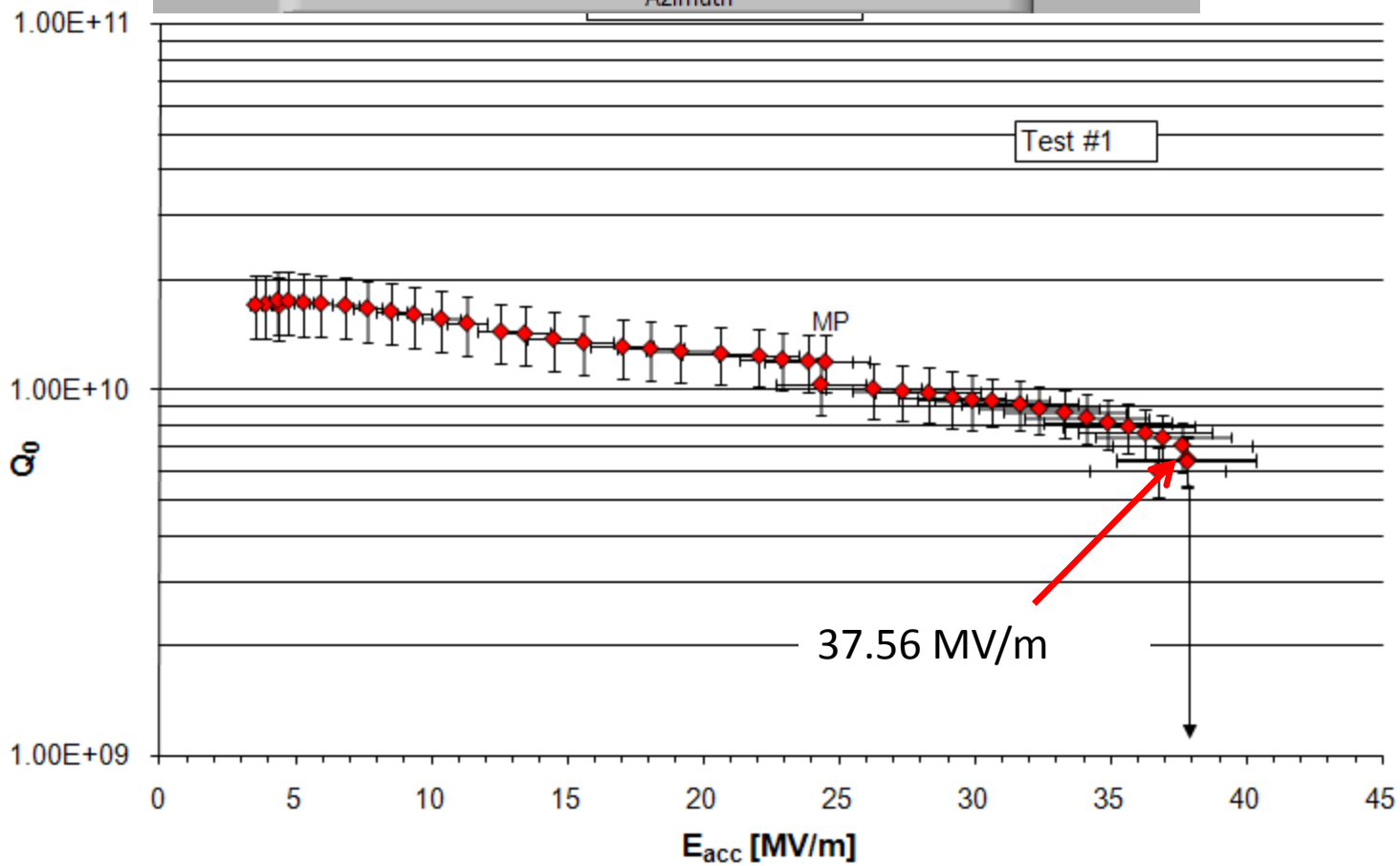
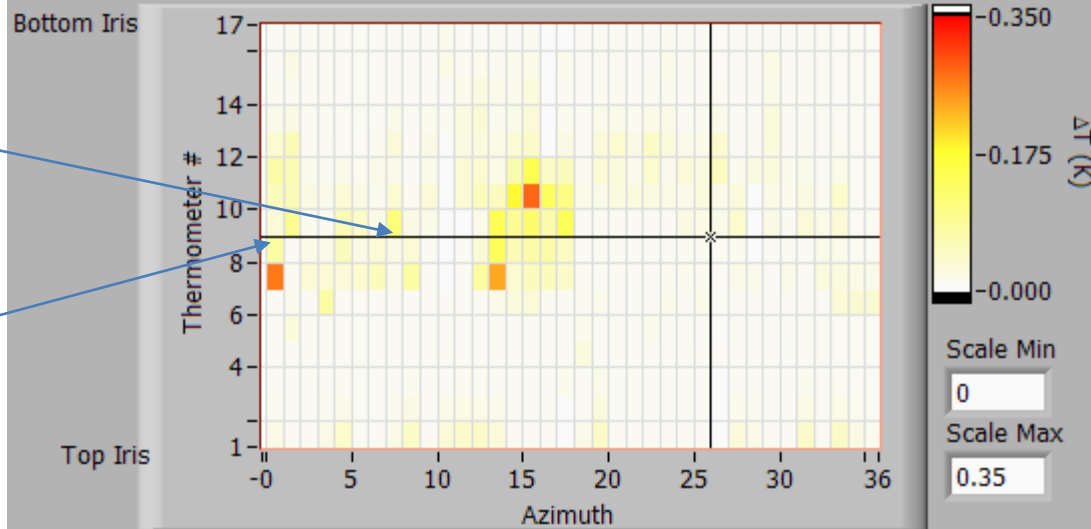
Defect

Previous
quench site



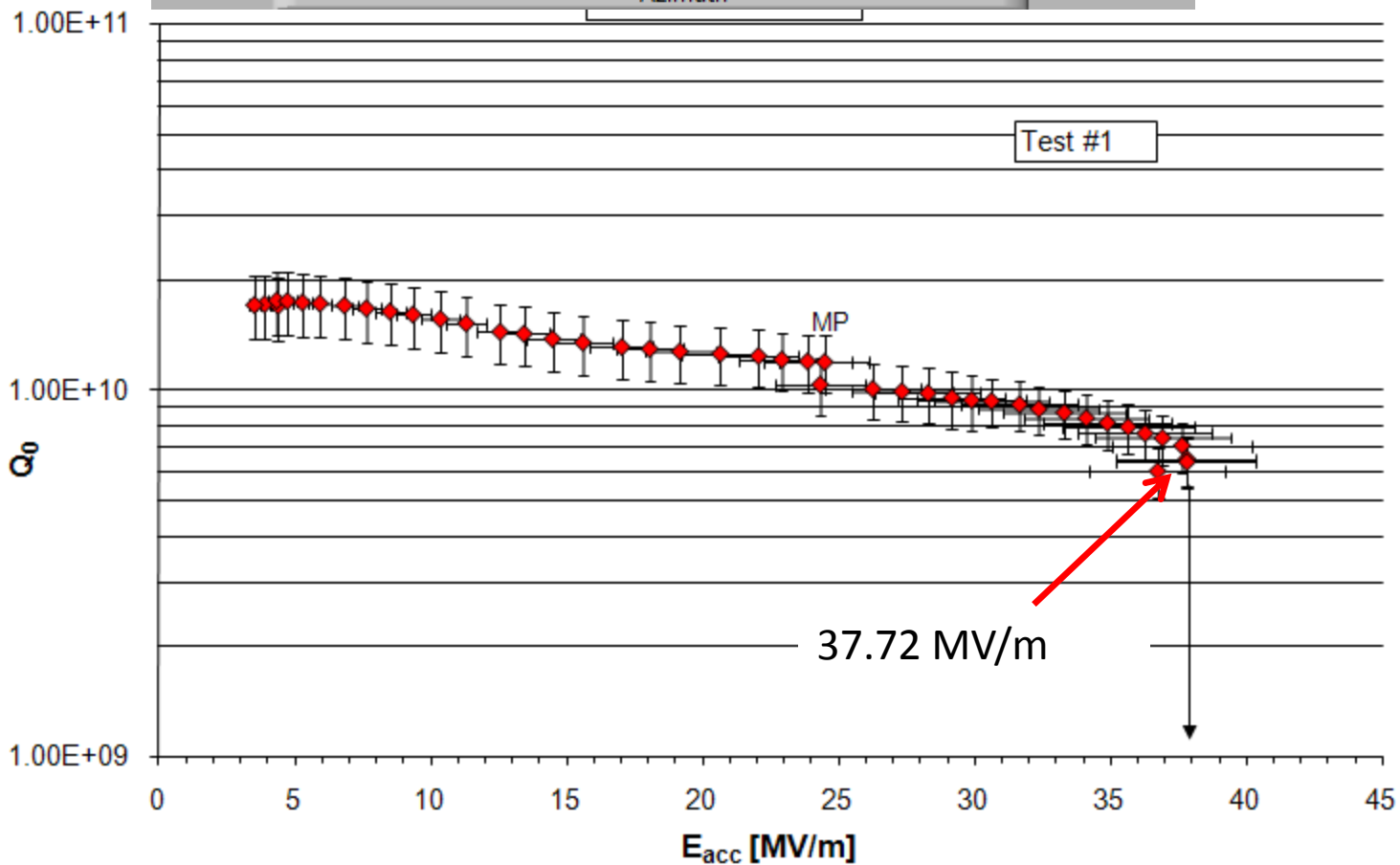
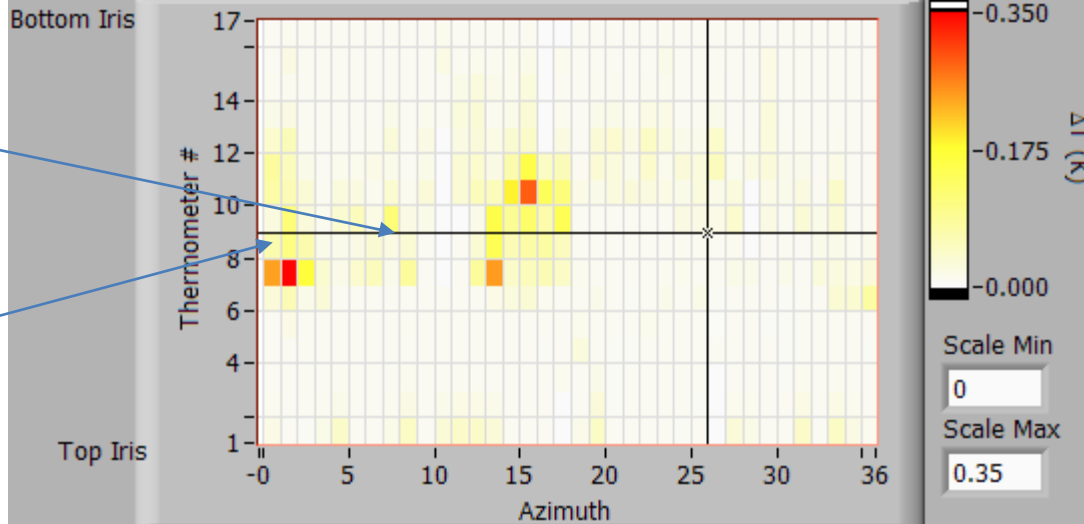
Defect

Previous
quench site



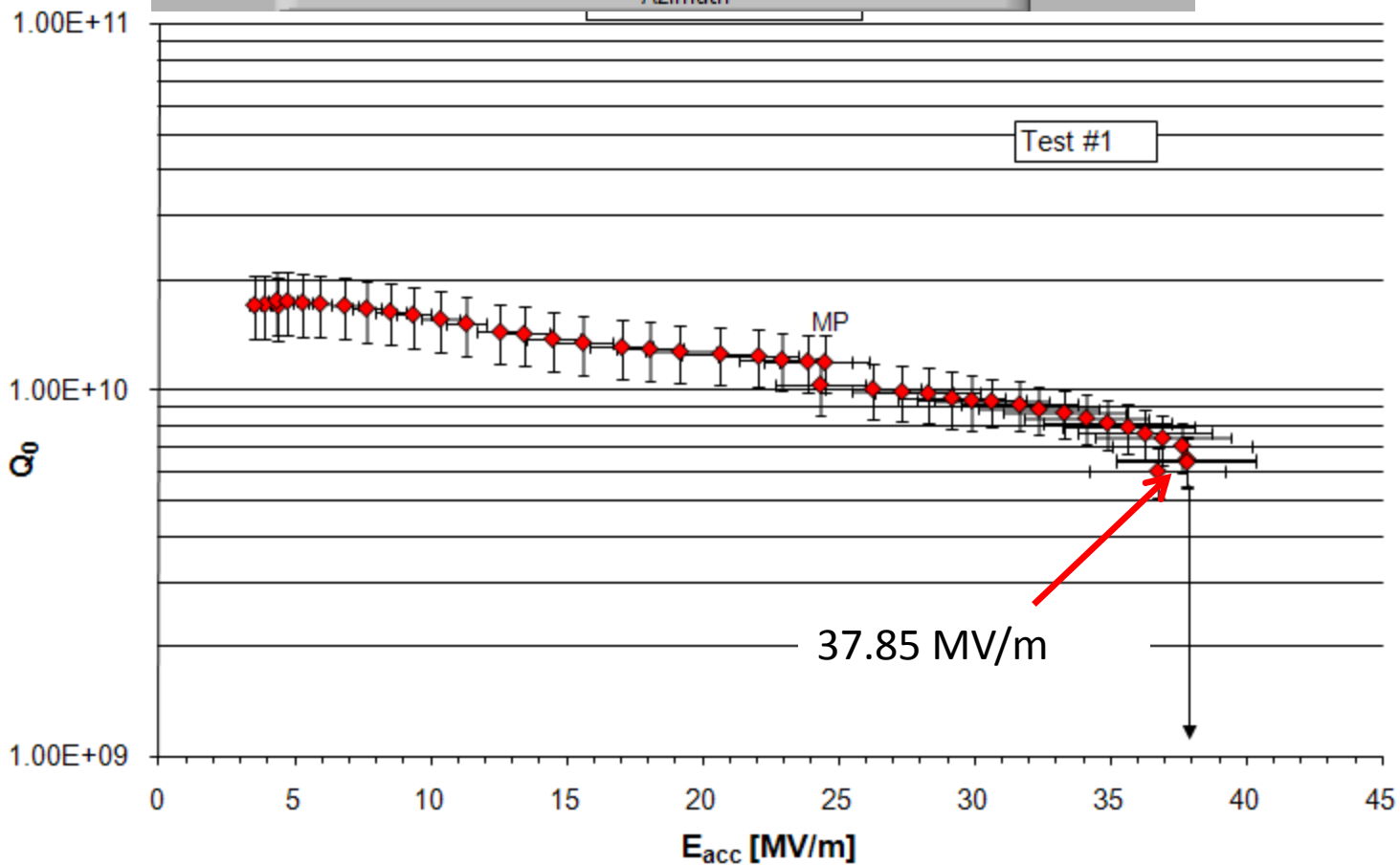
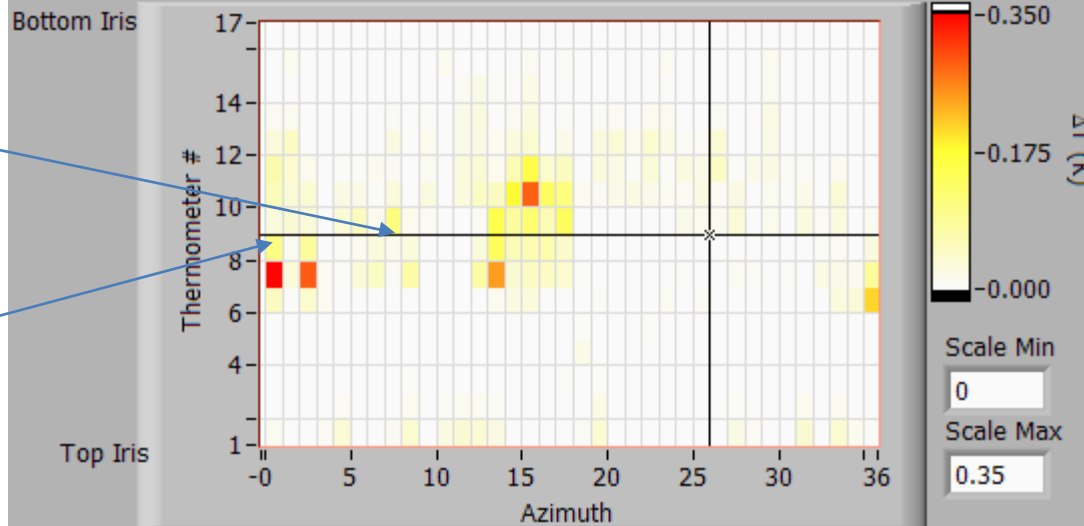
Defect

Previous
quench site



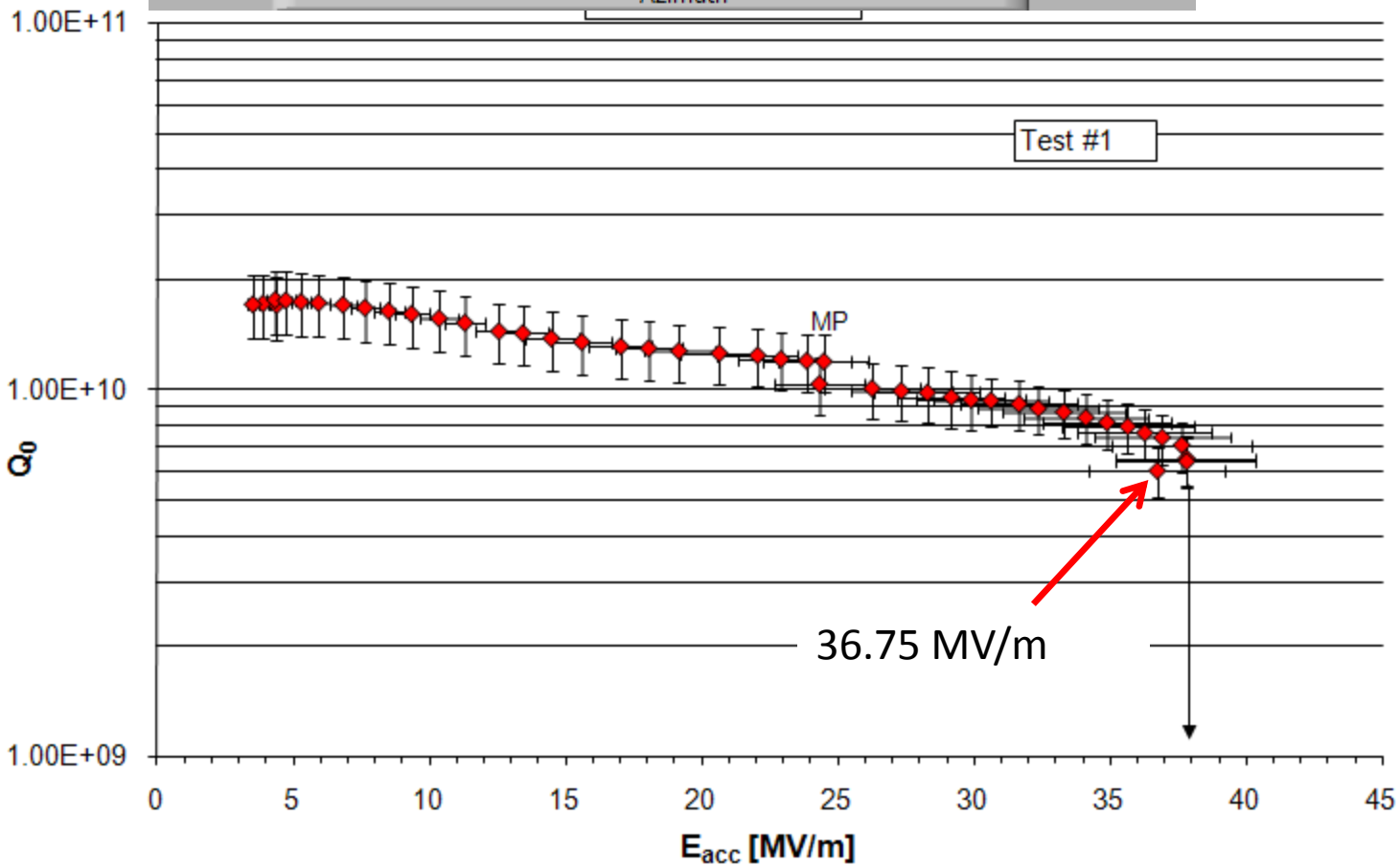
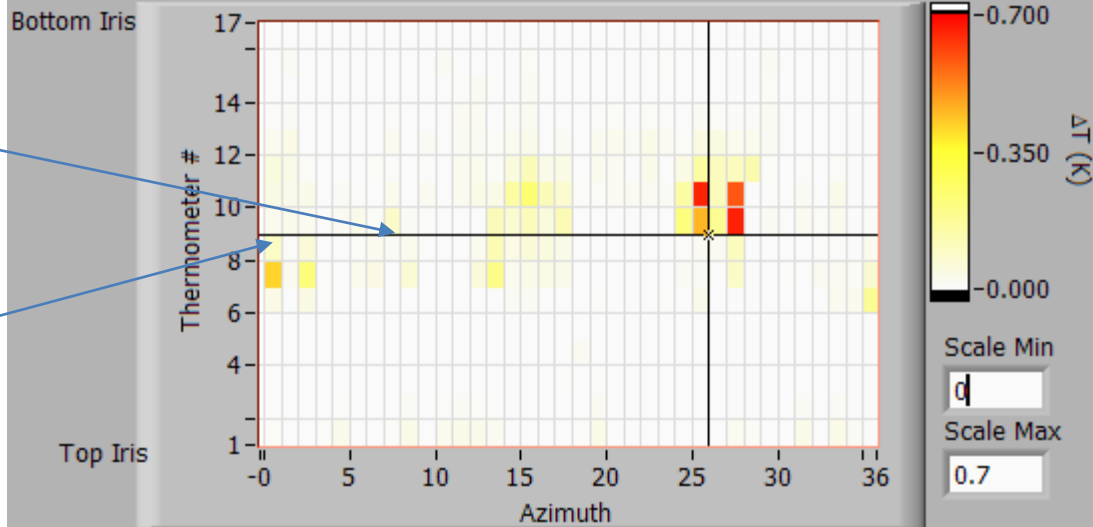
Defect

Previous
quench site



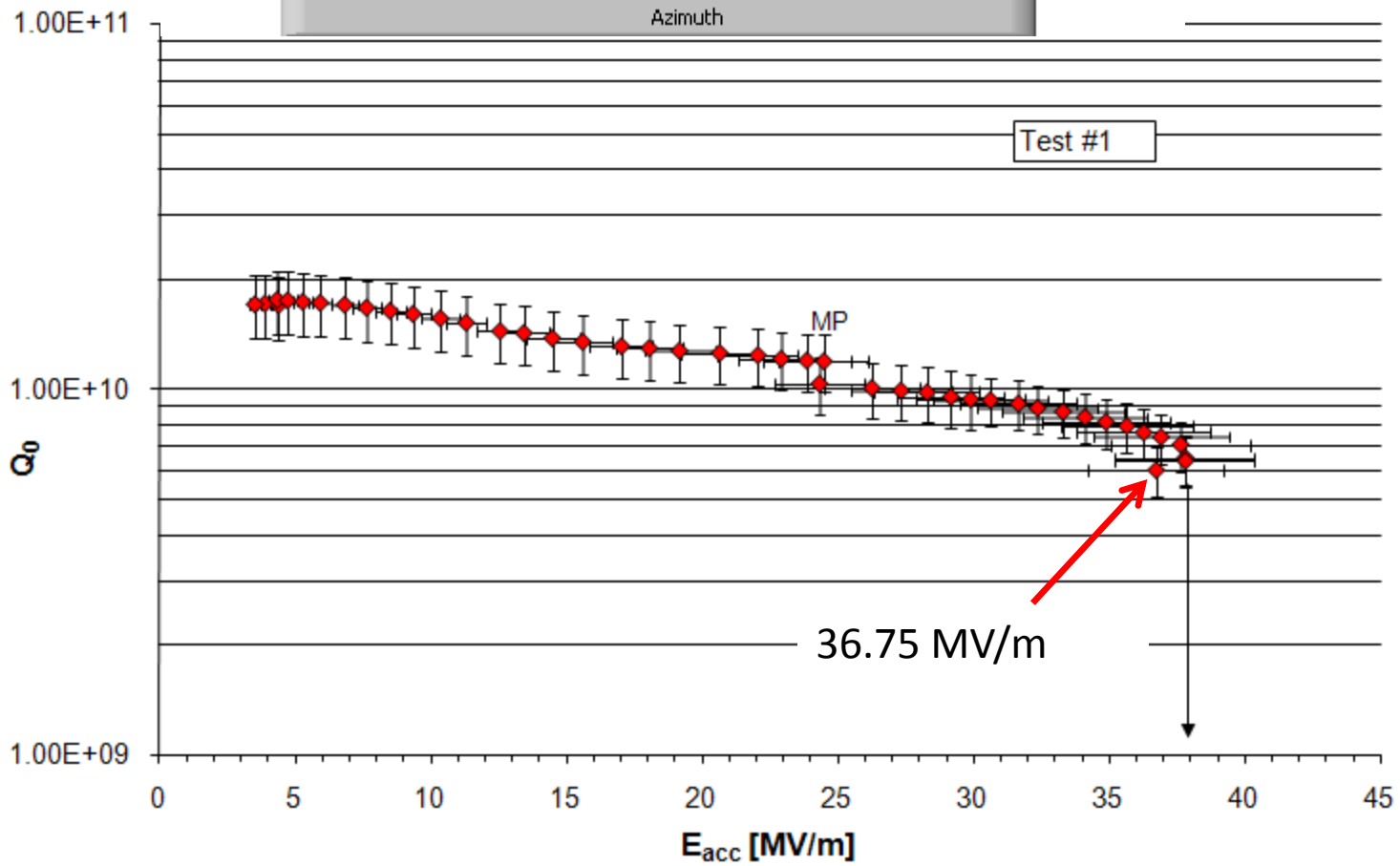
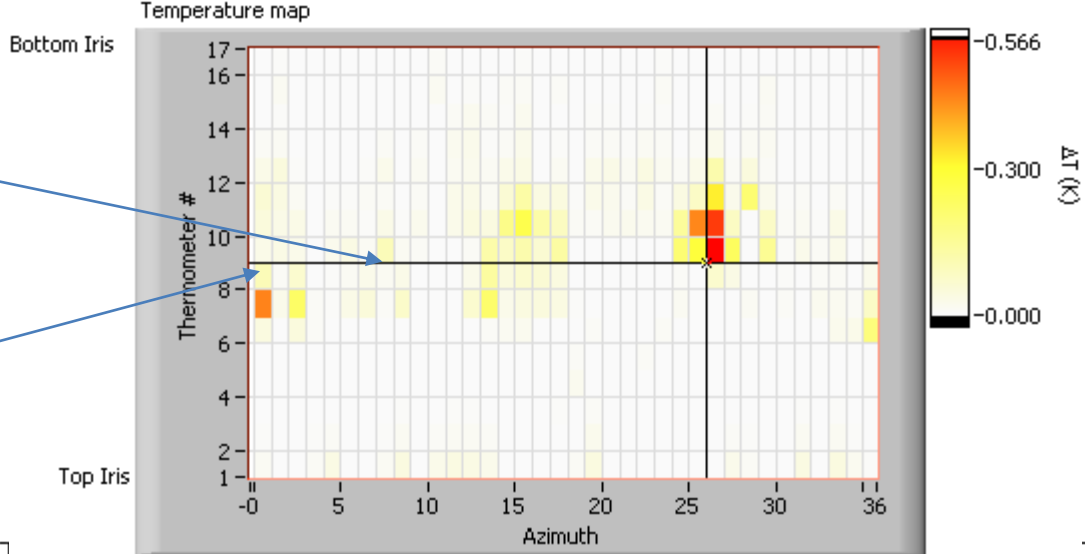
Defect

Previous
quench site



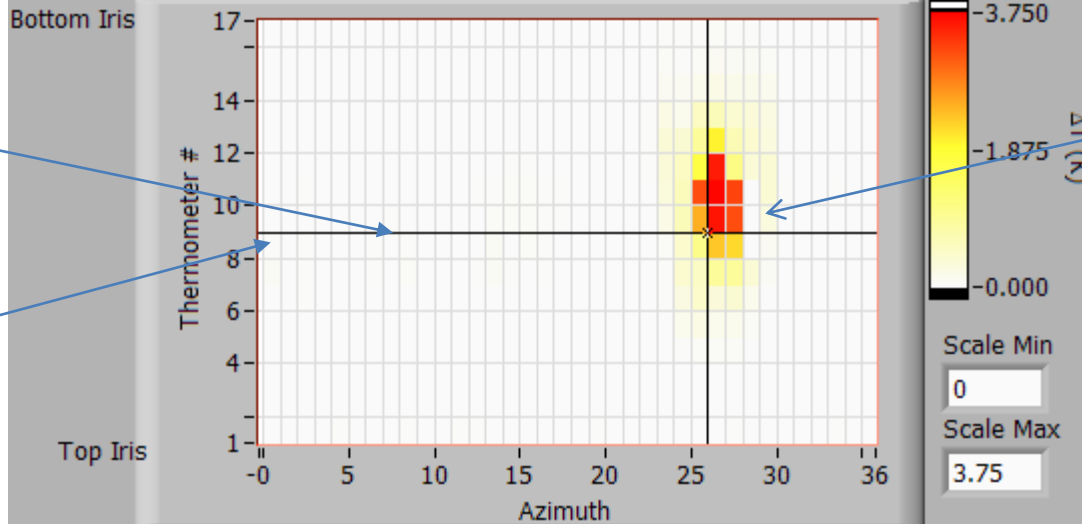
Defect

Previous
quench site

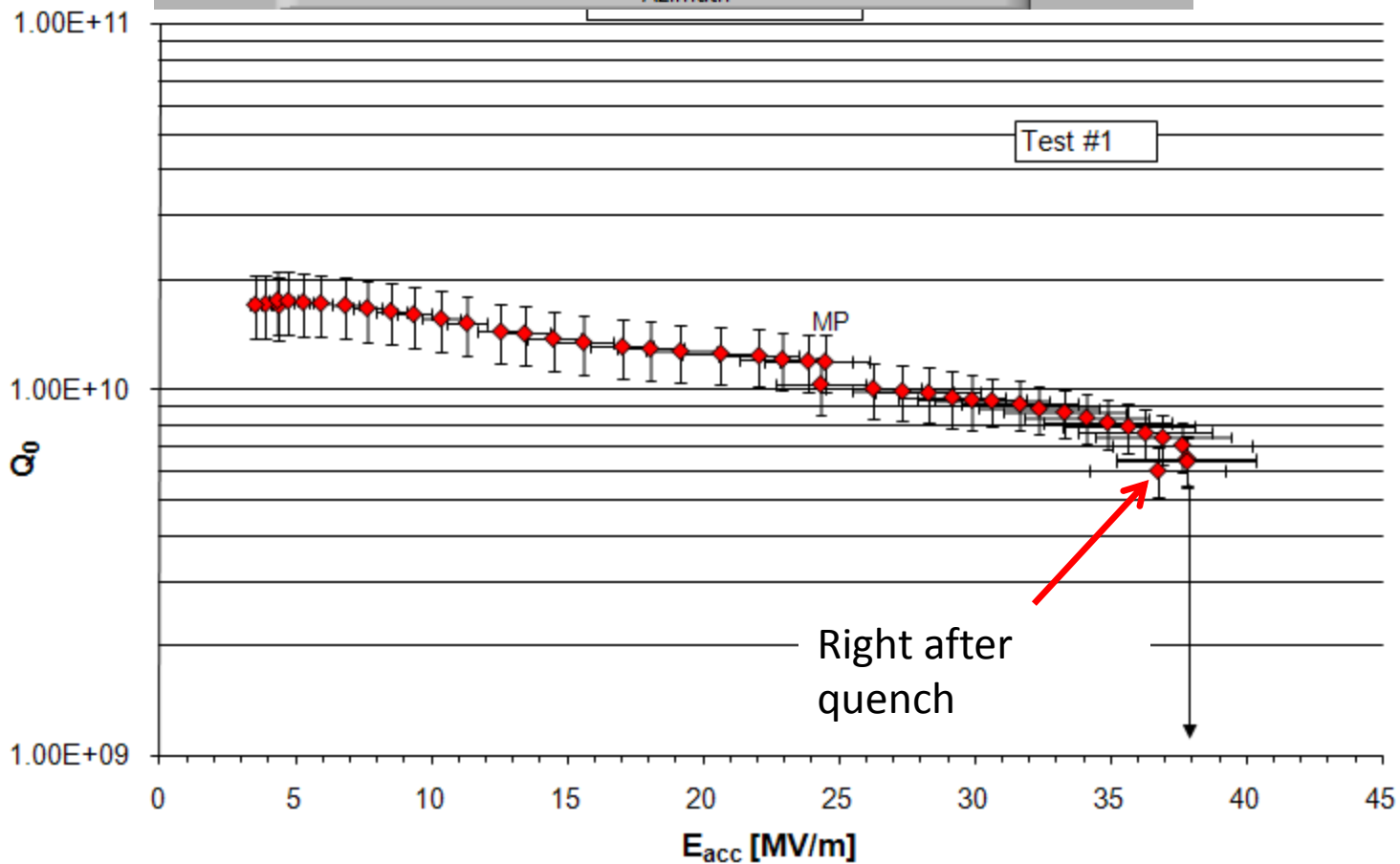


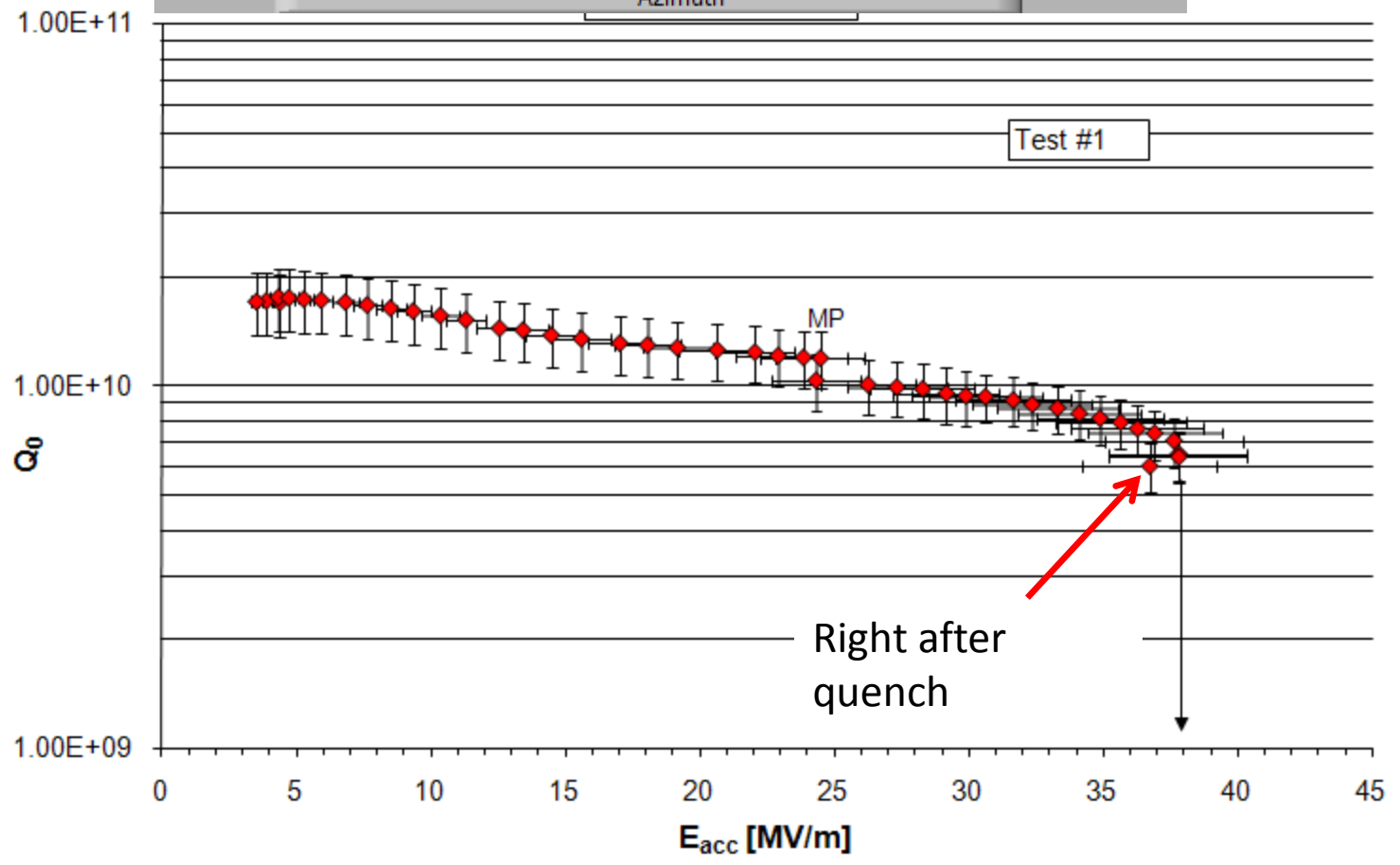
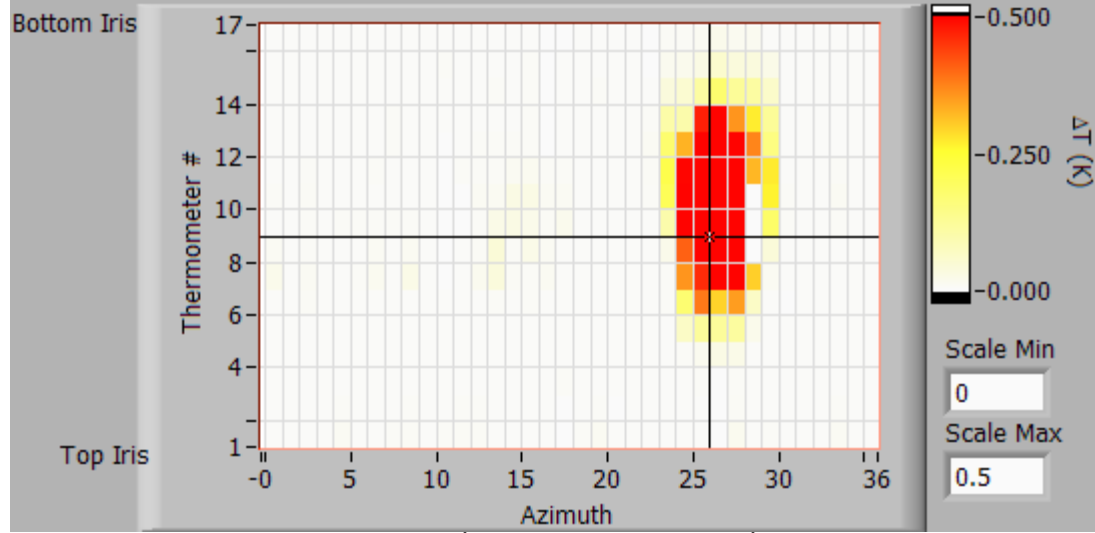
Defect

Previous
quench site



Quench at
new location





Summary

- No x-ray was detected at JLAB (38 MV/m)
- Three hot spots and one quench site located
- Geometric defect showed no heating at all
- Previous quench site (A0) was a hot spot
- Quench had pre-heating

Why is the quench site changed test after test?

- Cut out may tell us why.