Results of large grain cavities

- AC151 – AC158

AC112 – AC114 (2006) for reference

- Material:
  - **AC151 - AC153: Heraeus Ingot DESY Nr. 37**
  - **AC154 - AC158: Heraeus Ingot DESY Nr. 38**
- Treatment:
  - **100 um BCP, 800C, 20 um BCP, HPR, 120C bake for 48h,**

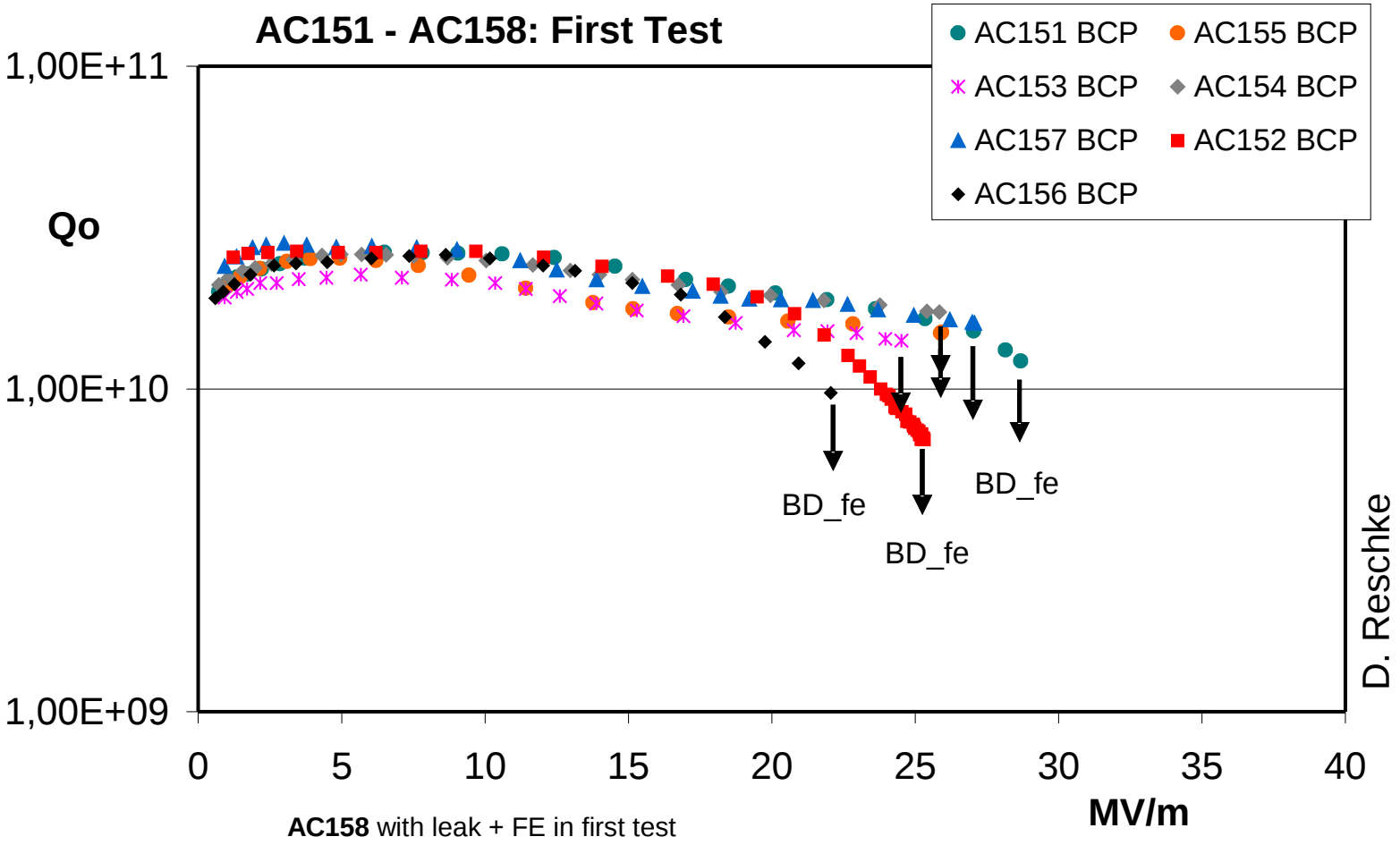
    (100 um BCP done at RI, final BCP done at DESY)
- Grain boundaries have been ground in AC155 and AC156
- Optical inspection in in-between treatment steps

Results of LG cavities

- All cavities tested once (except AC158)
- All cavities limited between 22 MV/m (AC156) and 29 MV/m (AC151)
- FE in first test: AC151, AC152, AC156, AC158
  - **Similar for AC112 – AC114: 2 out of 3 with strong FE in first test**
- Limited by quench w/o FE in first test:
  - **AC157: 27 MV/m**
  - **AC155: 26 MV/m**
  - **AC154: 26 MV/m**
  - **AC153 24.5 MV/m**
- AC158 leak in both tests up to now

Results of LG cavities

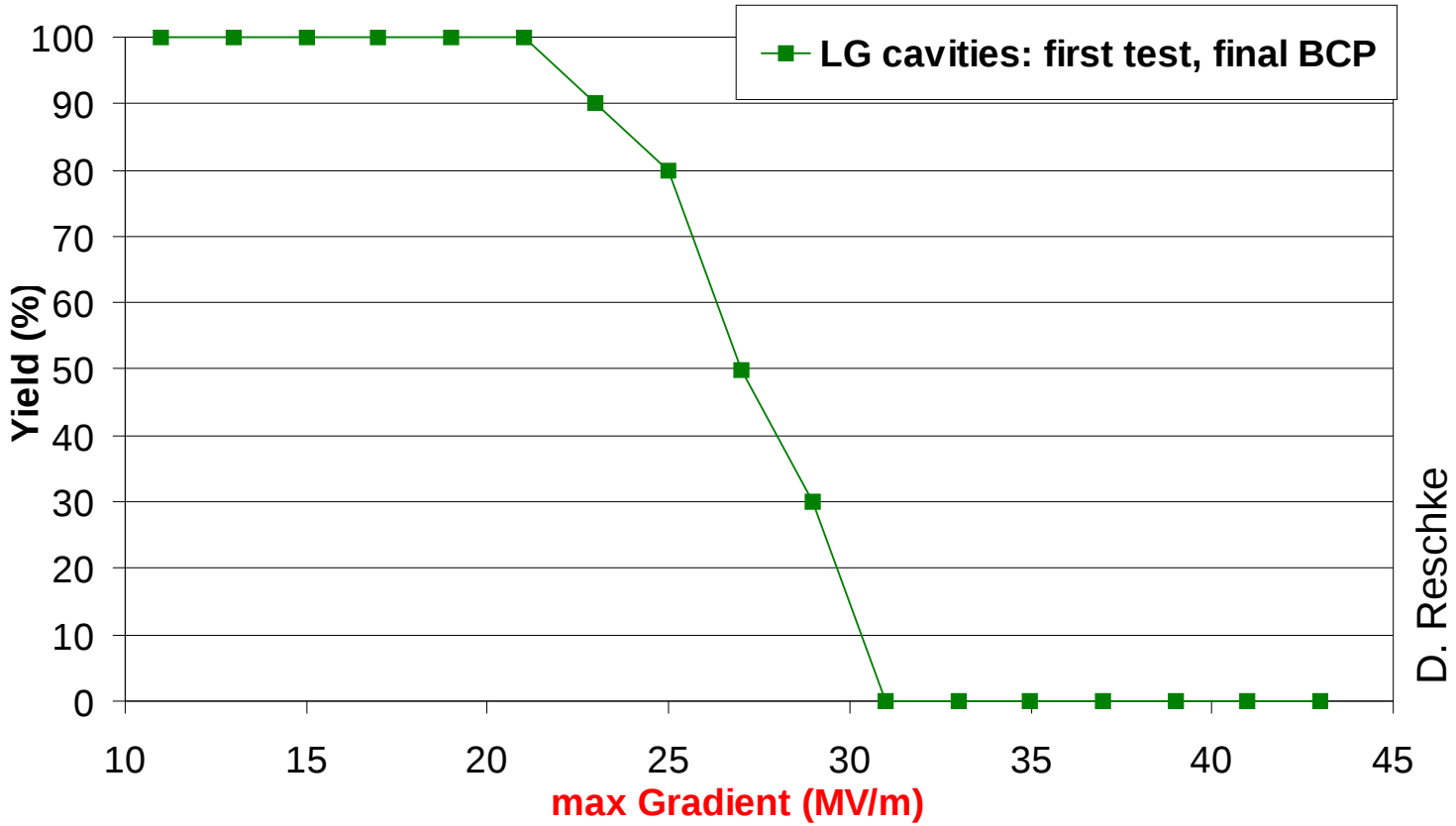
Q(E)-performance for first test at 2K



AC158 with leak + FE in first test

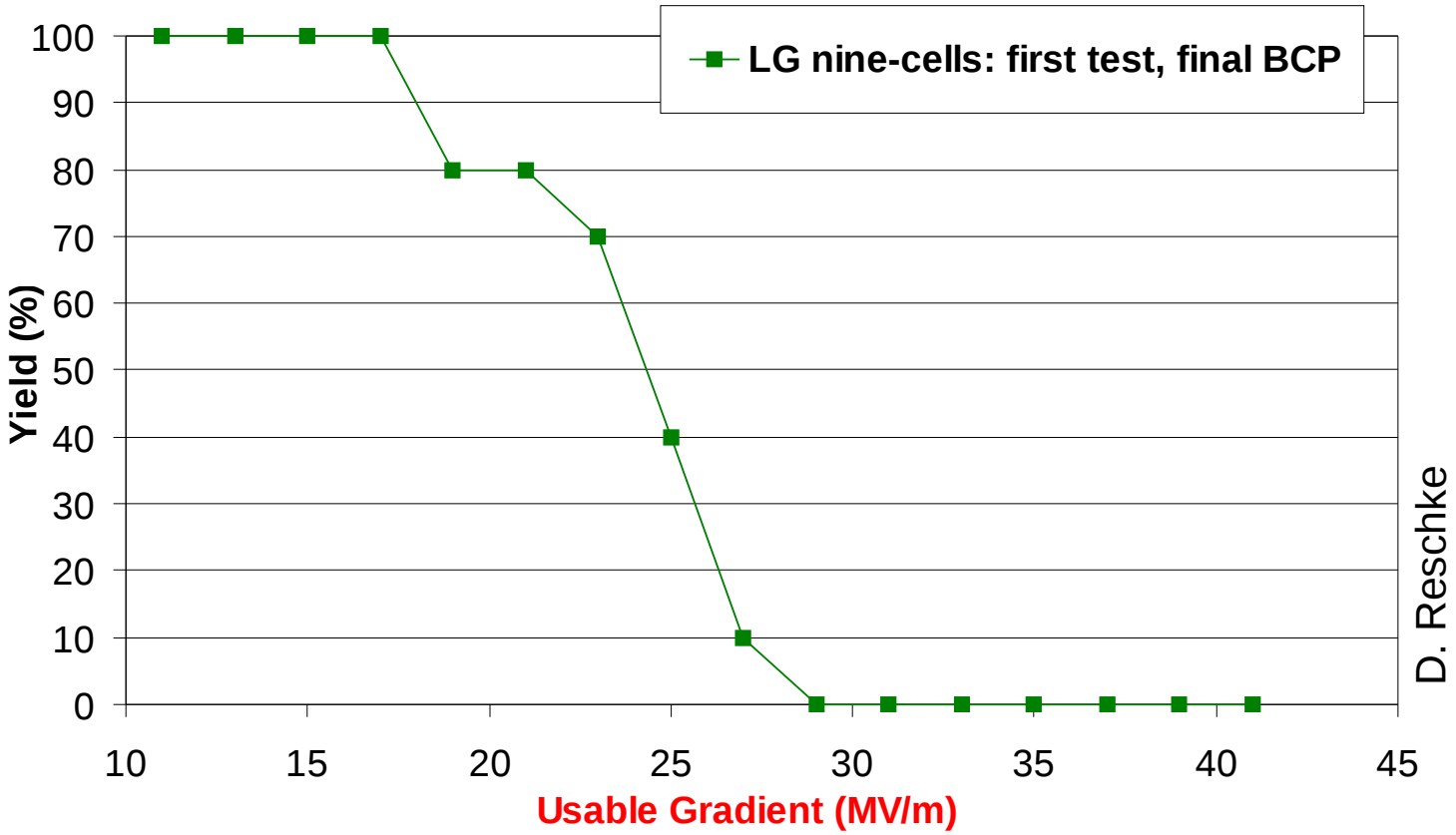
Results of LG cavities

Yield plot of maximum gradient, first test, final BCP(including AC112-AC114)



Results of LG cavities

Yield plot of usable gradient, first test, final BCP(including AC112-AC114)



Usable gradient limited by either radiation level (1E-2 mGy/min) or 100 W input power

- 2 LG cavities to be re-tested with Tmap and 2nd sound
- to be discussed: re-treatment of some cavities with final EP