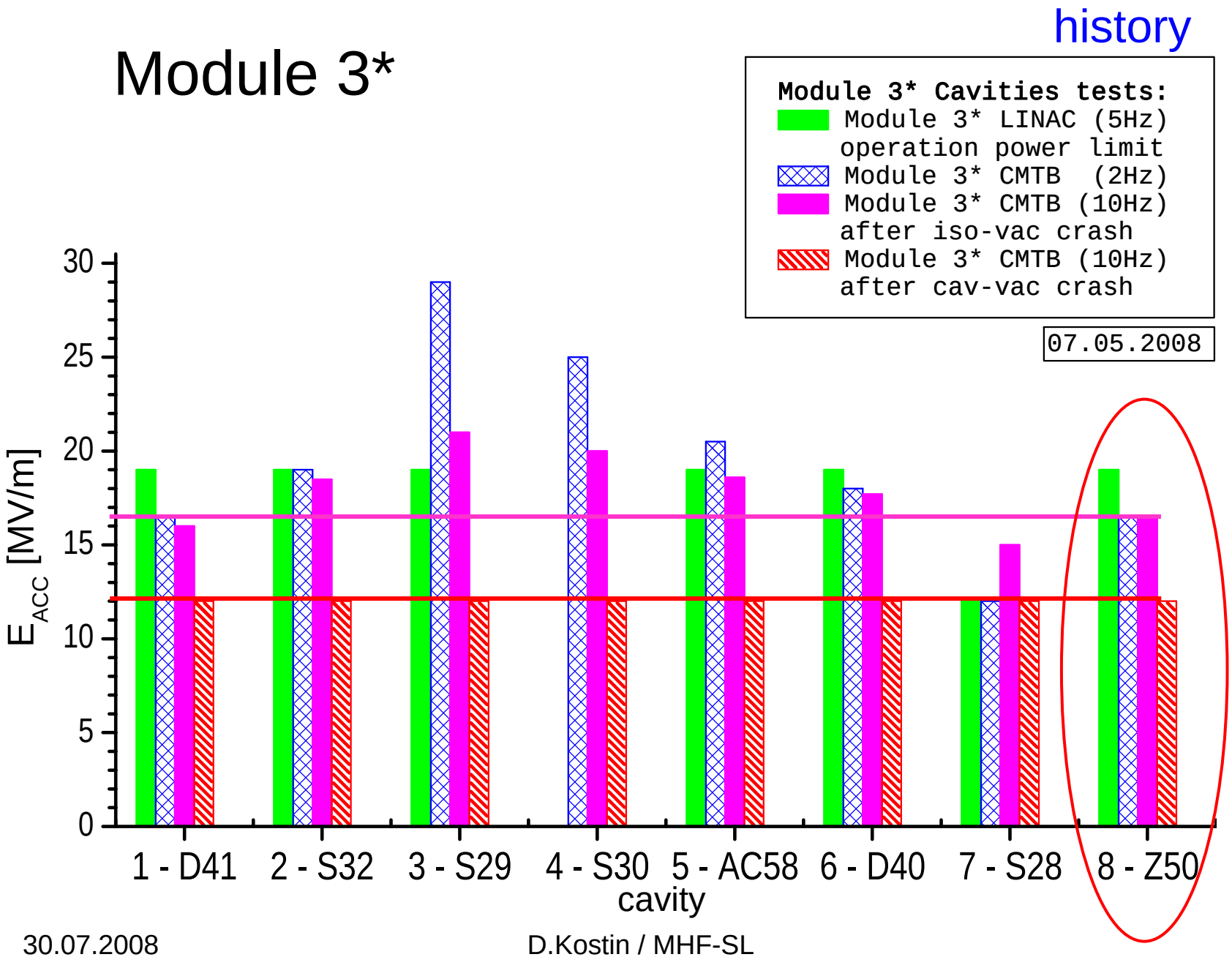
DESY Status

Overview

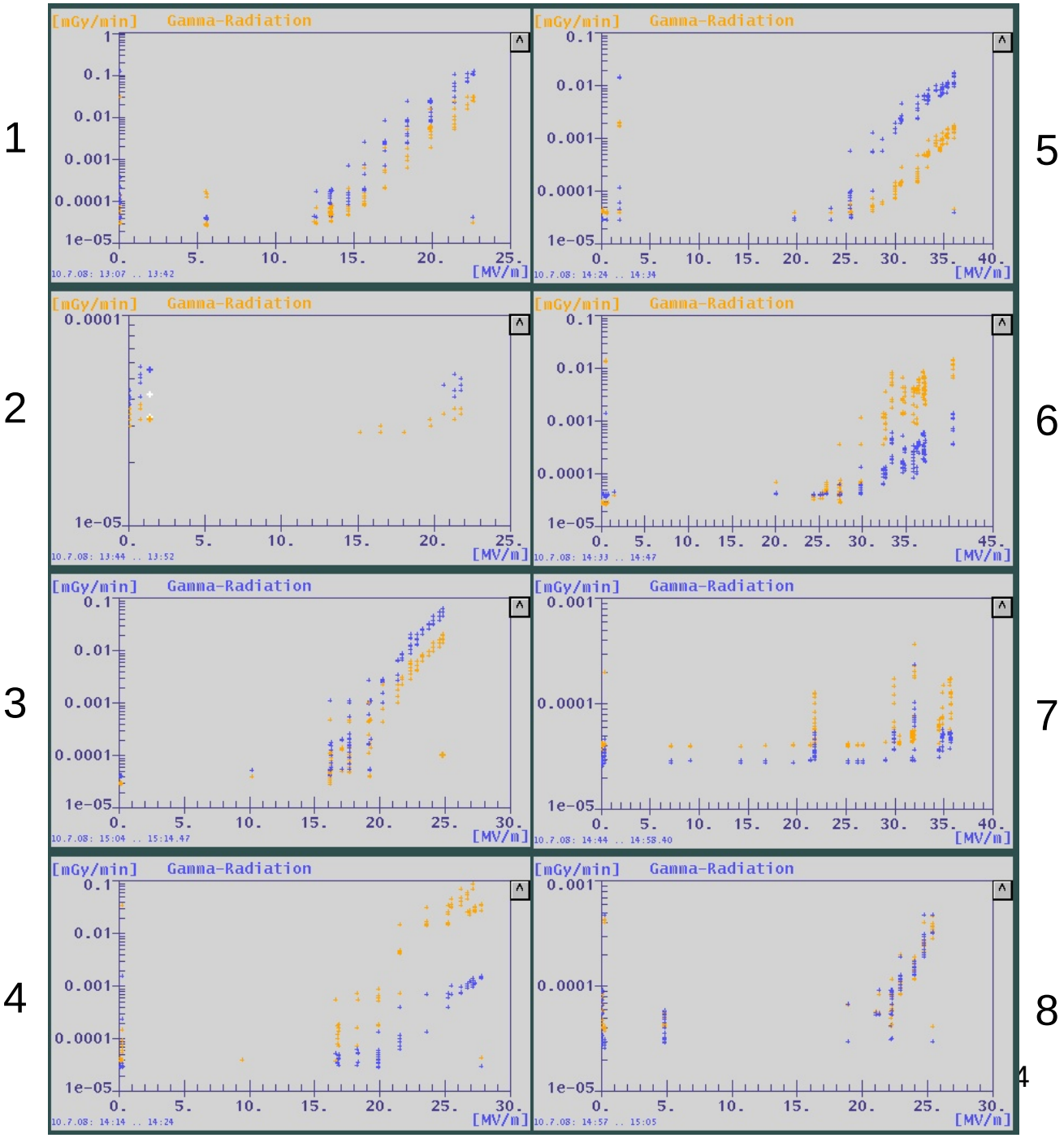
- Module Tests
  - **M3* Crash test**
  - **M8 disappointing**
- Nine-cell ‘standard’ results
  - **Problems with full tank tests including HOM couplers**
    - Two versions HOM feed through
      - Old does not work: 2 cavity tests spoiled
      - New works
- Special cases
  - **Hydroformed nine-cell cavity (W. Singer et al.)**

history

Module 3*



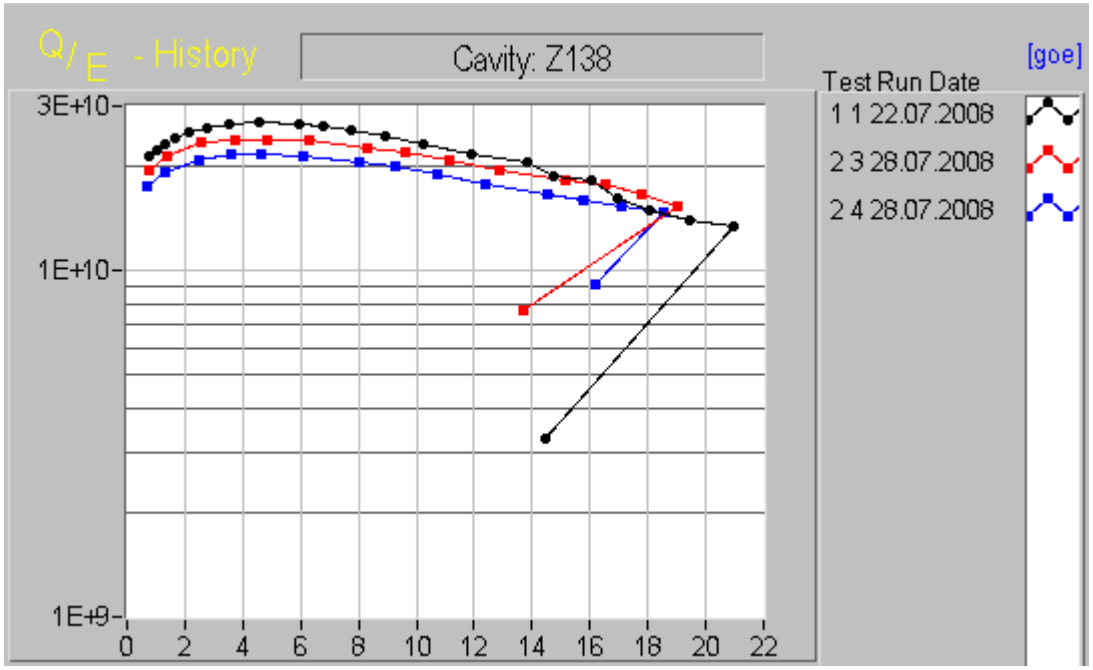
Module 8
Module test: single cavities X-rays (D. Kostin)



Problems with Standard Cavities

CAVITY	Z138
TEST	2 / Vertical 2
HISTORY	RF connectors checked, HOM power meter head exchanged.
RESULTS	$E_{acc.max}$=20MV/m with low field $Q_0=2\times10^{10}$ Limited by the Q-switch, low Field Emission (10^{-2} mGy/min)
SUMMARY	Cavity tested second time after the RF connectors check and HOM coupler power meter head replacement. Results do not differ much from previous test. FE starts at 14.5 MV/m, MP at 17..20 MV/m – was conditioned. Q-switch effect is stable and repeatable at 20 MV/m. No parasitic modes exited, no problems with HOM couplers: maximum HOM coupler power was about 0.3 W and $Q_{load.HOM}$ is about 10^{12}.

history


Q/E - History
Cavity: Z138
[goe]
Test Run Date
1 1 22.07.2008
2 3 28.07.2008
2 4 28.07.2008
3E+10
1E+10
1E+9
0
2
4
6
8
10
12
14
16
18
20
22

Hydroformed Cavity Z145

Z145: TEST 1, 23.07.2008

Goal:

To check performance of nine cell hydroforming cavity.

Preparation:

After 40 um BCP (Accel), HT 800 C, 168 um EP (DESY), alcohol rinsing, HT 800 C, 48 um EP, 6 x HPR, kept at 80-140 K for 20 hours.

[NO BAKE YET!]

Results:

E_{acc}=30.3 MV/m,Q_0=6.7·10^{09} , BD, no MP, no FE, no additional modes, also in MM.

History of test 1