

**Report from SLAC  
for CLIC-SLAC-KEK Collaboration Meeting**

**July 4, 2008**

Juwen Wang

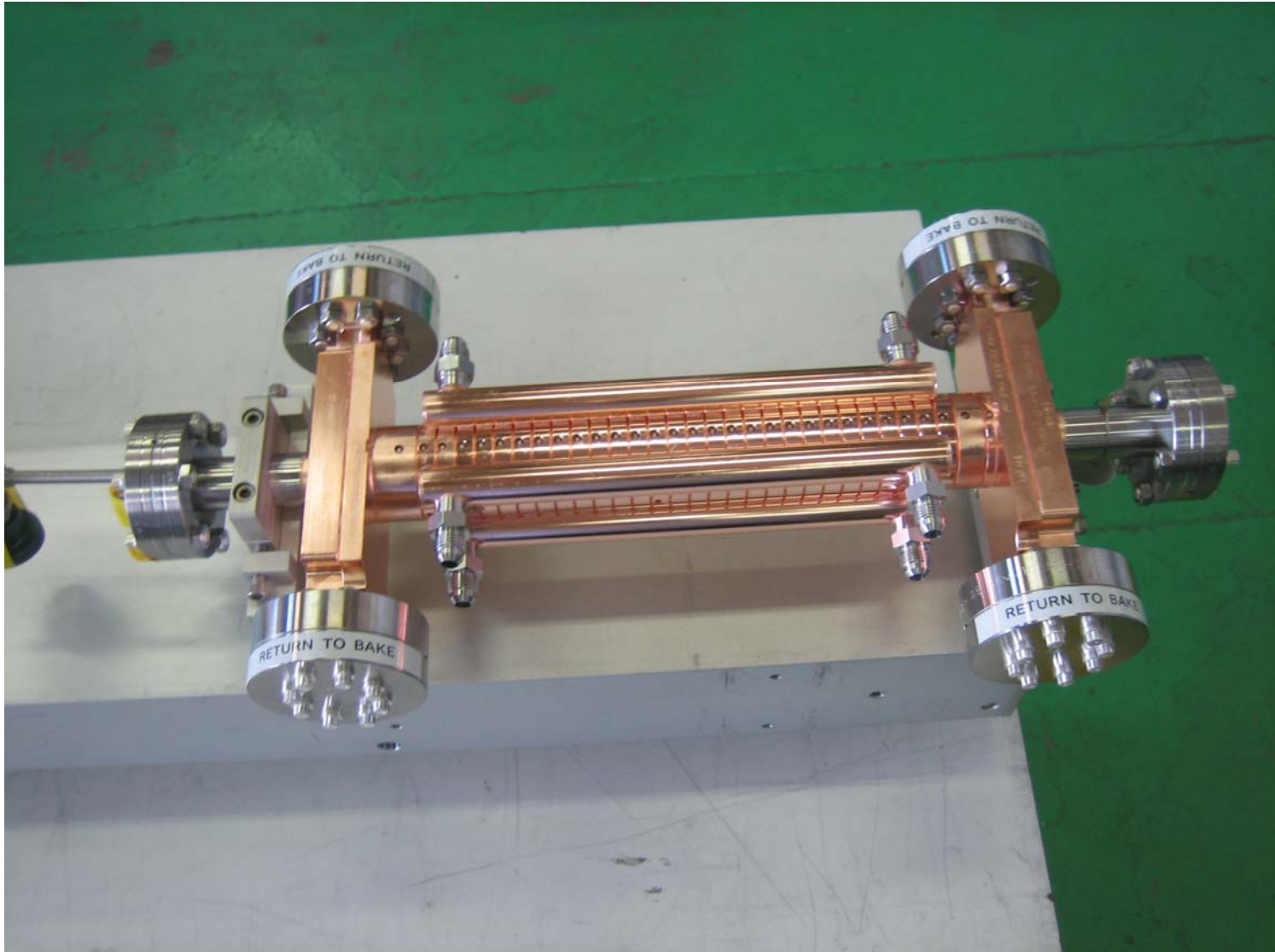
# Work at SLAC

1. T18\_VG2.4\_DISC Structure high power test stops today.
2. July 7<sup>th</sup> Installation Program
  - Station I: Installation of a high power load for high power tests for two klystrons and SLED-II system.
  - Station II: Installation of T26 to replace T18\_VG2.4\_DISC.
3. T28\_vg2.9 (T26) Structure

Vacuum Baking was completed last week.  
Structure has been installed on a modified strongback.
4. Four Short (10-cell) Test Structures

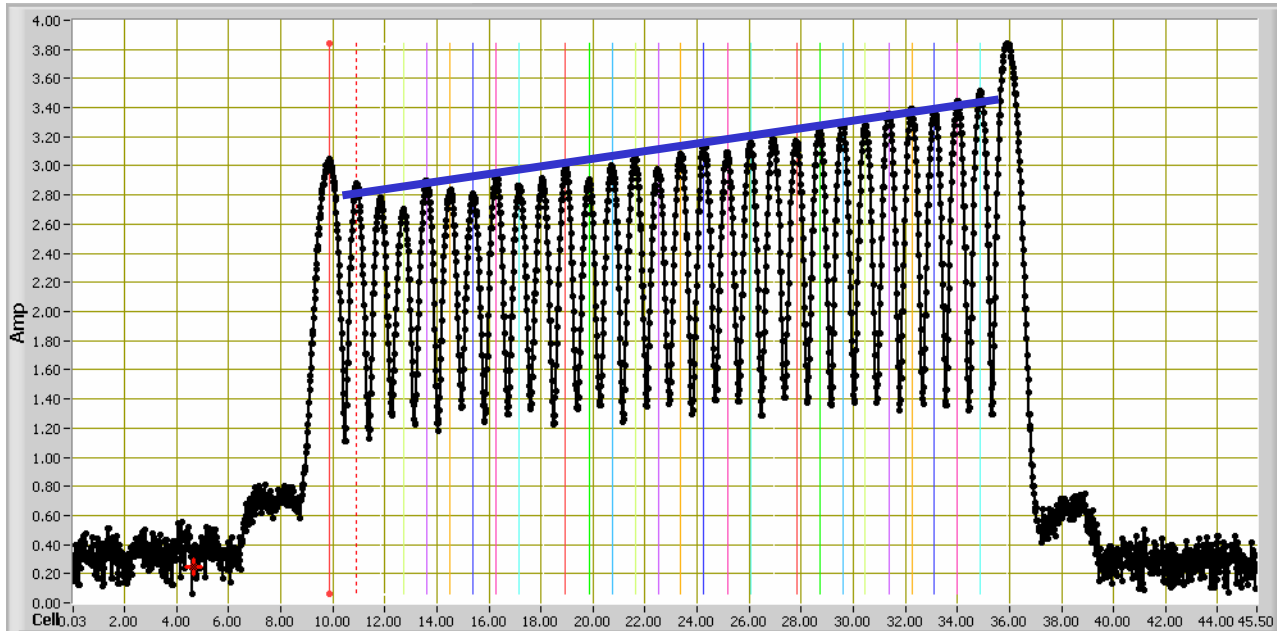
2 x C10\_VG\_0.7 and 2 x C10\_VG\_1.35.  
Mechanical design completed.  
All regular cups are under fabrication by a company (Robertson).
5. Wait for the delivery of TD18\_VG2.4\_QUAD structure and continue to complete its assembly for high power test in the Station I.

# T28\_vg2.9 (T26) Structure on a Modified Strongback

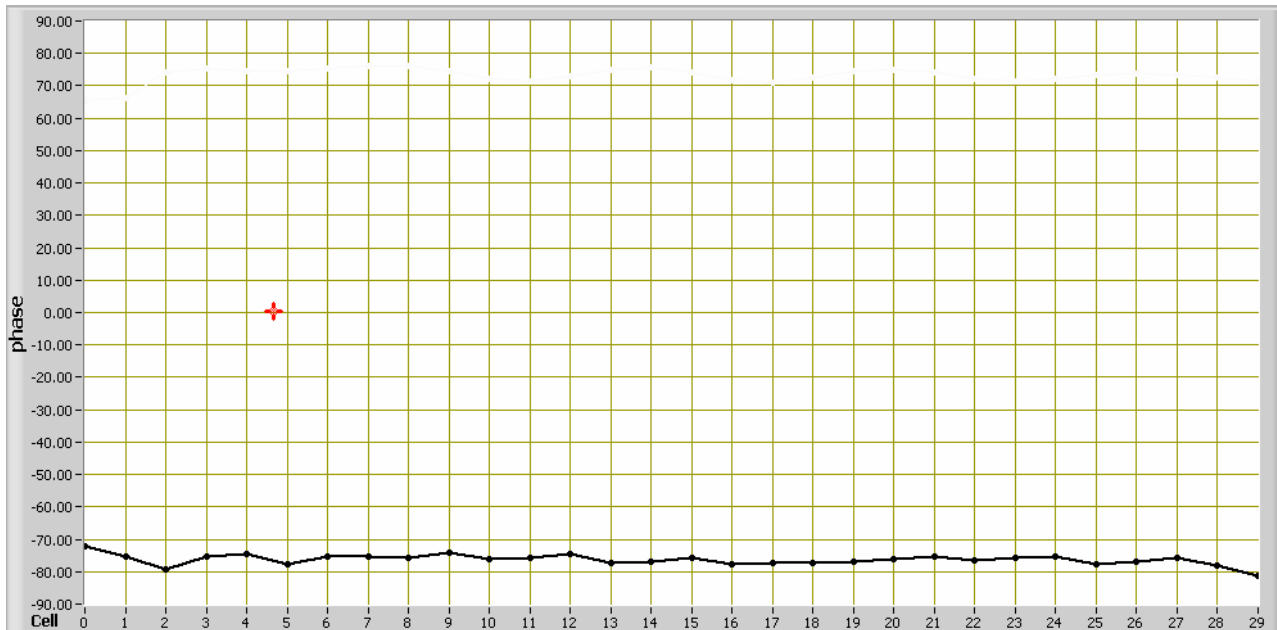


# T28\_vg2.9 (T26) Structure after Tuning

Field  
Amplitude



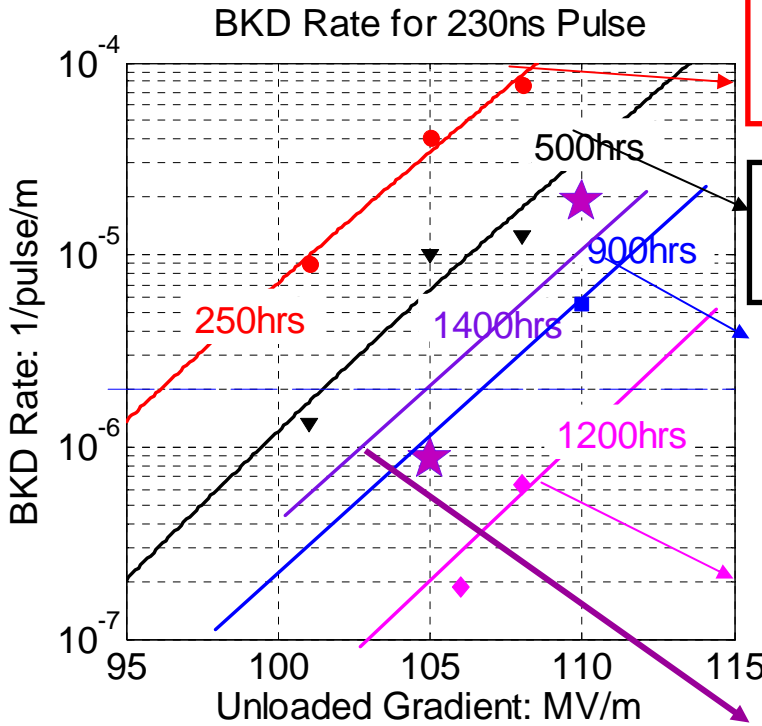
Accumulated  
Phase Change



120°

# BKD Rate Characteristics at Different Conditioning Time

RF BKD Rate Gradient Dependence for 230ns Pulse at Different Conditioning Time



After 250hrs RF Condition

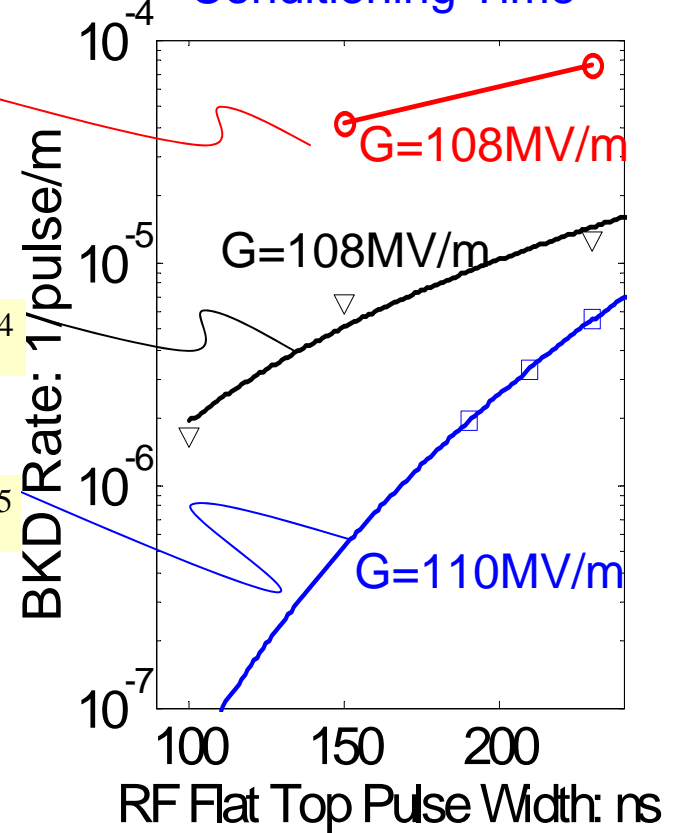
After 500hrs RF Condition

After 900hrs RF Condition

After 1200hrs RF Condition

Near 1400hrs RF Condition

RF BKD Rate Pulse Width Dependence at Different Conditioning Time



$PW^{2.4}$

$PW^{5.5}$

After 900hrs RF condition BKD rate has a gradient dependence  $\sim G^{32}$  and pulse width dependence  $\sim PW^{5.5}$

# BKD Distribution at Different Conditioning Stage

