

9-cell cavity coordination

last week and next two weeks

CM Ginsburg

15 Feb. 2010

Production Cavities in progress

- TB9ACC013 (dressed)
 - installed at HTS. 38 MV/m (quench/FE). Last vertical test: 38 MV/m (quench/FE). Expected to stay until March 1 week.
- TB9AES009 (dressed)
 - Prepared for HTS; planned for March 1 week.
- TB9ACC008 (dressed)
 - In queue to be HPR'd and prepared for HTS after AES-009
- TB9AES008 (being dressed this week)
 - is welded with Ti trans rings and at MP9 now for welding into its helium vessel
- TB9AES10 (@ FNAL)
 - -is welded with Ti rings and at MP9 now (in queue for welding into its helium vessel after AES-008)
- TB9ACC016 (@JLab)
 - After another 25 um EP, quench limited at 39.3 MV/m, with $Q_0=1.1E10$. Previously 30.6 MV/m (quench).
- TB9AES007 (@JLab)
 - Received bulk EP (power failure in the middle), 800C furnace treatment and tuning. Light EP this week.
- TB9RI026
 - Additional EP at ANL today; goal ~150 um total. Then another quick optical inspection before going to JLab for 800C heat treatment.
- TB9RI018
 - Enroute to JLab for the full process/test cycle (at Site 38 as of 8:30am 9.Feb). Optical inspection was waived because of limited FNAL personnel/resource availability.
- TB9RI023*
 - Returned to RI for weld repair (transition ring) 3.Feb. I don't know whether it arrived yet.
- TB9RI024*
 - Optical inspection in progress, to JLab for 800C HT, then light EP and VTS prep
- TB9RI019, TB9RI029 done with incoming inspection
- Incoming inspection started on TB9RI020 (just tuning remains), TB9RI021*
- Expect two new AES cavities this month and one Niowave-Roark cavity this month
 - May shuffle the schedule to get quick initial results back to vendors

R&D Cavities in progress

- AES003 (spot polished at KEK)
 - Next: optical inspection, tuning
- ACCEL7
 - Received light EP at ANL. Vertical test showed substantial improvement, from 26 MV/m (quench/FE) to 34.6 MV/m (quench/FE); may clean and test again eventually to try to reduce FE further
- TB9ACC014
 - Vertical test today after dented cell was tuned to lower field
- TB9ACC010 (@ Cornell, vertically EP'd)
 - will be optically inspected and another 10 um vertical EP in early Feb.
- TB9ACC015
 - sent to Cornell for tumbling and VEP (at Site 38 as of 8:30am 9.Feb).

- TS7MSU001 (visual inspection and tuning only, then send back)
 - travelers open
- TS7MSU002 (visual inspection and tuning only, then send back)
 - travelers open

9-cell Cavities - By Facility

NB: when in doubt, production cavities always have priority

- Incoming inspection
 - New RI cavities, alternating not-EP'd and EP'd
- Tuning
 - 2 MSU 7-cell beta=0.8 cavities, AES003 (after optical inspection), TB9RI020, TB9RI021 (when other incoming inspections complete)
- Optical Inspection: clog partially addressed with an additional trained person (me)
 - TB9RI024, TB9RI026, AES003
- FNAL/ANL
 - TB9AES009 HTS prep – warm leak to be fixed, TB9RI026 heavy-EP today, TB9RI024 light EP+VTS prep (after JLab 800C HT)
 - Weighing device to be procured
- VTS
 - TB9ACC014 today
- HTS
 - TB9ACC013 coupler condition and cavity test, TB9AES009 (Start installation during March 1 week. 3 weeks duration), TB9ACC008 (test duration: 2 weeks proposed), TB9AES008 (test duration: 2 weeks proposed), TB9AES010 (test duration: 2 weeks)