

3rd Harmonic Monday Meeting Minutes

Date: May 7, 2007

Time: 9:00 A.M.

Place: Hermitage

Attendees (P=Present, Ph=attended by phone):

C. Antoine		N. Dhanaraj	P	D. Olis	P	G. Wu	P
T. Arkan	P	H. Edwards	P	P. Pfund		A. Hocker	
L. Bellantoni		M. Foley	P	S. Reeves		L. Cooley	P
H. Carter		E. Harms	P	M. Ross		H. Jiang	P
M. Champion		T. Khabiboulline	P	A. Rowe	P		
C. Cooper	P	D. Mitchell		N. Solyak			

Minutes recorded by Dan

Minutes are posted at: http://tdserver1.fnal.gov/dolis/39GHz_minutes.html

3.9GHz Project page is: www-a0.fnal.gov

Meeting Minutes

G150 at Argonne

- Cavity-5 & -6 expected from JLAB over the next two weeks. Will require CMM inspection and low level RF measurement before first chemistry in Building G150 at Argonne.
- Allan reports on a potential conflict of schedules between 3.9GHz and ANL's etch of ¼-wave resonators. ANL staff wants uninterrupted use of chemistry for 3-wks. Allan will propose a break in this schedule, if conflict develops, using Fermilab staff to help with ANL setups.

Cavity-4 (JLAB fab'd, original HOM design but with trimmed F-probe tip)

- Second cold test done 5/2. Timer shared results: 12MV/m in CW mode, 22MV/m pulsed. Gradient limited by quench, no x-rays detected. No significant temperature increases measured.

He Vessel and Cavity-1

- Mike reports more e-beam weld tests will be done on Friday to assure proper penetration at joint btwn Ti-Ni ring and helium vessel end flanges. Weld is tricky and he has already done two other tests. On cavities-7&8 Mike would like to see a bigger weld lip.
- Some fixture parts being modified by A. Beutler. Allan and Mike will then repeat dry setup (today or Tuesday). Timer will then tune cavity for baseline measurement. Mike will then perform e-beam welds (possibly this week).
- Test of weld procedure will include field flatness measurements between each weld step.
- Mike reports 0.1mm shrinkage measured in sample TIG welds.

Niobium material (1.3GHz)

- Hairong Jiang reported on QC results of raw niobium sheets. Looks good. QC will be summarized for presentation next week.

Main Coupler

- Dan reports re-plated Outer Conductors rec'd last week. R. Montiel will begin coupler QC.

HOM Couplers

- General discussion of temperature measurements on cavity-4 during vertical test and difficulty of knowing tip temperature of HOM coupler.
- Allan described etch of niobium tips and learned after first vertical test that DESY does a much more aggressive etch than was done here on the first coupler. A more aggressive etch will be done on other couplers.
- Genfa suggested tips might be aggressively etched before brazing into coupler and then followed by a light etch after assembly. Elvin will consider that option on next order.

Other Business

- Don and C. Grimm are visiting the vacuum vessel fabricator this week.

- Charlie reports that he will start working on IB4 chemistry area soon for future etch of single cell cavities.
- Next VTS setup at A0 will be a single cell cavity for Genfa's efficacy test of cluster ion bombardment.
- Current operating rules require (3) persons present during sample etches at MDTL. Only (3) persons are currently qualified. Allan said that there are a number of A0 tech's qualified for acid etches at ANL and that they should be considered to increase our staffing for MDTL etches. Lance said there is a meeting later today to discuss MDTL acid staffing. Allan will attend to discuss qualifying A0 tech's for MDTL etches.