

Status of TTC Report on Final Preparation and Quality Control

Need for Report

- S0 Stage 1 effort
 - Tight loop to establish a good final preparation procedure
 - Three labs will carry out : DESY, KEK, Jlab
 - Establish the spread in performance using 3 best cavities each
 - We will hear first results on 9-cell tight loop tests in this WG
 - Still need to finish the first round of preparation and tests
 - Repeat with “better procedure” to be obtained from R&D
- S0 Task Force recommends all labs use the same preparation procedure so results can be compared
- Quality control procedures should be defined and adopted by labs
- S0 Task Force requested TTC to provide a report on what are the “best procedures” and the necessary quality control
- So that S0 can adopt one uniform treatment at all three labs and good set of QC

Status

- Dieter Proch has put together summary reports on preparation from previous meetings and previous reports

**Summary documents of EP working groups at the TTC meetings
Frascati**

<http://ilcagenda.cern.ch/conferenceDisplay.py?confId=desya0561&view=cdsagenda&showDate=all&showSession=all&detailLevel=contribution>

and KEK

<https://indico.desy.de/conferenceDisplay.py?confId=92>

Content:

- 1, Summary TTC Meeting WG#3 (KEK Japan),
R&D Efforts on Electropolishing Parameters** page 2

- 2, Proposal for an R&D Plan towards better Understanding of the Electropolishing
of Niobium Cavities (Frascati, Italy)** page 8

- 3, Summary of electropolishing discussions at Frascati TTC meeting on 5-7
December 2005 and at smtf meeting at fnal on 5-7 october 2005** page 15

- 4, Compilation of working parameters for cavity treatment
by T. Higo** page 26

- 5, Appendix 1: Henkel presentation KEK meeting, Sept.06** page 43

- The summaries define an extended parameter space for EP, Rinsing, Drying, Clean Water, Clean Assembly, Heat treatment.. and other procedures that are known to give good cavity results.
- There are detailed Tables at the end
- Some further work is needed to add information from more recent studies, e.g Henkel.
- An executive summary is needed.
- S0 Task Force should use this extensive “data base” to define a uniform preparation procedure for the three labs to follow.

- TTC technical board had further discussion yesterday on what more can be done for the report.
- This WG should discuss (among other topics) if there is (are) “new preparation” procedure(s) that promise to reduce spread and should be incorporated for the next round of S0 tight loop tests.
- This WG should also discuss advances in QC and monitoring techniques

- The WG summary will attempt to make a recommendation on what is needed to finish the report for S0.