Contribution ID: **73** Type: **not specified**

Status of the HIE ISOLDE cavity development

Wednesday 19 December 2012 14:10 (20 minutes)

The high beta accelerating cavity for the HIE ISOLDE linac is based on the Nb sputtering on copper technology pioneered at CERN for LEP2 and which was further adapted to the QWR shape in INFN-LNL in Italy. The specifications for the cavity performance are challenging, calling for 6 MV/m accelerating field and Q0 of 4.7 108, i.e. at 10 W dissipated power. A development program was launched at CERN since 2008 in order to set up a production chain for the HIE ISOLDE linac. At the end of 2012 the cavity performance reached for the first time 5 MV/m at 10 W, approaching the specifications. Even though work will still be necessary to consolidate the result and to further improve it, the present performance would already allow reaching 5.3 MeV/u up to A/q= 4/5 in phase 1 of HIE ISOLDE. The way is thus paved for a physics run already making use the first two cryo modules installed in the linac. The presentation will focus on the cavity developments in 2012 and on the next planned steps.

Presenter: VENTURINI DELSOLARO, Walter (CERN)

Session Classification: HIE-ISOLDE