



Contribution ID: 1392 Contribution code: THPS60

Type: **Poster Presentation**

Bead-pull measurement procedure for AREAL linear accelerator accelerating structure

Thursday, 23 May 2024 16:00 (2 hours)

In this paper, the widely used RF measurement bead-pull technique for the S-band accelerating structure pre-tuning of the AREAL linear accelerator is presented. Bead-pull measurements were conducted before brazing with various group sets of accelerating cells to evaluate the effectiveness of “smart combinations” for AREAL accelerating structures. The “smart combination” technique represents the grouping of cells with corresponding lengths to achieve the same length sets (triplets for $2\pi/3$ mode) as it is possible. Cell lengths were measured in advance based on TM resonance frequencies measurement. This procedure will significantly reduce the tuning routine required after brazing.

Footnotes

Funding Agency

Paper preparation format

Word

Region represented

Europe

Primary author: MARKOSYAN, Tadevos (CANDLE Synchrotron Research Institute)

Co-authors: Dr GRIGORYAN, Armen (CANDLE Synchrotron Research Institute); VARDANYAN, Ashot (Center for the Advancement of Natural Discoveries using Light Emission); MNATSAKANYAN, Edik (Center for the Advancement of Natural Discoveries using Light Emission); IVANYAN, Michael (CANDLE Synchrotron Research Institute); YAZICHYAN, Milena (CANDLE Synchrotron Research Institute)

Presenter: Dr GRIGORYAN, Armen (CANDLE Synchrotron Research Institute)

Session Classification: Thursday Poster Session

Track Classification: MC7: Accelerator Technology and Sustainability: MC7.T35 Advanced Manufacturing Technologies for Accelerator Components