



Contribution ID: 136

Type: **Oral presentation (15min)**

Final commissioning of the superconducting heavy ion linear accelerator at IUAC. Delhi

Thursday, 10 July 2014 18:15 (15 minutes)

Superconducting linac as a booster of 15UD Pelletron accelerator was partly commissioned with one linac module housing eight quarter wave bulk niobium cavities along with the superbuncher and rebuncher cryomodules. Subsequently two more linac cryomodules were added to have in total 24 cavities for acceleration. In addition to that, a new Linde helium refrigerator of capacity 750 W @ 4.2 K was installed in parallel to earlier CCI refrigerator. The new refrigerator was integrated with the earlier cryo- network system through a specially designed liquid helium distribution line without any valve box. The cooling philosophy with this new system is modified to have faster cool down rate in the critical zone (150 K- 70 K) to avoid Q disease. The helium gas pressure fluctuation in the cavities is reduced significantly to have stable RF locking. Full linac is being operated and beams with higher energy is being delivered to the users. Present paper will be high lighting the performance of new cryogenic system with respect to cool down rate, helium pressure fluctuation.etc.

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Session Classification: Thu-Af-Orals Session 16

Track Classification: C-09: Accelerators and detectors