Contribution ID: **2077** Contribution code: **MOPL125** Type: **Poster Presentation**

750 MHz IH-DTL for a proton therpy linac

Monday, 8 May 2023 16:30 (2 hours)

750 MHz IH-DTL with the capability to accelerate protons from 3 to 10 MeV was proposed for the compact therpy linac that now under development in IMP. Four drift tube sections were housed in a single vacuum chamber and coupled with three large drift tubes which housing focusing triplet lens inside. In each drift tube section, there were 9 to 10 drift tubes, supported by the separated ridges. This cavity will be powered by a 1 MW klystron at 0.1% duty cycle, the kp factor is about 1.7 at the operation power level. The tank is now under construction and expected to be ready for beam commissioning in the middle of 2023. The overall cavity design and the status of the power cavity are presented in this paper.

Funding Agency

Footnotes

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Primary author: HUANG, Yulu (Institute of Modern Physics, Chinese Academy of Sciences)

Co-author: DOU, Weiping (Institute of Modern Physics, Chinese Academy of Sciences)

Presenter: HUANG, Yulu (Institute of Modern Physics, Chinese Academy of Sciences)

Session Classification: Monday Poster Session

Track Classification: MC1: Colliders and other Particle Physics Accelerators: MC1.A08: Linear Accelerators