

15th Workshop on Breakdown Science and High Gradient Technology (HG2023)



Contribution ID: 29

Type: **Poster**

750 MHz IH-DTL FOR A PROTON THERPY LINAC

Tuesday, 17 October 2023 17:00 (2 hours)

750 MHz inter-digital H-mode drift tube linac (IH-DTL) with the capability to accelerate protons from 3 to 10 MeV was proposed for the compact therapy linac that now under development in the institute of Modern Physics, Chinese Academy of Science (IMP, CAS). 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 k_p factor is about 1.7 at the operation power level. The overall cavity design is presented in this paper.

Primary author: HUANG, YULU (Institute of Modern Physics, Chinese Academy of Science)

Presenter: HUANG, YULU (Institute of Modern Physics, Chinese Academy of Science)

Session Classification: Poster Session