

STUDY OF HOM-IH LINAC

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Abstract

An IH-type structure has higher shunt impedance in low beta range. The RF field is resonated in the fundamental TE mode and the lower resonant frequency is suitable for accelerating heavy ion from low energy. In order to apply this structure to intermediate beta range, we propose a higher order mode (HOM)-IH linac using the TE_{11n} mode. Although the operating frequency becomes higher by using HOM, it is convenient to accelerate heavy ion beam of intermediate energy. The basic design for VHF band and the possibility are discussed.

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