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## H11(0) end cells for a 750 MHz IH structure

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This article presents a study on the H11(0) end cell of an IH-DTL prototype for accelerating carbon ion beams from 5 to 5.5 MeV/u, which is designed for a hadron therapy linac injector. The voltage across the first and last gap in a drift tube linac tends to drop from a typical uniform voltage distribution along the inner cells. In the case of an IH cavity, the power cost to supply the necessary RF energy in this region is affected by the dimensions of the end cell and gap, as well as the girder undercut. The end cells were modeled in CST Microwave Studio for an appropriate power loss optimization of the most relevant dimensions. The same model also introduced dipole correction based on slanted faces, and transverse fields were analyzed.

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### Footnotes

### I have read and accept the Privacy Policy Statement

Yes

**Primary authors:** MORENO, Gabriela (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas); GINER NAVARRO, Jorge (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas)

**Co-authors:** GAVELA, Daniel (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas); CALVO, Pedro (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas); LEON LOPEZ, Miguel (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas); RODRIGUEZ PARAMO, Angel (ESS Bilbao Consortium); OLIVER, Concepcion (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas); PEREZ MORALES, Jose (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas); CARMONA, José Miguel (Added Value Solutions); Ms ALVARADO MARTIN, Maria (Added Value Solutions); LOMBARDI, Alessandra (European Organization for Nuclear Research)

**Presenter:** OLIVER, Concepcion (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas)

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