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Investigations on H-mode drift tube linac structures in the ultra-high frequency range

Tuesday 3 June 2025 16:00 (2 hours)

This study deals with the design and performance analysis of H-mode drift-tube linac (DTL) accelerators in the ultra-high frequency (UHF; 0.3 - 3 GHz) range. Simulations of typical application scenarios were performed, including particle velocities from 0.05c to 0.25c and different drift-tube internal structures. The RF efficiency of different H modes was analyzed. In addition to the shunt impedance, the field distribution and the thermal load also play a role.

Footnotes

Paper preparation format

LaTeX

Region represented

Europe

Funding Agency

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