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Evaluation of a compact electron preinjector using a low beta acceptance X-band accelerating structure

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At the University of Melbourne X-LAB we are investigating the use of a low \(\beta\) acceptance X-band accelerating structure as part of the design of an all X-band RF electron preinjector optimised for the production of low emittance electron bunches for medical physics applications and compact light source development.

In this work we will elaborate on the estimated performance, design issues, and optimisation methodology of the preinjector beamline.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

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