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HIGH DC INJECTION VOLTAGE PHOTOCATHODE E-BEAM SOURCES

Tuesday 12 August 2025 16:00 (2 hours)

Laser switched photocathode sources are typically used to produce trains of polarized electron bunches for high performance accelerators. This paper considers two high brightness, high charge-per-bunch, e-beam injector approaches that utilize laser gated cathodes followed by DC beam acceleration sections comprised of 1-3 grading electrodes. The use of grading electrodes provides reliable high voltage standoff between the plates themselves and ground. In the rectilinear beam source case in particular, we found that the uniformity of the emitted current density can have a major effect on final beam emittance and brightness.

Please consider my poster for contributed oral presentation

No

Would you like to submit this poster in student poster session on Sunday (August 10th)

No

Footnotes

Funding Agency

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I have read and accept the Privacy Policy Statement

Yes

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