



Contribution ID: 973 Contribution code: TUPA026

Type: **Poster Presentation**

Commissioning of LCLSII injector

Tuesday, 9 May 2023 16:30 (2 hours)

LCLSII 1-MeV CW electron source was successfully commissioned 2018-2020. 100MeV injector system is being commissioned since summer 2022. CW RF operations for injector system is routinely established and e-beam is being ramped to very high rate. Ultra-low emittance has been achieved for desired charges. Dark current along the injector beam line is systematically characterized and mitigations are placed. We will present operational experience for CW RF gun/buncher and high rate (up to 1MHz) e-beam operations. 100MeV injector beam performance including ultra-low emittance and bunch length for desired charges, and dark current measurement and mitigation will be discussed.

Funding Agency

US DOE under grant No. DE-AC02-76SF00515

Footnotes

I have read and accept the Privacy Policy Statement

Yes

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Session Classification: Tuesday Poster Session

Track Classification: MC2: Photon Sources and Electron Accelerators: MC2.T02: Electron Sources