



Contribution ID: 255 Contribution code: **WEP076**

Type: **Poster Presentation**

R&D Progress of electron cyclotron resonance accelerator

Wednesday 13 August 2025 16:00 (2 hours)

Several attractive features of a novel electron Cyclotron Resonance Accelerator (eCRA) include: a compact robust room-temperature single-cell RF cavity as the accelerator structure; continuous ampere-level high current output without bunching; and a self-scanning accelerated energetic e-beam, obviating need for a separate beam scanner. Hence an eCRA can be highly compact and efficient to produce high power electron beams and x-ray beams. The applications of the eCRA includes the replacement of Cs-137 based dosimeter calibration system, and the replacement of Co-60 based sterilization system. The R&D progress of eCRA is reported here. A 2 MeV eCRA Demonstrator is under construction at BNL to validate the eCRA acceleration mechanism experimentally. A 5 MeV eCRA Upgrade with high beam power is in the design phase.

Please consider my poster for contributed oral presentation

Yes

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

No

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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