



Contribution ID: 158

Type: **Poster (by default)**

## Status of the nuCARIBU Project at ATLAS

CARIBU (Californium Rare Isotope Breeder Upgrade) is a source of neutron-rich fission fragments from a plating of  $^{252}\text{Cf}$ . Operating for over a decade, CARIBU has provided unique beams for stopped and reaccelerated experiments. Unfortunately, consistently generating a thin plating of Cf has proved very difficult. To eliminate this risk and increase the overall intensity of n-rich ions, ATLAS started the nuCARIBU project to convert the fission fragment creation to a mechanism of neutron induced fission of actinide foils. The system will be driven by a 6 MeV, 0.5 mA proton cyclotron, and use a  $^7\text{Li}$  target for neutron production. This paper will present the details of the reconfiguration of the CARIBU area, the cyclotron installation and commissioning, the process to incorporate this fundamentally new source into operation, and the subsystems needed to make the transition successful.

This work was supported by the U.S. Department of Energy, Office of Nuclear Physics, under Contract No. DE-AC02-06CH11357 and used resources of ANL's ATLAS facility, an Office of Science User Facility.

### Funding Agency

### Email Address

### I have read the Code of Conduct to attend ICIS2023.

Yes

### Presenter if not the submitter of this abstract

**Primary author:** DICKERSON, Clayton (Argonne National Laboratory)

**Presenter:** DICKERSON, Clayton (Argonne National Laboratory)

**Session Classification:** Tuesday

**Track Classification:** Radioactive Ion Beam Sources and Charge Breeders