

# SMI-2023: 14th International Conference on Stopping and Manipulation of Ions and Related Topics



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## Past, present, and future of Argonne's CARIBU facility

*Monday, 8 May 2023 16:20 (30 minutes)*

Since 2010, the CARIBU facility at Argonne National Laboratory's ATLAS facility has provided hundreds of neutron-rich isotopes for study. CARIBU delivers beams of these isotopes by first thermalizing the  $^{252}\text{Cf}$  spontaneous fission products inside a gas catcher system, then using an RFQ ion guide to direct the beam towards an isobar separator, an RFQ ion buncher, and finally an MR-TOF. The result is a highly efficient means to provide cooled, bunched, isobarically pure neutron-rich beams. This talk will describe the CARIBU facility and highlight the many successful experiments that benefited from CARIBU beams. CARIBU's successor, nuCARIBU, will supply neutron-rich beams resulting from neutron-induced fission of various target foils inside the gas catcher. nuCARIBU is expected to be operational within a year, and a description of this upgrade to CARIBU will also be provided.

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