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The First GRIFFIN Experiment: An investigation of the *s*-process yields in the Cd-In-Sn region from ^{115}Cd RYAN DUNLOP, Univ of Guelph, GRIFFIN COLLABORATION — In the *s*-process, it is assumed that He-shell flashes give rise to neutron bursts at two different thermal energies ($kT \sim 10$ keV and $kT \sim 25$ keV). The contribution to the isotopic abundance of ^{116}Cd from the higher temperature neutron bursts are calculated assuming thermal equilibrium between the ground state and the long-lived isomeric state of ^{115}Cd. However, it is unknown if the equilibrium between these states is present at the low temperature of the first burst, which would significantly decrease the calculated *s*-process yields of ^{116}Cd. To answer this question, we are searching for gateway levels at slightly higher excitation energy than the isomer in ^{115}Cd that could be populated from the isomeric state via (γ, γ') reactions within stars. In November 2014, the GRIFFIN spectrometer was commissioned at TRIUMF's Isotope Separator and Accelerator. GRIFFIN is a state-of-the-art array consisting of 16 HPGe clovers, with a large γ-ray efficiency of roughly 17% at 1 MeV. In this first experiment, a beam of ^{115}Ag was delivered to GRIFFIN in order to search for transitions between gateway levels following the β decay of ^{115}Ag. In this talk, results from this first GRIFFIN experiment will be presented.

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