

Abstract Submitted
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Experimental Observation of Decay Energy of $^{12,13}\text{Li}$ ¹ C.C. HALL, P.A. DEYOUNG, Hope College, S. MOSBY, A. SPYROU, M. THOENNESSEN, National Superconducting Cyclotron Laboratory, MONA COLLABORATION — Observation is made, for the first time, of unbound states of ^{12}Li and ^{13}Li . The ^{12}Li and ^{13}Li were created using ^{14}B and ^{14}Be beams, respectively, from the coupled cyclotrons at the National Superconducting Cyclotron Laboratory. $^{12,13}\text{Li}$ decays very rapidly (10^{-21} s) to ^{11}Li and a neutron for ^{12}Li and ^{11}Li and two neutrons for ^{13}Li . The ^{11}Li fragments were carried by the Sweeper, a 4 T superconducting magnet, through a series of charged particle detectors while the coincident neutrons were detected using the Modular Neutron Array (MoNA). Work is currently being done to simulate the resonances observed in the decay spectrum for ^{12}Li with Breit-Wigner line-shapes. Initial results for ^{13}Li will be shown.

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