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Analysis of LISA Commissioning Run Data for Study of 24O Excited State Decay Energies[1] N. TAYLOR, S. GARRETT, A. BARKER, W.F. ROGERS, Westmont College, MONA COLLABORATION — The commissioning run for the Large-area multi-institutional Scintillator Array (LISA), located at the National Superconducting Cyclotron Laboratory at Michigan State University (and built by undergraduates from 9 primarily undergraduate institutions) was conducted over summer 2011. Used along with the Modular Neutron Array (MoNA) and the Sweeper Magnet, the purpose of this run was to study the neutron-unbound excited states of 24O by measuring the energies and trajectories of the charged fragments and the neutrons resulting from the breakup. Careful calibration of all detectors is necessary, including correction for time drifts and absolute time calibration of all charged-particle and neutron detectors. In the Sweeper chamber, the two Cathode-Readout Drift Chamber detectors experienced significant drift in the vertical direction over the course of the experiment, requiring particular care in calibration. Absolute time calibration of all detectors is also necessary before clean isotope separation and decay energies can be determined. Additionally, a variety of isotopes produced in the secondary target interactions for possible future study was made. Results will be presented.

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