

Abstract Submitted
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Radioactive Decay Measurements of ^{41}Ar for SLIC¹ EMILY VANDERBILT, NICOLE GINDLING, SARAH MANDANAS, STEPHEN PADALINO, SUNY Geneseo, MARK YULY, Houghton College, GABRIEL STASH, SUNY Geneseo — The short lived isotope-counting system (SLIC) being built for the OMEGA laser facility at LLE requires gaseous radioisotopes for calibration purposes. Using a Plutonium-Beryllium (Pu-Be) source at SUNY Geneseo, ^{41}Ar was made by capturing thermal neutrons via the $^{40}\text{Ar}(n,\gamma)$ reaction. Once activated, ^{41}Ar beta decays to produce an electron with an endpoint energy of 1.198 MeV. The daughter product is found to be in the second excited state of ^{41}K 99.1

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