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Further results in the search for the direct two-proton decay of ^{94}Ag^{m}(J^{π}= 21^{+}, 6.7 MeV) J. CERNY, UC Berkeley/LBNL, D.W. LEE, LBNL, K. PERAJARVI, STUK, D.M. MOLTZ, B.R. BARQUEST, L.E. GROSSMAN, W. JEONG, C.C. JEWETT, UC Berkeley — Both direct one-proton decay and direct two-proton decay of ^{94}Ag^{m} from this 0.4 s isomeric state have been reported in experiments utilizing the GSI on-line mass separator [1]. In the latter decay, coincident events between silicon E detectors with a threshold energy of 0.4 MeV and a summed decay energy of 1.9±0.1 MeV were observed with a yield of 350±210 pb in coincidence with γ-decays in the ^{92}Rh daughter. We utilized our helium-jet system at the LBNL 88-inch cyclotron to repeat this experiment, again employing the ^{58}Ni(^{40}Ca,p3n) reaction at 197 MeV. Reaction products were transported via a capillary to a detection area and collected on a slowly rotating wheel in front of an assembly of 24 $\Delta E_{gas} - \Delta E_{gas}$-$E_{Si}$ detector telescopes with a threshold of 0.4 MeV for identifying protons. Five of these telescopes observe the 0.79 MeV single proton decay from ^{94}Ag^{m} at the reported yield of 1.3 nb. In the 240/276 identified proton detector combinations with low background, no proton-proton coincidences have been observed. Data from the remaining 36 detector combinations require a separate analysis, which is in progress. Monte Carlo analyses of our anticipated proton-proton coincidences for both sets of detector combinations will be presented.
[1]Mukha et al., Nature 439, 298 (2006).

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