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A search for baryon-number-violating decays of the Λ using CLAS at JLab MICHAEL MCCRACKEN, Washington & Jefferson College, MATT BELLIS, Siena College, THE CLAS COLLABORATION — We present the status of a search for baryon-number-violating decays of the Λ baryon using data from the CLAS detector for photoproducton off of the proton in liquid hydrogen. The dataset contains roughly 3.0×10^6 Λ production events that are reconstructable from three charged final-state tracks (recoil K^+ and decay products). We investigate nine potential decay modes in which the Λ decays to a meson-lepton pair. We perform a blind analysis during the optimization of data selection criteria. We estimate that the analysis will be sensitive to branching fractions on the order of $\Gamma_{\mathrm{BNV}}/\Gamma_{\mathrm{tot}} \approx 6 \times 10^{-5}$, roughly an order of magnitude smaller than those of the currently known rare Λ decays.

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