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Preliminary Analysis of Electroluminescence from DarkSide-10 Dark Matter Detector CHRISTINA MARTIN, Temple University, DARKSIDE COLLABORATION — DarkSide-10 is the first, fully operational, liquid argon time projection (TPC) prototype detector for the DarkSide Collaboration. We employ a dual-phase argon TPC with the goal of achieving the highest possible discrimination of nuclear recoils from background radiation. The first studies from DarkSide-10 in an underground shielded environment will be reported here. Specifically a detailed analysis of the pulse shape and light yield of electroluminescence from extracted ionization charge drifting in the gas phase will be presented.

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