

Abstract Submitted
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Low background experimental characterization of space charge in IZIP detectors W. TODD DOUGHTY, University of California - Berkeley, CRYOGENIC DARK MATTER SEARCH COLLABORATION — The Cryogenic Dark Matter Search collaboration (CDMS) uses germanium crystals patterned with ionization electrodes and transition edge sensors to provide event by event discrimination for direct detection of cold dark matter. Recent improvements in detector design have introduced Interleaved ionization electrode geometries that offer the possibility of efficient rejection of near-surface events. We have implemented this interleaved approach for the charge and phonon readout for our germanium detectors. These detectors lose ionization stability more quickly than expected in both low background and surface test facility environments. The current science run in the Soudan underground lab consists of 15 detectors (10 kg). We present results of the initial commissioning datasets in comparison with surface test facilities and discuss methods implemented to maintain ionization stability.

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