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Background Rejection in SuperCDMS iZIP Detectors MATT PYLE, Stanford University, SUPERCDMS COLLABORATION — To achieve the background rejection level required for future ton scale dark matter searches with germanium, the SuperCDMS collaboration has demonstrated an advanced interleaved charge and phonon detector. Fiducial volume 3D reconstruction can be accomplished using either phonon pulse shape information or charge collection distributions on the four separately instrumented electrodes. Furthermore, our newest detectors display nuclear versus electronic recoil discrimination in phonon pulse shape alone, in addition to our traditional charge yield measurement. We will report the latest results at the meeting.

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