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Results from the Third and Final CDMSlite Run WILLIAM PAGE, University of British Columbia, SUPERCDMS COLLABORATION — The Cryogenic Dark Matter Search low ionization threshold experiment (CDMSlite) searches for direct interactions between dark matter particles and germanium nuclei in cryogenic detectors operated in a low background environment. Neganov-Trofimov-Luke amplification is used to achieve a low energy threshold ($\sim$60 eV), which improves the experiment's sensitivity to low mass ($<$2 GeV/c^2) dark matter particles. Comparable energy thresholds are reached in the third CDMSlite run relative to the second run, and we present new analysis techniques designed to optimize sensitivity to low mass dark matter particles, including noise discrimination and instrumental background modeling. The improvement in dark matter cross section sensitivity from using background subtracting methods is also presented.

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