

Abstract Submitted
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The CDMSlite Experiment¹ RITOBAN BASU THAKUR, Fermilab / UIUC, RITOBAN BASU THAKUR COLLABORATION — The SuperCDMS experiment will use new iZIP detectors to achieve competitive sensitivity in the direct detection of Dark Matter, particularly in the 100 to 1000 GeV/c² range of WIMP (Weakly Interacting Massive Particles) mass. In the SuperCDMS framework we are also attempting a novel low-threshold experiment to look for light WIMPs of mass O(10GeV/c²). We call this the CDMS low ionization threshold experiment or "CDMSlite." Here, we use high bias voltage to amplify the charge signal from low-energy recoils by increasing their Luke phonon emission. In this manner we reduce the detector threshold. I will describe the physics behind CDMSlite and comment on our expected sensitivity to low-mass WIMPs. I will also discuss our progress from running CDMSlite.

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