

Abstract Submitted
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Update of Direct Dark Matter Search using CCDs NATALIE HARRISON, Naperville High School, JUAN ESTRADA, FNAL, DAMIC TEAM — There is currently vast evidence for Dark Matter (DM) from astronomical observations. However, in spite of tremendous efforts by large experimental groups, there is no confirmed direct detection of the dark matter in our galaxy. Recent experimental results and theoretical developments suggest the possibility of a DM particle with mass below 10 GeV, such a particle would escape most of the direct searches due to the large thresholds for the detection of nuclear recoils typically used. In this work we study the possibility of a new Dark Matter search with an unprecedented low threshold for the detection of nuclear recoils using high-resistivity CCD detectors (hr-CCD). Due their extremely low readout noise and the relatively large active mass, these detectors present a unique opportunity in this field.

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