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Results from the 2004 campaign of the Cryogenic Dark Matter Search experiment and status of the current upgrade. SAMUEL LECLERCQ, University of Florida, CDMS COLLABORATION — The CDMS II experiment uses Z-dependent Ionization Phonon (ZIP) detectors cooled at 50 mK, confined in a lead and polyethylene shield, in the Soudan Underground Laboratory, to discriminate Weakly Interacting Massive Particles (WIMPs) against radioactive background. In 2004 CDMS II operated 6 Ge ZIPs and 6 Si ZIPs. The 74.5 live days of operation gave after cuts 34 kg-d exposure for the Ge ZIPs and 15 kg-d exposure for Si ZIPs. All criteria for identifying a signal from nuclear recoil due to WIMPs were developed 'blind' with respect to the WIMP search data. Improved techniques for the rejection of electron recoils on the detector surface were developed. The new 90% C.L. upper limit on the scalar WIMP-nucleon cross section is 1.6 x 10^{-43} cm^2 from Ge, and 3 x 10^{-42} cm^2 from Si, for a WIMP mass of 60 GeV/c^2. The current setup reached the base temperature in August 2005, it operates 19 Ge ZIPs and 11 Si ZIPs. The goal is to increase the sensitivity by a factor 10 compared to the 2004 results.

Paul Avery
University of Florida

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