

Abstract Submitted
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Low Mass WIMP Search Using High Pressure Xenon Gas

CLEMENT SOFKA, Texas A&M University — Several groups around the globe employ unique detector technologies in the direct search for dark matter weakly interacting massive particles (WIMPs). One of the leading technologies uses scintillation and ionization signals produced when WIMPs scatter off xenon nuclei. Recent compelling results hint at the possibility of a less massive WIMP ($7 - 10 \text{ GeV}/c^2$), than was previously thought. A plan will be presented for a low mass WIMP search using high pressure xenon, and possibly neon gas. The design, calibration, and expected results will be discussed.

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