

Abstract Submitted
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An active veto for the MiniCLEAN dark matter direct detection search STEPHEN JADITZ, Massachusetts Institute of Technology, MINICLEAN COLLABORATION — The MiniCLEAN active veto shield is a large water tank surrounding the liquid cryogen dark matter detector located at SNOLAB (6000 mwe depth). The tank is instrumented to detect Cherenkov light from cosmic-ray muons, which produce high-energy spallation neutrons. A fraction of these neutrons can penetrate the water shield and the shielding liquid cryogen and reach the fiducial region of the detector. Such neutrons constitute a background to a dark matter signal. The design and simulation of the veto will be discussed in the context of its impact on MiniCLEAN's dark matter sensitivity.

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