

Abstract Submitted  
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**The LUX experiment - Design and performance of the krypton removal system** CHANG LEE, Case Western Reserve University, LUX COLLABORATION — LUX is an experiment built to detect weakly interacting massive particles as a candidate for cold dark matter using liquid xenon as a target material. Since xenon is a noble gas, a getter is used to remove most impurities. However, noble gas impurities remain, including radioactive krypton and argon isotopes which could dominate the dark matter signal. To remove these contaminants, a chromatographic separation system based on adsorption on activated charcoal was built using helium as a carrier gas. This talk will review the design and performance of the chromatographic system as it processed the LUX xenon stockpile in the fall of 2012.

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