

Abstract Submitted  
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**Measurement of the Charge and Light Yield of Low Energy Electronic and Nuclear Recoils in Liquid Xenon at Different Electric Fields**<sup>1</sup> MATTHEW ANTHONY, ELENA APRILE, HUGO CONTRERAS, LUKE GOETZKE, ANTONIO MELGAREJO, GUILLAUME PLANTE, MARC WEBER, Columbia University — Liquid xenon detectors continue to lead in the search for the direct detection of dark matter. Still, very few measurements have studied the response of liquid xenon to low-energy interactions ( $\leq 10$  keV) at different applied electric fields. The neriX detector at Columbia University is a dual-phase time projection chamber that is optimized for simultaneous measurements of light and charge from these low-energy interactions. Coincidence techniques are employed to extract the light and charge yields from electronic and nuclear recoils in liquid xenon as a function of energy deposited and applied electric field. In this talk, we will discuss the results of the charge and light yield measurements.

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