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Radiogenic Backgrounds in the LUX Xenon and Detector Components KELSEY OLIVER MALLORY, Lawrence Berkeley National Laboratory, University of California Berkeley, LARGE UNDERGROUND XENON (LUX) COLLABORATION — The Large Underground Xenon (LUX) experiment recently completed its operations phase. Analysis of its data continues, with one area of focus being to search for signs of new physics at energies beyond the signal range of the spin-independent WIMP (weakly interacting massive particle) interaction. Accurate characterization of radiogenic backgrounds is essential for correct extraction of signals and optimization of detector sensitivity. In this talk, we present analyses of α , β , and γ backgrounds intrinsic to the liquid xenon that originate from the detector materials. With this work, we refine previous radio-contamination measurements, and attempt to better understand the spatial variation of specific isotopes.

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