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Status and Results from the NEXT Experiment KATHERINE WOODRUFF, University of Texas at Arlington — The search for neutrinoless double beta decay requires detection techniques with unprecedented low background contamination in the signal ROI. The NEXT program aims to meet these requirements using high-pressure xenon gas electroluminescent time projection chambers. This talk will present results from the NEXT-White detector, the presently running phase of the NEXT detector program, demonstrating radio-purity energy resolution and topological discrimination. Additionally, techniques to eliminate remaining backgrounds by identifying the barium daughter ion are being developed to be implemented in later stages of the NEXT program. The latest results and progress on the barium tagging program will be presented.

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