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Investigation of the backgrounds in the EXO-200 experiment TAMAR DIDBERIDZE, University of Alabama, EXO-200 COLLABORATION — The Enriched Xenon Observatory EXO-200 experiment currently located at Waste Isolation Pilot Plant (WIPP) in New Mexico, which uses a 175 kg of isotopically enriched ^{136}Xe, is designed to search for the neutrinoless double beta decay ($0\nu\beta\beta$) in ^{136}Xe. The search for this type of decay requires a good understanding of background sources. I will present results of the background study done for the EXO-200 experiment. The study has been performed using a current EXO-200 low-background data and model to estimate the location and magnitude of background sources and compared to the radio assay results that were obtained before detector construction.

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