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**Cosmogenic Backgrounds to Neutrinoless Double-Beta Decay in EXO-200** JOSHUA ALBERT, Indiana Univ - Bloomington, EXO-200 COLLABORATION — As neutrinoless double-beta decay ( $0\nu\beta\beta$ ) experiments become more sensitive and intrinsic radioactivity in detector materials is reduced, previously minor contributions to the background must be understood and eliminated. With this in mind, cosmogenic backgrounds have been studied with the EXO-200 experiment. Simulations of muon-induced backgrounds in EXO-200 using Geant4 and FLUKA identified several potential cosmogenic radionuclides, though only  $^{137}\text{Xe}$  provides a significant background for the  $^{136}\text{Xe}$   $0\nu\beta\beta$  search with EXO-200. The simulations were normalized based on a measurement of the muon flux underground using the EXO-200 TPC. Muon-induced neutron backgrounds were measured using  $\gamma$ -rays from neutron capture on the detector materials, in data coincident with veto triggers. This provided a measurement of  $^{137}\text{Xe}$  yield, and a test of the accuracy of the neutron production and transport simulations. Simulations agree with data to within  $\sim 40^{137}\text{Xe}$  backgrounds in future  $0\nu\beta\beta$  analyses.

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