

Abstract Submitted
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Cosmogenic neutron production at the Sudbury Neutrino Observatory ED CALLAGHAN, University of California, Berkeley, SNO COLLABORATION — Neutrons produced via nuclear interactions by cosmic muons present an irreducible background to many rare event searches, even in detectors located deep underground. We report the observation of collections of neutrons following throughgoing muons at the Sudbury Neutrino Observatory, as well as a measurement of the neutron yield per unit muon track length. Also presented is a set of GEANT4-based Monte Carlo simulations which reproduce characteristic observables of the follower neutrons in relation to the preceding muons.

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