

Abstract Submitted
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Spallation-Induced Backgrounds in the KamLAND Detector

DANIEL DWYER, UC Berkeley / LBNL — The KamLAND detector provides a good environment for the study of low-energy backgrounds due to the interaction of cosmic ray muons with the detector material. At 2700 m.w.e overburden a muon rate of 0.3 Hz is measured in the main detector. The rough rates of ~ 3000 spallation neutrons, ~ 60 $^{12}\text{B}/^{12}\text{N}$, and ~ 1.5 $^9\text{Li}/^8\text{He}$ per kton-day are measured. The contribution of ^{12}N is $\sim 1\%$ and ^8He is limited to less than 15% at 90% C.L. The ongoing studies of these backgrounds will be discussed.

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