

Measurements of the fast neutron flux at the Yangyang underground laboratory for the COSINE-100 experiment

Measurements of the environmental neutron flux in the vicinity of dark matter search experiments are important because signals induced by these neutrons can mimic those that are expected from dark matter interactions. In order to establish a systematic understanding of the environmental neutron flux at the location of the COSINE-100 experiment, we developed a liquid scintillator neutron detector and studied its pulse shape discrimination capabilities and background contamination levels. In this poster, the neutron monitoring detector will be described and a measurement of the neutron flux in the COSINE-100 room at the Yangyang underground laboratory will be presented.

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