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(UG*) Improving the Radon Trapping Capability at SNOLAB using Activated Charcoal

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Radon is one of the most troublesome backgrounds in dark matter and neutrino detectors. Nitrogen is commonly used in cover gas systems at SNOLAB, such as in the SNO+ detector. To determine the concentration of radon in them, a method of extraction and counting has been developed with the help of radon traps at cryogenic temperatures. I present our methodology and the progress made on understanding the efficiency of an activated charcoal trap at high gas flow rates and on varying extraction parameters.

Keyword-1

radon

Keyword-2

background

Keyword-3

assay

Author: AHMED, Yusuf (SNOLAB)

Presenter: AHMED, Yusuf (SNOLAB)

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