

Abstract Submitted
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Liquid Scintillator Light Yield Measurements for the SNO+ Experiment SEAN GRULLON, University of Pennsylvania, SNO+ COLLABORATION — The SNO+ experiment is the follow-up to the Sudbury Neutrino Observatory (SNO). The heavy water that was in SNO will be replaced with a liquid scintillator of linear alkylbenzene. SNO+ will have a broad physics program which will include measuring the pep and CNO solar neutrino flux, detecting geo-neutrinos, studying reactor neutrino oscillations, serving as a supernova neutrino detector, and carrying out a search for neutrinoless double beta decay by loading an isotope such as neodymium into the liquid scintillator. Since energy resolution is of profound importance for the experiment, it is extremely important to accurately measure the light yield of the liquid scintillator for different loading percentages of Neodymium. A series of measurements made comparing the relative light yields of different liquid scintillator configurations to a Cherenkov spectrum will be described.

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