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(G*) The SNO+ Scintillator Fill

Wednesday, 8 June 2022 11:45 (15 minutes)

The SNO+ Experiment is a versatile multipurpose neutrino detector situated at SNOLAB, with the primary goal of searching for neutrinoless double beta decay. After a successful operating phase as a water Cherenkov detector, the SNO+ target medium was switched to a liquid scintillator to increase the light yield of the detector, thereby enabling a much richer physics programme. The filling of the SNO+ detector with 780 tonnes of liquid scintillator was recently completed.

As with all low-background detectors, minimizing contaminants within the detector medium was of the utmost importance. To ensure radiopurity and improve optical properties, all of components were extensively purified before it was used to fill the detector. The scintillator purification techniques and early measurements of the liquid scintillator deployed within SNO+ will be presented.

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Session Classification: W1-1 Neutrino Experiments (PPD) | Expériences de neutrinos (PPD)

Track Classification: Technical Sessions / Sessions techniques: Particle Physics / Physique des particules (PPD)